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MICROWAVE ACOUSTICS HANDBOOK, VOLUME 4, BULK WAVE VELOCITIES--ETC(U)

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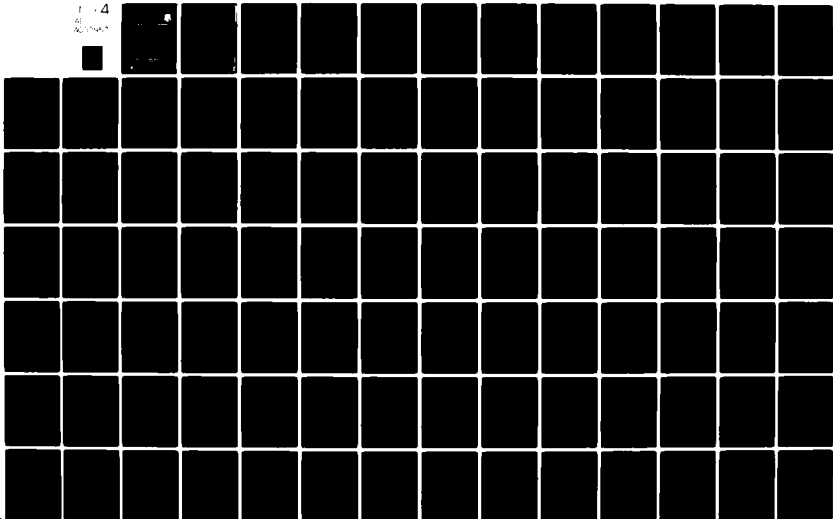
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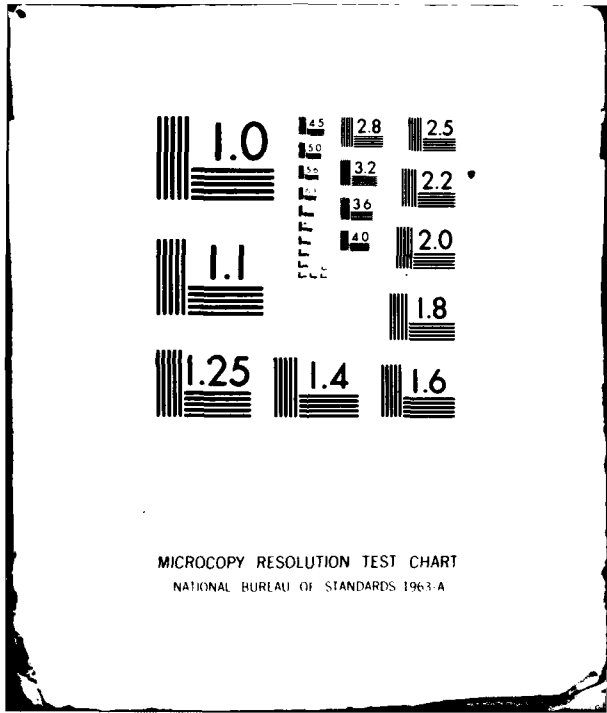
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS 1963-A

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PROGRESS REPORT
Volume 4, Part 1, 1956
Neurological Data

A. J. Saperstein, Jr.
L. J. Saperstein
L. J. Saperstein

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APPROVED:

Walt R. [Signature]
WALTER R. [Name]
Assistant, 1st Commandant Branch
Electromagnetic Sciences Division

APPROVED:

Allan C. Schell [Signature]
ALLAN C. SCHELL, Chief
Electromagnetic Sciences Division

FOR THE COMMANDER:

John F. [Signature]
JOHN F. [Name]
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InAs, Lead Molybdate, PbS, LiNbO_3 , LiTaO_3 , MgO, Quartz, Rutile, Sapphire, Silicon, Spinel, TeO_2 , YAG, YGaG, YIG, and ZnO. This present volume is intended to be used as a supplement to Volume 3 whenever accurate numerical data is required rather than the more convenient graphical information.

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Preface

The increasing use of acoustic devices in military and commercial systems has prompted the generation of this Microwave Acoustic Handbook series. Other volumes, either published or in preparation, are: Volume 1A, Surface Wave Velocities; Volume 2, Surface Wave Velocities—Numerical Data; Volume 3, Bulk Wave Velocities (Report Number RADC-TR-80-188). All have different report numbers. This fourth volume consists of numerical data corresponding to many of the graphical curves presented in Volume 3. As this volume is intended as a supplement to Volume 3, particularly for the serious acoustic design engineer, none of the fundamental notation or theory is repeated here. Rather, the reader is urged to consult Volume 3 prior to utilization of the numerical data contained in the present volume.

In using the data of this volume the reader should be alert to the following potential pitfall. The assignment of first or second shear designations to a particular shear mode does not necessarily correspond to the designation used in Volume 3; interchanges can even occur within a given orientation.

The authors wish to acknowledge the support of E. Cronin, J. Cooney and R.G. Gosselin in the compilation of this report. The computer programming assistance provided by R. T. Delmonico and E. D. Conway of ACSI and J. V. O'Brien formerly of Dabovich and Company was obtained under Air Force Contract.

Contents

1. BULK WAVE NUMERICAL DATA	7
Ba ₂ NaNb ₅ O ₁₅	9-20
Bi ₁₂ GeO ₂₀	21-44
CdS	45-48
Diamond	49-60
Eu ₃ Fe ₅ O ₁₂	61-72
Gadolinium Gallium Garnet	73-84
GaAs	85-96
Germanium	97-108
InSb	109-120
InAs	121-132
Lead Molybdate	133-140
PbS	141-152
LiNbO ₃	153-188
LiTaO ₃	189-212
MgO	213-224
Quartz	225-236
Rutile	237-244
Sapphire	245-256
Silicon	257-268
Spinel	269-280
TeO ₂	281-292

Contents

YAG	293-304
YGaG	305-316
YIG	317-328
ZnO	329-336

Illustrations

1. Euler Angle Notation For Acoustic Bulk Wave Propagation	8
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Microwave Acoustics Handbook
Volume 4. Bulk Wave Velocities
Numerical Data

1. BULK WAVE NUMERICAL DATA

The following pages consist of computer generated numerical printout for a variety of single crystalline materials and orientations. These orientations are defined in Figure 1. The material constants used to generate this data are those given¹ in Volume 3.

The numerical printout contains the following information. The first column is the variable Euler² angle for the particular cut under investigation, LNGVEL is the longitudinal wave velocity, and LPHI12 and LPHI13 are the longitudinal wave power flow angles. Similar sets of data follow for the first and second shear modes. Note that the first and second shear modes do not necessarily correspond to the fast and slow shear waves and that differences in labels can exist between Volumes 3 and 4.

(Received for publication 16 June 1980)

1. Slobodnik, A. J., Jr., Delmonico, R. T., and Conway, E. D. (1980) Microwave Acoustics Handbook Volume 3. Bulk Wave Velocities, National Technical Information Services, Springfield, Virginia 22151.
2. Goldstein, H. (1950) Classical Mechanics, Addison-Wesley, New York.

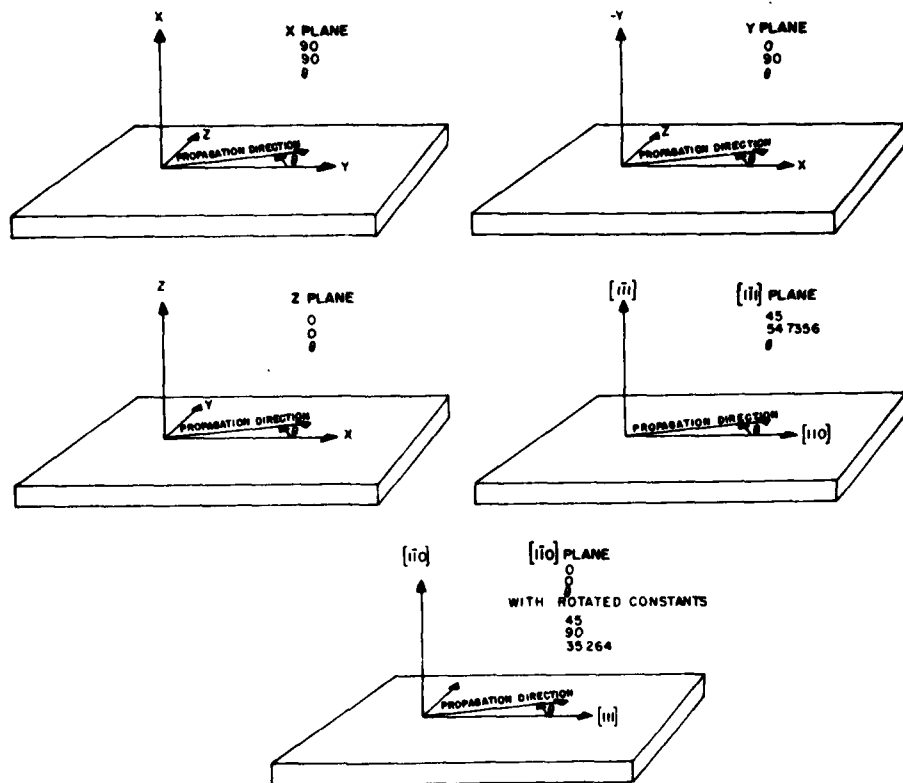


Figure 1. Euler Angle Notation for Acoustic Bulk Wave Propagation. The X plane can also be called the YZ plane, the Y plane can be referred to as the XZ plane, and the Z plane is also known as the XY plane

X-PLANE (YZ-PLANE) BARIUM SODIUM NIORATE

BULK

	LMGVEL	LPMI12	LPMI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
0.	6026.696	-8.000	-0.000	3786.769	0.000	0.000	3653.660	0.000	0.000
1.	6026.307	-3.70	-0.000	3786.694	-1.130	0.000	3653.615	-1.10	0.000
2.	6025.140	-7.50	-0.000	3786.866	-2.560	0.000	3653.455	-1.190	0.000
3.	6023.197	-1.120	-0.000	3786.087	-3.590	0.000	3653.186	-2.290	0.000
4.	6020.479	-1.690	-0.000	3785.557	-5.20	0.000	3652.816	-3.60	0.000
5.	6016.990	-1.860	-0.000	3784.077	-6.60	0.000	3652.339	-4.60	0.000
6.	6012.733	-2.230	-0.000	3784.046	-7.80	0.000	3651.757	-5.70	0.000
7.	6007.713	-2.600	-0.000	3783.866	-9.10	0.000	3651.074	-6.60	0.000
8.	6001.935	-2.970	-0.000	3781.941	-1.040	0.000	3650.286	-7.50	0.000
9.	6795.405	-3.350	-0.000	3780.866	-1.170	0.000	3649.404	-8.40	0.000
10.	6788.131	-3.690	-0.000	3779.250	-1.290	0.000	3648.422	-9.30	0.000
11.	6780.121	-4.050	-0.000	3777.688	-1.420	0.000	3647.344	-10.10	0.000
12.	6771.383	-4.480	-0.000	3775.985	-1.540	0.000	3646.173	-1.100	0.000
13.	6761.927	-4.750	-0.000	3774.142	-1.660	0.000	3644.912	-1.180	0.000
14.	6751.764	-5.100	-0.000	3772.161	-1.780	0.000	3643.563	-1.250	0.000
15.	6740.985	-5.440	-0.000	3770.844	-1.900	0.000	3642.129	-1.330	0.000
16.	6729.363	-5.760	-0.000	3767.794	-2.020	0.000	3640.613	-1.400	0.000
17.	6717.151	-6.110	-0.000	3765.413	-2.130	0.000	3639.019	-1.470	0.000
18.	6704.263	-6.430	-0.000	3762.904	-2.240	0.000	3637.350	-1.540	0.000
19.	6690.774	-6.750	-0.000	3760.270	-2.350	0.000	3635.611	-1.600	0.000
20.	6676.641	-7.060	-0.000	3757.514	-2.460	0.000	3633.804	-1.660	0.000
21.	6661.901	-7.370	-0.000	3754.636	-2.560	0.000	3631.933	-1.720	0.000
22.	6646.571	-7.670	-0.000	3751.646	-2.670	0.000	3630.004	-1.770	0.000
23.	6630.672	-7.960	-0.000	3748.542	-2.760	0.000	3628.020	-1.820	0.000
24.	6614.223	-8.240	-0.000	3745.328	-2.860	0.000	3625.986	-1.860	0.000
25.	6597.246	-8.510	-0.000	3742.005	-2.950	0.000	3623.907	-1.900	0.000
26.	6579.763	-8.780	-0.000	3738.586	-3.040	0.000	3621.786	-1.940	0.000
27.	6561.796	-9.030	-0.000	3735.069	-3.130	0.000	3619.629	-1.970	0.000
28.	6543.375	-9.270	-0.000	3731.456	-3.210	0.000	3617.441	-2.000	0.000
29.	6524.521	-9.500	-0.000	3727.754	-3.300	0.000	3615.226	-2.020	0.000
30.	6505.262	-9.720	-0.000	3723.966	-3.370	0.000	3612.990	-2.040	0.000
31.	6485.627	-9.930	-0.000	3720.097	-3.440	0.000	3610.737	-2.050	0.000
32.	6465.666	-10.120	-0.000	3716.152	-3.510	0.000	3608.472	-2.060	0.000
33.	6445.350	-10.300	-0.000	3712.134	-3.580	0.000	3606.200	-2.070	0.000
34.	6424.771	-10.460	-0.000	3708.045	-3.640	0.000	3603.927	-2.070	0.000
35.	6403.943	-10.610	-0.000	3703.902	-3.700	0.000	3601.656	-2.070	0.000
36.	6382.902	-10.740	-0.000	3699.696	-3.750	0.000	3599.393	-2.060	0.000
37.	6361.685	-10.860	-0.000	3695.438	-3.800	0.000	3597.142	-2.050	0.000
38.	6340.331	-10.950	-0.000	3691.132	-3.840	0.000	3594.907	-2.030	0.000
39.	6318.879	-11.020	-0.000	3686.783	-3.880	0.000	3592.692	-2.010	0.000
40.	6297.372	-11.080	-0.000	3682.397	-3.920	0.000	3590.503	-1.990	0.000
41.	6275.853	-11.110	-0.000	3677.976	-3.950	0.000	3588.341	-1.960	0.000
42.	6254.369	-11.120	-0.000	3673.532	-3.980	0.000	3586.211	-1.930	0.000
43.	6232.967	-11.100	-0.000	3669.065	-4.000	0.000	3584.115	-1.900	0.000
44.	6211.697	-11.060	-0.000	3664.581	-4.020	0.000	3582.056	-1.870	0.000
45.	6190.510	-10.980	-0.000	3660.086	-4.030	0.000	3580.036	-1.830	0.000
46.	6169.761	-10.890	-0.000	3655.585	-4.040	0.000	3578.057	-1.800	0.000
47.	6149.204	-10.760	-0.000	3651.085	-4.040	0.000	3576.120	-1.760	0.000
48.	6128.999	-10.590	-0.000	3646.589	-4.040	0.000	3574.226	-1.720	0.000
49.	6109.206	-10.400	-0.000	3642.105	-4.030	0.000	3572.374	-1.680	0.000

X-PLANE (YZ-PLANE) BARIUM SODIUM NIOBATE

BULK

	LNGVEL	LPHI12	LPHI13	FSPVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
50.	6089.880	-18.170	0.000	3637.636	-4.020	0.000	3570.563	-1.650	0.000
51.	6071.110	-9.980	0.000	3633.192	-4.006	0.000	3568.793	-1.610	0.000
52.	6052.938	-9.590	0.000	3628.774	-3.966	0.000	3567.061	-1.560	0.000
53.	6035.444	-9.240	0.000	3624.386	-3.950	0.000	3565.365	-1.550	0.000
54.	6018.697	-8.850	0.000	3620.042	-3.920	0.000	3563.701	-1.520	0.000
55.	6002.773	-8.410	0.000	3615.739	-3.880	0.000	3562.064	-1.500	0.000
56.	5987.746	-7.930	0.000	3611.485	-3.840	0.000	3560.449	-1.460	0.000
57.	5973.693	-7.400	0.000	3607.266	-3.790	0.000	3558.852	-1.470	0.000
58.	5960.693	-6.820	0.000	3603.147	-3.740	0.000	3557.265	-1.460	0.000
59.	5948.825	-6.280	0.000	3599.073	-3.680	0.000	3555.682	-1.460	0.000
60.	5938.167	-5.730	0.000	3595.070	-3.620	0.000	3554.094	-1.470	0.000
61.	5928.798	-5.180	0.000	3591.142	-3.550	0.000	3552.496	-1.460	0.000
62.	5920.797	-4.640	0.000	3587.295	-3.480	0.000	3550.877	-1.510	0.000
63.	5914.236	-4.120	0.000	3583.533	-3.406	0.000	3549.231	-1.543	0.000
64.	5909.189	-3.720	0.000	3579.862	-3.320	0.000	3547.550	-1.570	0.000
65.	5905.720	-3.400	0.000	3576.286	-3.230	0.000	3545.825	-1.620	0.000
66.	5903.889	-3.150	0.000	3572.810	-3.140	0.000	3544.051	-1.670	0.000
67.	5903.747	-3.000	0.000	3569.436	-3.050	0.000	3542.222	-1.720	0.000
68.	5905.333	1.370	0.000	3566.175	-2.950	0.000	3540.333	-1.780	0.000
69.	5908.674	2.340	0.000	3563.025	-2.850	0.000	3538.380	-1.840	0.000
70.	5913.776	3.320	0.000	3559.992	-2.740	0.000	3536.364	-1.900	0.000
71.	5920.637	4.260	0.000	3557.080	-2.630	0.000	3534.284	-1.960	0.000
72.	5929.216	5.200	0.000	3554.294	-2.510	0.000	3532.145	-2.010	0.000
73.	5939.459	6.080	0.000	3551.636	-2.390	0.000	3529.953	-2.060	0.000
74.	5951.276	6.900	0.000	3549.110	-2.270	0.000	3527.716	-2.100	0.000
75.	5964.546	7.630	0.000	3546.720	-2.150	0.000	3525.446	-2.123	0.000
76.	5979.118	8.260	0.000	3544.469	-2.020	0.000	3523.159	-2.130	0.000
77.	5994.794	8.780	0.000	3542.359	-1.890	0.000	3520.873	-2.120	0.000
78.	6011.344	9.150	0.000	3540.394	-1.750	0.000	3518.606	-2.100	0.000
79.	6028.499	9.370	0.000	3538.577	-1.620	0.000	3516.384	-2.050	0.000
80.	6045.954	9.410	0.000	3536.909	-1.480	0.000	3514.224	-1.970	0.000
81.	6063.371	9.270	0.000	3535.393	-1.340	0.000	3512.169	-1.860	0.000
82.	6080.387	8.940	0.000	3534.031	-1.190	0.000	3510.231	-1.750	0.000
83.	6096.623	8.400	0.000	3532.825	-1.050	0.000	3508.441	-1.600	0.000
84.	6111.693	7.670	0.000	3531.777	-0.900	0.000	3506.826	-1.420	0.000
85.	6125.218	6.740	0.000	3530.887	-0.750	0.000	3505.411	-1.220	0.000
86.	6136.844	5.630	0.000	3530.157	-0.600	0.000	3504.219	-1.010	0.000
87.	6146.251	4.370	0.000	3529.589	-0.450	0.000	3503.270	-0.770	0.000
88.	6153.173	2.990	0.000	3529.182	-0.300	0.000	3502.580	-0.523	0.000
89.	6157.410	1.520	0.000	3528.938	-0.150	0.000	3502.161	-0.260	0.000
90.	6158.836	-0.800	0.000	3528.857	0.000	0.000	3502.021	-0.000	0.000
91.	6157.410	-1.520	0.000	3528.938	0.150	0.000	3502.161	0.260	0.000
92.	6153.173	-2.990	0.000	3529.182	0.300	0.000	3502.580	0.523	0.000
93.	6146.251	-4.370	0.000	3529.589	0.450	0.000	3503.270	0.770	0.000
94.	6136.844	-5.630	0.000	3530.157	0.600	0.000	3504.219	1.010	0.000
95.	6125.218	-6.740	0.000	3530.887	0.750	0.000	3505.411	1.220	0.000
96.	6111.693	-7.670	0.000	3531.777	0.900	0.000	3506.826	1.420	0.000
97.	6096.623	-8.400	0.000	3532.825	1.050	0.000	3508.441	1.600	0.000
98.	6080.387	-9.150	0.000	3534.031	1.190	0.000	3510.231	1.750	0.000
99.	6063.371	-9.270	0.000	3535.393	1.340	0.000	3512.169	1.860	0.000

X-PLANE (YZ-PLANE) BARIUM SODIUM NIOBATE

BULK

	LNGVEL	LPHI12	LPHI13	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
100.	6045.954	-9.410	-0.000	1.480	-0.000	3514.829	1.570	-0.000
101.	6028.499	-9.370	-0.000	1.620	-0.000	3516.384	2.050	-0.000
102.	6011.344	-9.150	-0.000	1.750	-0.000	3516.086	2.100	-0.000
103.	5994.794	-8.760	-0.000	1.850	-0.000	3520.873	2.120	-0.000
104.	5979.118	-8.260	-0.000	1.920	-0.000	3523.159	2.130	-0.000
105.	5964.548	-7.630	-0.000	2.150	-0.000	3525.466	2.120	-0.000
106.	5951.276	-6.900	-0.000	2.270	-0.000	3527.716	2.100	-0.000
107.	5939.459	-6.080	-0.000	2.390	-0.000	3529.953	2.060	-0.000
108.	5929.216	-5.200	-0.000	2.510	-0.000	3532.145	2.010	-0.000
109.	5920.637	-4.280	-0.000	2.630	-0.000	3534.284	1.960	-0.000
110.	5913.776	-3.320	-0.000	2.740	-0.000	3536.364	1.900	-0.000
111.	5908.674	-2.340	-0.000	2.850	-0.000	3538.380	1.840	-0.000
112.	5905.333	-1.370	-0.000	2.950	-0.000	3540.333	1.780	-0.000
113.	5903.747	-0.400	-0.000	3.056	-0.000	3542.222	1.720	-0.000
114.	5903.809	.550	-0.000	3.140	-0.000	3544.051	1.670	-0.000
115.	5905.720	1.460	-0.000	3.220	-0.000	3545.823	1.620	-0.000
116.	5909.169	2.370	0.000	3.320	-0.000	3547.550	1.570	-0.000
117.	5914.236	3.220	0.000	3.400	-0.000	3549.231	1.540	-0.000
118.	5920.797	4.040	0.000	3.460	-0.000	3550.877	1.510	-0.000
119.	5928.790	4.800	0.000	3.550	-0.000	3552.496	1.480	-0.000
120.	5938.167	5.530	0.000	3.620	-0.000	3554.094	1.470	-0.000
121.	5948.825	6.200	0.000	3.680	-0.000	3555.682	1.460	-0.000
122.	5960.693	6.620	0.000	3.740	-0.000	3557.265	1.460	-0.000
123.	5973.693	7.400	0.000	3.790	-0.000	3558.852	1.470	-0.000
124.	5987.746	7.930	0.000	3.846	-0.000	3560.449	1.460	-0.000
125.	6002.773	8.410	0.000	3.880	-0.000	3562.064	1.500	-0.000
126.	6018.697	8.850	0.000	3.920	-0.000	3563.701	1.520	-0.000
127.	6035.444	9.240	0.000	3.950	-0.000	3565.365	1.550	-0.000
128.	6052.938	9.590	0.000	3.980	-0.000	3567.061	1.580	-0.000
129.	6071.110	9.900	0.000	4.000	-0.000	3568.793	1.610	-0.000
130.	6089.888	10.170	0.000	4.024	-0.000	3570.563	1.650	-0.000
131.	6109.200	10.400	0.000	4.030	-0.000	3572.374	1.680	-0.000
132.	6128.999	10.590	0.000	4.040	-0.000	3574.226	1.720	-0.000
133.	6149.204	10.760	0.000	4.040	-0.000	3576.120	1.760	-0.000
134.	6169.761	10.690	0.000	4.040	-0.000	3578.057	1.800	-0.000
135.	6190.610	10.990	0.000	4.030	-0.000	3580.036	1.830	-0.000
136.	6211.697	11.060	0.000	4.020	-0.000	3582.056	1.870	-0.000
137.	6232.967	11.100	0.000	4.000	-0.000	3584.115	1.900	-0.000
138.	6254.369	11.120	0.000	3.990	-0.000	3586.211	1.930	-0.000
139.	6275.853	11.110	0.000	3.950	-0.000	3588.341	1.960	-0.000
140.	6297.372	11.080	0.000	3.920	-0.000	3590.503	1.990	-0.000
141.	6318.879	11.020	0.000	3.880	-0.000	3592.692	2.010	-0.000
142.	6340.331	10.950	0.000	3.840	-0.000	3594.907	2.030	-0.000
143.	6361.685	10.860	0.000	3.800	-0.000	3597.142	2.050	-0.000
144.	6382.982	10.740	0.000	3.750	-0.000	3599.393	2.060	-0.000
145.	6403.943	10.610	0.000	3.700	-0.000	3601.656	2.070	-0.000
146.	6424.771	10.460	0.000	3.640	-0.000	3603.927	2.070	-0.000
147.	6445.350	10.300	0.000	3.580	-0.000	3606.200	2.060	-0.000
148.	6465.646	10.120	0.000	3.510	-0.000	3608.472	2.060	-0.000
149.	6485.627	9.930	0.000	3.440	-0.000	3610.737	2.050	-0.000

X-PLANE (YZ-PLANE) BARIUM SODIUM NIOBATE

BULK

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
150.	6505.262	9.720	0.000	3723.966	3.370	-0.000	3612.990	2.040	0.000
151.	6525.521	9.500	0.000	3727.754	3.300	-0.000	3615.226	2.020	0.000
152.	6543.375	9.270	0.000	3731.456	3.210	-0.000	3617.441	2.000	0.000
153.	6561.798	9.030	0.000	3735.065	3.130	-0.000	3619.629	1.970	0.000
154.	6579.763	8.780	0.000	3738.568	3.040	-0.000	3621.786	1.940	0.000
155.	6597.246	8.510	0.000	3742.009	2.950	-0.000	3623.907	1.900	0.000
156.	6614.223	8.240	0.000	3745.328	2.860	-0.000	3625.986	1.860	0.000
157.	6630.672	7.960	0.000	3748.542	2.760	-0.000	3628.020	1.820	0.000
158.	6646.571	7.670	0.000	3751.646	2.670	-0.000	3630.004	1.770	0.000
159.	6661.901	7.370	0.000	3754.638	2.560	-0.000	3631.933	1.720	0.000
160.	6676.641	7.060	0.000	3757.514	2.460	-0.000	3633.804	1.660	0.000
161.	6690.774	6.750	0.000	3760.270	2.350	-0.000	3635.611	1.600	0.000
162.	6704.283	6.430	0.000	3762.904	2.240	-0.000	3637.350	1.540	0.000
163.	6717.151	6.110	0.000	3765.413	2.130	-0.000	3639.019	1.470	0.000
164.	6729.363	5.780	0.000	3767.794	2.020	-0.000	3640.613	1.400	0.000
165.	6740.905	5.440	0.000	3770.044	1.900	-0.000	3642.129	1.330	0.000
166.	6751.764	5.100	0.000	3772.161	1.780	-0.000	3643.563	1.250	0.000
167.	6761.927	4.750	0.000	3774.142	1.660	-0.000	3644.912	1.180	0.000
168.	6771.363	4.400	0.000	3775.985	1.540	-0.000	3646.173	1.100	0.000
169.	6780.121	4.050	0.000	3777.688	1.420	-0.000	3647.344	1.010	0.000
170.	6788.131	3.690	0.000	3779.250	1.290	-0.000	3648.422	.930	0.000
171.	6795.405	3.330	0.000	3780.666	1.170	-0.000	3649.404	.848	-0.000
172.	6801.935	2.970	0.000	3781.941	1.040	-0.000	3650.286	.750	-0.000
173.	6807.713	2.600	0.000	3783.068	.910	-0.000	3651.074	.660	-0.000
174.	6812.733	2.230	0.000	3784.046	.780	-0.000	3651.757	.570	-0.000
175.	6816.990	1.860	0.000	3784.877	.660	-0.000	3652.339	.480	-0.000
176.	6820.479	1.490	0.000	3785.557	.520	-0.000	3652.816	.388	-0.000
177.	6823.197	1.120	0.000	3786.087	.390	-0.000	3653.166	.290	-0.000
178.	6825.140	.750	0.000	3786.466	.260	-0.000	3653.455	.190	-0.000
179.	6826.307	.370	0.000	3786.694	.130	-0.000	3653.615	.100	-0.000
180.	6826.696	-0.000	0.000	3786.769	-0.000	-0.000	3653.666	-0.000	-0.000

Y-PLANE (XZ-PLANE) EFFICIENCY SCOTUP NICGATE

	LXLEVEL	LFP112	LFP113	FSRVEL	FSP112	FSP113	SSRVEL	SSP112	SSP113
0.	6715.272	0.660	0.000	2786.769	0.000	0.000	2638.239	0.000	0.000
1.	6714.866	-2.260	0.000	2786.696	-1.148	-0.000	2638.156	0.000	0.000
2.	6713.766	-7.260	0.000	2786.476	-2.260	-0.000	2637.976	0.000	0.000
3.	6711.926	-11.070	0.000	2786.016	-4.930	-0.000	2632.673	0.000	0.000
4.	6705.374	-14.760	0.000	2785.476	-7.580	-0.000	2623.251	0.000	0.000
5.	6706.087	-17.760	0.000	2784.667	-9.720	-0.000	2622.710	0.000	0.000
6.	6702.675	-21.140	0.000	2783.774	-11.860	-0.000	2622.092	0.000	0.000
7.	6697.344	-24.950	0.000	2782.657	-13.910	-0.000	2621.280	0.000	0.000
8.	6693.052	-28.640	0.000	2781.458	-15.960	-0.000	2620.296	0.000	0.000
9.	6685.747	-32.150	0.000	2780.057	-17.290	-0.000	2620.442	0.000	0.000
10.	6678.442	-35.440	0.000	2778.457	-18.428	-0.000	2620.382	0.000	0.000
11.	6671.332	-38.800	0.000	2776.775	-19.560	-0.000	2620.101	0.000	0.000
12.	6663.052	-42.220	0.000	2774.905	-20.700	-0.000	2620.486	0.000	0.000
13.	6654.173	-45.680	0.000	2772.877	-21.836	-0.000	2622.522	0.000	0.000
14.	6644.586	-48.950	0.000	2770.657	-22.960	-0.000	2622.388	0.000	0.000
15.	6634.336	-52.200	0.000	2768.267	-24.090	-0.000	2621.353	0.000	0.000
16.	6623.446	-55.440	0.000	2765.651	-25.220	-0.000	2615.705	0.000	0.000
17.	6611.912	-58.680	0.000	2762.871	-26.350	-0.000	2617.992	0.000	0.000
18.	6600.768	-61.920	0.000	2760.850	-27.476	-0.000	2616.193	0.000	0.000
19.	6587.830	-65.760	0.000	2757.610	-28.598	-0.000	2614.331	0.000	0.000
20.	6572.654	-69.700	0.000	2754.576	-29.710	-0.000	2612.434	0.000	0.000
21.	6555.725	-73.680	0.000	2751.410	-30.820	-0.000	2610.445	0.000	0.000
22.	6545.240	-77.640	0.000	2748.116	-31.940	-0.000	2608.482	0.000	0.000
23.	6530.207	-81.600	0.000	2744.657	-33.050	-0.000	2606.451	0.000	0.000
24.	6514.650	-85.560	0.000	2741.155	-34.150	-0.000	2604.392	0.000	0.000
25.	6498.585	-89.520	0.000	2737.503	-35.260	-0.000	2602.315	0.000	0.000
26.	6482.044	-93.440	0.000	2732.735	-36.360	-0.000	2600.225	0.000	0.000
27.	6465.027	-97.360	0.000	2728.660	-37.450	-0.000	2598.131	0.000	0.000
28.	6447.551	-101.280	0.000	2725.080	-38.550	-0.000	2596.082	0.000	0.000
29.	6429.721	-105.200	0.000	2721.001	-39.640	-0.000	2594.064	0.000	0.000
30.	6411.482	-109.160	0.000	2717.624	-40.720	-0.000	2591.907	0.000	0.000
31.	6392.871	-113.120	0.000	2713.364	-41.800	-0.000	2589.677	0.000	0.000
32.	6373.026	-117.080	0.000	2709.016	-42.880	-0.000	2587.404	0.000	0.000
33.	6352.077	-121.040	0.000	2704.582	-43.950	-0.000	2585.054	0.000	0.000
34.	6330.154	-125.000	0.000	2700.045	-45.020	-0.000	2582.686	0.000	0.000
35.	6315.350	-128.960	0.000	2695.452	-46.080	-0.000	2580.280	0.000	0.000
36.	6295.420	-132.920	0.000	2690.876	-47.140	-0.000	2577.855	0.000	0.000
37.	6275.278	-136.880	0.000	2686.180	-48.200	-0.000	2575.405	0.000	0.000
38.	6255.003	-140.840	0.000	2681.421	-49.250	-0.000	2572.930	0.000	0.000
39.	6234.634	-144.800	0.000	2676.625	-50.300	-0.000	2570.430	0.000	0.000
40.	6214.213	-148.760	0.000	2671.756	-51.350	-0.000	2567.902	0.000	0.000
41.	6193.722	-152.720	0.000	2666.852	-52.400	-0.000	2565.352	0.000	0.000
42.	6173.266	-156.680	0.000	2662.016	-53.440	-0.000	2562.785	0.000	0.000
43.	6152.075	-160.640	0.000	2657.086	-54.480	-0.000	2560.200	0.000	0.000
44.	6132.857	-164.600	0.000	2652.127	-55.520	-0.000	2557.599	0.000	0.000
45.	6113.984	-168.560	0.000	2647.175	-56.560	-0.000	2554.979	0.000	0.000
46.	6093.452	-172.520	0.000	2642.207	-57.600	-0.000	2552.345	0.000	0.000
47.	6072.052	-176.480	0.000	2637.230	-58.640	-0.000	2549.694	0.000	0.000
48.	6054.601	-180.440	0.000	2632.274	-59.680	-0.000	2547.036	0.000	0.000
49.	6035.925	-184.400	0.000	2627.322	-60.720	-0.000	2544.367	0.000	0.000

Y-PLANE (XZ-PLANE) EFFILP SCIIUM NICEFTE

	LAGVEL	LPM112	LPM111	FSPM111	FSPM112	FSPM113	SSPM111	SSPM112	SSPM113
50.	6037.734	-5.650	0.000	3622.327	-4.450	-0.000	3565.510	-0.380	0.000
51.	6006.058	-5.440	0.000	3637.476	-4.440	-0.000	3565.231	-0.210	0.000
52.	5983.096	-5.070	0.000	3652.594	-4.410	-0.000	3565.043	-0.130	0.000
53.	5966.773	-4.760	0.000	3667.748	-4.350	-0.000	3564.937	0.000	-0.000
54.	5959.236	-4.260	0.000	3682.944	-4.260	-0.000	3564.907	0.050	-0.000
55.	5956.557	-7.330	0.000	3593.169	-4.260	-0.000	3565.016	0.050	-0.000
56.	5922.705	-6.730	0.000	3593.468	-4.210	-0.000	3565.130	0.120	-0.000
57.	5916.075	-6.130	0.000	3598.444	-4.150	-0.000	3565.262	0.120	-0.000
58.	5914.440	-5.480	0.000	3594.267	-4.090	-0.000	3565.395	0.120	-0.000
59.	5908.032	-4.750	0.000	3579.762	-4.020	-0.000	3565.512	0.050	-0.000
60.	5877.889	-3.660	0.000	3570.650	-3.950	-0.000	3565.592	0.050	-0.000
61.	5864.687	-3.140	0.000	3566.724	-3.870	-0.000	3565.618	-0.010	-0.000
62.	5855.867	-2.260	0.000	3562.572	-3.780	-0.000	3565.568	-0.050	0.000
63.	5855.635	-1.350	0.000	3558.510	-3.690	-0.000	3565.423	-0.100	0.000
64.	5855.635	-1.350	0.000	3554.522	-3.600	-0.000	3565.164	-0.300	0.000
65.	5855.092	1.600	0.000	3550.705	-3.500	-0.000	3564.772	-0.450	0.000
66.	5855.264	1.650	0.000	3546.673	-3.400	-0.000	3564.233	-0.570	0.000
67.	5851.042	2.650	0.000	3543.368	-3.290	-0.000	3562.653	-0.720	0.000
68.	5863.067	3.680	-0.000	3535.673	-3.170	-0.000	3562.656	-0.650	0.000
69.	5866.657	4.710	-0.000	3526.515	-3.050	-0.000	3561.600	-0.600	0.000
70.	5876.210	5.730	-0.000	3517.260	-2.930	-0.000	3560.335	-1.270	0.000
71.	5885.554	6.670	-0.000	3507.964	-2.800	-0.000	3558.950	-1.400	0.000
72.	5896.715	7.570	-0.000	3497.564	-2.670	-0.000	3557.332	-1.500	0.000
73.	5908.551	8.410	-0.000	3487.063	-2.530	-0.000	3555.563	-1.710	0.000
74.	5922.095	9.130	-0.000	3476.463	-2.400	-0.000	3553.642	-1.900	0.000
75.	5937.067	9.750	-0.000	3465.815	-2.250	-0.000	3551.591	-1.950	0.000
76.	5954.348	10.240	-0.000	3455.084	-2.110	-0.000	3549.438	-2.020	0.000
77.	5973.715	10.570	-0.000	3444.307	-1.960	-0.000	3547.205	-2.000	0.000
78.	5995.995	10.770	-0.000	3433.523	-1.800	-0.000	3544.945	-1.800	0.000
79.	6018.632	10.760	-0.000	3422.673	-1.650	-0.000	3542.662	-1.600	0.000
80.	6032.550	10.460	-0.000	3411.845	-1.490	-0.000	3540.461	-1.400	0.000
81.	6048.289	10.040	-0.000	3401.025	-1.330	-0.000	3538.325	-1.150	0.000
82.	6071.444	9.400	-0.000	3390.215	-1.170	-0.000	3536.315	-0.900	0.000
83.	6095.701	8.550	-0.000	3379.415	-1.010	-0.000	3534.474	-0.700	0.000
84.	6105.540	7.450	-0.000	3368.621	-0.840	-0.000	3532.804	-0.450	0.000
85.	6121.600	6.200	-0.000	3357.831	-0.670	-0.000	3531.451	-0.170	0.000
86.	6135.507	4.880	-0.000	3347.043	-0.510	-0.000	3530.336	-0.000	0.000
87.	6148.922	3.380	-0.000	3336.253	-0.340	-0.000	3529.521	-0.210	0.000
88.	6152.582	1.670	-0.000	3325.463	-0.170	-0.000	3529.024	0.000	0.000
89.	6157.262	-0.000	-0.000	3314.673	0.000	-0.000	3528.857	0.000	0.000
90.	6155.836	-0.600	-0.000	3303.883	0.170	-0.000	3529.024	0.310	0.000
91.	6157.262	-3.300	-0.000	3293.093	0.340	-0.000	3529.521	0.610	0.000
92.	6155.502	-6.240	-0.000	3282.303	0.510	-0.000	3530.336	0.900	0.000
93.	6148.922	-9.280	-0.000	3271.513	0.670	-0.000	3531.451	1.170	0.000
94.	6138.507	-12.400	-0.000	3260.723	0.840	-0.000	3532.804	1.410	0.000
95.	6124.600	-15.500	-0.000	3250.043	1.010	-0.000	3534.474	1.620	0.000
96.	6106.540	-18.500	-0.000	3239.463	1.170	-0.000	3536.315	1.750	0.000
97.	6085.701	-21.400	-0.000	3228.883	1.330	-0.000	3538.325	1.900	0.000
98.	6061.484	-24.100	-0.000	3218.303	1.490	-0.000	3540.461	2.000	0.000
99.	6052.258	-26.400	-0.000	3207.723	1.650	-0.000	3542.662	2.000	0.000

V-PLANE (XZ-PLANE) EARLIUM SCOTIUM NICKARTE

	LACVEL	LFPI12	LPPI12	FSRVEL	FSPI12	SSRVEL	SSPI12	SSRM12
100.	6022.550	-10.770	-0.000	2510.946	1.658	2542.602	2.460	0.000
101.	6012.672	-10.770	-0.000	2512.752	1.800	2544.905	2.180	0.000
102.	5952.905	-10.570	-0.000	2514.407	1.566	2547.285	2.000	0.000
103.	5972.715	-10.240	-0.000	2516.984	2.110	2549.476	2.020	0.000
104.	5955.348	-5.730	-0.000	2519.921	2.255	2551.591	1.950	0.000
105.	5928.067	-5.120	-0.000	2521.815	2.400	2553.642	1.800	0.000
106.	5922.085	-8.400	-0.000	2524.463	2.520	2555.553	1.710	0.000
107.	5907.551	-7.570	-0.000	2527.260	2.677	2557.332	1.557	0.000
108.	5894.715	-6.670	-0.000	2530.204	2.800	2558.985	1.460	0.000
109.	5882.564	-5.710	-0.000	2533.250	2.920	2560.535	1.220	0.000
110.	5874.210	-4.710	-0.000	2536.415	3.050	2561.980	1.000	0.000
111.	5866.657	-3.660	-0.000	2539.692	3.170	2563.336	0.800	0.000
112.	5861.042	-2.600	-0.000	2542.360	3.260	2564.531	0.720	0.000
113.	5857.240	-1.620	-0.000	2544.972	3.400	2564.233	0.570	0.000
114.	5855.266	-1.600	-0.000	2546.705	3.500	2564.272	0.430	0.000
115.	5855.082	0.350	0.000	2548.552	3.600	2564.154	0.300	0.000
116.	5856.626	1.230	0.000	2550.510	3.690	2563.423	0.180	0.000
117.	5855.862	2.260	0.000	2552.572	3.780	2563.566	0.080	0.000
118.	5864.652	2.140	0.000	2554.724	3.870	2563.618	0.010	0.000
119.	5871.045	2.950	0.000	2570.990	3.950	2563.592	-0.020	0.000
120.	5878.850	4.720	0.000	2575.225	4.020	2563.512	-0.090	0.000
121.	5886.012	5.460	0.000	2579.762	4.090	2563.395	-0.120	0.000
122.	5902.445	6.110	0.000	2584.267	4.150	2563.262	-0.150	0.000
123.	5910.075	6.740	0.000	2588.844	4.210	2563.110	-0.180	0.000
124.	5922.605	7.310	0.000	2593.486	4.260	2562.946	-0.200	0.000
125.	5936.551	7.820	0.000	2598.188	4.310	2562.777	-0.220	0.000
126.	5951.226	8.280	0.000	2602.944	4.350	2562.607	-0.240	0.000
127.	5966.472	8.700	0.000	2607.746	4.380	2562.438	-0.260	0.000
128.	5983.008	9.070	0.000	2612.592	4.410	2562.262	-0.270	0.000
129.	6000.058	9.400	0.000	2617.476	4.440	2562.081	-0.280	0.000
130.	6017.724	9.650	0.000	2622.387	4.450	2561.897	-0.290	0.000
131.	6035.925	9.820	0.000	2627.322	4.470	2561.707	-0.290	0.000
132.	6054.601	9.920	0.000	2632.274	4.470	2561.517	-0.280	0.000
133.	6073.658	10.010	0.000	2637.239	4.470	2561.327	-0.270	0.000
134.	6093.152	10.060	0.000	2642.207	4.470	2561.137	-0.260	0.000
135.	6112.904	10.060	0.000	2647.175	4.460	2560.940	-0.250	0.000
136.	6132.857	10.020	0.000	2652.137	4.450	2560.735	-0.240	0.000
137.	6152.875	10.000	0.000	2657.086	4.430	2560.524	-0.230	0.000
138.	6172.938	10.700	0.000	2662.016	4.400	2560.305	-0.220	0.000
139.	6193.102	10.700	0.000	2666.924	4.370	2560.082	-0.210	0.000
140.	6214.212	10.620	0.000	2671.794	4.330	2559.855	-0.200	0.000
141.	6234.630	10.620	0.000	2676.635	4.290	2559.623	-0.190	0.000
142.	6255.007	10.450	0.000	2681.431	4.250	2559.386	-0.180	0.000
143.	6275.278	10.450	0.000	2686.180	4.200	2559.145	-0.170	0.000
144.	6295.420	10.250	0.000	2690.876	4.140	2558.897	-0.160	0.000
145.	6315.350	10.220	0.000	2695.512	4.080	2558.642	-0.150	0.000
146.	6335.154	10.000	0.000	2700.088	4.020	2558.384	-0.140	0.000
147.	6354.827	9.520	0.000	2704.567	3.950	2558.124	-0.130	0.000
148.	6374.382	9.740	0.000	2709.016	3.880	2557.864	-0.120	0.000
149.	6393.871	9.560	0.000	2713.364	3.800	2557.604	-0.110	0.000

Y-PLANE (XZ-PLANE) EFFIUM SCIIUP NICRATE

	LNGWFL	LPH112	LPH113	FSFVEL	FSP112	FSP113	SSRVEL	SSP112	SSP113
150.	6411.482	9.350	0.000	3717.629	3.720	-0.000	3551.907	1.670	0.000
151.	6425.731	9.140	0.000	3721.001	3.640	-0.000	3553.964	1.650	0.000
152.	6442.561	8.920	0.000	3725.886	3.550	-0.000	3556.042	1.630	0.000
153.	6462.077	8.680	0.000	3732.060	3.450	-0.000	3558.131	1.610	0.000
154.	6482.044	8.440	0.000	3739.725	3.360	-0.000	3560.225	1.590	0.000
155.	6499.580	8.190	0.000	3747.583	3.260	-0.000	3562.315	1.570	0.000
156.	6514.655	7.950	0.000	3751.155	3.150	-0.000	3564.292	1.550	0.000
157.	6530.207	7.690	0.000	3746.674	3.050	-0.000	3566.451	1.530	0.000
158.	6545.240	7.390	0.000	3742.116	2.940	-0.000	3568.402	1.510	0.000
159.	6555.720	7.080	0.000	3734.410	2.820	-0.000	3570.479	1.490	0.000
160.	6571.650	6.760	0.000	3724.676	2.710	-0.000	3572.434	1.470	0.000
161.	6587.010	6.460	0.000	3717.826	2.590	-0.000	3574.341	1.450	0.000
162.	6595.744	6.170	0.000	3708.517	2.470	-0.000	3576.193	1.430	0.000
163.	6595.744	5.890	0.000	3702.271	2.350	-0.000	3577.983	1.410	0.000
164.	6623.446	5.540	0.000	3705.851	2.220	-0.000	3579.705	1.390	0.000
165.	6634.370	5.220	0.000	3708.367	2.090	-0.000	3581.353	1.400	0.000
166.	6644.516	4.920	0.000	3710.667	1.960	-0.000	3582.922	1.380	0.000
167.	6654.173	4.560	0.000	3712.677	1.830	-0.000	3584.406	1.360	0.000
168.	6663.062	4.250	0.000	3714.905	1.700	-0.000	3585.801	1.250	0.000
169.	6671.332	3.890	0.000	3716.775	1.560	-0.000	3587.181	1.150	0.000
170.	6678.845	3.510	0.000	3718.457	1.420	-0.000	3588.307	1.040	0.000
171.	6685.747	3.150	0.000	3719.957	1.280	-0.000	3589.403	.950	0.000
172.	6691.859	2.810	0.000	3721.457	1.150	-0.000	3590.296	.850	0.000
173.	6697.364	2.490	0.000	3722.667	1.010	-0.000	3591.200	.750	0.000
174.	6702.075	2.140	0.000	3723.774	.860	-0.000	3592.053	.650	0.000
175.	6706.087	1.750	0.000	3724.667	.720	-0.000	3592.710	.540	0.000
176.	6709.374	1.420	0.000	3725.426	.580	-0.000	3593.251	.440	0.000
177.	6711.935	1.070	0.000	3726.016	.430	-0.000	3593.672	.350	0.000
178.	6712.766	.720	0.000	3726.426	.280	-0.000	3593.976	.280	0.000
179.	6714.865	.360	0.000	3726.686	.140	-0.000	3594.158	.180	0.000
180.	6715.632	-0.010	-0.000	3726.765	-0.000	-0.000	3594.215	-0.000	-0.000

2-FLARE (XY-PLANE) BARIUM SODIUM NIOBATE

	LAPVEL	LPM12	LPM13	FSPVEL	FSPM12	FSPM13	SSRMEL	SSPM12	SSPM13
0.	6715.22	0.000	0.000	1766.769	0.000	0.000	3324.219	0.000	0.000
1.	6715.362	1.180	0.000	1766.559	-0.370	0.000	3324.224	0.010	0.000
2.	6715.843	1.880	0.000	1715.928	-0.730	0.000	3324.238	0.020	0.000
3.	6716.605	2.650	0.000	1714.060	-1.050	0.000	3324.262	0.030	0.000
4.	6717.668	3.500	0.000	1712.421	-1.440	0.000	3324.296	0.030	0.000
5.	6719.021	4.420	0.000	1711.559	-1.790	0.000	3324.340	0.040	0.000
6.	6720.664	5.400	0.000	1711.302	-2.120	0.000	3324.393	0.050	0.000
7.	6722.568	6.450	0.000	1711.655	-2.450	0.000	3324.456	0.060	0.000
8.	6724.762	7.580	0.000	1712.659	-2.770	0.000	3324.528	0.070	0.000
9.	6727.227	8.790	0.000	1713.302	-3.070	0.000	3324.618	0.080	0.000
10.	6730.942	1.000	0.000	1714.611	-3.350	0.000	3324.701	0.090	0.000
11.	6732.844	1.450	0.000	1716.504	-3.620	0.000	3324.802	0.100	0.000
12.	6735.844	1.900	0.000	1718.904	-3.870	0.000	3324.913	0.100	0.000
13.	6739.424	2.350	0.000	1721.727	-4.100	0.000	3325.032	0.110	0.000
14.	6742.955	2.790	0.000	1724.912	-4.310	0.000	3325.162	0.120	0.000
15.	6746.741	3.220	0.000	1728.471	-4.500	0.000	3325.300	0.130	0.000
16.	6750.651	3.640	0.000	1732.431	-4.670	0.000	3325.442	0.140	0.000
17.	6754.766	4.050	0.000	1736.821	-4.810	0.000	3325.604	0.150	0.000
18.	6759.050	4.450	0.000	1741.664	-4.930	0.000	3325.770	0.150	0.000
19.	6763.565	4.840	0.000	1746.960	-5.030	0.000	3325.945	0.160	0.000
20.	6768.260	5.220	0.000	1752.704	-5.100	0.000	3326.128	0.170	0.000
21.	6772.997	5.590	0.000	1758.925	-5.140	0.000	3326.320	0.180	0.000
22.	6777.800	5.950	0.000	1765.645	-5.170	0.000	3326.521	0.190	0.000
23.	6782.602	6.300	0.000	1772.875	-5.160	0.000	3326.730	0.200	0.000
24.	6787.434	6.640	0.000	1780.615	-5.130	0.000	3326.948	0.200	0.000
25.	6792.300	6.970	0.000	1788.873	-5.070	0.000	3327.174	0.210	0.000
26.	6797.200	7.290	0.000	1797.652	-4.990	0.000	3327.408	0.220	0.000
27.	6799.437	7.600	0.000	1806.972	-4.890	0.000	3327.649	0.220	0.000
28.	6802.942	7.900	0.000	1816.841	-4.760	0.000	3327.899	0.230	0.000
29.	6806.652	8.190	0.000	1827.259	-4.610	0.000	3328.156	0.240	0.000
30.	6810.578	8.470	0.000	1838.220	-4.430	0.000	3328.420	0.240	0.000
31.	6814.704	8.740	0.000	1849.722	-4.230	0.000	3328.691	0.250	0.000
32.	6819.024	9.000	0.000	1861.762	-4.020	0.000	3328.969	0.250	0.000
33.	6823.541	9.250	0.000	1874.342	-3.780	0.000	3329.253	0.260	0.000
34.	6828.251	9.490	0.000	1887.463	-3.520	0.000	3329.544	0.260	0.000
35.	6833.155	9.720	0.000	1901.125	-3.250	0.000	3329.840	0.270	0.000
36.	6838.250	9.940	0.000	1915.327	-2.960	0.000	3330.143	0.280	0.000
37.	6843.501	1.150	0.000	1930.071	-2.650	0.000	3330.451	0.280	0.000
38.	6848.924	1.350	0.000	1945.353	-2.330	0.000	3330.764	0.280	0.000
39.	6854.500	1.540	0.000	1961.172	-2.000	0.000	3331.081	0.290	0.000
40.	6860.250	1.720	0.000	1977.535	-1.660	0.000	3331.404	0.290	0.000
41.	6866.150	1.890	0.000	1994.452	-1.320	0.000	3331.730	0.300	0.000
42.	6872.150	2.050	0.000	2011.926	-0.960	0.000	3332.060	0.300	0.000
43.	6878.300	2.200	0.000	2030.000	-0.600	0.000	3332.392	0.300	0.000
44.	6884.557	2.340	0.000	2048.670	-0.240	0.000	3332.725	0.300	0.000
45.	6890.962	2.470	0.000	2067.942	0.120	0.000	3333.060	0.310	0.000
46.	6897.460	2.600	0.000	2087.812	0.480	0.000	3333.400	0.310	0.000
47.	6904.050	2.720	0.000	2108.272	0.840	0.000	3333.752	0.310	0.000
48.	6910.750	2.840	0.000	2129.322	1.190	0.000	3334.096	0.310	0.000
49.	6917.560	2.950	0.000	2150.962	1.540	0.000	3334.440	0.310	0.000

2-PLANE (XY-PLANE) BARIUM SODIUM NIOBATE

	LAGVEL	LPF112	LPF113	FSPVEL	FSPF112	FSPF113	SSRVEL	SSPF112	SSPF113
50.	688.865	.380	0.000	3226.212	1.000	0.000	3644.785	.310	0.000
51.	688.855	.320	0.000	3226.471	2.210	0.000	3645.131	.310	0.000
52.	689.240	.180	0.000	3231.069	2.528	0.000	3645.475	.310	0.000
53.	689.524	.000	0.000	3234.052	2.630	0.000	3645.819	.310	0.000
54.	689.617	-0.010	0.000	3237.351	3.120	0.000	3646.161	.310	0.000
55.	689.511	-0.556	0.000	3240.955	3.398	0.000	3646.501	.310	0.000
56.	689.226	-1.880	0.000	3244.879	3.658	0.000	3646.832	.300	0.000
57.	688.764	-3.280	0.000	3249.073	3.890	0.000	3647.173	.300	0.000
58.	688.132	-4.740	0.000	3253.525	4.110	0.000	3647.504	.300	0.000
59.	687.342	-6.110	0.000	3258.224	4.310	0.000	3647.831	.290	0.000
60.	686.401	-7.400	0.000	3263.127	4.480	0.000	3648.154	.290	0.000
61.	685.316	-8.590	0.000	3268.244	4.640	0.000	3648.472	.280	0.000
62.	684.086	-9.680	0.000	3273.521	4.770	0.000	3648.785	.280	0.000
63.	682.774	-10.680	0.000	3278.943	4.880	0.000	3649.092	.270	0.000
64.	681.324	-11.580	0.000	3284.464	4.970	0.000	3649.392	.270	0.000
65.	679.750	-12.380	0.000	3290.117	5.030	0.000	3649.686	.260	0.000
66.	678.076	-13.080	0.000	3295.837	5.070	0.000	3649.972	.250	0.000
67.	676.302	-13.680	0.000	3301.556	5.090	0.000	3650.251	.250	0.000
68.	674.430	-14.180	0.000	3307.306	5.090	0.000	3650.521	.240	0.000
69.	672.467	-14.580	0.000	3313.040	5.040	0.000	3650.783	.230	0.000
70.	670.422	-14.880	0.000	3318.770	4.950	0.000	3651.036	.220	0.000
71.	668.295	-15.080	0.000	3324.350	4.850	0.000	3651.279	.210	0.000
72.	666.091	-15.180	0.000	3329.872	4.700	0.000	3651.512	.210	0.000
73.	663.822	-15.180	0.000	3335.270	4.570	0.000	3651.735	.200	0.000
74.	661.501	-15.080	0.000	3340.516	4.420	0.000	3651.948	.190	0.000
75.	659.131	-14.880	0.000	3345.590	4.350	0.000	3652.145	.180	0.000
76.	656.725	-14.580	0.000	3350.462	4.310	0.000	3652.340	.180	0.000
77.	654.285	-14.180	0.000	3355.110	4.250	0.000	3652.518	.160	0.000
78.	651.814	-13.680	0.000	3359.512	4.220	0.000	3652.685	.140	0.000
79.	649.312	-13.080	0.000	3363.646	4.180	0.000	3652.839	.130	0.000
80.	646.780	-12.380	0.000	3367.462	4.220	0.000	3652.981	.130	0.000
81.	644.226	-11.580	0.000	3371.032	4.240	0.000	3653.110	.110	0.000
82.	641.650	-10.680	0.000	3374.302	4.250	0.000	3653.222	.100	0.000
83.	639.057	-9.680	0.000	3377.312	4.250	0.000	3653.325	.090	0.000
84.	636.442	-8.590	0.000	3379.963	4.230	0.000	3653.418	.070	0.000
85.	633.807	-7.400	0.000	3381.752	4.170	0.000	3653.494	.060	0.000
86.	631.154	-6.110	0.000	3383.576	4.080	0.000	3653.557	.050	0.000
87.	628.482	-4.740	0.000	3385.468	4.040	0.000	3653.606	.040	0.000
88.	625.792	-3.280	0.000	3387.427	3.950	0.000	3653.640	.030	0.000
89.	623.085	-1.880	0.000	3389.455	3.850	0.000	3653.661	.010	0.000
90.	620.362	0.000	0.000	3391.556	3.750	0.000	3653.668	0.000	0.000
91.	617.625	0.700	0.000	3393.729	3.650	0.000	3653.661	0.000	0.000
92.	614.874	1.400	0.000	3395.963	3.550	0.000	3653.640	0.000	0.000
93.	612.109	2.100	0.000	3398.256	3.450	0.000	3653.606	0.000	0.000
94.	609.330	2.800	0.000	3400.608	3.350	0.000	3653.557	0.000	0.000
95.	606.537	3.500	0.000	3403.019	3.250	0.000	3653.494	0.000	0.000
96.	603.730	4.200	0.000	3405.489	3.150	0.000	3653.418	0.000	0.000
97.	600.908	4.900	0.000	3408.018	3.050	0.000	3653.325	0.000	0.000
98.	598.071	5.600	0.000	3410.606	2.950	0.000	3653.222	0.000	0.000
99.	595.218	6.300	0.000	3413.253	2.850	0.000	3653.110	0.000	0.000
100.	592.349	7.000	0.000	3415.959	2.750	0.000	3652.981	0.000	0.000

Z-PLANE (XY-PLANE) GARIUP SCRIUP NIORATE

	LANGUOL	LFR112	LFR113	FSEVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
100.	6274.024	.600	0.000	3767.452	-1.228	0.000	3652.591	-.120	0.000
101.	6276.452	.718	0.000	3767.646	-1.450	0.000	3652.895	-.230	0.000
102.	6278.974	.750	0.000	3759.512	-1.728	0.000	3652.685	-.140	0.000
103.	6278.575	.750	0.000	3759.110	-1.950	0.000	3652.512	-.160	0.000
104.	6248.255	.820	0.000	3750.462	-4.160	0.000	3652.740	-.178	0.000
105.	6241.991	.850	0.000	3745.590	-4.350	0.000	3652.145	-.180	0.000
106.	6243.774	.860	0.000	3742.519	-4.520	0.000	3651.940	-.190	0.000
107.	6242.592	.860	0.000	3735.270	-4.678	0.000	3651.735	-.200	0.000
108.	6247.433	.860	0.000	3726.872	-4.800	0.000	3651.512	-.210	0.000
109.	6245.275	.850	0.000	3724.350	-4.900	0.000	3651.279	-.210	0.000
110.	6251.122	.880	0.000	3718.718	-4.980	0.000	3651.036	-.220	0.000
111.	6252.947	.870	0.000	3713.040	-5.040	0.000	3650.783	-.230	0.000
112.	6254.740	.850	0.000	3707.306	-5.080	0.000	3650.521	-.240	0.000
113.	6252.428	.820	0.000	3701.556	-5.050	0.000	3650.251	-.250	0.000
114.	6258.176	.750	0.000	3695.817	-5.070	0.000	3649.972	-.250	0.000
115.	6255.759	.760	0.000	3690.112	-5.030	0.000	3649.686	-.260	0.000
116.	6261.334	.710	0.000	3684.484	-5.070	0.000	3649.392	-.270	0.000
117.	6262.774	.660	0.000	3678.943	-4.980	0.000	3649.092	-.270	0.000
118.	6264.106	.610	0.000	3673.521	-4.770	0.000	3648.785	-.280	0.000
119.	6265.316	.550	0.000	3668.284	-4.620	0.000	3648.472	-.280	0.000
120.	6266.481	.480	0.000	3663.127	-4.460	0.000	3648.154	-.290	0.000
121.	6267.342	.410	0.000	3658.024	-4.310	0.000	3647.831	-.290	0.000
122.	6267.133	.340	0.000	3652.959	-4.110	0.000	3647.504	-.300	0.000
123.	6267.764	.280	0.000	3647.973	-3.950	0.000	3647.173	-.300	0.000
124.	6265.226	.180	0.000	3643.020	-3.650	0.000	3646.832	-.300	0.000
125.	6269.511	.050	0.000	3640.985	-3.350	0.000	3646.501	-.310	0.000
126.	6265.612	0.000	0.000	3637.731	-3.160	0.000	3646.161	-.310	0.000
127.	6265.4524	.050	0.000	3634.057	-2.980	0.000	3645.819	-.310	0.000
128.	6265.240	.180	0.000	3631.059	-2.820	0.000	3645.475	-.310	0.000
129.	6267.755	.220	0.000	3628.471	-2.610	0.000	3645.131	-.310	0.000
130.	6268.655	.230	0.000	3626.213	-2.360	0.000	3644.785	-.310	0.000
131.	6267.157	.140	0.000	3625.325	-2.150	0.000	3644.440	-.310	0.000
132.	6267.655	.100	0.000	3622.817	-1.910	0.000	3644.096	-.310	0.000
133.	6264.725	.060	0.000	3621.696	-1.640	0.000	3643.752	-.310	0.000
134.	6262.207	.070	0.000	3620.958	-1.460	0.000	3643.408	-.310	0.000
135.	6261.462	.050	0.000	3620.637	-1.280	0.000	3643.064	-.310	0.000
136.	6255.507	.050	0.000	3620.796	-.900	0.000	3642.720	-.300	0.000
137.	6257.343	.050	0.000	3621.112	-.600	0.000	3642.375	-.300	0.000
138.	6254.972	.050	0.000	3622.046	-.300	0.000	3642.030	-.300	0.000
139.	6252.400	.020	0.000	3622.257	1.390	0.000	3641.730	-.300	0.000
140.	6245.631	.030	0.000	3622.955	1.660	0.000	3641.484	-.290	0.000
141.	6246.670	.040	0.000	3623.955	2.000	0.000	3641.001	-.290	0.000
142.	6242.524	.050	0.000	3625.312	2.310	0.000	3640.764	-.280	0.000
143.	6240.201	.060	0.000	3627.113	2.650	0.000	3640.751	-.280	0.000
144.	6236.780	.070	0.000	3629.227	2.950	0.000	3640.143	-.280	0.000
145.	6232.056	.080	0.000	3632.668	3.220	0.000	3639.840	-.270	0.000
146.	6225.252	.090	0.000	3637.442	3.570	0.000	3639.564	-.260	0.000
147.	6218.311	.100	0.000	3642.492	3.780	0.000	3639.253	-.260	0.000
148.	6211.243	.110	0.000	3647.822	4.000	0.000	3638.565	-.250	0.000
149.	6217.056	.120	0.000	3653.442	4.230	0.000	3638.091	-.250	0.000

7-PLANE (XY-PLANE) PARTIAL SCOUT NICEATE

	LAGEV	LFP-112	LFP-113	FSRVEL	FSFP-112	FSP-113	SRVEL	SSP-112	SSP-113
150.	6712.762	-2.050	0.000	1668.260	4.430	0.000	2626.620	-0.240	0.000
151.	6702.552	-2.170	0.000	1665.315	4.610	0.000	2630.456	-0.240	0.000
152.	6703.942	-2.160	0.000	1670.564	4.760	0.000	2637.895	-0.220	0.000
153.	6755.412	-2.150	0.000	1675.973	4.950	0.000	2637.646	-0.220	0.000
154.	6754.860	-2.210	0.000	1681.522	4.950	0.000	2637.406	-0.210	0.000
155.	6758.360	-2.220	0.000	1687.152	5.070	0.000	2637.174	-0.210	0.000
156.	6785.708	-2.220	0.000	1652.945	5.130	0.000	2636.948	-0.200	0.000
157.	6781.122	-2.210	0.000	1652.755	5.160	0.000	2636.730	-0.150	0.000
158.	6772.520	-2.200	0.000	1704.565	5.170	0.000	2636.521	-0.190	0.000
159.	6772.027	-2.190	0.000	1710.475	5.140	0.000	2636.320	-0.180	0.000
160.	6767.271	-2.150	0.000	1715.246	5.180	0.000	2636.120	-0.170	0.000
161.	6762.185	-2.110	0.000	1725.000	5.850	0.000	2635.925	-0.160	0.000
162.	6752.850	-2.060	0.000	1727.662	4.520	0.000	2635.770	-0.150	0.000
163.	6754.706	-2.060	0.000	1733.221	4.810	0.000	2635.604	-0.150	0.000
164.	6750.651	-1.940	0.000	1733.621	4.670	0.000	2635.448	-0.140	0.000
165.	6746.741	-1.860	0.000	1742.271	4.500	0.000	2635.280	-0.120	0.000
166.	6742.921	-1.780	0.000	1748.913	4.310	0.000	2635.162	-0.120	0.000
167.	6735.424	-1.650	0.000	1753.722	4.180	0.000	2635.033	-0.110	0.000
168.	6736.046	-1.550	0.000	1754.304	3.270	0.000	2634.913	-0.100	0.000
169.	6732.884	-1.450	0.000	1762.684	3.620	0.000	2634.802	-0.100	0.000
170.	6725.942	-1.270	0.000	1766.611	3.350	0.000	2634.701	-0.050	0.000
171.	6727.237	-1.260	0.000	1770.302	3.070	0.000	2634.610	-0.020	0.000
172.	6724.782	-1.140	0.000	1773.650	2.770	0.000	2634.522	-0.070	0.000
173.	6722.688	-1.010	0.000	1776.655	2.450	0.000	2634.456	-0.060	0.000
174.	6720.864	-0.870	0.000	1775.212	2.130	0.000	2634.392	-0.050	0.000
175.	6715.021	-0.720	0.000	1781.555	1.750	0.000	2634.340	-0.040	0.000
176.	6717.666	-0.550	0.000	1783.423	1.440	0.000	2634.296	-0.020	0.000
177.	6716.605	-0.450	0.000	1784.680	1.090	0.000	2634.262	-0.020	0.000
178.	6715.843	-0.300	0.000	1785.922	0.730	0.000	2634.232	-0.020	0.000
179.	6715.345	-0.150	0.000	1785.555	0.370	0.000	2634.224	-0.010	0.000
180.	6715.222	0.000	0.000	1786.769	-0.000	0.000	2634.215	0.000	0.000

7-PLANE (XY-PLANE) BISMUTH GERMANIUM OXIDE (SLODODNIK ET AL)

	LMGVEL	LMPII2	LMPII3	FSPVEL	FSPHI2	FSPHI3	SSRVEL	SSPHI2	SSPHI3
0.	3730.819	0.000	0.000	1664.854	0.000	0.000	1664.854	0.000	0.000
1.	3729.700	-1.560	0.000	1664.968	.450	0.000	1665.569	2.810	0.000
2.	3728.743	-1.120	0.000	1665.309	.980	0.000	1667.710	5.599	0.000
3.	3727.151	-1.680	0.000	1665.876	1.349	0.000	1671.264	8.310	0.000
4.	3726.925	-2.240	0.000	1666.665	1.770	0.000	1676.228	10.920	0.000
5.	3722.871	-2.790	0.000	1667.673	2.190	0.000	1682.549	13.420	0.000
6.	3718.592	-3.340	0.000	1668.893	2.609	0.000	1690.223	15.780	0.000
7.	3716.497	-3.880	0.000	1670.320	3.000	0.000	1699.204	17.980	0.000
8.	3709.792	-4.420	0.000	1671.947	3.389	0.000	1709.451	20.010	0.000
9.	3706.487	-4.950	0.000	1673.764	3.740	0.000	1720.914	21.870	0.000
10.	3698.592	-5.470	0.000	1675.762	4.089	0.000	1733.551	23.570	0.000
11.	3692.119	-5.990	0.000	1677.931	4.390	0.000	1747.294	25.090	0.000
12.	3685.082	-6.490	0.000	1680.259	4.690	0.000	1762.088	26.450	0.000
13.	3677.495	-6.980	0.000	1682.736	4.950	0.000	1777.864	27.660	0.000
14.	3669.375	-7.450	0.000	1685.347	5.190	0.000	1794.566	28.680	0.000
15.	3660.742	-7.920	0.000	1688.090	5.410	0.000	1812.113	29.570	0.000
16.	3651.614	-8.360	0.000	1690.921	5.590	0.000	1830.434	30.320	0.000
17.	3642.015	-8.790	0.000	1693.855	5.750	0.000	1849.481	30.960	0.000
18.	3631.970	-9.190	0.000	1696.866	5.870	0.000	1869.111	31.430	0.000
19.	3621.506	-9.580	0.000	1699.944	5.970	0.000	1889.306	31.800	0.000
20.	3610.652	-9.930	0.000	1703.069	6.040	0.000	1909.967	32.080	0.000
21.	3599.442	-10.270	0.000	1706.226	6.070	0.000	1931.014	32.180	0.000
22.	3587.910	-10.560	0.000	1709.401	6.089	0.000	1952.357	32.110	0.000
23.	3576.007	-10.830	0.000	1712.578	6.060	0.000	1973.909	32.130	0.000
24.	3564.643	-11.060	0.000	1715.741	6.010	0.000	1995.590	31.960	0.000
25.	3552.796	-11.260	0.000	1718.876	5.930	0.000	2017.307	31.550	0.000
26.	3539.485	-11.390	0.000	1721.966	5.820	0.000	2038.964	31.260	0.000
27.	3526.926	-11.480	0.000	1724.998	5.690	0.000	2060.679	30.760	0.000
28.	3514.917	-11.520	0.000	1727.956	5.520	0.000	2081.743	30.150	0.000
29.	3501.943	-11.500	0.000	1730.828	5.340	0.000	2102.659	29.440	0.000
30.	3489.572	-11.410	0.000	1733.598	5.130	0.000	2123.127	28.510	0.000
31.	3477.379	-11.260	0.000	1736.255	4.900	0.000	2143.039	27.650	0.000
32.	3465.443	-11.020	0.000	1738.796	4.640	0.000	2162.288	26.560	0.000
33.	3453.847	-10.710	0.000	1741.179	4.370	0.000	2180.762	25.370	0.000
34.	3442.680	-10.300	0.000	1743.423	4.070	0.000	2198.349	24.030	0.000
35.	3432.034	-9.810	0.000	1745.508	3.760	0.000	2214.937	22.540	0.000
36.	3422.084	-9.210	0.000	1747.425	3.430	0.000	2230.397	20.980	0.000
37.	3412.688	-8.520	0.000	1749.163	3.090	0.000	2244.624	19.110	0.000
38.	3404.190	-7.740	0.000	1750.716	2.730	0.000	2257.504	17.170	0.000
39.	3396.576	-6.880	0.000	1752.077	2.360	0.000	2268.937	15.070	0.000
40.	3389.965	-5.870	0.000	1753.238	1.990	0.000	2279.797	12.820	0.000
41.	3384.431	-4.810	0.000	1754.196	1.600	0.000	2289.991	10.440	0.000
42.	3380.044	-3.680	0.000	1754.946	1.200	0.000	2299.687	7.950	0.000
43.	3376.866	-2.490	0.000	1755.483	.810	0.000	2298.164	5.350	0.000
44.	3374.948	-1.250	0.000	1755.807	.400	0.000	2293.487	2.690	0.000
45.	3374.295	0.000	0.000	1755.915	0.000	0.000	2287.009	0.000	0.000
46.	3374.940	1.250	0.000	1755.807	-.400	0.000	2279.797	-2.690	0.000
47.	3376.866	2.490	0.000	1755.483	-.810	0.000	2271.504	-5.350	0.000
48.	3380.044	3.680	0.000	1754.946	-1.200	0.000	2262.288	-7.950	0.000
49.	3384.431	4.810	0.000	1754.196	-1.600	0.000	2251.730	-10.440	0.000

Z-PLANE (XY-PLANE) BISMUTH GERMANIUM OXIDE (SLOMONIK ET AL)

	LGMJEL	LPMI12	LPMI13	FSPM12	FSPM13	SSRM12	SSRM13
50.	3389.965	5.870	0.000	1753.238	-1.990	2278.797	-12.929
51.	3396.576	6.950	0.000	1952.077	-2.360	2268.939	0.000
52.	3404.188	7.740	0.000	1750.716	-2.730	2257.508	0.000
53.	3412.680	8.520	0.000	1749.163	-3.090	2244.626	0.000
54.	3422.004	9.210	0.000	1747.625	-3.430	2230.397	0.000
55.	3432.036	9.810	0.000	1745.508	-3.760	2214.939	0.000
56.	3442.688	10.300	0.000	1743.423	-4.070	2198.749	0.000
57.	3453.847	10.710	0.000	1741.179	-4.370	2180.762	0.000
58.	3465.443	11.020	0.000	1738.786	-4.640	2162.284	0.000
59.	3477.379	11.260	0.000	1736.255	-4.900	2143.839	0.000
60.	3489.572	11.410	0.000	1733.598	-5.130	2123.127	0.000
61.	3501.943	11.500	0.000	1730.828	-5.340	2102.151	0.000
62.	3514.417	11.520	0.000	1727.956	-5.520	2081.743	0.000
63.	3526.926	11.480	0.000	1724.998	-5.690	2060.879	0.000
64.	3539.485	11.390	0.000	1721.966	-5.820	2038.964	0.000
65.	3551.795	11.250	0.000	1718.876	-5.930	2017.307	0.000
66.	3564.843	11.060	0.000	1715.741	-6.010	1995.597	0.000
67.	3576.997	10.830	0.000	1712.574	-6.060	1973.904	0.000
68.	3587.910	10.560	0.000	1709.401	-6.080	1952.353	0.000
69.	3598.442	10.270	0.000	1706.226	-6.070	1931.010	0.000
70.	3610.652	9.970	0.000	1703.069	-6.040	1909.967	0.000
71.	3621.586	9.580	0.000	1699.944	-5.970	1889.305	0.000
72.	3631.970	9.190	0.000	1696.868	-5.870	1869.111	0.000
73.	3642.815	8.790	0.000	1693.855	-5.750	1849.461	0.000
74.	3651.614	8.360	0.000	1690.921	-5.590	1830.435	0.000
75.	3660.742	7.920	0.000	1688.080	-5.410	1812.113	0.000
76.	3669.375	7.450	0.000	1685.347	-5.190	1794.564	0.000
77.	3677.695	6.980	0.000	1682.736	-4.950	1777.068	0.000
78.	3685.882	5.490	0.000	1680.259	-4.690	1762.084	0.000
79.	3692.119	5.990	0.000	1677.931	-4.390	1747.294	0.000
80.	3698.592	5.470	0.000	1675.762	-4.090	1733.551	0.000
81.	3704.687	4.950	0.000	1673.754	-3.760	1720.914	0.000
82.	3709.792	4.420	0.000	1671.947	-3.390	1708.451	0.000
83.	3714.897	3.880	0.000	1670.320	-3.000	1696.284	0.000
84.	3718.592	3.340	0.000	1668.893	-2.600	1690.223	0.000
85.	3722.071	2.790	0.000	1667.673	-2.190	1682.549	0.000
86.	3724.925	2.240	0.000	1666.665	-1.770	1676.229	0.000
87.	3727.151	1.680	0.000	1665.876	-1.340	1671.266	0.000
88.	3728.743	1.120	0.000	1665.309	-0.900	1667.710	0.000
89.	3729.780	0.560	0.000	1664.968	-0.450	1665.564	0.000
90.	3730.819	-0.000	0.000	1664.854	0.000	1664.854	0.000
91.	3729.780	-0.560	0.000	1664.968	0.450	1665.564	0.000
92.	3728.743	-1.120	0.000	1665.309	0.900	1667.710	0.000
93.	3727.151	-1.680	0.000	1665.876	1.340	1671.266	0.000
94.	3724.925	-2.240	0.000	1666.665	1.770	1676.229	0.000
95.	3722.071	-2.790	0.000	1667.673	2.190	1682.549	0.000
96.	3718.592	-3.340	0.000	1668.893	2.600	1690.223	0.000
97.	3714.897	-3.880	0.000	1670.320	3.000	1698.451	0.000
98.	3709.792	-4.420	0.000	1671.947	3.390	1708.451	0.000
99.	3704.687	-4.950	0.000	1673.754	3.740	1720.914	0.000

7-PLANE (XY-PLANE) BISMUTH GERMANIUM OXIDE (SLODONTK ET AL)

	LMGVEL	LPHI12	LPHI11	FRVEL	FSPH12	FSPH11	SSRVEL	SSPH12	SSPH13
100.	1698.592	-5.470	0.000	1675.762	4.088	0.000	1733.551	21.579	0.000
101.	1692.119	-5.990	0.000	1677.931	4.390	0.000	1747.204	25.090	0.000
102.	1685.082	-6.490	0.000	1680.259	4.690	0.000	1762.084	26.450	0.000
103.	1677.495	-6.980	0.000	1682.736	4.950	0.000	1777.869	27.640	0.000
104.	1669.375	-7.450	0.000	1685.447	5.190	0.000	1794.565	28.680	0.000
105.	1660.742	-7.920	0.000	1688.088	5.419	0.000	1812.113	29.570	0.000
106.	1651.614	-8.360	0.000	1690.921	5.590	0.000	1830.836	30.320	0.000
107.	1642.015	-8.790	0.000	1693.955	5.750	0.000	1849.861	30.940	0.000
108.	1631.970	-9.190	0.000	1697.088	5.870	0.000	1869.111	31.470	0.000
109.	1621.505	-9.560	0.000	1699.944	5.970	0.000	1889.306	31.800	0.000
110.	1610.652	-9.930	0.000	1703.069	6.040	0.000	1909.967	32.040	0.000
111.	1599.442	-10.270	0.000	1706.225	6.070	0.000	1931.010	32.140	0.000
112.	1587.910	-10.560	0.000	1709.411	6.080	0.000	1952.353	32.210	0.000
113.	1576.097	-10.830	0.000	1712.578	6.060	0.000	1973.900	32.170	0.000
114.	1564.043	-11.060	0.000	1715.741	6.010	0.000	1995.591	31.940	0.000
115.	1551.796	-11.250	0.000	1718.876	5.930	0.000	2017.307	31.550	0.000
116.	1538.405	-11.390	0.000	1721.966	5.820	0.000	2038.964	31.260	0.000
117.	1524.925	-11.480	0.000	1724.998	5.690	0.000	2060.672	30.750	0.000
118.	1511.417	-11.520	0.000	1727.956	5.520	0.000	2081.747	30.150	0.000
119.	1501.963	-11.500	0.000	1730.828	5.340	0.000	2102.659	29.440	0.000
120.	1489.572	-11.410	0.000	1733.599	5.130	0.000	2123.127	28.610	0.000
121.	1477.379	-11.260	0.000	1736.255	4.900	0.000	2143.030	27.650	0.000
122.	1465.443	-11.020	0.000	1738.746	4.650	0.000	2162.284	26.580	0.000
123.	1453.847	-10.710	0.000	1741.179	4.370	0.000	2180.762	25.370	0.000
124.	1442.580	-10.300	0.000	1743.423	4.070	0.000	2198.369	24.030	0.000
125.	1432.034	-9.810	0.000	1745.508	3.760	0.000	2214.932	22.540	0.000
126.	1422.004	-9.210	0.000	1747.425	3.430	0.000	2230.397	20.900	0.000
127.	1412.604	-8.520	0.000	1749.153	3.090	0.000	2244.626	19.110	0.000
128.	1404.180	-7.740	0.000	1750.716	2.730	0.000	2257.504	17.170	0.000
129.	1396.576	-6.850	0.000	1752.077	2.360	0.000	2269.972	15.070	0.000
130.	1389.945	-5.870	0.000	1753.248	1.990	0.000	2281.997	12.820	0.000
131.	1384.411	-4.810	0.000	1754.196	1.600	0.000	2293.603	10.440	0.000
132.	1378.064	-3.680	0.000	1754.946	1.200	0.000	2294.867	7.950	0.000
133.	1371.866	-2.490	0.000	1755.493	0.810	0.000	2294.864	5.350	0.000
134.	1374.940	-1.250	0.000	1755.807	0.400	0.000	2300.991	2.690	0.000
135.	1374.295	0.000	0.000	1755.915	-0.000	0.000	2301.937	-0.000	0.000
136.	1374.940	1.250	0.000	1755.807	-0.400	0.000	2300.991	-2.690	0.000
137.	1376.866	2.490	0.000	1755.493	-0.810	0.000	2298.164	-5.350	0.000
138.	1380.044	3.680	0.000	1754.946	-1.200	0.000	2293.607	-7.950	0.000
139.	1384.411	4.810	0.000	1754.196	-1.600	0.000	2287.009	-10.440	0.000
140.	1389.945	5.870	0.000	1753.248	-1.990	0.000	2278.997	-12.820	0.000
141.	1396.576	6.850	0.000	1752.077	-2.360	0.000	2269.972	-15.070	0.000
142.	1404.180	7.740	0.000	1750.716	-2.730	0.000	2257.504	-17.170	0.000
143.	1412.604	8.520	0.000	1749.153	-3.090	0.000	2244.626	-19.110	0.000
144.	1422.004	9.210	0.000	1747.425	-3.430	0.000	2230.397	-20.900	0.000
145.	1432.034	9.810	0.000	1745.508	-3.760	0.000	2214.932	-22.540	0.000
146.	1442.604	10.300	0.000	1743.423	-4.070	0.000	2198.369	-24.030	0.000
147.	1453.847	10.710	0.000	1741.179	-4.370	0.000	2180.762	-25.370	0.000
148.	1465.443	11.020	0.000	1738.746	-4.650	0.000	2162.284	-26.580	0.000
149.	1477.379	11.250	0.000	1736.255	-4.900	0.000	2143.030	-27.650	0.000

Z-PLANE (XY-PLANE) BISMUTH GERMANIUM OXIDE (SLODZNIK ET AL)

	LMGDEL	LPW112	LPW111	FSRVEL	FSR12	FSR13	SSRVEL	SSR12	SSR13
150.	1489.572	11.410	0.000	1733.598	-5.130	0.000	2123.127	-28.610	0.000
151.	1501.963	11.500	0.000	1730.828	-5.360	0.000	2102.859	-29.448	0.000
152.	1514.417	11.520	0.000	1727.956	-5.524	0.000	2081.743	-30.150	0.000
153.	1526.926	11.480	0.000	1724.998	-5.690	0.000	2060.879	-30.760	0.000
154.	1539.405	11.390	0.000	1721.966	-5.820	0.000	2038.964	-31.260	0.000
155.	1551.706	11.250	0.000	1718.876	-5.930	0.000	2017.307	-31.650	0.000
156.	1564.043	11.060	0.000	1715.741	-6.010	0.000	1995.590	-31.940	0.000
157.	1576.097	10.830	0.000	1712.574	-6.060	0.000	1973.904	-32.130	0.000
158.	1587.910	10.560	0.000	1709.491	-6.080	0.000	1952.453	-32.210	0.000
159.	1599.442	10.270	0.000	1706.226	-6.070	0.000	1931.010	-32.180	0.000
160.	1610.552	9.930	0.000	1703.069	-6.040	0.000	1909.967	-32.040	0.000
161.	1621.506	9.580	0.000	1699.944	-5.970	0.000	1889.306	-31.800	0.000
162.	1631.970	9.190	0.000	1696.868	-5.870	0.000	1869.111	-31.470	0.000
163.	1642.015	8.790	0.000	1693.855	-5.750	0.000	1849.461	-30.940	0.000
164.	1651.614	8.360	0.000	1690.921	-5.590	0.000	1830.836	-30.320	0.000
165.	1660.742	7.920	0.000	1688.080	-5.410	0.000	1812.113	-29.570	0.000
166.	1669.375	7.450	0.000	1685.317	-5.190	0.000	1794.566	-28.680	0.000
167.	1677.495	6.900	0.000	1682.716	-4.950	0.000	1777.864	-27.640	0.000
168.	1685.082	6.400	0.000	1680.259	-4.690	0.000	1762.084	-26.450	0.000
169.	1692.119	5.990	0.000	1677.931	-4.390	0.000	1747.284	-25.090	0.000
170.	1698.592	5.470	0.000	1675.762	-4.090	0.000	1733.551	-23.570	0.000
171.	1704.487	4.950	0.000	1673.764	-3.740	0.000	1720.914	-21.870	0.000
172.	1709.792	4.420	0.000	1671.947	-3.340	0.000	1709.451	-20.010	0.000
173.	1714.497	3.880	0.000	1670.320	-2.900	0.000	1699.204	-17.980	0.000
174.	1718.592	3.340	0.000	1668.893	-2.600	0.000	1690.223	-15.780	0.000
175.	1722.071	2.790	0.000	1667.673	-2.190	0.000	1682.943	-13.420	0.000
176.	1724.925	2.240	0.000	1666.655	-1.770	0.000	1676.224	-10.920	0.000
177.	1727.151	1.680	0.000	1665.876	-1.340	0.000	1671.264	-8.310	0.000
178.	1728.743	1.120	0.000	1665.309	-0.900	0.000	1667.710	-5.590	0.000
179.	1729.700	0.560	0.000	1664.954	-0.450	0.000	1665.569	-2.810	0.000
180.	1730.019	-0.000	0.000	1664.864	0.000	0.000	1664.854	0.000	0.000

111-PLANE BISMUTH GERMANIUM OXIDE (SLOBODNIK AND SETAIRES) BULK

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
0.	3374.295	0.000	-0.000	2301.937	-0.000	0.000	1752.915	0.000	0.000
1.	3374.452	.300	-.670	2301.510	-1.220	1.050	1756.174	.970	.970
2.	3374.919	.600	-1.340	2300.233	-2.430	2.050	1756.949	1.930	1.930
3.	3375.691	.900	-2.000	2298.114	-3.620	3.120	1756.238	2.860	2.860
4.	3376.757	1.170	-2.650	2295.166	-4.760	4.130	1760.038	3.630	3.630
5.	3378.102	1.440	-3.280	2291.416	-5.920	5.130	1762.384	4.750	4.750
6.	3379.789	1.660	-3.900	2286.884	-7.020	6.090	1765.146	5.660	5.700
7.	3381.556	1.900	-4.490	2281.601	-8.070	7.030	1768.444	6.540	6.600
8.	3383.620	2.100	-5.070	2275.605	-9.070	7.940	1772.220	7.390	7.400
9.	3385.873	2.270	-5.610	2268.936	-10.020	8.610	1776.464	8.210	8.300
10.	3388.288	2.410	-6.130	2261.633	-10.900	9.648	1781.183	8.590	8.700
11.	3390.835	2.520	-6.630	2253.751	-11.710	10.430	1786.300	9.740	9.970
12.	3393.483	2.600	-7.090	2245.335	-12.460	11.170	1791.856	10.430	10.700
13.	3396.202	2.650	-7.530	2236.453	-13.130	11.660	1797.808	11.070	11.400
14.	3398.960	2.670	-7.930	2227.152	-13.720	12.540	1804.130	11.660	12.100
15.	3401.726	2.660	-8.310	2217.500	-14.220	13.150	1810.793	12.180	12.670
16.	3404.471	2.620	-8.660	2207.585	-14.620	13.720	1817.760	12.630	13.150
17.	3407.165	2.560	-8.980	2197.420	-14.930	14.240	1824.992	12.990	13.500
18.	3409.775	2.470	-9.270	2187.144	-15.120	14.710	1832.438	13.260	13.700
19.	3412.288	2.350	-9.540	2176.824	-15.160	15.140	1840.041	13.410	13.800
20.	3414.666	2.210	-9.770	2166.557	-15.100	15.530	1847.730	13.440	13.800
21.	3416.890	2.050	-9.990	2156.453	-14.860	15.670	1855.424	13.310	13.600
22.	3418.938	1.880	-10.160	2146.634	-14.410	16.160	1863.020	13.090	13.200
23.	3420.792	1.680	-10.340	2137.245	-13.740	16.410	1870.397	12.470	12.900
24.	3422.434	1.470	-10.480	2126.450	-12.600	16.620	1877.410	11.660	12.200
25.	3423.848	1.240	-10.600	2120.437	-11.530	16.790	1883.887	10.560	11.500
26.	3425.024	1.010	-10.700	2113.416	-9.910	16.910	1889.629	9.140	10.700
27.	3425.949	.760	-10.770	2107.620	-7.910	17.000	1894.422	7.320	10.000
28.	3426.615	.510	-10.830	2103.269	-5.530	17.070	1896.046	5.130	9.100
29.	3427.016	.260	-10.860	2100.565	-2.850	17.100	1900.315	2.650	8.200
30.	3427.152	0.000	-10.870	2099.647	-0.000	17.110	1901.087	-0.000	7.500
31.	3427.016	-.260	-10.860	2100.565	2.850	17.100	1900.315	-2.650	6.800
32.	3426.615	-.510	-10.830	2103.269	5.530	17.070	1896.046	-5.130	6.100
33.	3425.949	-.760	-10.770	2107.620	7.910	17.000	1894.422	-7.320	5.500
34.	3425.024	-1.010	-10.700	2113.416	9.910	16.910	1889.629	-9.140	4.900
35.	3423.848	-1.240	-10.600	2120.437	11.530	16.790	1883.887	-10.560	4.400
36.	3422.434	-1.470	-10.480	2126.450	12.800	16.620	1877.410	-11.660	4.000
37.	3420.792	-1.660	-10.340	2137.245	13.740	16.410	1870.397	-12.470	3.600
38.	3418.938	-1.860	-10.160	2146.634	14.410	16.160	1863.020	-13.090	3.200
39.	3416.890	-2.050	-9.990	2156.453	14.860	15.670	1855.424	-13.310	2.900
40.	3414.666	-2.210	-9.770	2166.557	15.100	15.530	1847.730	-13.440	2.600
41.	3412.288	-2.350	-9.540	2176.824	15.160	15.140	1840.041	-13.410	2.300
42.	3409.775	-2.470	-9.270	2187.144	15.120	14.710	1832.438	-13.260	2.000
43.	3407.165	-2.560	-8.980	2197.420	14.930	14.240	1824.992	-12.990	1.700
44.	3404.471	-2.620	-8.660	2207.585	14.620	13.720	1817.760	-12.630	1.500
45.	3401.726	-2.660	-8.310	2217.500	14.220	13.150	1810.793	-12.180	1.300
46.	3398.960	-2.670	-7.930	2227.152	13.720	12.540	1804.130	-11.660	1.100
47.	3396.202	-2.650	-7.530	2236.453	13.130	11.660	1797.808	-11.070	1.000
48.	3393.483	-2.600	-7.090	2245.335	12.460	11.170	1791.856	-10.430	0.900
49.	3390.835	-2.520	-6.630	2253.751	11.710	10.430	1786.300	-9.740	0.800

111-PLANE BISMUTH GERMANIUM OXIDE (SLOBODNIK AND SETHARES) BULK

	LMSVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
50.	3388.288	-2.410	-6.130	2261.633	10.900	9.640	1761.163	-6.990	9.170
51.	3365.873	-2.270	-5.610	2260.934	10.020	8.610	1776.464	-6.210	0.340
52.	3303.620	-2.100	-5.070	2275.605	9.070	7.940	1772.220	-7.390	7.480
53.	3351.556	-1.900	-4.490	2281.601	8.070	7.030	1766.444	-6.540	8.600
54.	3379.789	-1.680	-3.900	2286.884	7.020	6.090	1765.148	-5.660	5.700
55.	3376.182	-1.440	-3.280	2291.416	5.920	5.130	1762.344	-4.750	4.760
56.	3376.757	-1.170	-2.650	2295.168	4.760	4.130	1760.038	-3.830	3.840
57.	3375.691	-0.900	-2.000	2298.114	3.620	3.120	1758.238	-2.860	2.890
58.	3374.919	-0.600	-1.340	2300.233	2.430	2.090	1756.949	-1.930	1.930
59.	3374.652	-0.300	-0.670	2301.510	1.220	1.050	1756.174	-0.970	0.970
60.	3374.295	-0.000	-0.000	2301.937	0.000	0.000	1755.915	0.000	0.000
61.	3374.452	.300	.670	2301.510	-1.220	-1.020	1756.174	.970	-0.970
62.	3374.919	.600	1.340	2300.233	-2.430	-2.090	1756.949	1.930	-1.930
63.	3375.691	.900	2.000	2298.114	-3.620	-3.120	1758.238	2.860	-2.860
64.	3376.757	1.170	2.650	2295.169	-4.760	-4.130	1760.038	3.830	-3.830
65.	3378.102	1.440	3.280	2291.417	-5.920	-5.130	1762.344	4.750	-4.750
66.	3379.709	1.680	3.900	2286.884	-7.020	-6.050	1765.148	5.660	-5.700
67.	3381.556	1.900	4.490	2281.601	-8.070	-7.030	1768.444	6.540	-6.540
68.	3383.620	2.100	5.070	2275.605	-9.070	-7.940	1772.220	7.390	-7.480
69.	3385.873	2.270	5.610	2268.934	-10.020	-8.610	1776.464	8.210	-8.340
70.	3388.288	2.410	6.130	2261.633	-10.900	-9.640	1781.163	9.170	-9.170
71.	3390.835	2.520	6.630	2253.751	-11.710	-10.430	1786.300	9.740	-9.970
72.	3393.683	2.600	7.090	2245.339	-12.460	-11.170	1791.656	10.430	-10.700
73.	3396.202	2.650	7.530	2236.453	-13.130	-11.860	1797.608	11.080	-11.400
74.	3398.960	2.670	7.930	2227.152	-13.720	-12.540	1804.130	11.660	-12.130
75.	3401.721	2.660	8.310	2217.500	-14.220	-13.150	1810.793	12.160	-12.670
76.	3404.471	2.620	8.660	2207.565	-14.620	-13.720	1817.761	12.630	-13.540
77.	3407.165	2.560	8.980	2197.420	-14.930	-14.240	1824.992	13.090	-14.110
78.	3409.779	2.470	9.270	2187.144	-15.120	-14.710	1832.438	13.260	-14.670
79.	3412.286	2.350	9.540	2176.824	-15.180	-15.140	1840.041	13.410	-15.260
80.	3414.666	2.210	9.770	2166.357	-15.100	-15.530	1847.731	13.440	-15.690
81.	3416.890	2.050	9.990	2156.635	-14.860	-15.870	1855.424	13.300	-16.140
82.	3418.936	1.860	10.180	2146.635	-14.410	-16.160	1863.020	13.000	-16.590
83.	3420.792	1.660	10.340	2137.245	-13.740	-16.410	1870.398	12.470	-16.920
84.	3422.433	1.470	10.480	2128.450	-12.800	-16.620	1877.411	11.680	-17.250
85.	3423.868	1.240	10.600	2120.437	-11.530	-16.790	1883.887	10.560	-17.540
86.	3425.023	1.010	10.700	2113.418	-9.810	-16.910	1889.629	9.140	-17.700
87.	3425.946	.760	10.770	2107.620	-7.910	-17.000	1894.422	7.320	-17.820
88.	3426.615	.510	10.830	2103.269	-5.530	-17.070	1898.049	5.130	-18.120
89.	3427.017	.260	10.860	2100.566	0.000	-17.100	1901.007	2.650	-18.240
90.	3427.152	-0.000	10.870	2099.648	0.000	-17.110	1903.315	0.000	-18.240
91.	3427.017	-.260	10.860	2100.566	2.850	-17.100	1905.049	-2.650	-18.210
92.	3426.615	-.510	10.830	2103.269	5.530	-17.070	1894.422	-5.130	-18.120
93.	3425.946	-.760	10.770	2107.620	7.910	-17.000	1889.629	-7.320	-17.700
94.	3425.023	-1.010	10.700	2113.418	9.910	-16.910	1883.887	-9.140	-17.250
95.	3422.433	-1.240	10.600	2120.437	11.530	-16.750	1877.411	-10.560	-16.920
96.	3420.792	-1.470	10.480	2128.450	12.800	-16.620	1870.398	-9.140	-16.590
97.	3418.936	-1.660	10.340	2137.245	13.740	-16.410	1863.020	-7.320	-16.240
98.	3416.890	-1.860	10.180	2146.635	14.410	-16.160	1855.424	-5.130	-15.820
99.	3414.666	-2.050	9.990	2156.635	14.860	-15.870	1847.731	-2.650	-15.690

111-PLANE BISMUTH GERMANIUM OXIDE (SLOBODNIK AND SETHARES) BULK

	LNGVEL	LPM12	LPM13	FSRVEL	FSPM12	FSPM13	SSRVEL	SSPM12	SSPM13
100.	3414.666	-2.210	9.770	2166.557	15.100	-15.530	1647.731	-13.440	1647.731
101.	3412.266	-2.950	9.540	2176.824	15.180	-15.140	1640.041	-13.410	1640.041
102.	3409.779	-2.470	9.270	2187.144	15.120	-14.710	1632.438	-13.260	1632.438
103.	3407.165	-2.560	8.980	2197.820	14.930	-14.240	1624.992	-12.990	1624.992
104.	3404.471	-2.620	8.660	2207.565	14.620	-13.720	1617.761	-12.630	1617.761
105.	3401.726	-2.660	8.310	2217.500	14.220	-13.150	1610.793	-12.160	1610.793
106.	3398.960	-2.670	7.930	2227.152	13.720	-12.540	1604.130	-11.660	1604.130
107.	3396.202	-2.650	7.530	2236.453	13.130	-11.860	1597.808	-11.140	1597.808
108.	3393.463	-2.600	7.090	2245.335	12.460	-11.170	1591.856	-10.430	1591.856
109.	3390.835	-2.520	6.630	2253.751	11.710	-10.430	1586.300	-9.740	1586.300
110.	3388.288	-2.410	6.130	2261.633	10.900	-9.640	1581.163	-8.990	1581.163
111.	3385.873	-2.270	5.610	2268.934	10.020	-8.810	1576.464	-8.210	1576.464
112.	3383.620	-2.100	5.070	2275.605	9.070	-7.940	1572.220	-7.390	1572.220
113.	3381.556	-1.900	4.490	2281.601	8.070	-7.030	1568.444	-6.540	1568.444
114.	3379.705	-1.660	3.900	2286.884	7.020	-6.090	1565.148	-5.660	1565.148
115.	3378.182	-1.440	3.280	2291.417	5.920	-5.130	1562.344	-4.780	1562.344
116.	3376.757	-1.170	2.650	2295.169	4.780	-4.130	1560.038	-3.830	1560.038
117.	3375.691	-0.900	2.000	2298.114	3.620	-3.120	1558.238	-2.860	1558.238
118.	3374.919	-0.600	1.340	2300.233	2.436	-2.090	1556.949	-1.930	1556.949
119.	3374.452	-0.300	0.670	2301.510	1.220	-1.050	1556.174	-0.970	1556.174
120.	3374.295	0.000	-0.000	2301.937	-0.000	0.000	1555.915	-0.000	1555.915
121.	3374.452	.300	-1.570	2301.510	-1.220	1.050	1556.174	0.970	1556.174
122.	3374.919	.600	-1.340	2300.233	-2.436	2.090	1556.949	1.930	1556.949
123.	3375.691	.900	-2.000	2298.114	-3.620	3.120	1558.238	2.860	1558.238
124.	3376.757	1.170	-2.650	2295.166	-4.780	4.130	1560.038	3.830	1560.038
125.	3378.182	1.440	-3.280	2291.416	-5.920	5.130	1562.344	4.780	1562.344
126.	3379.705	1.660	-3.900	2286.884	-7.020	6.090	1565.148	5.660	1565.148
127.	3381.556	1.900	-4.490	2281.601	-8.070	7.030	1568.444	6.540	1568.444
128.	3383.620	2.100	-5.070	2275.605	-9.070	7.940	1572.220	7.390	1572.220
129.	3385.873	2.270	-5.610	2268.934	-10.020	8.810	1576.464	8.210	1576.464
130.	3388.288	2.410	-6.130	2261.633	-10.900	9.640	1581.163	8.990	1581.163
131.	3390.835	2.520	-6.638	2253.751	-11.710	10.430	1586.300	9.740	1586.300
132.	3393.483	2.600	-7.090	2245.339	-12.466	11.170	1591.856	10.430	1591.856
133.	3396.282	2.650	-7.530	2236.453	-13.130	11.860	1597.808	11.070	1597.808
134.	3398.960	2.678	-7.930	2227.152	-13.720	12.540	1604.130	11.660	1604.130
135.	3401.726	2.660	-8.310	2217.500	-14.220	13.150	1610.793	12.160	1610.793
136.	3404.471	2.620	-8.660	2207.565	-14.620	13.720	1617.760	12.630	1617.760
137.	3407.165	2.560	-8.980	2197.820	-14.930	14.240	1624.992	12.990	1624.992
138.	3409.779	2.470	-9.270	2187.144	-15.120	14.710	1632.438	13.260	1632.438
139.	3412.266	2.350	-9.540	2176.824	-15.180	15.140	1640.041	13.410	1640.041
140.	3414.666	2.210	-9.770	2166.557	-15.100	15.530	1647.730	13.440	1647.730
141.	3416.890	2.050	-9.990	2156.453	-14.860	15.670	1655.824	13.510	1655.824
142.	3418.938	1.880	-10.100	2146.634	-14.410	15.160	1663.020	13.500	1663.020
143.	3420.792	1.660	-10.340	2137.245	-13.740	14.610	1670.397	13.470	1670.397
144.	3422.434	1.470	-10.480	2128.450	-12.800	14.020	1677.910	13.410	1677.910
145.	3423.868	1.240	-10.600	2120.437	-11.530	13.290	1683.847	13.300	1683.847
146.	3425.024	1.010	-10.700	2113.418	-9.910	12.500	1689.629	13.140	1689.629
147.	3425.949	.768	-10.770	2107.620	-7.910	11.660	1694.822	12.940	1694.822
148.	3426.615	.510	-10.830	2103.269	-5.530	10.780	1698.046	12.810	1698.046
149.	3427.018	.260	-10.860	2100.565	-2.850	10.000	1700.315	12.650	1700.315

111-PLANE BISMUTH GERMANIUM OXIDE (SLOBODNIK AND SETHARES)

BULK

	LMGVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
150.	3427.152	-0.000	-10.070	2099.647	0.000	17.110	1901.087	0.000	18.240
151.	3427.016	-1.260	-10.860	2100.565	2.056	17.100	1900.315	-2.650	18.210
152.	3426.615	-1.510	-10.830	2103.265	5.530	17.070	1896.048	-5.130	18.120
153.	3425.949	-1.760	-10.770	2107.620	7.910	17.000	1894.822	-7.320	17.980
154.	3425.024	-1.010	-10.700	2113.416	9.910	16.910	1893.625	-9.140	17.760
155.	3423.648	-1.240	-10.600	2120.437	11.530	16.790	1893.887	-10.580	17.540
156.	3422.434	-1.470	-10.480	2128.450	12.800	16.620	1893.997	-11.660	17.250
157.	3420.792	-1.680	-10.340	2137.245	13.740	16.410	1893.820	-12.470	16.920
158.	3418.936	-1.860	-10.180	2146.634	14.410	16.160	1893.264	-13.060	16.520
159.	3416.890	-2.050	-9.990	2156.453	14.860	15.870	1892.730	-13.310	16.140
160.	3414.666	-2.210	-9.770	2166.557	15.100	15.550	1892.041	-13.440	15.690
161.	3412.268	-2.350	-9.540	2176.824	15.160	15.140	1891.163	-13.410	15.280
162.	3409.779	-2.470	-9.270	2187.144	15.120	14.710	1890.092	-13.260	14.870
163.	3407.165	-2.560	-8.980	2197.420	14.930	14.240	1888.836	-12.990	14.410
164.	3404.471	-2.620	-8.660	2207.565	14.624	13.720	1887.397	-12.630	13.940
165.	3401.726	-2.660	-8.310	2217.500	14.220	13.150	1885.783	-12.180	13.460
166.	3398.960	-2.670	-7.930	2227.152	13.720	12.540	1884.030	-11.660	12.970
167.	3396.202	-2.650	-7.530	2236.453	13.130	11.880	1882.186	-11.070	12.450
168.	3393.463	-2.600	-7.090	2245.339	12.460	11.170	1880.286	-10.430	11.950
169.	3390.835	-2.520	-6.630	2253.751	11.710	10.430	1878.300	-9.740	11.470
170.	3388.266	-2.410	-6.130	2261.633	10.900	9.640	1876.263	-9.010	10.950
171.	3385.873	-2.270	-5.610	2269.934	10.020	8.810	1874.144	-8.210	10.360
172.	3383.620	-2.100	-5.070	2275.601	9.070	7.940	1872.000	-7.390	9.780
173.	3381.556	-1.900	-4.490	2281.601	8.070	7.030	1869.844	-6.540	9.180
174.	3379.709	-1.680	-3.900	2286.864	7.020	6.090	1867.648	-5.660	8.570
175.	3378.102	-1.440	-3.280	2291.416	5.920	5.130	1865.444	-4.750	7.940
176.	3376.757	-1.170	-2.650	2295.166	4.780	4.130	1863.263	-3.830	7.290
177.	3375.691	-900	-2.000	2298.114	3.620	3.120	1861.144	-2.880	6.640
178.	3374.919	-680	-1.340	2300.233	2.430	2.090	1859.049	-1.930	5.990
179.	3374.452	-500	-0.670	2301.510	1.220	1.050	1856.974	-0.970	5.370
180.	3374.295	0.000	0.000	2301.937	-0.000	-0.000	1855.915	0.000	-0.000

110-PLANE BISMUTH GERMANIUM OXIDE (SLOBODNIK AND SETHARES)										
BULK										
	LPHI12	LPMI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13		
0.	-0.000	-0.000	2111.051	-14.970	0.000	2111.044	14.970	-0.000		
1.	0.500	-0.000	2101.120	-15.270	-0.000	2120.402	13.650	0.000		
2.	1.040	-0.000	2091.031	-15.560	-0.000	2129.050	12.310	0.000		
3.	1.610	-0.000	2080.794	-15.846	-0.000	2136.603	10.650	0.000		
4.	2.220	0.000	2070.420	-16.110	-0.000	2143.321	9.290	0.000		
5.	3.050	0.000	2059.920	-16.370	-0.000	2148.907	7.660	-0.000		
6.	4.170	-0.000	2049.304	-16.610	-0.000	2153.393	5.560	0.000		
7.	5.520	-0.000	2038.583	-16.840	-0.000	2156.740	4.200	0.000		
8.	7.090	-0.000	2027.770	-17.050	-0.000	2158.912	2.400	-0.000		
9.	8.880	-0.000	2016.875	-17.250	-0.000	2159.888	0.560	0.000		
10.	10.890	-0.000	2005.912	-17.430	-0.000	2159.651	-1.290	0.000		
11.	13.020	-0.000	1994.892	-17.600	-0.000	2158.196	-3.140	0.000		
12.	15.270	-0.000	1983.827	-17.750	-0.000	2155.527	-4.970	0.000		
13.	17.640	-0.000	1972.732	-17.886	-0.000	2151.655	-6.760	0.000		
14.	20.130	-0.000	1961.616	-17.990	-0.000	2146.602	-8.550	0.000		
15.	22.740	-0.000	1950.500	-18.086	-0.000	2140.396	-10.270	0.000		
16.	25.470	-0.000	1939.390	-18.160	-0.000	2133.075	-11.930	0.000		
17.	28.320	-0.000	1928.303	-18.210	0.000	2124.680	-13.520	0.000		
18.	31.290	-0.000	1917.252	-18.240	-0.000	2115.260	-15.030	0.000		
19.	34.380	-0.000	1906.252	-18.250	-0.000	2104.869	-16.470	0.000		
20.	37.590	-0.000	1895.316	-18.230	-0.000	2093.564	-17.810	0.000		
21.	40.920	-0.000	1884.463	-18.190	-0.000	2081.408	-19.070	0.000		
22.	44.370	-0.000	1873.703	-18.130	-0.000	2068.465	-20.240	0.000		
23.	47.940	-0.000	1863.052	-18.040	0.000	2054.801	-21.330	0.000		
24.	51.630	-0.000	1852.526	-17.930	0.000	2040.487	-22.310	0.000		
25.	55.440	-0.000	1842.139	-17.780	-0.000	2025.591	-23.210	0.000		
26.	59.370	-0.000	1831.906	-17.610	-0.000	2010.188	-24.020	0.000		
27.	63.420	-0.000	1821.843	-17.410	-0.000	1994.340	-24.730	0.000		
28.	67.590	-0.000	1811.966	-17.180	-0.000	1978.146	-25.350	0.000		
29.	71.880	-0.000	1802.288	-16.930	-0.000	1961.655	-25.890	0.000		
30.	76.290	-0.000	1792.825	-16.640	-0.000	1944.951	-26.310	0.000		
31.	80.820	-0.000	1783.593	-16.320	-0.000	1928.106	-26.650	0.000		
32.	85.470	-0.000	1774.606	-15.960	-0.000	1911.201	-26.890	0.000		
33.	90.240	-0.000	1765.879	-15.580	-0.000	1894.306	-27.030	0.000		
34.	95.130	-0.000	1757.426	-15.160	-0.000	1877.496	-27.060	0.000		
35.	100.140	-0.000	1749.262	-14.710	-0.000	1860.848	-26.990	0.000		
36.	105.270	-0.000	1741.402	-14.220	-0.000	1844.434	-26.810	0.000		
37.	110.520	-0.000	1733.856	-13.710	0.000	1828.330	-26.520	0.000		
38.	115.890	-0.000	1726.644	-13.160	-0.000	1812.608	-26.110	0.000		
39.	121.380	-0.000	1719.773	-12.570	-0.000	1797.340	-25.560	0.000		
40.	127.000	-0.000	1713.258	-11.960	-0.000	1782.596	-24.920	0.000		
41.	132.740	-0.000	1707.110	-11.310	-0.000	1768.450	-24.130	0.000		
42.	138.610	-0.000	1701.342	-10.630	-0.000	1754.965	-23.210	0.000		
43.	144.610	-0.000	1695.964	-9.930	-0.000	1742.208	-22.140	0.000		
44.	150.740	-0.000	1690.967	-9.190	0.000	1730.241	-20.930	0.000		
45.	157.000	-0.000	1686.419	-8.420	-0.000	1719.124	-19.560	0.000		
46.	163.390	-0.000	1682.271	-7.640	-0.000	1708.814	-18.060	0.000		
47.	169.910	-0.000	1678.550	-6.820	-0.000	1699.663	-16.440	0.000		
48.	176.560	-0.000	1675.264	-5.990	-0.000	1691.420	-14.660	0.000		
49.	183.340	-0.000	1672.416	-5.130	-0.000	1684.228	-12.750	0.000		

110-PLANE BISMUTH GERMANIUM OXIDE (SLORONIK AND SETHARES)

BULK

	LNVEL	LPMI2	LPMI3	FSRVEL	FSPMI2	FSPMI3	SSRVEL	SSPMI2	SSPMI3
50.	3722.809	2.650	-0.000	1670.820	-4.250	0.000	1676.125	-10.720	0.000
51.	3725.576	2.090	-0.000	1668.073	-3.360	-0.000	1673.155	-0.550	0.000
52.	3727.633	1.530	-0.000	1666.563	-2.440	-0.000	1669.314	-6.360	0.000
53.	3729.056	.970	-0.000	1665.550	-1.560	-0.000	1666.693	-4.070	0.000
54.	3729.846	.410	-0.000	1664.979	-.670	-0.000	1664.178	-1.730	0.000
55.	3729.997	-.150	-0.000	1664.896	-.220	0.000	1664.878	-.240	0.000
56.	3729.509	-.710	-0.000	1665.223	1.150	0.000	1665.809	2.970	0.000
57.	3729.305	-1.270	-0.000	1666.036	2.060	0.000	1667.911	5.920	0.000
58.	3726.625	-1.830	-0.000	1667.313	2.960	0.000	1671.192	7.550	0.000
59.	3724.235	-2.390	-0.000	1669.045	3.850	0.000	1675.633	9.730	0.000
60.	3721.219	-2.960	-0.000	1671.230	4.730	0.000	1681.210	11.810	0.000
61.	3717.582	-3.480	-0.000	1673.885	5.590	0.000	1687.892	13.780	0.000
62.	3713.334	-4.020	-0.000	1676.944	6.430	0.000	1695.844	15.620	0.000
63.	3708.483	-4.550	-0.000	1680.461	7.250	0.000	1704.425	17.330	0.000
64.	3703.041	-5.070	-0.000	1684.409	8.060	0.000	1714.189	18.690	0.000
65.	3697.016	-5.580	-0.000	1688.779	8.830	0.000	1724.884	20.310	0.000
66.	3690.428	-6.090	-0.000	1693.564	9.580	0.000	1736.457	21.590	0.000
67.	3683.267	-6.580	-0.000	1698.755	10.300	0.000	1748.069	22.720	0.000
68.	3675.610	-7.050	-0.000	1704.340	10.990	0.000	1761.999	23.710	0.000
69.	3667.417	-7.520	-0.000	1710.310	11.660	0.000	1775.642	24.570	0.000
70.	3658.726	-7.960	-0.000	1716.653	12.290	0.000	1790.312	25.290	0.000
71.	3649.560	-8.390	-0.000	1723.357	12.890	0.000	1805.340	25.660	0.000
72.	3639.941	-8.800	-0.000	1730.441	13.460	0.000	1821.657	26.340	0.000
73.	3629.695	-9.190	-0.000	1737.800	13.990	0.000	1838.790	26.890	0.000
74.	3619.446	-9.560	-0.000	1745.513	14.480	0.000	1853.867	27.320	0.000
75.	3608.628	-9.900	-0.000	1753.536	14.950	0.000	1868.613	27.040	0.000
76.	3597.467	-10.220	-0.000	1761.854	15.380	0.000	1883.956	27.060	0.000
77.	3585.996	-10.510	-0.000	1770.453	15.790	0.000	1903.221	26.970	0.000
78.	3574.251	-10.770	-0.000	1779.320	16.160	0.000	1920.132	26.770	0.000
79.	3562.268	-11.000	-0.000	1788.438	16.490	0.000	1937.014	26.460	0.000
80.	3550.085	-11.200	-0.000	1797.794	16.790	0.000	1953.793	26.100	0.000
81.	3537.744	-11.360	-0.000	1807.372	17.070	0.000	1970.394	25.610	0.000
82.	3525.286	-11.480	-0.000	1817.157	17.310	0.000	1986.741	25.040	0.000
83.	3512.756	-11.570	-0.000	1827.135	17.520	0.000	2002.761	24.370	0.000
84.	3500.202	-11.610	-0.000	1837.229	17.710	0.000	2018.360	23.600	0.000
85.	3487.671	-11.610	-0.000	1847.605	17.860	0.000	2033.524	22.750	0.000
86.	3475.214	-11.560	-0.000	1858.057	17.990	0.000	2048.101	21.800	0.000
87.	3462.861	-11.460	-0.000	1868.661	18.090	0.000	2062.102	20.770	0.000
88.	3450.725	-11.310	0.000	1879.372	18.170	0.000	2075.393	19.640	0.000
89.	3438.799	-11.120	0.000	1890.144	18.220	0.000	2087.929	18.420	0.000
90.	3427.156	-10.870	0.000	1901.082	18.250	0.000	2099.643	17.110	0.000
91.	3415.850	-10.570	0.000	1912.083	18.250	0.000	2110.473	15.720	0.000
92.	3404.932	-10.210	0.000	1923.041	18.230	0.000	2120.358	14.420	0.000
93.	3394.452	-9.810	0.000	1934.153	18.160	0.000	2129.243	12.690	0.000
94.	3384.459	-9.360	0.000	1945.254	18.120	0.000	2137.077	11.060	0.000
95.	3374.998	-8.860	0.000	1956.370	18.040	0.000	2145.614	9.370	0.000
96.	3366.110	-8.320	0.000	1967.488	17.930	0.000	2149.416	7.620	0.000
97.	3357.831	-7.740	0.000	1978.593	17.810	0.000	2153.446	5.830	0.000
98.	3350.191	-7.130	0.000	1989.674	17.670	0.000	2157.067	4.010	0.000
99.	3343.216	-6.490	-0.000	2000.717	17.510	0.000	2159.116	2.160	-0.000

110-PLANE BISMUTH GERMANIUM OXIDE (SLOBODNIK AND SETHARES) BULK										
	LMVEL	LPMI12	LPMI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13	
100.	3336.923	-5.630	0.000	2011.708	17.340	0.000	2154.928	-1.310	-0.000	-0.000
101.	3331.323	-4.160	0.000	2822.637	17.150	0.000	2159.523	-1.330	-0.000	-0.000
102.	3326.419	-4.490	0.000	2033.490	16.940	0.000	2155.117	-3.350	-0.000	-0.000
103.	3322.209	-3.620	0.000	2944.256	16.720	0.000	2151.164	-5.130	-0.000	-0.000
104.	3318.680	-3.150	0.000	2854.923	16.480	0.000	2146.091	-6.860	-0.000	-0.000
105.	3315.617	-2.510	0.000	2865.479	16.240	0.000	2139.944	-8.530	-0.000	-0.000
106.	3313.595	-1.990	0.000	2075.914	15.970	0.000	2132.773	-10.120	-0.000	-0.000
107.	3311.985	-1.590	0.000	2886.217	15.700	0.000	2124.638	-11.630	-0.000	-0.000
108.	3310.953	-1.250	0.000	2096.377	15.410	0.000	2115.602	-13.850	-0.000	-0.000
109.	3310.464	-0.920	0.000	2106.384	15.110	0.000	2105.733	-14.380	-0.000	-0.000
110.	3310.476	-0.650	0.000	2116.228	14.800	0.000	2095.102	-15.600	-0.000	-0.000
111.	3310.947	-0.400	0.000	2125.900	14.460	0.000	2083.783	-16.720	-0.000	-0.000
112.	3311.835	1.070	0.000	2135.390	14.150	0.000	2071.851	-17.750	-0.000	-0.000
113.	3313.895	1.820	0.000	2144.688	13.810	0.000	2059.382	-18.660	-0.000	-0.000
114.	3314.885	1.820	0.000	2153.787	13.460	0.000	2046.453	-19.460	-0.000	-0.000
115.	3316.562	1.990	0.000	2162.676	13.100	0.000	2033.140	-20.190	-0.000	-0.000
116.	3318.684	2.210	0.000	2171.352	12.730	0.000	2019.518	-21.310	-0.000	-0.000
117.	3321.813	2.390	0.000	2179.882	12.360	0.000	2005.662	-22.040	-0.000	-0.000
118.	3323.510	2.560	0.000	2188.020	11.970	0.000	1991.844	-22.840	-0.000	-0.000
119.	3326.140	2.650	0.000	2195.959	11.580	0.000	1977.535	-22.270	-0.000	-0.000
120.	3328.870	2.730	0.000	2203.731	11.190	0.000	1963.405	-22.390	-0.000	-0.000
121.	3331.670	2.780	0.000	2211.210	10.780	0.000	1949.319	-22.430	-0.000	-0.000
122.	3334.510	2.810	0.000	2218.425	10.370	0.000	1935.344	-22.370	-0.000	-0.000
123.	3337.365	2.810	0.000	2225.382	9.960	0.000	1921.541	-22.210	-0.000	-0.000
124.	3340.211	2.760	0.000	2232.063	9.530	0.000	1907.971	-21.970	-0.000	-0.000
125.	3343.026	2.740	0.000	2238.467	9.110	0.000	1894.691	-21.630	-0.000	-0.000
126.	3345.792	2.680	0.000	2244.587	8.680	0.000	1881.758	-21.210	-0.000	-0.000
127.	3348.490	2.610	0.000	2250.420	8.240	0.000	1869.223	-20.680	-0.000	-0.000
128.	3351.105	2.510	0.000	2255.960	7.800	0.000	1857.139	-20.070	-0.000	-0.000
129.	3353.623	2.410	0.000	2261.202	7.350	0.000	1845.522	-19.370	-0.000	-0.000
130.	3356.033	2.300	0.000	2266.142	6.900	0.000	1834.589	-18.570	-0.000	-0.000
131.	3358.322	2.180	0.000	2270.777	6.450	0.000	1824.052	-17.600	-0.000	-0.000
132.	3360.482	2.040	0.000	2275.101	5.990	0.000	1814.221	-16.710	-0.000	-0.000
133.	3362.505	1.900	0.000	2279.113	5.530	0.000	1805.055	-15.640	-0.000	-0.000
134.	3364.383	1.760	0.000	2282.809	5.070	0.000	1796.588	-14.500	-0.000	-0.000
135.	3366.111	1.610	0.000	2286.185	4.610	0.000	1788.852	-13.260	-0.000	-0.000
136.	3367.683	1.450	0.000	2289.239	4.140	0.000	1781.877	-11.960	-0.000	-0.000
137.	3369.094	1.300	0.000	2291.969	3.670	0.000	1775.688	-10.580	-0.000	-0.000
138.	3370.342	1.130	0.000	2294.372	3.200	0.000	1770.309	-9.130	-0.000	-0.000
139.	3371.622	0.970	0.000	2296.447	2.730	0.000	1765.768	-7.630	-0.000	-0.000
140.	3372.333	0.800	0.000	2298.192	2.250	0.000	1762.058	-6.080	-0.000	-0.000
141.	3373.073	0.640	0.000	2299.605	1.780	0.000	1759.216	-4.460	-0.000	-0.000
142.	3373.839	0.470	0.000	2300.686	1.300	0.000	1757.246	-2.860	-0.000	-0.000
143.	3374.631	0.300	0.000	2301.433	0.830	0.000	1756.155	-1.220	-0.000	-0.000
144.	3374.848	0.130	0.000	2301.846	0.350	0.000	1755.946	0.440	-0.000	-0.000
145.	3374.289	-0.050	0.000	2301.925	-0.130	0.000	1756.621	2.890	-0.000	-0.000
146.	3374.155	-0.220	0.000	2301.670	-0.600	0.000	1756.177	3.720	-0.000	-0.000
147.	3373.846	-0.390	0.000	2301.880	-1.080	0.000	1760.600	5.330	-0.000	-0.000
148.	3373.362	-0.560	0.000	2301.157	-1.560	0.000	1763.986	6.900	-0.000	-0.000
149.	3372.784	-0.720	0.000	2298.900	-2.030	0.000				

110-PLANE BISMUTH GERMANIUM OXIDE (SLOBODNIK AND SETHARES) BULK

	LHGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
150.	3371.873	-0.690	0.000	2297.312	-2.590	-0.000	1766.057	8.430	0.000
151.	3370.873	-1.060	0.000	2295.393	-2.560	-0.000	1773.047	9.500	0.000
152.	3369.784	-1.220	0.000	2293.144	-3.450	0.000	1776.856	11.310	0.000
153.	3368.369	-1.360	0.000	2290.568	-3.920	-0.000	1782.464	12.660	0.000
154.	3366.872	-1.540	0.000	2287.667	-4.390	0.000	1782.844	13.920	0.000
155.	3365.218	-1.690	0.000	2284.442	-4.650	0.000	1800.970	15.110	0.000
156.	3363.410	-1.840	0.000	2280.897	-5.320	-0.000	1809.610	16.220	0.000
157.	3361.455	-1.960	0.000	2277.034	-5.760	0.000	1819.331	17.230	0.000
158.	3359.358	-2.110	0.000	2272.857	-6.230	0.000	1829.497	18.160	0.000
159.	3357.125	-2.240	0.000	2268.368	-6.650	0.000	1840.264	19.000	0.000
160.	3354.775	-2.360	0.000	2263.571	-7.140	0.000	1851.685	19.750	0.000
161.	3352.387	-2.470	0.000	2258.471	-7.590	-0.000	1863.460	20.410	0.000
162.	3349.736	-2.560	0.000	2253.072	-8.030	0.000	1875.789	20.970	0.000
163.	3347.075	-2.650	0.000	2247.377	-8.470	0.000	1888.540	21.440	0.000
164.	3344.339	-2.710	0.000	2241.391	-8.900	0.000	1901.663	21.820	0.000
165.	3341.545	-2.770	0.000	2235.121	-9.330	0.000	1915.103	22.110	0.000
166.	3338.711	-2.800	0.000	2228.570	-9.760	-0.000	1928.804	22.310	0.000
167.	3335.857	-2.810	0.000	2221.744	-10.180	0.000	1942.705	22.410	0.000
168.	3333.087	-2.800	0.000	2214.650	-10.590	0.000	1956.747	22.420	0.000
169.	3330.165	-2.760	0.000	2207.293	-11.000	0.000	1970.864	22.340	0.000
170.	3327.416	-2.690	0.000	2199.679	-11.400	0.000	1984.992	22.160	0.000
171.	3324.737	-2.590	0.000	2191.816	-11.790	0.000	1999.062	21.690	0.000
172.	3322.173	-2.460	0.000	2183.711	-12.160	0.000	2013.003	21.520	0.000
173.	3319.760	-2.300	0.000	2175.369	-12.560	0.000	2026.745	21.050	0.000
174.	3317.535	-2.090	0.000	2166.800	-12.930	0.000	2040.213	20.490	0.000
175.	3315.538	-1.850	0.000	2158.010	-13.290	-0.000	2053.332	19.630	0.000
176.	3313.807	-1.570	0.000	2149.009	-13.640	0.000	2066.026	19.060	0.000
177.	3312.386	-1.240	0.000	2139.803	-13.990	0.000	2078.223	18.190	0.000
178.	3311.317	-0.870	0.000	2130.682	-14.330	0.000	2089.641	17.220	0.000
179.	3310.643	-0.460	0.000	2120.815	-14.650	-0.000	2100.886	16.140	0.000
180.	3310.409	-0.000	0.000	2111.051	-14.970	-0.000	2111.044	14.970	0.000

	Z-PLANE (XY-PLANE) BISMUTH GERMANIUM OXIDE (KRAUT ET AL)										BULK	
	LMVEL	LPMI12	LPMI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13			
0.	3737.066	0.000	0.000	1665.507	0.000	0.000	1665.507	0.000	0.000	0.000	0.000	
1.	3736.600	-0.570	0.000	1665.621	0.450	0.000	1666.239	2.660	0.000	0.000	0.000	
2.	3735.702	-1.150	0.000	1665.963	0.000	0.000	1668.430	5.720	0.000	0.000	0.000	
3.	3734.074	-1.720	0.000	1666.532	1.340	0.000	1672.071	8.590	0.000	0.000	0.000	
4.	3731.799	-2.260	0.000	1667.324	1.780	0.000	1677.193	11.170	0.000	0.000	0.000	
5.	3728.880	-2.850	0.000	1668.334	2.200	0.000	1683.623	13.720	0.000	0.000	0.000	
6.	3725.323	-3.410	0.000	1669.599	2.610	0.000	1691.478	16.120	0.000	0.000	0.000	
7.	3721.135	-3.970	0.000	1670.990	3.010	0.000	1700.673	18.360	0.000	0.000	0.000	
8.	3716.322	-4.510	0.000	1672.621	3.390	0.000	1711.163	20.430	0.000	0.000	0.000	
9.	3710.895	-5.060	0.000	1674.444	3.750	0.000	1722.991	22.320	0.000	0.000	0.000	
10.	3704.863	-5.590	0.000	1676.446	4.090	0.000	1735.834	24.040	0.000	0.000	0.000	
11.	3698.230	-6.120	0.000	1678.624	4.410	0.000	1749.904	25.560	0.000	0.000	0.000	
12.	3691.034	-6.630	0.000	1680.960	4.700	0.000	1765.049	26.950	0.000	0.000	0.000	
13.	3683.265	-7.130	0.000	1683.444	4.970	0.000	1781.204	28.150	0.000	0.000	0.000	
14.	3674.948	-7.620	0.000	1686.063	5.210	0.000	1798.301	29.200	0.000	0.000	0.000	
15.	3666.101	-8.100	0.000	1688.805	5.420	0.000	1816.266	30.100	0.000	0.000	0.000	
16.	3656.746	-8.560	0.000	1691.694	5.610	0.000	1835.032	30.860	0.000	0.000	0.000	
17.	3646.903	-9.000	0.000	1694.797	5.760	0.000	1854.516	31.480	0.000	0.000	0.000	
18.	3636.598	-9.420	0.000	1697.619	5.890	0.000	1874.643	31.970	0.000	0.000	0.000	
19.	3625.850	-9.810	0.000	1700.705	5.990	0.000	1895.333	32.340	0.000	0.000	0.000	
20.	3614.712	-10.150	0.000	1703.640	6.050	0.000	1916.503	32.590	0.000	0.000	0.000	
21.	3603.194	-10.530	0.000	1707.007	6.090	0.000	1938.071	32.730	0.000	0.000	0.000	
22.	3591.339	-10.850	0.000	1710.132	6.100	0.000	1959.952	32.760	0.000	0.000	0.000	
23.	3579.186	-11.130	0.000	1713.376	6.070	0.000	1982.056	32.660	0.000	0.000	0.000	
24.	3566.776	-11.370	0.000	1716.551	6.020	0.000	2004.302	32.500	0.000	0.000	0.000	
25.	3554.161	-11.570	0.000	1719.695	5.940	0.000	2026.591	32.210	0.000	0.000	0.000	
26.	3541.366	-11.730	0.000	1722.795	5.830	0.000	2048.832	31.820	0.000	0.000	0.000	
27.	3528.509	-11.840	0.000	1725.815	5.700	0.000	2070.931	31.320	0.000	0.000	0.000	
28.	3515.590	-11.890	0.000	1728.803	5.540	0.000	2092.768	30.720	0.000	0.000	0.000	
29.	3502.693	-11.880	0.000	1731.683	5.350	0.000	2114.301	30.000	0.000	0.000	0.000	
30.	3489.691	-11.800	0.000	1734.462	5.140	0.000	2135.366	29.170	0.000	0.000	0.000	
31.	3477.259	-11.660	0.000	1737.127	4.910	0.000	2155.075	28.220	0.000	0.000	0.000	
32.	3464.800	-11.430	0.000	1739.665	4.650	0.000	2175.716	27.140	0.000	0.000	0.000	
33.	3452.839	-11.120	0.000	1742.066	4.300	0.000	2196.774	25.530	0.000	0.000	0.000	
34.	3441.230	-10.710	0.000	1744.337	4.080	0.000	2212.332	24.260	0.000	0.000	0.000	
35.	3430.149	-10.210	0.000	1746.406	3.770	0.000	2230.069	23.060	0.000	0.000	0.000	
36.	3419.697	-9.610	0.000	1748.330	3.440	0.000	2246.064	21.430	0.000	0.000	0.000	
37.	3409.976	-8.900	0.000	1750.073	3.100	0.000	2260.796	19.610	0.000	0.000	0.000	
38.	3401.006	-8.090	0.000	1751.631	2.740	0.000	2274.143	17.630	0.000	0.000	0.000	
39.	3393.136	-7.170	0.000	1752.996	2.370	0.000	2285.991	15.500	0.000	0.000	0.000	
40.	3386.216	-6.160	0.000	1754.161	1.990	0.000	2296.230	13.200	0.000	0.000	0.000	
41.	3380.416	-5.050	0.000	1755.122	1.600	0.000	2304.760	10.760	0.000	0.000	0.000	
42.	3375.816	-3.860	0.000	1755.873	1.210	0.000	2311.692	6.190	0.000	0.000	0.000	
43.	3372.481	-2.610	0.000	1756.413	.610	0.000	2316.355	5.520	0.000	0.000	0.000	
44.	3370.460	-1.320	0.000	1756.737	.400	0.000	2319.295	2.760	0.000	0.000	0.000	
45.	3369.783	0.000	0.000	1756.846	0.000	0.000	2320.279	0.000	0.000	0.000	0.000	
46.	3370.460	1.320	0.000	1756.737	-.400	0.000	2315.295	-2.760	0.000	0.000	0.000	
47.	3372.481	2.610	0.000	1756.413	-.810	0.000	2316.355	-5.520	0.000	0.000	0.000	
48.	3375.816	3.860	0.000	1755.873	-1.210	0.000	2311.692	-8.190	0.000	0.000	0.000	
49.	3380.416	5.050	0.000	1755.122	-1.600	0.000	2304.760	-10.760	0.000	0.000	0.000	

Z-PLANE (XY-PLANE) BISMUTH GERMANIUM OXIDE (KRAUT ET AL) BULK

	LNVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
50.	3866.216	6.160	0.000	1754.161	-1.990	0.000	2296.230	-13.200	0.000
51.	3993.136	7.170	0.000	1752.996	-2.370	0.000	2265.991	-15.500	0.000
52.	3801.086	8.090	0.000	1751.631	-2.740	0.000	2274.143	-17.630	0.000
53.	3489.976	8.900	0.000	1750.073	-3.100	0.000	2260.746	-19.610	0.000
54.	3419.697	9.610	0.000	1748.330	-3.440	0.000	2246.064	-21.430	0.000
55.	3438.149	10.210	0.000	1746.406	-3.770	0.000	2230.069	-23.060	0.000
56.	3441.230	10.710	0.000	1744.317	-4.080	0.000	2212.932	-24.560	0.000
57.	3452.839	11.120	0.000	1742.066	-4.380	0.000	2194.774	-25.930	0.000
58.	3464.880	11.430	0.000	1739.665	-4.650	0.000	2175.716	-27.140	0.000
59.	3477.254	11.660	0.000	1737.127	-4.910	0.000	2155.875	-28.220	0.000
60.	3489.891	11.800	0.000	1734.462	-5.140	0.000	2135.366	-29.170	0.000
61.	3502.693	11.860	0.000	1731.683	-5.350	0.000	2114.301	-30.000	0.000
62.	3515.590	11.850	0.000	1728.803	-5.540	0.000	2092.786	-30.720	0.000
63.	3528.509	11.840	0.000	1725.835	-5.700	0.000	2070.931	-31.320	0.000
64.	3541.386	11.730	0.000	1722.795	-5.830	0.000	2048.632	-31.820	0.000
65.	3554.161	11.570	0.000	1719.694	-5.940	0.000	2026.591	-32.210	0.000
66.	3566.778	11.370	0.000	1716.551	-6.020	0.000	2004.302	-32.500	0.000
67.	3579.186	11.130	0.000	1713.376	-6.070	0.000	1982.896	-32.660	0.000
68.	3591.339	10.850	0.000	1710.192	-6.100	0.000	1959.952	-32.760	0.000
69.	3603.194	10.530	0.000	1707.007	-6.190	0.000	1936.071	-32.730	0.000
70.	3614.712	10.190	0.000	1703.840	-6.250	0.000	1916.503	-32.590	0.000
71.	3625.858	9.810	0.000	1700.705	-6.300	0.000	1895.333	-32.340	0.000
72.	3636.598	9.420	0.000	1697.619	-6.390	0.000	1874.643	-31.970	0.000
73.	3646.903	9.000	0.000	1694.597	-6.460	0.000	1854.516	-31.400	0.000
74.	3656.746	8.560	0.000	1691.654	-6.510	0.000	1835.032	-30.860	0.000
75.	3666.181	8.100	0.000	1688.805	-6.540	0.000	1816.268	-30.100	0.000
76.	3674.946	7.620	0.000	1686.063	-6.520	0.000	1798.301	-29.200	0.000
77.	3683.265	7.130	0.000	1683.444	-6.470	0.000	1781.204	-28.120	0.000
78.	3691.034	6.630	0.000	1680.960	-6.400	0.000	1765.049	-26.450	0.000
79.	3698.238	6.120	0.000	1678.624	-6.410	0.000	1749.984	-25.580	0.000
80.	3704.863	5.590	0.000	1676.448	-6.400	0.000	1735.834	-24.040	0.000
81.	3710.895	5.060	0.000	1674.444	-6.370	0.000	1722.501	-22.320	0.000
82.	3716.322	4.510	0.000	1672.621	-6.330	0.000	1711.163	-20.430	0.000
83.	3721.135	3.970	0.000	1670.990	-6.300	0.000	1700.673	-18.360	0.000
84.	3725.323	3.410	0.000	1669.559	-6.260	0.000	1691.474	-16.120	0.000
85.	3729.880	2.850	0.000	1668.334	-6.200	0.000	1683.623	-13.720	0.000
86.	3733.799	2.260	0.000	1667.324	-6.170	0.000	1677.143	-11.170	0.000
87.	3734.874	1.720	0.000	1666.532	-6.1340	0.000	1672.071	-8.500	0.000
88.	3735.702	1.150	0.000	1665.963	-6.090	0.000	1666.430	-5.720	0.000
89.	3736.680	0.570	0.000	1665.621	-6.050	0.000	1666.239	-2.680	0.000
90.	3737.806	-0.000	0.000	1665.507	0.000	0.000	1665.967	0.000	0.000
91.	3738.680	-0.570	0.000	1665.621	0.450	0.000	1666.239	2.680	0.000
92.	3739.702	-1.150	0.000	1665.963	0.900	0.000	1666.430	5.720	0.000
93.	3734.874	-1.720	0.000	1666.532	1.340	0.000	1672.071	8.500	0.000
94.	3731.799	-2.260	0.000	1667.324	1.780	0.000	1677.143	11.170	0.000
95.	3728.880	-2.650	0.000	1668.334	2.200	0.000	1683.623	13.720	0.000
96.	3725.323	-3.410	0.000	1669.559	2.610	0.000	1691.474	16.120	0.000
97.	3721.135	-3.970	0.000	1670.990	3.010	0.000	1700.673	18.360	0.000
98.	3716.322	-4.510	0.000	1672.621	3.390	0.000	1711.163	20.430	0.000
99.	3710.895	-5.060	0.000	1674.444	3.750	0.000	1722.501	22.320	0.000

Z-PLANE (XY-PLANE) BISMUTH GERMANIUM OXIDE (KKAUT ET AL)

BULK

	LMVEL	LPMI12	LPMI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
100.	3784.863	-5.590	0.000	1676.448	4.090	0.000	1735.834	24.040	0.000
101.	3698.236	-6.120	0.000	1678.624	4.410	0.000	1749.904	25.580	0.000
102.	3693.034	-6.630	0.000	1680.960	4.700	0.000	1765.054	26.950	0.000
103.	3683.265	-7.130	0.000	1683.444	4.970	0.000	1781.284	28.150	0.000
104.	3674.946	-7.620	0.000	1686.063	5.210	0.000	1798.301	29.200	0.000
105.	3666.101	-8.100	0.000	1688.805	5.420	0.000	1816.268	30.100	0.000
106.	3656.746	-8.560	0.000	1691.654	5.610	0.000	1835.032	30.860	0.000
107.	3646.903	-9.000	0.000	1694.597	5.760	0.000	1854.516	31.400	0.000
108.	3636.598	-9.420	0.000	1697.615	5.890	0.000	1874.643	31.970	0.000
109.	3625.858	-9.810	0.000	1700.705	5.990	0.000	1895.333	32.340	0.000
110.	3614.712	-10.190	0.000	1703.840	6.050	0.000	1916.593	32.590	0.000
111.	3603.194	-10.530	0.000	1707.007	6.090	0.000	1938.071	32.730	0.000
112.	3591.339	-10.850	0.000	1710.192	6.100	0.000	1959.952	32.760	0.000
113.	3579.106	-11.130	0.000	1713.378	6.070	0.000	1982.058	32.680	0.000
114.	3566.776	-11.370	0.000	1716.551	6.020	0.000	2004.302	32.500	0.000
115.	3554.161	-11.570	0.000	1719.695	5.940	0.000	2026.591	32.210	0.000
116.	3541.386	-11.730	0.000	1722.795	5.830	0.000	2048.632	31.820	0.000
117.	3528.509	-11.840	0.000	1725.835	5.700	0.000	2070.931	31.320	0.000
118.	3515.590	-11.950	0.000	1728.803	5.540	0.000	2092.788	30.720	0.000
119.	3502.693	-12.000	0.000	1731.683	5.350	0.000	2114.301	30.000	0.000
120.	3489.891	-12.000	0.000	1734.462	5.140	0.000	2135.366	29.170	0.000
121.	3477.259	-12.000	0.000	1737.127	4.910	0.000	2155.675	28.220	0.000
122.	3464.800	-12.000	0.000	1739.665	4.650	0.000	2175.716	27.140	0.000
123.	3452.435	-12.120	0.000	1742.066	4.380	0.000	2194.774	25.930	0.000
124.	3441.230	-12.170	0.000	1744.317	4.080	0.000	2212.932	24.560	0.000
125.	3430.145	-12.210	0.000	1746.406	3.770	0.000	2230.069	23.060	0.000
126.	3419.697	-9.610	0.000	1748.330	3.440	0.000	2246.064	21.430	0.000
127.	3409.976	-8.900	0.000	1750.073	3.100	0.000	2260.796	19.610	0.000
128.	3401.088	-8.090	0.000	1751.631	2.740	0.000	2274.143	17.630	0.000
129.	3393.136	-7.170	0.000	1752.996	2.370	0.000	2285.231	15.500	0.000
130.	3386.216	-6.160	0.000	1754.161	1.990	0.000	2296.230	13.200	0.000
131.	3380.416	-5.050	0.000	1755.122	1.600	0.000	2304.760	10.760	0.000
132.	3375.816	-3.860	0.000	1755.873	1.210	0.000	2311.492	8.190	0.000
133.	3372.461	-2.610	0.000	1756.413	.810	0.000	2316.355	5.520	0.000
134.	3370.460	0.000	0.000	1756.737	.400	0.000	2319.295	2.760	0.000
135.	3369.783	0.000	0.000	1756.846	-0.000	0.000	2320.279	-0.000	0.000
136.	3370.460	1.320	0.000	1756.737	-4.000	0.000	2319.295	-2.760	0.000
137.	3372.461	2.610	0.000	1756.413	-8.010	0.000	2316.355	-5.520	0.000
138.	3375.816	3.860	0.000	1755.873	-12.210	0.000	2311.492	-8.190	0.000
139.	3380.416	5.050	0.000	1755.122	-16.600	0.000	2304.760	-10.760	0.000
140.	3386.216	6.160	0.000	1754.161	-19.990	0.000	2296.230	-13.200	0.000
141.	3393.136	7.170	0.000	1752.996	-23.370	0.000	2285.231	-15.500	0.000
142.	3401.088	8.090	0.000	1751.631	-26.740	0.000	2274.143	-17.630	0.000
143.	3409.976	8.900	0.000	1750.073	-30.100	0.000	2260.796	-19.610	0.000
144.	3419.697	9.610	0.000	1748.330	-33.440	0.000	2246.064	-21.430	0.000
145.	3430.145	10.210	0.000	1746.406	-36.770	0.000	2230.069	-23.060	0.000
146.	3441.230	10.710	0.000	1744.317	-40.080	0.000	2212.932	-24.560	0.000
147.	3452.435	11.120	0.000	1742.066	-43.380	0.000	2194.774	-25.930	0.000
148.	3464.800	11.430	0.000	1739.665	-46.650	0.000	2175.716	-27.140	0.000
149.	3477.259	11.660	0.000	1737.127	-49.910	0.000	2155.675	-28.220	0.000

	Z-PLANE (XY-PLANE) BISMUTH GERMANIUM OXIDE (KRAUT ET AL)										BULK	
	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13			
150.	3489.891	11.800	0.000	1734.462	-5.140	0.000	2335.366	-29.170	0.000			
151.	3502.693	11.880	0.000	1731.683	-5.350	0.000	2114.301	-30.000	0.000			
152.	3515.509	11.850	0.000	1728.803	-5.540	0.000	2092.788	-30.720	0.000			
153.	3528.509	11.640	0.000	1725.835	-5.780	0.000	2070.931	-31.320	0.000			
154.	3541.386	11.730	0.000	1722.795	-5.830	0.000	2048.832	-31.620	0.000			
155.	3554.161	11.570	0.000	1719.695	-5.940	0.000	2026.591	-32.210	0.000			
156.	3566.778	11.370	0.000	1716.551	-6.020	0.000	2004.302	-32.500	0.000			
157.	3579.186	11.130	0.000	1713.378	-6.070	0.000	1982.058	-32.600	0.000			
158.	3591.339	10.850	0.000	1710.192	-6.100	0.000	1959.952	-32.760	0.000			
159.	3603.194	10.530	0.000	1707.007	-6.090	0.000	1938.071	-32.730	0.000			
160.	3614.712	10.190	0.000	1703.840	-6.050	0.000	1916.503	-32.590	0.000			
161.	3625.858	9.810	0.000	1700.705	-5.990	0.000	1895.333	-32.340	0.000			
162.	3636.598	9.420	0.000	1697.619	-5.890	0.000	1874.643	-31.970	0.000			
163.	3646.903	9.000	0.000	1694.597	-5.760	0.000	1854.516	-31.460	0.000			
164.	3656.746	8.560	0.000	1691.654	-5.610	0.000	1835.032	-30.860	0.000			
165.	3666.101	8.100	0.000	1688.805	-5.420	0.000	1816.268	-30.100	0.000			
166.	3674.948	7.620	0.000	1686.063	-5.210	0.000	1798.301	-29.200	0.000			
167.	3683.265	7.130	0.000	1683.444	-4.970	0.000	1781.234	-26.150	0.000			
168.	3691.034	6.630	0.000	1680.960	-4.700	0.000	1765.045	-26.550	0.000			
169.	3698.236	6.120	0.000	1678.624	-4.410	0.000	1749.904	-25.580	0.000			
170.	3704.863	5.590	0.000	1676.448	-4.090	0.000	1735.834	-24.040	0.000			
171.	3710.895	5.060	0.000	1674.444	-3.750	0.000	1722.901	-22.320	0.000			
172.	3716.322	4.510	0.000	1672.621	-3.390	0.000	1711.163	-20.430	0.000			
173.	3721.135	3.970	0.000	1670.990	-3.010	0.000	1700.673	-18.360	0.000			
174.	3725.323	3.410	0.000	1669.559	-2.610	0.000	1691.478	-16.120	0.000			
175.	3728.880	2.850	0.000	1668.334	-2.200	0.000	1683.623	-13.720	0.000			
176.	3731.799	2.280	0.000	1667.324	-1.760	0.000	1677.143	-11.170	0.000			
177.	3734.074	1.720	0.000	1666.532	-1.340	0.000	1672.071	-8.500	0.000			
178.	3735.702	1.150	0.000	1665.963	-0.900	0.000	1668.430	-5.720	0.000			
179.	3736.680	.570	0.000	1665.621	-0.450	0.000	1666.239	-2.880	0.000			
180.	3737.006	-0.000	0.000	1665.507	0.000	0.000	1665.507	0.000	0.000			

111-PLANE BISMUTH GERMANIUM OXIDE (KRAUT ET AL)

BULK

	LNQUEL	LPWH12	LPWH13	FSRVEL	FSPWH12	FSPWH13	SSRVEL	SSPWH12	SSPWH13
0.	3369.783	0.000	0.000	2320.279	-0.000	0.000	1756.846	-0.000	0.000
1.	3369.946	.320	-7.710	2319.837	-1.250	1.060	1757.116	1.010	1.000
2.	3370.434	.630	-1.410	2318.514	-2.500	2.160	1757.926	3.010	2.400
3.	3371.240	.940	-2.110	2316.318	-3.720	3.230	1759.274	4.000	2.970
4.	3372.353	1.230	-2.790	2313.266	-4.920	4.240	1761.155	4.000	3.970
5.	3373.756	1.500	-3.460	2309.379	-6.080	5.300	1763.565	4.960	4.930
6.	3375.435	1.760	-4.100	2304.684	-7.210	6.300	1766.497	5.910	5.860
7.	3377.362	1.990	-4.730	2299.212	-8.290	7.270	1769.941	6.820	6.810
8.	3379.513	2.150	-5.330	2293.000	-9.320	8.210	1773.087	7.710	7.720
9.	3381.862	2.360	-5.900	2286.091	-10.290	9.100	1776.323	8.570	8.640
10.	3384.378	2.510	-6.440	2278.530	-11.200	9.960	1780.233	9.370	9.450
11.	3387.031	2.620	-6.960	2270.367	-12.030	10.770	1784.601	10.150	10.270
12.	3389.788	2.710	-7.440	2261.655	-12.680	11.540	1789.406	10.870	11.060
13.	3392.616	2.760	-7.890	2252.452	-13.490	12.260	1794.406	11.540	11.800
14.	3395.484	2.760	-8.310	2242.816	-14.090	12.930	1800.626	12.150	12.540
15.	3398.360	2.770	-8.700	2232.815	-14.610	13.560	1807.233	12.690	13.230
16.	3401.211	2.730	-9.060	2222.525	-15.030	14.150	1814.195	13.150	13.800
17.	3404.009	2.660	-9.400	2212.010	-15.350	14.680	1821.477	13.530	14.270
18.	3406.722	2.560	-9.700	2201.355	-15.560	15.170	1829.037	13.810	14.640
19.	3409.325	2.440	-9.970	2190.650	-15.630	15.610	1836.822	14.000	14.910
20.	3411.791	2.300	-10.220	2179.993	-15.560	16.000	1844.774	14.090	15.090
21.	3414.097	2.130	-10.440	2169.497	-15.320	16.350	1852.821	14.010	15.260
22.	3416.220	1.950	-10.630	2159.290	-15.060	16.660	1860.976	13.880	15.420
23.	3418.140	1.740	-10.800	2149.518	-14.660	16.910	1869.263	13.570	15.570
24.	3419.841	1.520	-10.950	2140.352	-14.210	17.130	1877.673	13.030	15.700
25.	3421.306	1.290	-11.070	2131.991	-13.750	17.300	1886.217	12.220	15.810
26.	3422.523	1.040	-11.170	2124.655	-13.190	17.440	1894.895	11.060	15.920
27.	3423.460	.790	-11.240	2118.566	-12.540	17.530	1903.731	9.560	16.000
28.	3424.170	.530	-11.300	2114.026	-11.770	17.600	1912.644	7.660	16.030
29.	3424.587	.270	-11.330	2111.189	-10.980	17.630	1921.673	5.400	16.040
30.	3424.726	0.000	-11.340	2110.225	-10.000	17.650	1930.845	2.790	16.030
31.	3424.587	-2.270	-11.330	2111.189	-0.000	17.630	1940.086	-0.000	16.060
32.	3424.170	-4.530	-11.300	2114.026	5.770	17.600	1950.473	-2.790	16.030
33.	3423.460	-6.790	-11.240	2118.566	8.240	17.530	1961.864	-5.400	16.000
34.	3422.523	-9.040	-11.170	2124.655	10.310	17.440	1974.311	-7.660	16.030
35.	3421.306	-11.290	-11.070	2131.991	11.970	17.300	1987.845	-9.560	16.020
36.	3419.841	-13.520	-10.950	2140.352	13.250	17.130	1993.573	-11.060	16.000
37.	3418.140	-15.740	-10.800	2149.518	14.210	16.910	1999.573	-12.220	16.030
38.	3416.220	-17.950	-10.630	2159.290	14.880	16.660	1996.845	-13.030	16.060
39.	3414.097	-20.130	-10.440	2169.497	15.320	16.350	1986.217	-13.570	16.030
40.	3411.791	-22.300	-10.220	2179.993	15.560	16.000	1969.895	-13.810	16.000
41.	3409.325	-24.440	-9.970	2190.650	15.630	15.610	1944.774	-14.010	16.030
42.	3406.722	-26.560	-9.700	2201.355	15.560	15.170	1919.822	-14.090	16.000
43.	3404.009	-28.660	-9.400	2212.010	15.350	14.680	1894.895	-13.880	15.950
44.	3401.212	-30.770	-9.060	2222.525	15.030	14.150	1870.233	-13.570	15.800
45.	3398.360	-32.770	-8.700	2232.815	14.610	13.560	1845.822	-13.150	15.640
46.	3395.485	-34.780	-8.310	2242.816	14.090	12.930	1821.477	-12.690	15.490
47.	3392.616	-36.760	-7.890	2252.452	13.490	12.260	1807.233	-12.150	15.340
48.	3389.788	-38.710	-7.440	2261.655	12.680	11.540	1794.406	-11.540	15.180
49.	3387.031	-40.620	-6.960	2270.367	12.030	10.770	1782.601	-10.870	15.030

111-PLANE BISMUTH GERMANIUM OXIDE (KRAUT ET AL)

BULK

	LNGVEL	LPMI12	LPMI13	FSRWEL	FSPMI12	FSPMI13	SSRWEL	SSPMI12	SSPMI13
50.	3384.378	-2.510	-6.443	2278.530	11.200	9.960	1783.233	-9.380	9.450
51.	3381.862	-2.360	-5.900	2286.091	10.290	9.100	1776.323	-8.570	8.600
52.	3379.513	-2.150	-5.330	2293.000	9.320	8.210	1773.087	-7.710	7.720
53.	3377.362	-1.990	-4.730	2299.211	8.290	7.270	1769.941	-6.820	6.810
54.	3375.435	-1.760	-4.100	2304.683	7.210	6.300	1766.497	-5.910	5.860
55.	3373.756	-1.500	-3.460	2309.379	6.080	5.300	1763.565	-4.960	4.930
56.	3372.353	-1.230	-2.790	2313.266	4.920	4.220	1761.155	-4.000	3.970
57.	3371.240	-940	-2.110	2316.316	3.720	3.230	1759.274	-3.010	2.970
58.	3370.434	-630	-1.410	2318.514	2.500	2.160	1757.926	-2.010	2.000
59.	3369.946	-320	-710	2319.837	1.250	1.080	1757.116	-1.010	1.000
60.	3369.783	-8.008	-0.000	2320.279	0.000	0.000	1756.846	0.000	-0.000
61.	3369.546	.320	.710	2319.837	-1.250	-1.060	1757.116	1.010	-1.000
62.	3370.434	.630	1.410	2318.514	-2.500	-2.160	1757.926	2.020	-2.000
63.	3371.240	.940	2.110	2316.316	-3.720	-3.230	1759.274	3.010	-2.990
64.	3372.353	1.230	2.790	2313.266	-4.920	-4.280	1761.155	4.000	-3.970
65.	3373.756	1.500	3.460	2309.379	-6.080	-5.300	1763.565	4.960	-4.930
66.	3375.435	1.760	4.100	2304.684	-7.210	-6.300	1766.497	5.910	-5.860
67.	3377.362	1.990	4.730	2299.212	-8.290	-7.270	1769.941	6.820	-6.810
68.	3379.513	2.150	5.330	2293.000	-9.320	-8.210	1773.087	7.710	-7.720
69.	3381.862	2.360	5.900	2286.091	-10.290	-9.100	1776.323	8.570	-8.600
70.	3384.376	2.510	6.440	2278.530	-11.200	-9.960	1783.234	9.380	-9.400
71.	3387.031	2.620	6.960	2270.367	-12.030	-10.770	1786.601	10.120	-10.210
72.	3389.786	2.710	7.440	2261.655	-12.800	-11.540	1794.407	10.870	-11.060
73.	3392.616	2.760	7.890	2252.452	-13.490	-12.260	1800.626	11.540	-11.820
74.	3395.464	2.770	8.310	2242.818	-14.090	-12.930	1807.233	12.150	-12.540
75.	3398.360	2.730	8.700	2232.819	-14.610	-13.560	1814.195	12.690	-13.230
76.	3401.211	2.660	9.060	2222.525	-15.030	-14.140	1821.178	13.190	-13.600
77.	3404.006	2.560	9.400	2212.010	-15.350	-14.680	1828.037	13.530	-13.900
78.	3406.722	2.440	9.700	2201.355	-15.560	-15.170	1836.682	13.810	-14.160
79.	3409.325	2.300	9.970	2190.650	-15.630	-15.610	1844.774	13.970	-14.300
80.	3411.791	2.130	10.220	2179.894	-15.560	-16.000	1852.621	14.010	-14.300
81.	3414.097	1.950	10.440	2169.496	-15.320	-16.350	1860.876	13.880	-14.050
82.	3416.220	1.740	10.630	2159.290	-14.980	-16.660	1869.636	13.570	-13.900
83.	3418.140	1.520	10.800	2149.510	-14.520	-16.910	1878.533	13.030	-13.300
84.	3419.841	1.290	10.950	2140.353	-13.950	-17.130	1888.937	12.220	-12.600
85.	3421.306	1.040	11.070	2131.991	-13.250	-17.300	1890.745	11.060	-11.950
86.	3422.523	.750	11.170	2124.655	-12.440	-17.440	1896.731	9.560	-10.200
87.	3423.480	.530	11.240	2118.506	-11.530	-17.530	1901.645	7.660	-8.350
88.	3424.170	.270	11.300	2114.026	-10.500	-17.600	1905.673	5.480	-6.850
89.	3424.586	0.000	11.330	2111.189	-9.360	-17.630	1908.885	2.780	-5.630
90.	3424.726	-270	11.340	2110.225	0.000	-17.630	1908.885	-0.600	-4.790
91.	3424.586	-270	11.330	2111.189	2.980	-17.630	1908.069	-2.790	-3.850
92.	3424.170	-530	11.300	2114.026	5.770	-17.600	1905.673	-5.400	-3.050
93.	3423.480	-750	11.240	2118.506	8.240	-17.530	1901.645	-7.660	-1.630
94.	3422.523	-1.040	11.170	2124.655	10.310	-17.440	1896.731	-9.580	-0.200
95.	3421.306	-1.290	11.070	2131.991	11.970	-17.300	1890.745	-11.060	-1.160
96.	3419.841	-1.520	10.950	2140.353	13.250	-17.130	1888.937	-12.220	-1.670
97.	3418.140	-1.740	10.800	2149.516	14.210	-16.910	1878.533	-13.030	-1.900
98.	3416.220	-1.950	10.630	2159.290	14.800	-16.660	1869.636	-13.570	-1.950
99.	3414.097	-2.130	10.440	2169.496	15.320	-16.350	1860.876	-13.880	-1.950

111-PLANE BISMUTH GERMANIUM OXIDE (KRAUT ET AL)

BULK

	LNGVEL	LPMI12	LPMI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
100.	3411.791	-2.300	10.220	2179.994	15.560	-16.000	1652.821	-14.010	-16.090
101.	3409.325	-2.440	9.970	2190.650	15.630	-15.630	1646.774	-13.970	-15.800
102.	3406.722	-2.560	9.700	2201.355	15.560	-15.170	1636.622	-13.610	-15.060
103.	3404.088	-2.660	9.400	2212.010	15.350	-14.680	1629.037	-13.530	-14.490
104.	3401.211	-2.730	9.060	2222.525	15.030	-14.140	1621.476	-13.450	-13.660
105.	3398.360	-2.770	8.700	2232.819	14.610	-13.560	1614.195	-12.690	-13.230
106.	3395.484	-2.780	8.310	2242.818	14.090	-12.930	1607.233	-12.450	-12.540
107.	3392.616	-2.760	7.890	2252.452	13.440	-12.260	1600.626	-11.820	-11.820
108.	3389.788	-2.710	7.440	2261.655	12.680	-11.540	1794.407	-10.670	-11.060
109.	3387.031	-2.620	6.960	2270.367	12.030	-10.770	1786.601	-10.150	-10.270
110.	3384.376	-2.510	6.440	2278.530	11.200	-9.960	1783.234	-9.360	-9.430
111.	3381.862	-2.360	5.900	2286.091	10.290	-9.100	1776.323	-8.570	-8.650
112.	3379.513	-2.190	5.330	2293.000	9.320	-8.210	1773.067	-7.710	-7.720
113.	3377.362	-1.990	4.730	2299.212	8.290	-7.270	1769.941	-6.820	-6.910
114.	3375.435	-1.760	4.100	2304.664	7.210	-6.300	1766.437	-5.910	-6.000
115.	3373.758	-1.500	3.460	2309.379	6.060	-5.300	1763.155	-4.960	-5.050
116.	3372.353	-1.230	2.790	2313.266	4.920	-4.280	1761.155	-4.000	-4.090
117.	3371.240	-0.940	2.110	2316.318	3.720	-3.230	1759.274	-3.010	-3.100
118.	3370.434	-0.630	1.410	2318.514	2.500	-2.160	1757.926	-2.020	-2.110
119.	3369.946	-0.320	0.710	2319.837	1.250	-1.060	1757.116	-1.010	-1.100
120.	3369.763	0.000	-0.000	2320.274	-0.000	0.000	1756.646	-0.000	-0.090
121.	3369.966	.320	-1.710	2319.837	-1.250	1.060	1757.116	1.010	1.100
122.	3370.434	.630	-1.410	2316.514	-2.500	2.160	1759.274	2.010	2.100
123.	3371.240	.940	-2.110	2316.318	-3.720	3.230	1759.274	3.010	3.100
124.	3372.353	1.230	-2.790	2313.266	-4.920	4.280	1761.155	4.000	4.090
125.	3373.756	1.500	-3.460	2309.379	-6.080	5.300	1763.155	4.560	4.650
126.	3375.435	1.760	-4.100	2304.663	-7.210	6.300	1766.437	5.010	5.100
127.	3377.362	1.990	-4.730	2299.211	-8.240	7.270	1769.941	5.420	5.510
128.	3379.513	2.190	-5.330	2293.000	-9.320	8.210	1773.067	5.710	5.800
129.	3381.862	2.360	-5.900	2286.091	-10.290	9.100	1776.323	6.000	6.090
130.	3384.378	2.510	-6.440	2278.530	-11.200	9.960	1783.233	6.290	6.380
131.	3387.031	2.620	-6.960	2270.367	-12.030	10.770	1786.601	6.570	6.660
132.	3389.788	2.710	-7.440	2261.655	-12.800	11.540	1794.406	6.820	6.910
133.	3392.616	2.760	-7.890	2252.452	-13.440	12.260	1800.626	7.060	7.150
134.	3395.485	2.780	-8.310	2242.818	-14.090	12.930	1807.232	7.270	7.360
135.	3398.360	2.770	-8.700	2232.819	-14.610	13.560	1814.195	7.450	7.540
136.	3401.212	2.730	-9.060	2222.525	-15.030	14.150	1821.477	7.600	7.690
137.	3404.089	2.660	-9.400	2212.010	-15.350	14.660	1829.037	7.710	7.800
138.	3406.722	2.560	-9.700	2201.355	-15.560	15.170	1836.622	7.780	7.870
139.	3409.325	2.440	-9.970	2190.650	-15.630	15.610	1844.774	7.810	7.900
140.	3411.791	2.300	-10.220	2179.993	-15.560	16.000	1852.621	7.800	7.890
141.	3414.097	2.130	-10.440	2169.497	-15.320	16.350	1860.876	7.750	7.840
142.	3416.820	1.950	-10.630	2159.290	-15.060	16.650	1869.686	7.670	7.760
143.	3419.840	1.740	-10.800	2149.518	-14.720	16.910	1878.937	7.560	7.650
144.	3423.066	1.520	-10.950	2140.352	-14.250	17.130	1888.622	7.420	7.510
145.	3426.523	1.040	-11.070	2131.991	-13.670	17.300	1898.745	7.260	7.350
146.	3430.240	0.790	-11.170	2124.655	-13.010	17.440	1909.291	7.080	7.170
147.	3434.170	.530	-11.240	2118.586	-12.240	17.530	1920.244	6.890	6.980
148.	3438.307	.270	-11.300	2114.026	-11.370	17.600	1931.573	6.680	6.770
149.	3442.587	.020	-11.330	2111.169	-10.400	17.630	1943.206	6.450	6.540

111-PLANE BISMUTH GERMANIUM OXIDE (KRAUT ET AL)										
	LANGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13	
150.	3624.726	-0.000	-11.340	2110.225	0.000	17.050	1908.085	0.000	16.660	
151.	3624.587	-0.270	-11.330	2111.169	2.960	17.630	1908.068	-2.790	16.630	
152.	3624.170	-0.530	-11.300	2114.026	5.770	17.600	1905.673	-5.400	16.540	
153.	3623.460	-0.790	-11.240	2118.586	8.240	17.530	1901.844	-7.680	16.350	
154.	3622.523	-1.040	-11.170	2124.655	10.310	17.440	1896.791	-9.580	16.200	
155.	3621.306	-1.290	-11.070	2131.91	11.970	17.300	1893.745	-11.060	17.920	
156.	3619.841	-1.520	-10.950	2140.352	13.250	17.130	1893.937	-12.220	17.670	
157.	3618.140	-1.740	-10.800	2149.516	14.210	16.910	1876.573	-13.030	17.330	
158.	3616.220	-1.950	-10.630	2159.290	14.860	16.660	1860.836	-13.250	16.990	
159.	3614.097	-2.130	-10.440	2169.497	15.320	16.350	1860.876	-13.680	16.550	
160.	3611.791	-2.300	-10.220	2179.993	15.560	16.000	1852.821	-14.010	16.090	
161.	3609.325	-2.440	-9.970	2191.650	15.630	15.610	1844.774	-13.570	15.600	
162.	3606.722	-2.560	-9.700	2203.355	15.560	15.170	1836.622	-13.610	15.060	
163.	3604.005	-2.660	-9.400	2216.010	15.350	14.660	1829.037	-13.530	14.730	
164.	3601.211	-2.730	-9.060	2229.525	15.030	14.150	1821.977	-13.150	13.880	
165.	3598.360	-2.770	-8.700	2234.819	14.610	13.560	1814.195	-12.690	13.230	
166.	3595.464	-2.760	-8.310	2242.818	14.090	12.930	1807.233	-12.150	12.540	
167.	3592.516	-2.760	-7.890	2252.452	13.490	12.260	1800.626	-11.540	11.820	
168.	3589.786	-2.710	-7.440	2261.655	12.800	11.540	1794.406	-10.870	11.060	
169.	3587.031	-2.620	-6.980	2270.367	12.030	10.770	1788.601	-10.150	10.270	
170.	3584.378	-2.510	-6.440	2278.530	11.200	9.960	1783.233	-9.360	9.450	
171.	3581.862	-2.360	-5.900	2286.091	10.250	9.100	1778.323	-8.570	8.600	
172.	3579.513	-2.190	-5.330	2293.000	9.320	8.210	1773.887	-7.710	7.720	
173.	3577.362	-1.990	-4.730	2299.212	8.290	7.270	1769.941	-6.820	6.810	
174.	3575.435	-1.760	-4.100	2304.684	7.210	6.300	1766.497	-5.910	5.860	
175.	3573.756	-1.500	-3.460	2309.379	6.050	5.300	1763.565	-4.960	4.830	
176.	3572.353	-1.230	-2.810	2313.266	4.920	4.260	1761.155	-4.000	3.870	
177.	3571.240	-0.940	-2.110	2316.318	3.750	3.830	1759.274	-3.010	2.990	
178.	3570.434	-0.630	-1.410	2318.514	2.500	2.160	1757.926	-2.020	2.000	
179.	3569.946	-0.320	-0.710	2319.837	1.250	1.060	1757.116	-1.010	1.000	
180.	3569.783	0.000	0.000	2320.279	-0.000	-0.000	1756.846	0.000	-0.000	

110-PLANE BISMUTH GERMANIUM OXIDE (KRAUT ET AL)										
	LPHI12	LPHI13	FSPVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13	BULK	
0.	-0.000	0.000	2124.559	15.250	0.000	2124.567	-15.250	-0.000		
1.	0.530	-0.000	2134.234	13.920	0.000	2114.376	-15.560	0.000		
2.	1.100	-0.000	2142.996	12.490	0.000	2104.022	-15.860	0.000		
3.	1.710	-0.000	2150.783	10.970	0.000	2093.515	-16.150	0.000		
4.	2.360	-0.000	2157.525	9.350	0.000	2082.867	-16.420	0.000		
5.	3.030	-0.000	2163.169	7.660	0.000	2072.087	-16.690	0.000		
6.	3.720	-0.000	2167.666	5.900	0.000	2061.186	-16.940	0.000		
7.	4.430	-0.000	2170.974	4.080	0.000	2050.180	-17.170	0.000		
8.	5.140	-0.000	2173.061	2.220	-0.000	2039.076	-17.390	0.000		
9.	5.850	-0.000	2173.904	.330	0.000	2027.887	-17.600	0.000		
10.	6.540	-0.000	2173.490	-1.560	0.000	2016.626	-17.790	0.000		
11.	7.220	-0.000	2171.817	-3.460	-0.000	2005.305	-17.960	0.000		
12.	7.870	-0.000	2168.885	-5.360	0.000	1993.936	-18.120	0.000		
13.	8.480	-0.000	2164.725	-7.200	0.000	1982.537	-18.250	0.000		
14.	9.060	-0.000	2159.347	-9.010	0.000	1971.116	-18.370	0.000		
15.	9.590	-0.000	2152.789	-10.750	0.000	1959.689	-18.470	0.000		
16.	10.070	-0.000	2145.090	-12.430	-0.000	1948.269	-18.550	0.000		
17.	10.510	-0.000	2136.299	-14.040	0.000	1936.871	-18.610	0.000		
18.	10.880	-0.000	2126.466	-15.560	-0.000	1925.509	-18.640	0.000		
19.	11.210	-0.000	2115.650	-17.000	0.000	1914.197	-18.660	0.000		
20.	11.470	-0.000	2103.911	-18.350	0.000	1902.952	-18.650	0.000		
21.	11.690	-0.000	2091.315	-19.610	0.000	1891.766	-18.610	0.000		
22.	11.850	-0.000	2077.928	-20.780	0.000	1880.716	-18.550	0.000		
23.	11.960	-0.000	2063.821	-21.850	0.000	1869.756	-18.470	0.000		
24.	12.020	-0.000	2049.063	-22.830	0.000	1858.925	-18.350	0.000		
25.	12.030	-0.000	2033.729	-23.720	0.000	1848.235	-18.210	0.000		
26.	11.950	-0.000	2017.891	-24.520	0.000	1837.702	-18.040	0.000		
27.	11.910	-0.000	2001.623	-25.220	0.000	1827.342	-17.850	0.000		
28.	11.790	-0.000	1985.031	-25.840	0.000	1817.172	-17.620	0.000		
29.	11.630	-0.000	1968.100	-26.390	0.000	1807.205	-17.360	0.000		
30.	11.440	-0.000	1950.995	-26.780	0.000	1797.459	-17.070	0.000		
31.	11.200	-0.000	1933.761	-27.100	0.000	1787.949	-16.740	0.000		
32.	10.940	-0.000	1916.474	-27.330	0.000	1778.690	-16.390	0.000		
33.	10.650	-0.000	1899.211	-27.460	0.000	1769.698	-16.000	0.000		
34.	10.330	-0.000	1882.045	-27.490	0.000	1760.987	-15.570	0.000		
35.	9.960	-0.000	1865.054	-27.410	0.000	1752.573	-15.110	0.000		
36.	9.610	-0.000	1848.311	-27.220	0.000	1744.470	-14.620	0.000		
37.	9.210	-0.000	1831.890	-26.920	0.000	1736.693	-14.090	0.000		
38.	8.800	-0.000	1815.866	-26.500	0.000	1729.255	-13.530	0.000		
39.	8.360	-0.000	1800.310	-25.960	0.000	1722.170	-12.940	0.000		
40.	7.910	-0.000	1785.295	-25.290	0.000	1715.451	-12.310	0.000		
41.	7.440	-0.000	1770.890	-24.450	0.000	1709.110	-11.640	0.000		
42.	6.960	-0.000	1757.162	-23.550	0.000	1703.160	-10.950	0.000		
43.	6.460	-0.000	1744.179	-22.470	0.000	1697.612	-10.220	0.000		
44.	5.950	-0.000	1732.002	-21.250	0.000	1692.477	-9.470	0.000		
45.	5.430	-0.000	1720.693	-19.870	0.000	1687.764	-8.660	0.000		
46.	4.900	-0.000	1710.308	-18.360	0.000	1683.483	-7.870	0.000		
47.	4.360	-0.000	1700.899	-16.690	0.000	1679.643	-7.030	0.000		
48.	3.810	-0.000	1692.517	-14.890	0.000	1676.251	-6.170	0.000		
49.	3.260	-0.000	1685.204	-12.950	0.000	1673.315	-5.300	0.000		

110-PLANE BISMUTH GERMANIUM OXIDE (KRAUT ET AL)

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSRPH12	FSPH13	SSRVEL	SSRPH12	SSPH13
50.	3729.716	2.700	-0.000	1670.999	-10.890	0.000	1670.839	-4.400	-0.000
51.	3732.463	2.160	-0.000	1673.935	-8.720	0.000	1668.830	-3.490	-0.000
52.	3736.567	1.570	-0.000	1670.040	-6.466	0.000	1667.291	-2.560	-0.000
53.	3736.024	.990	-0.000	1667.336	-4.140	0.000	1666.226	-1.630	-0.000
54.	3736.830	.420	-0.000	1665.836	-1.760	0.000	1665.636	-.690	0.000
55.	3736.584	-.150	-0.000	1665.523	.250	0.000	1665.549	.250	0.000
56.	3736.485	-.720	-0.000	1666.477	3.020	-0.000	1665.886	1.130	-0.000
57.	3735.336	-1.300	-0.000	1668.614	5.370	-0.000	1666.729	2.120	-0.000
58.	3733.537	-1.870	-0.000	1671.950	7.670	-0.000	1666.045	3.050	-0.000
59.	3731.093	-2.440	-0.000	1676.465	9.600	0.000	1669.032	3.970	0.000
60.	3728.006	-3.000	-0.000	1682.135	12.000	0.000	1672.088	4.870	0.000
61.	3724.289	-3.550	-0.000	1688.925	13.990	-0.000	1674.008	5.760	0.000
62.	3719.964	-4.100	-0.000	1696.812	15.860	-0.000	1677.966	6.630	0.000
63.	3714.982	-4.640	-0.000	1705.742	17.590	-0.000	1681.615	7.460	0.000
64.	3709.412	-5.160	-0.000	1715.673	19.160	-0.000	1685.609	8.300	0.000
65.	3703.247	-5.710	-0.000	1726.553	20.620	-0.000	1690.195	9.100	0.000
66.	3696.501	-6.220	-0.000	1738.327	21.910	0.000	1695.136	9.870	0.000
67.	3689.107	-6.720	-0.000	1750.936	23.060	-0.000	1700.491	10.610	0.000
68.	3681.323	-7.210	-0.000	1764.322	24.060	-0.000	1706.252	11.320	0.000
69.	3672.926	-7.650	-0.000	1778.416	24.930	-0.000	1712.510	12.000	0.000
70.	3664.016	-8.150	-0.000	1793.191	25.660	-0.000	1718.952	12.640	0.000
71.	3654.614	-8.590	-0.000	1808.461	26.260	-0.000	1725.666	13.260	0.000
72.	3644.743	-9.020	-0.000	1824.273	26.740	-0.000	1733.139	13.830	0.000
73.	3634.428	-9.420	-0.000	1840.515	27.090	0.000	1740.756	14.360	0.000
74.	3623.696	-9.810	-0.000	1857.115	27.330	0.000	1749.709	14.890	0.000
75.	3612.575	-10.170	-0.000	1873.999	27.460	-0.000	1756.978	15.360	0.000
76.	3601.084	-10.500	-0.000	1891.092	27.490	0.000	1765.550	15.800	0.000
77.	3589.286	-10.810	-0.000	1908.316	27.410	-0.000	1774.412	16.210	0.000
78.	3577.191	-11.080	-0.000	1925.603	27.220	-0.000	1783.547	16.560	0.000
79.	3564.838	-11.330	-0.000	1942.872	26.940	-0.000	1792.940	16.920	0.000
80.	3552.269	-11.540	-0.000	1960.047	26.560	0.000	1802.577	17.220	0.000
81.	3539.525	-11.720	-0.000	1977.054	26.090	-0.000	1812.441	17.500	0.000
82.	3526.650	-11.860	-0.000	1993.817	25.520	0.000	1822.517	17.740	0.000
83.	3513.667	-11.960	-0.000	2010.262	24.860	-0.000	1832.790	17.950	0.000
84.	3500.686	-12.020	-0.000	2026.311	24.110	-0.000	1843.243	18.140	0.000
85.	3487.694	-12.030	-0.000	2041.893	23.270	0.000	1853.861	18.290	0.000
86.	3474.764	-11.990	-0.000	2056.932	22.330	-0.000	1864.628	18.420	0.000
87.	3461.946	-11.910	-0.000	2071.355	21.290	-0.000	1875.524	18.520	0.000
88.	3449.300	-11.770	-0.000	2085.091	20.170	-0.000	1886.546	18.590	0.000
89.	3436.876	-11.560	-0.000	2098.069	18.950	-0.000	1897.671	18.630	0.000
90.	3424.750	-11.340	-0.000	2110.220	17.650	-0.000	1908.880	18.660	0.000
91.	3412.920	-11.040	0.000	2121.680	16.250	-0.000	1920.163	18.650	0.000
92.	3401.500	-10.650	-0.000	2131.784	14.770	-0.000	1931.502	18.630	0.000
93.	3390.523	-10.200	-0.000	2141.074	13.200	-0.000	1942.805	18.580	0.000
94.	3380.042	-9.690	-0.000	2149.294	11.550	0.000	1954.297	18.510	0.000
95.	3370.105	-9.320	0.000	2156.396	9.840	-0.000	1965.722	18.420	0.000
96.	3360.757	-8.760	-0.000	2162.336	8.060	-0.000	1977.146	18.310	0.000
97.	3352.036	-8.160	-0.000	2167.077	6.230	-0.000	1988.560	18.160	0.000
98.	3343.982	-7.530	-0.000	2170.590	4.370	-0.000	1999.945	18.040	0.000
99.	3336.619	-6.860	0.000	2172.657	2.470	-0.000	2011.289	17.670	0.000

110-PLANE BISMUTH GERMANIUM OXIDE (KRAUT ET AL)

BULK

	LMGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
100.	3329.966	-6.160	0.000	2173.066	.570	-0.000	2022.260	17.630	0.000
101.	3324.043	-5.470	0.000	2173.615	-1.338	0.000	2033.804	17.490	0.000
102.	3318.051	-4.760	-0.000	2172.112	-3.200	-0.000	2044.950	17.280	0.000
103.	3314.388	-4.050	0.000	2169.376	-5.050	-0.000	2056.005	17.050	0.000
104.	3310.646	-3.350	0.000	2165.436	-6.640	-0.000	2066.957	16.810	0.000
105.	3307.607	-2.670	0.000	2160.325	-8.560	-0.000	2077.794	16.550	0.000
106.	3305.247	-2.020	-0.000	2154.099	-10.220	-0.000	2086.506	16.280	0.000
107.	3303.537	-1.390	0.000	2146.798	-11.760	0.000	2094.081	16.000	0.000
108.	3302.441	-0.800	0.000	2138.465	-13.260	-0.000	2101.506	15.700	0.000
109.	3301.921	-0.250	0.000	2129.235	-14.630	0.000	2111.776	15.390	0.000
110.	3301.933	.260	0.000	2119.107	-15.910	-0.000	2121.879	15.080	0.000
111.	3302.435	.730	0.000	2108.161	-17.070	-0.000	2131.802	14.750	0.000
112.	3303.376	1.140	-0.000	2096.531	-18.140	-0.000	2141.536	14.410	0.000
113.	3304.719	1.510	0.000	2084.237	-19.090	-0.000	2151.077	14.060	0.000
114.	3306.409	1.640	0.000	2071.379	-19.940	-0.000	2160.411	13.700	0.000
115.	3308.604	2.120	-0.000	2058.035	-20.660	-0.000	2170.530	13.340	0.000
116.	3310.661	2.350	0.000	2044.287	-21.320	-0.000	2180.426	12.960	0.000
117.	3313.136	2.550	0.000	2030.211	-21.660	-0.000	2191.092	12.580	-0.000
118.	3315.790	2.700	0.000	2015.885	-22.240	-0.000	2203.519	12.190	-0.000
119.	3318.566	2.820	-0.000	2001.386	-22.630	-0.000	2211.700	11.790	-0.000
120.	3321.468	2.910	0.000	1986.787	-22.670	-0.000	2219.626	11.380	-0.000
121.	3324.463	2.960	0.000	1972.160	-23.010	0.000	2227.296	10.970	-0.000
122.	3327.481	2.990	0.000	1957.575	-23.060	0.000	2234.637	10.550	-0.000
123.	3330.515	2.990	0.000	1943.096	-23.010	-0.000	2241.825	10.130	-0.000
124.	3333.539	2.960	0.000	1928.796	-22.860	-0.000	2246.674	9.700	-0.000
125.	3336.531	2.920	0.000	1914.731	-22.620	0.000	2255.237	9.260	-0.000
126.	3339.471	2.850	0.000	1900.963	-22.290	-0.000	2261.511	8.820	0.000
127.	3342.330	2.770	0.000	1887.551	-21.860	-0.000	2267.489	8.380	0.000
128.	3345.110	2.680	0.000	1874.549	-21.340	-0.000	2273.167	7.930	0.000
129.	3347.794	2.570	0.000	1862.010	-20.720	-0.000	2278.539	7.460	-0.000
130.	3350.356	2.450	-0.000	1849.984	-20.000	-0.000	2283.602	7.020	-0.000
131.	3352.790	2.320	0.000	1838.520	-19.150	-0.000	2288.351	6.580	-0.000
132.	3355.087	2.160	0.000	1827.662	-18.290	-0.000	2292.783	6.090	0.000
133.	3357.234	2.030	0.000	1817.452	-17.290	-0.000	2296.894	5.630	-0.000
134.	3359.235	1.870	0.000	1807.930	-16.200	-0.000	2300.681	5.160	-0.000
135.	3361.073	1.710	0.000	1799.132	-15.020	-0.000	2304.140	4.660	0.000
136.	3362.745	1.550	0.000	1791.093	-13.750	-0.000	2307.270	4.210	-0.000
137.	3364.247	1.380	0.000	1783.842	-12.400	-0.000	2310.067	3.730	0.000
138.	3365.574	1.210	0.000	1777.408	-10.960	-0.000	2312.524	3.250	-0.000
139.	3366.724	1.038	0.000	1771.815	-9.480	0.000	2314.655	2.770	-0.000
140.	3367.694	.860	-0.000	1767.085	-7.920	-0.000	2316.482	2.250	-0.000
141.	3368.481	.680	0.000	1763.234	-6.310	-0.000	2317.997	1.618	-0.000
142.	3369.084	.500	0.000	1760.279	-4.660	-0.000	2319.197	1.330	-0.000
143.	3369.501	.320	0.000	1758.230	-2.970	-0.000	2319.763	.840	0.000
144.	3369.732	.130	0.000	1757.095	-1.260	-0.000	2320.186	.360	0.000
145.	3369.776	-.050	0.000	1756.878	.450	0.000	2320.287	-.130	-0.000
146.	3369.633	-.230	0.000	1757.580	2.170	0.000	2320.086	-.610	0.000
147.	3369.304	-.410	0.000	1759.196	3.870	0.000	2319.481	-1.100	-0.000
148.	3368.789	-.590	0.000	1761.727	5.540	0.000	2318.455	-1.560	0.000
149.	3368.088	-.770	0.000	1765.157	7.170	0.000	2317.168	-2.060	-0.000

	LMGVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
150.	3367.205	-0.950	0.000	1769.674	8.750	0.000	2315.541	-2.550	-0.000
151.	3366.139	-1.130	0.000	1774.662	10.260	0.000	2313.574	-3.030	-0.000
152.	3364.895	-1.300	0.000	1780.702	11.740	0.000	2311.271	-3.510	-0.000
153.	3363.475	-1.470	0.000	1787.570	13.120	-0.000	2308.631	-3.990	0.000
154.	3361.083	-1.640	0.000	1795.241	14.430	0.000	2305.659	-4.460	0.000
155.	3358.123	-1.800	0.000	1803.665	15.650	0.000	2302.355	-4.930	0.000
156.	3355.200	-1.960	0.000	1812.864	16.760	0.000	2298.722	-5.400	0.000
157.	3352.121	-2.110	0.000	1822.759	17.830	0.000	2294.764	-5.870	-0.000
158.	3353.891	-2.250	0.000	1833.316	18.760	0.000	2290.483	-6.340	-0.000
159.	3351.521	-2.390	0.000	1844.500	19.630	0.000	2285.883	-6.800	-0.000
160.	3349.018	-2.510	0.000	1856.267	20.350	0.000	2280.968	-7.260	0.000
161.	3346.395	-2.630	0.000	1868.569	21.050	0.000	2275.741	-7.720	0.000
162.	3343.662	-2.730	0.000	1881.359	21.620	0.000	2270.207	-8.170	-0.000
163.	3340.834	-2.820	0.000	1894.585	22.100	0.000	2264.370	-8.610	0.000
164.	3337.926	-2.890	0.000	1908.192	22.480	0.000	2258.235	-9.060	-0.000
165.	3334.957	-2.940	0.000	1922.124	22.760	0.000	2251.808	-9.490	0.000
166.	3331.945	-2.980	0.000	1936.322	22.950	0.000	2245.092	-9.930	0.000
167.	3328.913	-2.990	0.000	1950.724	23.040	0.000	2238.096	-10.350	0.000
168.	3325.884	-2.980	0.000	1965.266	23.040	0.000	2230.823	-10.770	0.000
169.	3322.885	-2.940	0.000	1979.882	22.950	0.000	2223.280	-11.190	0.000
170.	3319.944	-2.870	0.000	1994.584	22.750	0.000	2215.474	-11.600	-0.000
171.	3317.095	-2.760	0.000	2009.059	22.460	0.000	2207.412	-12.000	0.000
172.	3314.369	-2.620	0.000	2023.476	22.060	0.000	2199.100	-12.390	0.000
173.	3311.804	-2.450	0.000	2037.679	21.590	0.000	2190.546	-12.700	0.000
174.	3309.435	-2.230	0.000	2051.592	21.000	0.000	2181.757	-13.160	0.000
175.	3307.316	-1.970	0.000	2065.136	20.300	0.000	2172.742	-13.530	0.000
176.	3305.476	-1.670	0.000	2078.234	19.500	0.000	2163.519	-13.890	-0.000
177.	3303.964	-1.320	0.000	2090.894	18.600	0.000	2154.066	-14.250	0.000
178.	3302.826	-0.930	0.000	2102.767	17.590	0.000	2144.422	-14.590	-0.000
179.	3302.112	-0.490	0.000	2114.045	16.470	0.000	2134.585	-14.920	-0.000
180.	3301.863	-0.000	0.000	2124.559	15.250	0.000	2124.567	-15.250	-0.000

BULK

110-PLANE BISMUTH GERMANIUM OXIDE (KRAUT ET AL)

X-PLANE (YZ-PLANE) CADMIUM SULPHIDE									
	LNQVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
0.	4337.906	0.000	0.000	1796.298	0.000	0.000	1936.952	0.000	0.000
1.	4337.811	-1.140	0.000	1796.567	0.000	0.000	1938.929	-0.000	-0.000
2.	4337.526	-2.290	0.000	1797.372	1.960	0.000	1936.862	-1.160	-0.000
3.	4337.052	-4.300	0.000	1798.712	2.930	0.000	1936.751	-2.400	-0.000
4.	4336.390	-5.780	0.000	1800.584	3.890	0.000	1936.595	-3.200	-0.000
5.	4335.539	-7.100	0.000	1802.967	4.840	0.000	1936.394	-4.000	-0.000
6.	4334.583	-8.660	0.000	1805.914	5.780	0.000	1936.150	-4.800	-0.000
7.	4333.282	-9.990	0.000	1809.361	6.690	0.000	1937.862	-5.400	-0.000
8.	4331.878	-1.130	0.000	1813.320	7.560	0.000	1937.431	-6.300	-0.000
9.	4330.293	-1.270	0.000	1817.785	8.450	0.000	1937.156	-7.100	-0.000
10.	4328.532	-1.400	0.000	1822.745	9.290	0.000	1936.739	-7.800	-0.000
11.	4326.597	-1.530	0.000	1828.190	10.100	0.000	1936.260	-8.600	-0.000
12.	4324.453	-1.660	0.000	1834.106	10.870	0.000	1935.779	-9.300	-0.000
13.	4322.223	-1.760	0.000	1840.484	11.610	-0.000	1935.237	-1.010	0.000
14.	4319.794	-1.900	0.000	1847.304	12.310	-0.000	1934.655	-1.080	0.000
15.	4317.212	-2.020	0.000	1854.550	12.970	-0.000	1934.033	-1.150	0.000
16.	4314.484	-2.130	0.000	1862.202	13.560	-0.000	1933.372	-1.220	0.000
17.	4311.617	-2.230	0.000	1870.240	14.140	-0.000	1932.672	-1.290	0.000
18.	4308.621	-2.330	0.000	1878.639	14.650	-0.000	1931.936	-1.350	0.000
19.	4305.586	-2.420	0.000	1887.375	15.110	-0.000	1931.162	-1.420	0.000
20.	4302.282	-2.500	0.000	1896.419	15.520	-0.000	1930.353	-1.460	0.000
21.	4298.963	-2.570	0.000	1905.741	15.860	-0.000	1929.509	-1.540	0.000
22.	4295.560	-2.630	0.000	1915.310	16.150	-0.000	1928.632	-1.600	0.000
23.	4292.069	-2.670	0.000	1925.092	16.380	-0.000	1927.722	-1.660	0.000
24.	4288.566	-2.710	0.000	1935.049	16.540	-0.000	1926.780	-1.720	0.000
25.	4285.067	-2.730	0.000	1945.143	16.640	-0.000	1925.807	-1.770	0.000
26.	4281.431	-2.740	0.000	1955.333	16.790	-0.000	1924.805	-1.830	0.000
27.	4277.857	-2.730	0.000	1965.577	16.840	-0.000	1923.775	-1.880	0.000
28.	4274.306	-2.710	0.000	1975.830	16.840	-0.000	1922.717	-1.930	0.000
29.	4270.801	-2.670	0.000	1986.045	16.370	-0.000	1921.634	-1.970	0.000
30.	4267.364	-2.610	0.000	1996.176	16.120	-0.000	1920.526	-2.020	0.000
31.	4264.019	-2.530	0.000	2006.173	15.810	-0.000	1919.395	-2.060	0.000
32.	4260.791	-2.430	0.000	2015.985	15.420	-0.000	1918.242	-2.100	0.000
33.	4257.786	-2.320	0.000	2025.561	14.950	-0.000	1917.069	-2.140	0.000
34.	4254.791	-2.180	0.000	2034.850	14.410	-0.000	1915.876	-2.170	0.000
35.	4252.071	-2.020	0.000	2043.801	13.800	-0.000	1914.666	-2.200	0.000
36.	4249.575	-1.840	0.000	2052.360	13.120	-0.000	1913.439	-2.230	0.000
37.	4247.327	-1.630	0.000	2060.477	12.360	-0.000	1912.197	-2.260	0.000
38.	4245.357	-1.410	0.000	2068.102	11.530	-0.000	1910.942	-2.260	0.000
39.	4243.668	-1.170	0.000	2075.284	10.630	-0.000	1909.676	-2.310	0.000
40.	4242.386	-9.910	0.000	2081.677	9.660	-0.000	1908.399	-2.330	0.000
41.	4241.356	-6.630	0.000	2087.534	8.620	-0.000	1907.113	-2.340	0.000
42.	4240.738	-3.330	0.000	2092.714	7.530	-0.000	1905.820	-2.360	0.000
43.	4240.515	-0.020	0.000	2097.176	6.360	-0.000	1904.521	-2.370	0.000
44.	4240.703	3.100	-0.000	2100.683	5.170	-0.000	1903.216	-2.370	0.000
45.	4241.318	6.650	-0.000	2103.604	3.920	-0.000	1901.912	-2.380	0.000
46.	4242.375	9.900	-0.000	2105.909	2.630	-0.000	1900.606	-2.380	0.000
47.	4243.882	1.340	-0.000	2107.174	1.310	-0.000	1999.300	-2.360	0.000
48.	4245.847	1.700	-0.000	2107.580	-0.040	-0.000	1997.997	-2.360	0.000
49.	4248.272	2.050	-0.000	2107.114	-1.410	-0.000	1996.697	-2.370	0.000

X-PLANE (YZ-PLANE) CADMIUM SULPHIDE

	LMGVEL	SPHI12	LPHI13	FSPH12	FSPHI13	SSRWEL	SSPH12	SSPHI13	SSFM112	SSFM113
50.	4251.159	2.440	-0.000	2105.767	-2.790	1795.403	-2.360	0.000	0.000	0.000
51.	4254.503	2.750	-0.000	2103.536	-4.160	1794.115	-2.350	0.000	0.000	0.000
52.	4258.297	3.090	-0.000	2100.422	-5.530	1792.837	-2.330	0.000	0.000	0.000
53.	4262.530	3.420	-0.000	2096.435	-6.690	1791.568	-2.310	0.000	0.000	0.000
54.	4267.189	3.740	-0.000	2091.507	-8.220	1790.312	-2.290	0.000	0.000	0.000
55.	4272.255	4.040	-0.000	2085.899	-9.510	1789.068	-2.270	0.000	0.000	0.000
56.	4277.707	4.320	-0.000	2079.395	-10.770	1787.840	-2.240	0.000	0.000	0.000
57.	4283.522	4.580	-0.000	2072.104	-11.960	1786.627	-2.210	0.000	0.000	0.000
58.	4289.672	4.820	-0.000	2064.062	-13.130	1785.433	-2.180	0.000	0.000	0.000
59.	4296.130	5.030	-0.000	2055.310	-14.230	1784.256	-2.140	0.000	0.000	0.000
60.	4302.864	5.220	-0.000	2045.890	-15.250	1783.104	-2.100	0.000	0.000	0.000
61.	4309.841	5.380	-0.000	2035.852	-16.210	1781.972	-2.060	0.000	0.000	0.000
62.	4317.026	5.520	-0.000	2025.249	-17.090	1780.864	-2.020	0.000	0.000	0.000
63.	4324.384	5.620	-0.000	2014.136	-17.890	1779.782	-1.970	0.000	0.000	0.000
64.	4331.877	5.700	-0.000	2002.573	-18.610	1778.725	-1.920	0.000	0.000	0.000
65.	4339.469	5.750	-0.000	1990.622	-19.240	1777.697	-1.870	0.000	0.000	0.000
66.	4347.122	5.770	-0.000	1978.346	-19.770	1776.697	-1.820	0.000	0.000	0.000
67.	4354.798	5.770	-0.000	1965.819	-20.220	1775.728	-1.760	0.000	0.000	0.000
68.	4362.460	5.730	-0.000	1953.104	-20.560	1774.791	-1.700	0.000	0.000	0.000
69.	4370.070	5.670	-0.000	1940.272	-20.800	1773.886	-1.640	0.000	0.000	0.000
70.	4377.593	5.580	-0.000	1927.395	-20.940	1773.015	-1.580	0.000	0.000	0.000
71.	4384.993	5.470	-0.000	1914.546	-20.960	1772.180	-1.510	0.000	0.000	0.000
72.	4392.234	5.330	-0.000	1901.796	-20.900	1771.380	-1.450	0.000	0.000	0.000
73.	4399.284	5.170	-0.000	1889.223	-20.710	1770.618	-1.380	0.000	0.000	0.000
74.	4406.111	4.980	-0.000	1876.895	-20.400	1769.894	-1.310	0.000	0.000	0.000
75.	4412.864	4.760	-0.000	1864.803	-19.970	1769.209	-1.230	0.000	0.000	0.000
76.	4418.593	4.550	-0.000	1853.259	-19.430	1768.564	-1.160	0.000	0.000	0.000
77.	4424.952	4.310	-0.000	1842.092	-18.750	1767.960	-1.080	0.000	0.000	0.000
78.	4430.593	4.040	-0.000	1831.446	-17.960	1767.397	-1.010	0.000	0.000	0.000
79.	4435.874	3.760	-0.000	1821.392	-17.040	1766.877	-0.930	0.000	0.000	0.000
80.	4440.772	3.470	-0.000	1811.985	-15.990	1766.399	-0.850	0.000	0.000	0.000
81.	4445.265	3.160	-0.000	1803.284	-14.820	1765.965	-0.770	0.000	0.000	0.000
82.	4449.336	2.840	-0.000	1795.344	-13.530	1765.576	-0.680	0.000	0.000	0.000
83.	4452.968	2.510	-0.000	1788.215	-12.130	1765.231	-0.600	0.000	0.000	0.000
84.	4456.146	2.170	-0.000	1781.941	-10.620	1764.931	-0.520	0.000	0.000	0.000
85.	4458.857	1.820	-0.000	1776.562	-9.010	1764.676	-0.430	0.000	0.000	0.000
86.	4461.089	1.460	-0.000	1772.113	-7.320	1764.468	-0.350	0.000	0.000	0.000
87.	4462.835	1.100	-0.000	1768.623	-5.560	1764.305	-0.280	0.000	0.000	0.000
88.	4464.087	0.740	-0.000	1766.113	-3.740	1764.189	-0.210	0.000	0.000	0.000
89.	4464.840	0.370	-0.000	1764.601	-1.880	1764.119	0.000	0.000	0.000	0.000
90.	4465.092	-0.000	-0.000	1764.096	0.000	1764.096	0.000	0.000	0.000	0.000
91.	4464.840	-0.370	-0.000	1764.601	1.880	1764.119	0.210	0.000	0.000	0.000
92.	4464.087	-0.740	-0.000	1766.113	3.740	1764.189	0.280	0.000	0.000	0.000
93.	4462.835	-1.100	-0.000	1768.623	5.560	1764.305	0.350	0.000	0.000	0.000
94.	4461.089	-1.460	-0.000	1772.113	7.320	1764.468	0.430	0.000	0.000	0.000
95.	4458.857	-1.820	-0.000	1776.562	9.010	1764.676	0.520	0.000	0.000	0.000
96.	4456.146	-2.170	-0.000	1781.941	10.620	1764.931	0.600	0.000	0.000	0.000
97.	4452.968	-2.510	-0.000	1788.215	12.130	1765.231	0.680	0.000	0.000	0.000
98.	4449.336	-2.840	-0.000	1795.344	13.530	1765.576	0.770	0.000	0.000	0.000
99.	4445.265	-3.160	-0.000	1803.284	14.820	1765.965	0.850	0.000	0.000	0.000

X-PLANE (YZ-PLANE) CADMIUM SULPHIDE

BULK

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
100.	4440.772	-3.470	-0.000	1811.985	15.950	0.000	1766.399	.650	0.000
101.	4435.874	-3.760	-0.000	1821.392	17.040	0.000	1766.877	.530	0.000
102.	4430.593	-4.040	-0.000	1831.446	17.960	0.000	1767.397	1.010	0.000
103.	4424.952	-4.310	-0.000	1842.092	18.750	0.000	1767.960	1.000	0.000
104.	4418.973	-4.550	-0.000	1853.259	19.430	0.000	1768.564	1.160	0.000
105.	4412.664	-4.760	-0.000	1864.883	19.970	0.000	1769.209	1.230	0.000
106.	4406.111	-4.980	-0.000	1876.995	20.400	0.000	1769.894	1.310	0.000
107.	4399.284	-5.170	-0.000	1889.223	20.710	0.000	1770.618	1.360	0.000
108.	4392.234	-5.330	-0.000	1901.796	20.900	0.000	1771.360	1.450	0.000
109.	4384.993	-5.470	-0.000	1914.546	20.960	0.000	1772.180	1.510	0.000
110.	4377.593	-5.580	-0.000	1927.395	20.960	0.000	1773.015	1.500	0.000
111.	4370.070	-5.670	-0.000	1940.272	20.860	0.000	1773.866	1.640	0.000
112.	4362.460	-5.730	-0.000	1953.104	20.560	0.000	1774.791	1.700	0.000
113.	4354.796	-5.770	-0.000	1965.815	20.220	0.000	1775.728	1.760	0.000
114.	4347.122	-5.770	-0.000	1978.366	19.770	0.000	1776.697	1.820	0.000
115.	4339.469	-5.750	-0.000	1990.622	19.240	0.000	1777.697	1.870	0.000
116.	4331.877	-5.700	-0.000	2002.573	18.610	0.000	1778.725	1.920	0.000
117.	4324.384	-5.620	-0.000	2014.136	17.890	0.000	1779.782	1.970	0.000
118.	4317.026	-5.520	-0.000	2025.249	17.090	0.000	1780.864	2.020	0.000
119.	4309.841	-5.380	-0.000	2035.852	16.210	0.000	1781.972	2.060	0.000
120.	4302.864	-5.220	-0.000	2045.890	15.250	0.000	1783.104	2.100	0.000
121.	4296.130	-5.030	-0.000	2055.310	14.230	0.000	1784.258	2.140	0.000
122.	4289.632	-4.820	-0.000	2064.062	13.130	0.000	1785.433	2.180	0.000
123.	4283.322	-4.580	-0.000	2072.104	11.960	0.000	1786.627	2.210	0.000
124.	4277.197	-4.320	-0.000	2079.395	10.770	0.000	1787.840	2.240	0.000
125.	4271.255	-4.040	-0.000	2085.899	9.510	0.000	1789.068	2.270	0.000
126.	4265.469	-3.740	-0.000	2091.567	8.220	0.000	1790.312	2.290	0.000
127.	4260.000	-3.420	-0.000	2096.435	6.890	0.000	1791.566	2.310	0.000
128.	4254.829	-3.090	-0.000	2100.422	5.530	0.000	1792.837	2.330	0.000
129.	4250.000	-2.750	-0.000	2103.536	4.160	0.000	1794.115	2.350	0.000
130.	4251.159	-2.440	-0.000	2105.767	2.790	0.000	1795.403	2.360	0.000
131.	4248.272	-2.050	-0.000	2107.114	1.410	0.000	1796.697	2.370	0.000
132.	4245.887	-1.700	-0.000	2107.580	.040	0.000	1797.997	2.380	0.000
133.	4243.882	-1.340	-0.000	2107.174	-1.310	0.000	1799.300	2.380	0.000
134.	4242.375	-990	-0.000	2105.909	-2.630	0.000	1800.606	2.380	0.000
135.	4241.318	-650	-0.000	2103.804	-3.920	0.000	1801.912	2.380	0.000
136.	4240.793	-310	-0.000	2100.883	-5.170	0.000	1803.218	2.370	0.000
137.	4240.515	.020	0.000	2097.176	-6.380	0.000	1804.521	2.370	0.000
138.	4240.738	.330	0.000	2092.714	-7.530	0.000	1805.820	2.300	0.000
139.	4241.356	.630	0.000	2087.534	-8.620	0.000	1807.113	2.340	0.000
140.	4242.346	.910	0.000	2081.677	-9.660	0.000	1808.399	2.330	0.000
141.	4243.688	1.170	0.000	2075.184	-10.630	0.000	1809.676	2.310	0.000
142.	4245.357	1.410	0.000	2068.102	-11.530	0.000	1810.942	2.280	0.000
143.	4247.327	1.630	0.000	2060.477	-12.360	0.000	1812.197	2.260	0.000
144.	4249.575	1.860	0.000	2052.360	-13.120	0.000	1813.439	2.230	0.000
145.	4252.071	2.020	0.000	2043.881	-13.800	0.000	1814.666	2.200	0.000
146.	4254.791	2.160	0.000	2034.850	-14.410	0.000	1815.876	2.170	0.000
147.	4257.706	2.320	0.000	2025.561	-14.950	0.000	1817.069	2.140	0.000
148.	4260.791	2.430	0.000	2015.985	-15.420	0.000	1818.242	2.100	0.000
149.	4264.019	2.530	0.000	2006.173	-15.810	0.000	1819.395	2.060	0.000

X-PLANE (YZ-PLANE) CADMIUM SULPHIDE									
	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13	BULK
150.	LNGVEL	4267.364	0.000	1996.176	-16.120	1620.526	2.020	-0.000	0.000
151.		4270.801	0.000	1986.045	-16.370	1621.634	1.970	0.000	0.000
152.		4274.306	0.000	1975.830	-16.540	1622.717	1.930	0.000	0.000
153.		4277.857	0.000	1965.577	-16.640	1623.775	1.880	0.000	0.000
154.		4281.431	0.000	1955.333	-16.790	1624.805	1.830	0.000	0.000
155.		4285.007	0.000	1945.143	-16.840	1625.807	1.770	0.000	0.000
156.		4288.566	0.000	1935.849	-16.940	1626.780	1.720	0.000	0.000
157.		4292.069	0.000	1925.992	-16.980	1627.722	1.660	0.000	0.000
158.		4295.560	0.000	1915.310	-16.150	1628.632	1.600	0.000	0.000
159.		4298.963	0.000	1905.741	-15.660	1629.509	1.540	0.000	0.000
160.		4302.282	0.000	1896.419	-15.520	1630.353	1.480	0.000	0.000
161.		4305.506	0.000	1887.375	-15.110	1631.162	1.420	0.000	0.000
162.		4308.621	0.000	1878.539	-14.650	1631.936	1.350	0.000	0.000
163.		4311.617	0.000	1870.240	-14.140	1632.672	1.290	0.000	0.000
164.		4314.484	0.000	1862.202	-13.580	1633.372	1.220	0.000	0.000
165.		4317.212	0.000	1854.550	-12.970	1634.033	1.150	0.000	0.000
166.		4319.794	0.000	1847.304	-12.310	1634.655	1.080	0.000	0.000
167.		4322.223	0.000	1840.484	-11.610	1635.237	1.010	0.000	0.000
168.		4324.493	0.000	1834.106	-10.870	1635.779	.930	0.000	0.000
169.		4326.597	0.000	1828.190	-10.160	1636.280	.860	0.000	0.000
170.		4328.532	0.000	1822.745	-9.290	1636.739	.780	0.000	0.000
171.		4330.293	0.000	1817.785	-8.450	1637.156	.710	0.000	0.000
172.		4331.878	0.000	1813.320	-7.560	1637.531	.630	0.000	0.000
173.		4333.282	0.000	1809.361	-6.690	1637.862	.550	0.000	0.000
174.		4334.503	0.000	1805.914	-5.780	1638.150	.480	0.000	0.000
175.		4335.539	0.000	1802.987	-4.840	1638.394	.400	0.000	0.000
176.		4336.390	0.000	1800.504	-3.890	1638.595	.320	0.000	0.000
177.		4337.052	0.000	1798.712	-2.930	1638.751	.240	0.000	0.000
178.		4337.526	0.000	1797.372	-1.960	1638.862	.160	0.000	0.000
179.		4337.811	0.000	1796.567	-.980	1638.929	.080	0.000	0.000
180.		4337.906	-0.000	1796.298	-0.000	1638.952	0.000	0.000	0.000

Z-PLANE (XY-PLANE) DIAMOND

	LWVEL	LPHI13	FSRVEL	FSPHI12	FSPHI13	BULK	SSPHI12	SSPHI13
0.	17503.661	0.000	0.000	0.000	0.000	12604.361	0.000	0.000
1.	17504.853	0.000	12604.381	0.000	0.000	12604.361	0.000	0.000
2.	17508.420	0.000	12602.750	-0.640	0.000	12604.361	-0.000	0.000
3.	17514.330	1.320	12797.872	-1.660	0.000	12604.361	0.000	0.000
4.	17522.533	1.750	12789.782	-2.480	0.000	12604.361	0.000	0.000
5.	17532.957	2.150	12778.542	-3.280	0.000	12604.361	0.000	0.000
6.	17545.515	2.540	12766.236	-4.060	0.000	12604.361	0.000	0.000
7.	17560.104	2.910	12746.968	-4.810	0.000	12604.361	0.000	0.000
8.	17576.606	3.250	12726.863	-5.520	0.000	12604.361	0.000	0.000
9.	17594.890	3.560	12706.064	-6.200	0.000	12604.361	0.000	0.000
10.	17614.816	3.850	12687.726	-6.840	0.000	12604.361	0.000	0.000
11.	17636.243	4.110	12661.826	-7.440	0.000	12604.361	0.000	0.000
12.	17659.012	4.340	12628.142	-7.990	0.000	12604.361	0.000	0.000
13.	17682.968	4.540	12589.265	-8.490	0.000	12604.361	0.000	0.000
14.	17707.952	4.710	12555.544	-8.950	0.000	12604.361	0.000	0.000
15.	17733.805	4.840	12520.333	-9.350	0.000	12604.361	0.000	0.000
16.	17760.378	4.950	12483.687	-9.710	0.000	12604.361	0.000	0.000
17.	17787.489	5.030	12445.865	-10.010	0.000	12604.361	0.000	0.000
18.	17815.011	5.090	12407.876	-10.260	0.000	12604.361	0.000	0.000
19.	17842.785	5.110	12367.526	-10.460	0.000	12604.361	0.000	0.000
20.	17870.669	5.100	12327.421	-10.610	0.000	12604.361	0.000	0.000
21.	17898.523	5.080	12286.964	-10.710	0.000	12604.361	0.000	0.000
22.	17926.214	5.040	12246.353	-10.760	0.000	12604.361	0.000	0.000
23.	17953.614	4.960	12205.764	-10.760	0.000	12604.361	0.000	0.000
24.	17980.691	4.870	12165.445	-10.710	0.000	12604.361	0.000	0.000
25.	18007.662	4.760	12125.522	-10.610	0.000	12604.361	0.000	0.000
26.	18032.886	4.630	12086.192	-10.470	0.000	12604.361	0.000	0.000
27.	18057.971	4.480	12047.627	-10.260	0.000	12604.361	0.000	0.000
28.	18082.222	4.310	12009.995	-10.040	0.000	12604.361	0.000	0.000
29.	18105.947	4.130	11973.452	-9.760	0.000	12604.361	0.000	0.000
30.	18127.862	3.940	11938.152	-9.440	0.000	12604.361	0.000	0.000
31.	18149.089	3.730	11904.240	-9.070	0.000	12604.361	0.000	0.000
32.	18169.157	3.510	11871.851	-8.670	0.000	12604.361	0.000	0.000
33.	18187.997	3.280	11841.117	-8.220	0.000	12604.361	0.000	0.000
34.	18205.749	3.040	11812.156	-7.740	0.000	12604.361	0.000	0.000
35.	18222.787	2.790	11785.088	-7.230	0.000	12604.361	0.000	0.000
36.	18238.578	2.540	11760.012	-6.680	0.000	12604.361	0.000	0.000
37.	18253.943	2.270	11737.027	-6.100	0.000	12604.361	0.000	0.000
38.	18268.937	2.000	11716.222	-5.500	0.000	12604.361	0.000	0.000
39.	18282.215	1.730	11697.675	-4.870	0.000	12604.361	0.000	0.000
40.	18294.647	1.450	11681.458	-4.220	0.000	12604.361	0.000	0.000
41.	18296.389	1.160	11667.631	-3.540	0.000	12604.361	0.000	0.000
42.	18293.378	0.870	11656.246	-2.860	0.000	12604.361	0.000	0.000
43.	18296.838	0.580	11647.347	-2.150	0.000	12604.361	0.000	0.000
44.	18308.479	0.290	11640.966	-1.440	0.000	12604.361	0.000	0.000
45.	18301.294	0.000	11637.126	-0.720	0.000	12604.361	0.000	0.000
46.	18308.479	-0.250	11635.647	0.000	0.000	12604.361	0.000	0.000
47.	18298.038	-0.580	11637.126	0.720	0.000	12604.361	0.000	0.000
48.	18293.974	-0.870	11647.347	1.440	0.000	12604.361	0.000	0.000
49.	18288.389	-1.168	11656.246	2.150	0.000	12604.361	0.000	0.000
				2.860				

Z-PLANE (XY-PLANE) DIAMOND

	LNGVEL	LPMI12	LPMI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
50.	18204.047	-1.450	0.000	11667.631	3.540	0.000	12604.361	-0.000	0.000
51.	18272.215	-1.730	0.000	11681.458	4.220	0.000	12604.361	-0.600	0.000
52.	18264.837	-2.000	0.000	11697.675	4.870	0.000	12604.361	0.000	0.000
53.	18249.943	-2.270	0.000	11716.222	5.500	0.000	12604.361	0.000	0.000
54.	18236.570	-2.540	0.000	11737.027	6.100	0.000	12604.361	0.000	0.000
55.	18221.757	-2.790	0.000	11760.012	6.660	0.000	12604.361	-0.000	0.000
56.	18205.549	-3.040	0.000	11785.088	7.230	0.000	12604.361	0.000	0.000
57.	18187.997	-3.280	0.000	11812.158	7.740	0.000	12604.361	0.000	0.000
58.	18169.157	-3.510	0.000	11841.117	8.220	0.000	12604.361	-0.000	0.000
59.	18149.089	-3.730	0.000	11871.851	8.670	0.000	12604.361	0.000	0.000
60.	18127.862	-3.940	0.000	11904.240	9.070	0.000	12604.361	0.000	0.000
61.	18105.547	-4.130	0.000	11938.152	9.440	0.000	12604.361	0.000	0.000
62.	18082.222	-4.310	0.000	11973.452	9.760	0.000	12604.361	0.000	0.000
63.	18057.971	-4.480	0.000	12009.955	10.040	0.000	12604.361	0.000	0.000
64.	18032.886	-4.630	0.000	12047.927	10.280	0.000	12604.361	-0.000	0.000
65.	18007.062	-4.760	0.000	12086.192	10.470	0.000	12604.361	0.000	0.000
66.	17980.601	-4.870	0.000	12125.522	10.610	0.000	12604.361	0.000	0.000
67.	17953.614	-4.960	0.000	12165.445	10.710	0.000	12604.361	0.000	0.000
68.	17926.214	-5.040	0.000	12205.784	10.760	0.000	12604.361	0.000	0.000
69.	17898.523	-5.080	0.000	12246.353	10.760	0.000	12604.361	-0.000	0.000
70.	17870.669	-5.110	0.000	12286.964	10.710	0.000	12604.361	0.000	0.000
71.	17842.785	-5.110	0.000	12327.421	10.610	0.000	12604.361	0.000	0.000
72.	17815.011	-5.090	0.000	12367.526	10.460	0.000	12604.361	0.000	0.000
73.	17787.489	-5.030	0.000	12407.076	10.260	0.000	12604.361	0.000	0.000
74.	17760.370	-4.950	0.000	12445.855	10.010	0.000	12604.361	0.000	0.000
75.	17733.805	-4.840	0.000	12483.657	9.710	0.000	12604.361	0.000	0.000
76.	17707.952	-4.710	0.000	12520.333	9.350	0.000	12604.361	-0.600	0.000
77.	17682.966	-4.540	0.000	12555.994	8.950	0.000	12604.361	0.000	0.000
78.	17659.012	-4.340	0.000	12589.265	8.490	0.000	12604.361	0.000	0.000
79.	17636.243	-4.110	0.000	12621.142	7.990	0.000	12604.361	0.000	0.000
80.	17614.818	-3.850	0.000	12651.026	7.440	0.000	12604.361	0.000	0.000
81.	17594.890	-3.560	0.000	12678.726	6.840	0.000	12604.361	-0.000	0.000
82.	17576.606	-3.250	0.000	12704.084	6.200	0.000	12604.361	-0.000	0.000
83.	17560.104	-2.910	0.000	12726.863	5.520	0.000	12604.361	0.000	0.000
84.	17545.515	-2.540	0.000	12746.966	4.810	0.000	12604.361	0.000	0.000
85.	17532.957	-2.150	0.000	12764.236	4.060	0.000	12604.361	-0.000	0.000
86.	17522.533	-1.750	0.000	12778.512	3.280	0.000	12604.361	0.000	0.000
87.	17514.330	-1.320	0.000	12789.782	2.480	0.000	12604.361	0.000	0.000
88.	17508.420	-0.890	0.000	12797.872	1.660	0.000	12604.361	-0.000	0.000
89.	17504.853	-0.450	0.000	12802.750	0.840	0.000	12604.361	-0.000	0.000
90.	17503.661	0.000	0.000	12804.381	-0.000	0.000	12604.361	0.000	0.000
91.	17504.853	0.450	0.000	12802.750	-0.840	0.000	12604.361	0.000	0.000
92.	17508.420	0.890	0.000	12797.872	-1.660	0.000	12604.361	0.000	0.000
93.	17514.330	1.320	0.000	12789.782	-2.480	0.000	12604.361	0.000	0.000
94.	17522.533	1.750	0.000	12780.542	-3.280	0.000	12604.361	0.000	0.000
95.	17532.957	2.150	0.000	12764.236	-4.060	0.000	12604.361	0.000	0.000
96.	17545.515	2.540	0.000	12746.966	-4.810	0.000	12604.361	0.000	0.000
97.	17560.104	2.910	0.000	12726.863	-5.520	0.000	12604.361	0.000	0.000
98.	17576.606	3.250	0.000	12704.084	-6.200	0.000	12604.361	0.000	0.000
99.	17594.890	3.560	0.000	12678.726	-6.840	0.000	12604.361	0.000	0.000

BULK

	Z-PLANE (XY-PLANE) DIAMOND				BULK			
	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
100.	17614.816	0.000	12651.026	-7.440	0.000	12804.381	-0.000	0.000
101.	17836.243	0.000	12621.142	-7.990	0.000	12804.381	-0.000	0.000
102.	17659.812	0.000	12589.265	-8.490	0.000	12804.381	-0.000	0.000
103.	17682.966	0.000	12555.594	-8.950	0.000	12804.381	-0.000	0.000
104.	17707.952	0.000	12520.333	-9.350	0.000	12804.381	-0.000	0.000
105.	17733.805	0.000	12483.687	-9.710	0.000	12804.381	-0.000	0.000
106.	17760.370	0.000	12445.865	-10.010	0.000	12804.381	-0.000	0.000
107.	17787.489	0.000	12407.076	-10.260	0.000	12804.381	-0.000	0.000
108.	17815.011	0.000	12367.526	-10.460	0.000	12804.381	-0.000	0.000
109.	17842.785	0.000	12327.421	-10.610	0.000	12804.381	-0.000	0.000
110.	17870.669	0.000	12286.964	-10.710	0.000	12804.381	-0.000	0.000
111.	17898.523	0.000	12246.353	-10.760	0.000	12804.381	-0.000	0.000
112.	17926.214	0.000	12205.784	-10.760	0.000	12804.381	-0.000	0.000
113.	17953.614	0.000	12165.445	-10.710	0.000	12804.381	-0.000	0.000
114.	17980.601	0.000	12125.522	-10.610	0.000	12804.381	-0.000	0.000
115.	18007.062	0.000	12086.192	-10.470	0.000	12804.381	-0.000	0.000
116.	18032.886	0.000	12047.627	-10.260	0.000	12804.381	-0.000	0.000
117.	18057.971	0.000	12009.995	-10.040	0.000	12804.381	-0.000	0.000
118.	18082.222	0.000	11973.452	-9.760	0.000	12804.381	-0.000	0.000
119.	18105.547	0.000	11938.152	-9.440	0.000	12804.381	-0.000	0.000
120.	18127.662	0.000	11904.240	-9.070	0.000	12804.381	-0.000	0.000
121.	18149.089	0.000	11871.851	-8.670	0.000	12804.381	-0.000	0.000
122.	18169.157	0.000	11841.117	-8.220	0.000	12804.381	-0.000	0.000
123.	18187.997	0.000	11812.158	-7.740	0.000	12804.381	-0.000	0.000
124.	18205.545	0.000	11785.086	-7.230	0.000	12804.381	-0.000	0.000
125.	18221.757	0.000	11760.012	-6.660	0.000	12804.381	-0.000	0.000
126.	18236.570	0.000	11737.027	-6.100	0.000	12804.381	-0.000	0.000
127.	18249.943	0.000	11716.222	-5.500	0.000	12804.381	-0.000	0.000
128.	18261.837	0.000	11697.675	-4.870	0.000	12804.381	-0.000	0.000
129.	18272.215	0.000	11681.456	-4.220	0.000	12804.381	-0.000	0.000
130.	18281.047	0.000	11667.631	-3.540	0.000	12804.381	-0.000	0.000
131.	18288.389	0.000	11656.246	-2.860	0.000	12804.381	-0.000	0.000
132.	18293.976	0.000	11647.347	-2.150	0.000	12804.381	-0.000	0.000
133.	18298.038	0.000	11640.966	-1.440	0.000	12804.381	-0.000	0.000
134.	18300.679	0.000	11637.126	-0.720	0.000	12804.381	-0.000	0.000
135.	18301.294	0.000	11635.847	0.000	0.000	12804.381	-0.000	0.000
136.	18300.479	0.000	11637.128	0.720	0.000	12804.381	-0.000	0.000
137.	18298.036	0.000	11640.966	1.440	0.000	12804.381	-0.000	0.000
138.	18293.976	0.000	11647.347	2.150	0.000	12804.381	-0.000	0.000
139.	18288.389	0.000	11656.246	2.860	0.000	12804.381	-0.000	0.000
140.	18281.047	0.000	11667.631	3.540	0.000	12804.381	-0.000	0.000
141.	18272.215	0.000	11681.456	4.220	0.000	12804.381	-0.000	0.000
142.	18261.837	0.000	11697.675	4.870	0.000	12804.381	-0.000	0.000
143.	18249.943	0.000	11716.222	5.500	0.000	12804.381	-0.000	0.000
144.	18236.570	0.000	11737.027	6.100	0.000	12804.381	-0.000	0.000
145.	18221.757	0.000	11760.012	6.660	0.000	12804.381	-0.000	0.000
146.	18205.545	0.000	11785.086	7.230	0.000	12804.381	-0.000	0.000
147.	18187.997	0.000	11812.158	7.740	0.000	12804.381	-0.000	0.000
148.	18169.157	0.000	11841.117	8.220	0.000	12804.381	-0.000	0.000
149.	18149.089	0.000	11871.851	8.670	0.000	12804.381	-0.000	0.000

Z-PLANE (XY-PLANE) DIAMONO									
	LPHI12	LPHI13	FSPH12	FSPH13	SSRVEL	SSRPH12	SSRPH13	BULK	
150.	18127.862	0.000	11904.240	9.070	12004.301	0.000	0.000	0.000	SSPHI13
151.	18105.947	0.000	11938.152	9.440	12004.301	0.000	0.000	0.000	0.000
152.	18082.222	0.000	11873.452	9.760	12004.301	0.000	0.000	-0.000	0.000
153.	18057.971	0.000	12009.995	10.040	12004.301	0.000	0.000	0.000	0.000
154.	18032.686	0.000	12047.627	10.260	12004.301	0.000	0.000	0.000	0.000
155.	18007.062	0.000	12086.192	10.470	12004.301	0.000	0.000	0.000	0.000
156.	17980.601	0.000	12125.522	10.610	12004.301	0.000	0.000	0.000	0.000
157.	17953.614	0.000	12165.445	10.710	12004.301	0.000	0.000	0.000	0.000
158.	17926.214	0.000	12205.704	10.760	12004.301	0.000	0.000	-0.000	0.000
159.	17898.523	0.000	12246.353	10.760	12004.301	0.000	0.000	0.000	0.000
160.	17870.669	0.000	12286.964	10.710	12004.301	0.000	0.000	0.000	0.000
161.	17842.785	0.000	12327.421	10.610	12004.301	0.000	0.000	0.000	0.000
162.	17815.011	0.000	12367.526	10.460	12004.301	0.000	0.000	0.000	0.000
163.	17787.469	0.000	12407.076	10.260	12004.301	0.000	0.000	0.000	0.000
164.	17760.370	0.000	12445.865	10.010	12004.301	0.000	0.000	0.000	0.000
165.	17733.805	0.000	12483.587	9.710	12004.301	0.000	0.000	0.000	0.000
166.	17707.952	0.000	12520.333	9.350	12004.301	0.000	0.000	0.000	0.000
167.	17682.968	0.000	12555.594	8.950	12004.301	0.000	0.000	0.000	0.000
168.	17659.012	0.000	12589.265	8.490	12004.301	0.000	0.000	0.000	0.000
169.	17636.243	0.000	12621.142	7.990	12004.301	0.000	0.000	0.000	0.000
170.	17614.616	0.000	12651.026	7.440	12004.301	0.000	0.000	0.000	0.000
171.	17594.890	0.000	12678.726	6.840	12004.301	0.000	0.000	0.000	0.000
172.	17576.606	0.000	12704.064	6.200	12004.301	0.000	0.000	0.000	0.000
173.	17560.104	0.000	12728.863	5.520	12004.301	0.000	0.000	0.000	0.000
174.	17545.515	0.000	12746.968	4.810	12004.301	0.000	0.000	0.000	0.000
175.	17532.957	0.000	12764.236	4.060	12004.301	0.000	0.000	0.000	0.000
176.	17522.533	0.000	12778.542	3.260	12004.301	0.000	0.000	0.000	0.000
177.	17514.330	0.000	12789.782	2.400	12004.301	0.000	0.000	0.000	0.000
178.	17508.420	0.000	12797.872	1.660	12004.301	0.000	0.000	0.000	0.000
179.	17504.853	0.000	12802.750	0.840	12004.301	0.000	0.000	0.000	0.000
180.	17503.661	0.000	12804.301	-0.000	12004.301	0.000	0.000	0.000	0.000

111-PLANE DIAMOND

	LNGLVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
0.	18301.294	-0.000	0.000	12804.381	-0.000	0.000	11635.847	0.000	0.000
1.	18301.366	.030	.220	12803.664	-.370	-.260	11638.523	.380	-.240
2.	18301.580	.050	.450	12801.516	-.730	-.520	11638.549	.760	-.480
3.	18301.935	.080	.690	12797.946	-1.100	-.780	11641.917	1.140	-.720
4.	18302.426	.100	.890	12792.969	-1.460	-1.030	11646.614	1.510	-.960
5.	18303.047	.120	1.110	12786.607	-1.610	-1.260	11652.622	1.870	-1.130
6.	18303.793	.140	1.320	12778.886	-2.150	-1.530	11659.919	2.230	-1.420
7.	18304.654	.160	1.540	12769.840	-2.490	-1.760	11668.475	2.560	-1.650
8.	18305.620	.180	1.740	12759.510	-2.820	-2.020	11678.255	2.920	-1.810
9.	18306.681	.200	1.940	12747.941	-3.130	-2.250	11689.221	3.240	-2.000
10.	18307.825	.210	2.140	12735.187	-3.430	-2.470	11701.325	3.550	-2.200
11.	18309.039	.220	2.330	12721.306	-3.720	-2.690	11714.515	3.840	-2.400
12.	18310.310	.230	2.510	12706.372	-3.960	-2.910	11728.730	4.110	-2.600
13.	18311.624	.240	2.680	12690.456	-4.230	-3.110	11743.902	4.360	-2.800
14.	18312.965	.240	2.850	12673.643	-4.450	-3.300	11759.054	4.590	-3.000
15.	18314.320	.240	3.010	12656.831	-4.650	-3.490	11776.800	4.790	-3.240
16.	18315.674	.240	3.160	12637.726	-4.820	-3.670	11794.339	4.960	-3.400
17.	18317.011	.240	3.300	12618.850	-4.960	-3.830	11812.460	5.090	-3.520
18.	18318.317	.230	3.430	12599.540	-5.060	-3.950	11831.032	5.190	-3.610
19.	18319.578	.220	3.550	12579.954	-5.120	-4.040	11849.906	5.240	-3.680
20.	18320.780	.210	3.660	12560.276	-5.120	-4.270	11868.906	5.240	-3.940
21.	18321.911	.200	3.770	12540.719	-5.070	-4.400	11887.826	5.180	-4.050
22.	18322.957	.180	3.860	12521.533	-4.940	-4.510	11906.423	5.040	-4.150
23.	18323.909	.160	3.940	12503.014	-4.730	-4.620	11924.406	4.820	-4.220
24.	18324.755	.140	4.010	12485.511	-4.430	-4.710	11941.433	4.500	-4.250
25.	18325.467	.120	4.070	12469.431	-4.000	-4.750	11957.102	4.070	-4.350
26.	18326.097	.100	4.120	12455.237	-3.446	-4.660	11970.953	3.500	-4.430
27.	18326.578	.070	4.164	12443.434	-2.750	-4.910	11982.486	2.750	-4.430
28.	18326.925	.050	4.190	12434.430	-1.930	-4.950	11991.195	1.950	-4.450
29.	18327.135	.030	4.201	12428.974	-1.590	-4.950	11991.195	1.590	-4.450
30.	18327.205	.000	4.210	12427.084	0.000	-4.570	11996.633	1.010	-4.470
31.	18327.135	-.030	4.200	12428.974	.990	-4.560	11996.633	0.600	-4.470
32.	18326.925	-.050	4.190	12434.430	1.930	-4.950	11991.195	-1.950	-4.450
33.	18326.578	-.070	4.160	12443.434	2.750	-4.910	11982.486	-2.750	-4.430
34.	18326.097	-.100	4.120	12455.237	3.440	-4.860	11970.953	-3.500	-4.400
35.	18325.467	-.120	4.070	12469.431	4.000	-4.790	11957.102	-4.070	-4.350
36.	18324.755	-.140	4.010	12485.511	4.430	-4.710	11941.433	-4.500	-4.250
37.	18323.909	-.160	3.940	12503.014	4.730	-4.620	11924.406	-4.820	-4.220
38.	18322.957	-.180	3.860	12521.533	4.940	-4.510	11906.423	-5.040	-4.150
39.	18321.911	-.200	3.770	12540.719	5.070	-4.400	11887.826	-5.180	-4.050
40.	18320.780	-.210	3.660	12560.276	5.120	-4.270	11868.906	-5.240	-3.940
41.	18319.578	-.220	3.550	12579.954	5.120	-4.140	11849.906	-5.240	-3.680
42.	18318.317	-.230	3.430	12599.540	5.060	-3.950	11831.032	-5.190	-3.610
43.	18317.011	-.240	3.300	12618.850	4.960	-3.830	11812.460	-5.090	-3.520
44.	18315.674	-.240	3.160	12637.726	4.820	-3.670	11794.339	-4.960	-3.400
45.	18314.320	-.240	3.010	12656.831	4.650	-3.490	11776.800	-4.790	-3.240
46.	18312.965	-.240	2.850	12673.643	4.450	-3.300	11759.054	-4.590	-3.000
47.	18311.624	-.240	2.680	12690.456	4.230	-3.110	11743.902	-4.360	-2.800
48.	18310.310	-.230	2.510	12706.372	3.960	-2.910	11728.730	-4.110	-2.600
49.	18309.039	-.220	2.330	12721.306	3.720	-2.690	11714.515	-3.840	-2.400

BULK

111-PLANE DIAMOND

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
50.	10307.025	-2.20	2.140	12735.487	3.430	-2.470	11701.325	-3.550	-2.300
51.	10306.681	-2.00	1.940	12747.941	3.130	-2.250	11699.621	-3.240	-2.090
52.	10305.620	-1.60	1.740	12759.510	2.820	-2.020	11678.255	-2.520	-1.670
53.	10304.653	-1.10	1.540	12769.840	2.490	-1.780	11668.475	-2.500	-1.650
54.	10303.793	-1.40	1.320	12778.886	2.150	-1.530	11659.919	-2.230	-1.420
55.	10303.047	-1.20	1.110	12786.607	1.810	-1.260	11652.622	-1.670	-1.190
56.	10302.426	-1.00	.890	12792.969	1.460	-1.030	11646.614	-1.510	-0.960
57.	10301.935	-0.80	.670	12797.946	1.100	-0.780	11641.917	-1.140	-0.720
58.	10301.580	-0.50	.450	12801.516	.730	-0.520	11638.549	-0.480	-0.480
59.	10301.366	-0.30	.220	12803.664	.370	-0.260	11636.523	-0.360	-0.240
60.	10301.294	0.000	0.000	12804.381	-0.000	0.000	11635.047	-0.000	-0.000
61.	10301.366	-0.30	-0.20	12803.664	-0.370	-0.260	11636.523	-0.380	-0.240
62.	10301.540	-0.50	-0.40	12801.516	-0.730	-0.520	11638.549	-0.760	-0.480
63.	10301.935	-0.80	-0.60	12797.946	-1.100	-0.780	11641.917	-1.140	-0.720
64.	10302.426	-1.00	-0.80	12792.969	-1.460	-1.030	11646.614	-1.510	-0.960
65.	10303.046	-1.20	-1.10	12786.606	-1.810	-1.260	11652.622	-1.670	-1.130
66.	10303.793	-1.40	-1.30	12778.886	-2.150	-1.530	11659.919	-2.230	-1.420
67.	10304.654	-1.60	-1.54	12769.840	-2.490	-1.780	11668.474	-2.500	-1.650
68.	10305.620	-1.80	-1.74	12759.510	-2.820	-2.020	11678.255	-2.520	-1.670
69.	10306.681	-2.00	-1.94	12747.941	-3.130	-2.250	11699.621	-2.500	-2.090
70.	10307.825	-2.10	-2.14	12735.487	-3.430	-2.470	11701.325	-2.300	-2.300
71.	10309.039	-2.20	-2.30	12721.306	-3.720	-2.690	11714.515	-2.200	-2.200
72.	10310.310	-2.30	-2.50	12706.372	-4.010	-2.910	11728.730	-2.000	-2.000
73.	10311.624	-2.40	-2.60	12690.455	-4.230	-3.110	11743.902	-1.600	-1.600
74.	10312.966	-2.40	-2.80	12673.843	-4.450	-3.300	11759.954	-1.100	-1.100
75.	10314.321	-2.40	-3.00	12656.831	-4.620	-3.490	11776.080	-0.500	-0.500
76.	10315.674	-2.40	-3.160	12637.726	-4.820	-3.670	11794.339	0.000	0.000
77.	10317.011	-2.40	-3.300	12616.849	-4.960	-3.830	11812.460	0.500	0.500
78.	10318.317	-2.30	-3.430	12599.540	-5.060	-3.950	11831.032	1.000	1.000
79.	10319.576	-2.20	-3.550	12579.954	-5.120	-4.040	11849.906	1.500	1.500
80.	10320.740	-2.10	-3.660	12560.276	-5.120	-4.100	11868.906	2.000	2.000
81.	10321.911	-2.00	-3.770	12540.719	-5.070	-4.270	11887.826	2.500	2.500
82.	10322.956	-1.60	-3.860	12521.533	-4.940	-4.400	11906.423	3.000	3.000
83.	10323.909	-1.60	-3.940	12503.014	-4.730	-4.510	11924.406	3.500	3.500
84.	10324.755	-1.40	-4.010	12485.511	-4.430	-4.620	11941.933	4.000	4.000
85.	10325.487	-1.20	-4.070	12469.431	-4.000	-4.750	11957.102	4.500	4.500
86.	10326.097	-1.00	-4.120	12455.237	-3.440	-4.860	11970.953	5.000	5.000
87.	10326.576	-0.70	-4.160	12443.434	-2.750	-4.910	11982.485	5.500	5.500
88.	10326.925	-0.50	-4.190	12434.829	-1.930	-4.950	11991.195	6.000	6.000
89.	10327.135	0.000	-4.200	12428.974	-0.990	-4.970	11996.632	6.500	6.500
90.	10327.205	-0.30	-4.210	12427.084	0.000	-4.960	11998.403	7.000	7.000
91.	10327.135	-0.30	-4.200	12428.974	.990	-4.970	11998.632	7.500	7.500
92.	10326.925	-0.50	-4.190	12434.829	1.930	-4.950	11991.195	8.000	8.000
93.	10326.576	-0.70	-4.160	12443.434	2.750	-4.910	11982.485	8.500	8.500
94.	10326.097	-1.00	-4.120	12455.237	3.440	-4.860	11970.953	9.000	9.000
95.	10325.487	-1.20	-4.070	12469.431	3.840	-4.800	11957.102	9.500	9.500
96.	10324.755	-1.40	-4.010	12485.511	4.000	-4.710	11941.933	10.000	10.000
97.	10323.909	-1.60	-3.940	12503.014	4.430	-4.620	11924.406	10.500	10.500
98.	10322.956	-1.60	-3.860	12521.533	4.940	-4.510	11906.423	11.000	11.000
99.	10321.911	-2.00	-3.770	12540.719	5.070	-4.400	11887.826	11.500	11.500

111-PLANE DIAMOND

BULK

	LNGLVL	LPML12	LPML13	FSRVEL	FSPML12	FSPML13	SSRVEL	SSPML12	SSPML13
100.	10320.760	-210	-3.660	12560.276	5.120	4.270	11060.906	-5.240	3.540
101.	10319.578	-220	-3.550	12579.954	5.120	4.140	11049.906	-5.240	3.020
102.	10318.317	-230	-3.430	12599.540	5.060	3.990	11031.032	-5.190	3.620
103.	10317.011	-240	-3.300	12618.049	4.960	3.830	11012.460	-5.090	3.550
104.	10315.674	-240	-3.160	12637.726	4.820	3.670	11794.339	-4.560	3.400
105.	10314.321	-240	-3.010	12656.031	4.650	3.490	11776.800	-4.790	3.240
106.	10312.966	-240	-2.850	12673.643	4.450	3.300	11759.954	-4.590	3.070
107.	10311.624	-240	-2.680	12690.455	4.230	3.110	11743.402	-4.360	2.890
108.	10310.310	-230	-2.510	12706.372	3.960	2.910	11720.730	-4.110	2.780
109.	10309.039	-220	-2.330	12721.306	3.720	2.690	11714.515	-3.840	2.580
110.	10307.825	-210	-2.140	12735.187	3.430	2.470	11701.325	-3.550	2.300
111.	10306.661	-200	-1.940	12747.941	3.130	2.250	11689.821	-3.240	2.090
112.	10305.620	-160	-1.740	12759.510	2.820	2.020	11678.255	-2.920	1.870
113.	10304.654	-160	-1.540	12769.840	2.490	1.780	11668.474	-2.580	1.640
114.	10303.793	-140	-1.320	12778.886	2.150	1.530	11659.419	-2.230	1.420
115.	10303.046	-120	-1.110	12786.506	1.810	1.280	11652.622	-1.870	1.190
116.	10302.426	-100	-0.900	12792.969	1.460	1.030	11646.014	-1.510	0.960
117.	10301.935	-050	-0.670	12797.946	1.100	0.760	11641.917	-1.140	0.720
118.	10301.560	-050	-0.450	12801.516	0.730	0.520	11630.549	-0.760	0.480
119.	10301.366	-030	-0.220	12803.664	0.370	0.260	11619.847	-0.380	0.240
120.	10301.294	-0.000	0.000	12804.381	0.000	0.000	11610.823	-0.000	0.000
121.	10301.366	0.030	0.220	12803.664	-0.370	-0.260	11600.949	0.380	-0.240
122.	10301.560	0.050	0.450	12801.516	-0.730	-0.520	11590.549	0.760	-0.480
123.	10301.935	0.060	0.670	12797.946	-1.100	-0.760	11581.917	1.140	-0.720
124.	10302.426	0.100	0.900	12792.969	-1.460	-1.030	11566.014	1.510	-0.960
125.	10303.047	0.120	1.110	12786.607	-1.810	-1.280	11552.622	1.870	-1.190
126.	10303.793	0.140	1.320	12778.886	-2.150	-1.530	11539.419	2.230	-1.420
127.	10304.653	0.160	1.540	12769.840	-2.490	-1.780	11528.475	2.580	-1.640
128.	10305.620	0.180	1.740	12759.510	-2.820	-2.020	11518.255	2.920	-1.870
129.	10306.661	0.200	1.940	12747.941	-3.130	-2.250	11509.821	3.240	-2.090
130.	10307.825	0.210	2.140	12735.187	-3.430	-2.470	11501.325	3.550	-2.300
131.	10309.039	0.220	2.330	12721.306	-3.720	-2.690	11494.315	3.840	-2.500
132.	10310.310	0.230	2.510	12706.372	-3.960	-2.910	11487.730	4.110	-2.700
133.	10311.624	0.240	2.680	12690.455	-4.230	-3.110	11481.433	4.360	-2.890
134.	10312.965	0.240	2.850	12673.643	-4.450	-3.300	11475.302	4.620	-3.070
135.	10314.320	0.240	3.010	12656.031	-4.650	-3.490	11469.255	4.870	-3.240
136.	10315.674	0.240	3.160	12637.726	-4.820	-3.670	11463.255	5.090	-3.400
137.	10317.011	0.240	3.300	12618.049	-4.960	-3.830	11457.339	5.240	-3.550
138.	10318.317	0.230	3.430	12599.540	-5.060	-3.950	11451.433	5.390	-3.690
139.	10319.578	0.220	3.550	12579.954	-5.120	-4.140	11445.460	5.540	-3.820
140.	10320.760	0.200	3.660	12560.276	-5.120	-4.270	11439.460	5.690	-3.940
141.	10321.911	0.200	3.770	12540.719	-5.070	-4.400	11433.426	5.840	-4.060
142.	10322.957	0.160	3.860	12521.533	-4.940	-4.510	11427.255	5.990	-4.180
143.	10323.909	0.160	3.940	12503.014	-4.730	-4.620	11421.032	6.140	-4.290
144.	10324.755	0.140	4.010	12485.511	-4.430	-4.710	11414.730	6.290	-4.400
145.	10325.467	0.120	4.070	12469.431	-4.000	-4.750	11408.354	6.440	-4.500
146.	10326.097	0.100	4.120	12455.237	-3.440	-4.860	11401.953	6.590	-4.600
147.	10326.576	0.070	4.160	12443.434	-2.750	-4.910	11395.486	6.740	-4.700
148.	10326.925	0.050	4.190	12434.530	-1.930	-4.950	11391.195	6.890	-4.800
149.	10327.135	0.030	4.200	12428.974	-0.990	-4.970	11396.633	7.040	-4.900

	111-PLANE DIAGONO										BULK				
	LPHI12	LPHI13	FSPVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13	SSRPH12	SSRPH13					
150.	18327.205	4.210	12427.064	-0.000	-4.970	1198.443	-0.000	-4.970	1198.443	-4.470					
151.	18327.135	4.200	12428.974	.590	-4.970	1196.693	-1.010	-4.970	1196.693	-4.470					
152.	18326.925	-0.050	12434.530	1.930	-4.950	11991.195	-1.950	-4.950	11991.195	-4.470					
153.	18326.576	-0.070	12443.434	2.750	-4.910	11982.486	-2.790	-4.910	11982.486	-4.470					
154.	18326.097	-0.100	12455.237	3.440	-4.860	11970.953	-3.500	-4.860	11970.953	-4.470					
155.	18325.487	-0.120	12469.431	4.000	-4.790	11957.182	-4.070	-4.790	11957.182	-4.470					
156.	18324.755	-0.140	12485.511	4.430	-4.710	11941.433	-4.500	-4.710	11941.433	-4.470					
157.	18323.905	-0.160	12503.014	4.730	-4.620	11924.486	-4.820	-4.620	11924.486	-4.470					
158.	18322.957	-0.180	12521.533	4.940	-4.510	11906.423	-5.040	-4.510	11906.423	-4.470					
159.	18321.911	-0.200	12540.719	5.070	-4.400	11887.826	-5.160	-4.400	11887.826	-4.470					
160.	18320.780	-0.210	12560.276	5.120	-4.270	11868.906	-5.240	-4.270	11868.906	-4.470					
161.	18319.574	-0.220	12579.954	5.060	-4.140	11849.506	-5.240	-4.140	11849.506	-4.470					
162.	18318.317	-0.230	12599.540	4.960	-3.990	11831.032	-5.190	-3.990	11831.032	-4.470					
163.	18317.011	-0.240	12618.850	4.820	-3.870	11812.460	-5.090	-3.870	11812.460	-4.470					
164.	18315.674	-0.240	12637.726	4.650	-3.740	11794.339	-4.960	-3.740	11794.339	-4.470					
165.	18314.320	-0.240	12656.031	4.450	-3.600	11776.800	-4.790	-3.600	11776.800	-4.470					
166.	18312.965	-0.240	12673.643	4.230	-3.450	11759.954	-4.590	-3.450	11759.954	-4.470					
167.	18311.624	-0.240	12690.450	3.980	-3.310	11743.992	-4.360	-3.310	11743.992	-4.470					
168.	18310.310	-0.230	12706.372	3.720	-3.160	11728.730	-4.110	-3.160	11728.730	-4.470					
169.	18309.039	-0.220	12721.306	3.430	-3.000	11714.515	-3.840	-3.000	11714.515	-4.470					
170.	18307.825	-0.210	12735.187	3.130	-2.840	11701.325	-3.550	-2.840	11701.325	-4.470					
171.	18306.681	-0.200	12747.941	2.820	-2.680	11689.221	-3.240	-2.680	11689.221	-4.470					
172.	18305.620	-0.190	12759.510	2.620	-2.520	11678.255	-2.920	-2.520	11678.255	-4.470					
173.	18304.654	-0.180	12769.840	2.490	-2.400	11668.475	-2.600	-2.400	11668.475	-4.470					
174.	18303.793	-0.170	12778.865	2.150	-2.300	11659.919	-2.230	-2.300	11659.919	-4.470					
175.	18303.047	-0.160	12786.607	1.810	-2.200	11652.622	-1.870	-2.200	11652.622	-4.470					
176.	18302.426	-0.150	12792.969	1.460	-2.100	11646.614	-1.510	-2.100	11646.614	-4.470					
177.	18301.935	-0.140	12797.946	1.100	-2.000	11641.917	-1.140	-2.000	11641.917	-4.470					
178.	18301.560	-0.130	12801.516	.736	-1.900	11638.549	-0.760	-1.900	11638.549	-4.470					
179.	18301.366	-0.120	12803.664	.370	-1.800	11636.523	-0.380	-1.800	11636.523	-4.470					
180.	18301.294	-0.110	12804.381	0.000	-1.700	11635.647	0.000	-1.700	11635.647	-4.470					

110-PLANE DIAMOND									
	LNVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRWEL	SSPH12	SSPH13
0.	18559.555	0.000	-0.000	12037.976	5.310	0.000	12037.961	-5.310	-0.000
1.	18556.985	-2.200	-0.000	12057.580	5.350	-0.000	12019.205	-4.910	-0.000
2.	18557.252	-4.410	-0.000	12077.384	5.390	0.000	12001.984	-4.480	-0.000
3.	18554.329	-6.620	-0.000	12097.346	5.420	0.000	11986.386	-4.040	-0.000
4.	18550.192	-8.840	0.000	12117.446	5.440	0.000	11972.483	-3.570	-0.000
5.	18544.820	-1.060	0.000	12137.653	5.460	0.000	11960.331	-3.090	0.000
6.	18538.197	-1.280	0.000	12157.944	5.470	0.000	11949.904	-2.590	0.000
7.	18530.310	-1.510	0.000	12178.295	5.470	0.000	11941.491	-2.060	0.000
8.	18521.152	-1.740	-0.000	12198.679	5.470	0.000	11934.690	-1.550	-0.000
9.	18510.715	-1.960	-0.000	12219.072	5.460	-0.000	11930.215	-1.020	-0.000
10.	18499.009	-2.150	-0.000	12239.450	5.440	0.000	11927.486	-0.480	-0.000
11.	18486.027	-2.420	-0.000	12259.788	5.420	0.000	11926.729	.680	-0.000
12.	18471.781	-2.640	0.000	12280.060	5.390	0.000	11927.347	.610	-0.000
13.	18456.282	-2.860	0.000	12300.243	5.360	0.000	11931.142	1.150	-0.000
14.	18439.547	-3.050	0.000	12320.313	5.320	0.000	11936.309	1.650	-0.000
15.	18421.596	-3.300	0.000	12340.246	5.270	0.000	11943.434	2.220	-0.000
16.	18402.453	-3.510	0.000	12360.018	5.210	0.000	11952.495	2.750	-0.000
17.	18382.149	-3.720	0.000	12379.606	5.150	-0.000	11963.461	3.260	-0.000
18.	18360.717	-3.920	-0.000	12398.987	5.090	0.000	11976.296	3.760	-0.000
19.	18338.194	-4.120	0.000	12418.138	5.020	0.000	11990.993	4.250	0.000
20.	18314.623	-4.310	-0.000	12437.038	4.940	-0.000	12007.379	4.720	0.000
21.	18290.051	-4.490	0.000	12455.664	4.860	0.000	12025.512	5.160	-0.000
22.	18264.530	-4.660	0.000	12473.995	4.770	0.000	12045.283	5.590	0.000
23.	18238.116	-4.820	0.000	12492.011	4.680	0.000	12066.614	6.000	-0.000
24.	18210.876	-4.970	-0.000	12509.689	4.580	0.000	12089.422	6.360	-0.000
25.	18182.871	-5.110	-0.000	12527.011	4.480	0.000	12113.615	6.700	0.000
26.	18154.174	-5.230	-0.000	12543.957	4.380	0.000	12139.092	7.020	-0.000
27.	18124.863	-5.340	-0.000	12560.506	4.260	0.000	12165.748	7.300	-0.000
28.	18095.021	-5.440	-0.000	12576.645	4.150	0.000	12193.468	7.550	0.000
29.	18064.735	-5.520	-0.000	12592.350	4.030	0.000	12222.132	7.770	0.000
30.	18034.098	-5.590	0.000	12607.606	3.910	0.000	12251.613	7.950	0.000
31.	18003.209	-5.630	-0.000	12622.399	3.780	0.000	12281.776	8.050	0.000
32.	17972.171	-5.660	-0.000	12636.702	3.650	0.000	12312.485	8.190	-0.000
33.	17941.094	-5.660	-0.000	12650.511	3.510	0.000	12343.689	8.250	-0.000
34.	17910.090	-5.650	-0.000	12663.806	3.370	0.000	12374.940	8.200	-0.000
35.	17879.260	-5.610	0.000	12676.572	3.230	0.000	12406.382	8.000	0.000
36.	17848.787	-5.550	-0.000	12688.797	3.090	0.000	12437.752	8.200	-0.000
37.	17818.738	-5.470	0.000	12700.467	2.940	0.000	12468.888	8.100	0.000
38.	17789.266	-5.360	-0.000	12711.956	2.790	0.000	12499.620	7.950	0.000
39.	17760.505	-5.230	0.000	12722.090	2.640	-0.000	12529.779	7.760	-0.000
40.	17732.591	-5.070	-0.000	12732.020	2.480	0.000	12559.193	7.530	-0.000
41.	17705.665	-4.880	0.000	12741.348	2.320	0.000	12587.690	7.260	-0.000
42.	17679.867	-4.670	-0.000	12750.064	2.160	0.000	12615.096	6.940	-0.000
43.	17655.334	-4.430	0.000	12758.156	2.000	-0.000	12641.243	6.560	-0.000
44.	17632.206	-4.160	0.000	12765.622	1.840	0.000	12665.964	6.160	-0.000
45.	17610.617	-3.870	0.000	12772.446	1.670	0.000	12689.096	5.750	-0.000
46.	17590.697	-3.550	0.000	12778.629	1.500	0.000	12710.487	5.270	-0.000
47.	17572.570	-3.210	0.000	12784.158	1.340	-0.000	12729.986	4.760	-0.000
48.	17556.353	-2.840	0.000	12789.028	1.170	0.000	12747.454	4.220	0.000
49.	17542.153	-2.460	0.000	12793.236	.990	0.000	12762.775	3.650	0.000

110-PLANE DIAMOND

	LMGWEL	LPHI12	LPHI13	FSPH12	FSPH13	SSPH12	SSPH13
50.	17530.067	-2.060	0.000	12736.776	0.000	12775.626	-0.000
51.	17520.177	-1.640	0.000	12799.645	0.000	12786.515	-0.000
52.	17512.553	-1.210	0.000	12801.839	0.000	12794.759	0.000
53.	17507.250	-0.770	0.000	12803.357	0.000	12800.496	-0.000
54.	17504.307	-0.330	0.000	12804.197	0.000	12803.681	-0.000
55.	17503.744	.120	0.000	12804.357	-0.000	12804.291	-0.000
56.	17505.565	.560	0.000	12803.838	-0.000	12802.319	-0.000
57.	17509.756	1.010	0.000	12802.640	-0.000	12797.762	-0.000
58.	17516.292	1.440	0.000	12800.765	-0.000	12790.715	-0.000
59.	17525.120	1.860	0.000	12798.214	-0.000	12781.171	-0.000
60.	17536.180	2.270	0.000	12794.990	-0.000	12769.224	-0.000
61.	17549.394	2.670	0.000	12791.047	-0.000	12754.463	-0.000
62.	17564.671	3.040	0.000	12786.539	0.000	12738.493	0.000
63.	17581.910	3.390	0.000	12781.320	0.000	12719.935	-0.000
64.	17600.999	3.720	0.000	12775.446	-0.000	12699.420	-0.000
65.	17621.816	4.020	0.000	12768.924	0.000	12677.041	-0.000
66.	17644.235	4.300	0.000	12761.760	0.000	12653.049	-0.000
67.	17668.121	4.560	0.000	12753.962	-0.000	12627.605	-0.000
68.	17693.339	4.780	0.000	12745.539	-0.000	12600.772	-0.000
69.	17719.751	4.980	0.000	12736.496	-0.000	12572.768	-0.000
70.	17747.215	5.160	0.000	12726.651	0.000	12543.766	-0.000
71.	17775.594	5.300	0.000	12716.607	-0.000	12513.937	-0.000
72.	17804.747	5.420	0.000	12705.778	-0.000	12483.454	-0.000
73.	17834.541	5.520	0.000	12694.375	0.000	12452.468	-0.000
74.	17864.840	5.590	-0.000	12682.411	0.000	12421.207	-0.000
75.	17895.517	5.640	0.000	12669.898	-0.000	12389.779	-0.000
76.	17926.444	5.660	0.000	12656.651	0.000	12356.366	-0.000
77.	17957.501	5.660	0.000	12643.283	0.000	12327.126	-0.000
78.	17988.571	5.650	0.000	12629.209	0.000	12296.212	-0.000
79.	18019.544	5.610	0.000	12614.646	-0.000	12265.774	0.000
80.	18050.312	5.550	0.000	12599.606	-0.000	12235.954	0.000
81.	18080.776	5.480	0.000	12584.113	0.000	12206.688	-0.000
82.	18110.839	5.390	0.000	12568.177	-0.000	12176.706	-0.000
83.	18140.411	5.250	-0.000	12551.620	0.000	12151.534	-0.000
84.	18169.407	5.170	0.000	12535.056	-0.000	12125.486	-0.000
85.	18197.748	5.040	0.000	12517.911	0.000	12100.675	-0.000
86.	18225.359	4.890	0.000	12500.338	0.000	12077.201	-0.000
87.	18252.171	4.740	0.000	12482.539	0.000	12055.162	-0.000
88.	18278.120	4.570	0.000	12464.355	0.000	12034.644	-0.000
89.	18303.146	4.390	0.000	12445.665	0.000	12015.725	-0.000
90.	18327.196	4.210	0.000	12427.092	0.000	11998.489	-0.000
91.	18350.219	4.020	-0.000	12408.056	0.000	11982.950	-0.000
92.	18372.172	3.820	-0.000	12388.781	0.000	11969.289	-0.000
93.	18393.013	3.610	0.000	12369.288	0.000	11957.436	-0.000
94.	18412.707	3.400	0.000	12349.600	0.000	11947.471	-0.000
95.	18431.224	3.190	0.000	12329.740	0.000	11939.429	-0.000
96.	18448.536	2.970	-0.000	12309.732	0.000	11933.336	-0.000
97.	18464.620	2.750	0.000	12289.599	0.000	11929.208	-0.000
98.	18479.460	2.520	0.000	12269.366	-0.000	11927.057	-0.000
99.	18493.040	2.300	-0.000	12249.056	0.000	11926.684	-0.000

110-PLANE DIAMOND

	LMGVEL	LPHI12	LPHI13	FSRWEL	FSPH12	FSPH13	SRRWEL	SSPH12	SSPH13
100.	10505.351	2.070	-0.000	1220.694	-5.450	0.000	11926.664	.770	-0.000
101.	10516.367	1.640	-0.000	1208.305	-5.470	0.000	11932.442	1.300	0.000
102.	10526.147	1.620	0.000	12167.913	-5.470	0.000	11938.137	1.630	-0.000
103.	10534.632	1.390	-0.000	12167.544	-5.470	0.000	11945.742	2.350	-0.000
104.	10541.850	1.170	0.000	12147.221	-5.470	0.000	11955.219	2.450	-0.000
105.	10547.611	.940	0.000	12126.971	-5.450	0.000	11966.525	3.340	-0.000
106.	10552.529	.730	0.000	12106.819	-5.430	0.000	11979.610	3.620	-0.000
107.	10556.023	.510	0.000	12086.789	-5.410	0.000	11994.416	4.270	-0.000
108.	10558.314	.300	-0.000	12066.906	-5.370	0.000	12010.879	4.710	-0.000
109.	10559.429	.090	-0.000	12047.197	-5.330	0.000	12028.928	5.120	-0.000
110.	10559.358	-1.100	0.000	12027.684	-5.260	-0.000	12046.485	5.510	0.000
111.	10558.256	-1.300	0.000	12008.394	-5.230	-0.000	12063.466	5.670	0.000
112.	10556.039	-1.460	0.000	11989.351	-5.160	-0.000	12091.786	6.210	0.000
113.	10552.790	-1.660	0.000	11970.580	-5.100	-0.000	12115.348	6.520	0.000
114.	10548.554	-1.630	0.000	11952.103	-5.020	-0.000	12140.051	6.790	0.000
115.	10543.360	-1.150	0.000	11933.947	-4.940	-0.000	12162.454	7.040	0.000
116.	10537.322	-1.150	0.000	11916.133	-4.850	0.000	12192.454	7.250	0.000
117.	10530.635	-1.290	0.000	11898.686	-4.750	0.000	12219.930	7.440	0.000
118.	10522.780	-1.420	0.000	11881.625	-4.650	0.000	12246.180	7.590	-0.000
119.	10514.421	-1.540	0.000	11864.983	-4.540	-0.000	12276.842	7.780	0.000
120.	10505.425	-1.650	0.000	11848.771	-4.420	-0.000	12306.028	7.950	-0.000
121.	10495.861	-1.740	0.000	11833.015	-4.300	-0.000	12335.532	8.100	0.000
122.	10485.803	-1.830	0.000	11817.735	-4.170	0.000	12365.221	8.250	0.000
123.	10475.326	-1.690	0.000	11802.952	-4.030	0.000	12394.483	8.420	0.000
124.	10464.504	-1.950	0.000	11748.687	-3.840	-0.000	12424.623	8.570	-0.000
125.	10453.432	-1.990	0.000	11778.957	-3.750	-0.000	12454.083	8.700	-0.000
126.	10442.178	-2.010	0.000	11761.762	-3.590	-0.000	12483.148	8.820	0.000
127.	10430.832	-2.020	0.000	11749.181	-3.440	0.000	12511.741	8.930	0.000
128.	10419.477	-2.020	0.000	11737.169	-3.270	0.000	12539.705	9.030	0.000
129.	10408.199	-2.000	0.000	11725.764	-3.100	-0.000	12566.906	9.120	0.000
130.	10397.086	-1.960	0.000	11714.981	-2.930	0.000	12593.210	9.200	0.000
131.	10386.221	-1.910	0.000	11704.835	-2.750	-0.000	12618.446	9.270	-0.000
132.	10375.685	-1.850	0.000	11695.340	-2.570	-0.000	12642.608	9.340	0.000
133.	10365.573	-1.770	-0.000	11686.510	-2.380	0.000	12665.423	9.400	-0.000
134.	10355.952	-1.670	0.000	11678.356	-2.190	-0.000	12686.912	9.450	0.000
135.	10346.905	-1.560	0.000	11670.890	-2.000	-0.000	12706.843	9.500	-0.000
136.	10338.505	-1.440	0.000	11664.122	-1.800	0.000	12725.170	9.540	0.000
137.	10330.619	-1.310	0.000	11658.062	-1.610	0.000	12741.746	9.580	-0.000
138.	10323.913	-1.160	0.000	11652.715	-1.400	-0.000	12756.599	9.620	0.000
139.	10317.843	-1.010	0.000	11648.099	-1.200	-0.000	12769.529	9.650	-0.000
140.	10312.661	-0.850	0.000	11644.210	-0.990	0.000	12780.504	9.680	0.000
141.	10308.411	-0.660	0.000	11641.056	-0.790	-0.000	12789.463	9.710	-0.000
142.	10305.129	-0.500	-0.000	11638.643	-0.560	0.000	12796.355	9.740	0.000
143.	10302.843	-0.320	0.000	11636.973	-0.370	-0.000	12801.143	9.770	-0.000
144.	10301.573	-0.140	0.000	11636.050	-0.160	0.000	12803.746	9.800	0.000
145.	10301.330	.058	0.000	11635.873	.060	0.000	12804.306	9.830	-0.000
146.	10302.116	.230	0.000	11636.444	.270	0.000	12802.663	9.860	0.000
147.	10303.924	.428	0.000	11637.762	.480	0.000	12798.879	9.890	-0.000
148.	10306.739	.590	0.000	11639.825	.690	0.000	12792.976	9.920	0.000
149.	10310.536	.770	0.000	11642.629	.890	0.000	12784.987	9.950	-0.000

110-PLANE DIAMOND

	LMGVEL	LPMI12	LPMI13	FPRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
150.	18315.284	.930	0.000	11646.172	1.100	0.000	12774.957	-2.630	0.000
151.	18320.940	1.090	0.000	11650.448	1.310	-0.000	12762.941	-3.340	0.000
152.	18327.459	1.240	0.000	11655.451	1.510	0.000	12749.007	-3.820	0.000
153.	18334.784	1.380	0.000	11661.173	1.710	0.000	12733.232	-4.290	0.000
154.	18342.855	1.510	0.000	11667.606	1.910	0.000	12715.701	-4.730	0.000
155.	18351.606	1.620	0.000	11674.745	2.100	0.000	12696.509	-5.150	0.000
156.	18360.965	1.720	0.000	11682.576	2.300	0.000	12675.758	-5.550	0.000
157.	18370.857	1.810	0.000	11691.089	2.480	0.000	12653.557	-5.920	0.000
158.	18381.203	1.880	0.000	11700.271	2.670	0.000	12630.023	-6.260	0.000
159.	18391.921	1.940	0.000	11710.112	2.850	0.000	12605.276	-6.560	0.000
160.	18402.928	1.960	0.000	11720.596	3.020	-0.000	12579.441	-6.840	0.000
161.	18414.139	2.010	0.000	11731.709	3.190	0.000	12552.647	-7.080	0.000
162.	18425.466	2.020	0.000	11743.437	3.360	0.000	12525.027	-7.300	0.000
163.	18436.829	2.020	0.000	11755.762	3.520	0.000	12496.714	-7.470	0.000
164.	18448.137	2.000	0.000	11768.668	3.670	0.000	12467.644	-7.620	0.000
165.	18459.306	1.970	0.000	11782.138	3.820	-0.000	12436.554	-7.750	0.000
166.	18470.258	1.920	0.000	11796.153	3.970	0.000	12404.961	-7.860	0.000
167.	18480.905	1.860	0.000	11810.694	4.110	0.000	12373.261	-7.940	0.000
168.	18491.170	1.780	0.000	11825.742	4.240	-0.000	12343.530	-7.990	0.000
169.	18500.977	1.650	0.000	11841.276	4.360	0.000	12314.922	-7.990	0.000
170.	18510.250	1.590	0.000	11857.276	4.460	0.000	12290.570	-7.950	0.000
171.	18518.919	1.460	0.000	11873.719	4.600	0.000	12261.603	-7.850	0.000
172.	18526.914	1.350	0.000	11890.565	4.700	-0.000	12233.168	-7.510	0.000
173.	18534.171	1.220	0.000	11907.851	4.800	0.000	12203.329	-7.350	0.000
174.	18540.627	1.070	0.000	11925.495	4.890	-0.000	12176.266	-7.150	0.000
175.	18546.226	.910	0.000	11943.492	4.960	0.000	12152.077	-6.910	0.000
176.	18550.911	.750	0.000	11961.821	5.060	-0.000	12126.472	-6.640	0.000
177.	18554.631	.570	0.000	11980.456	5.130	-0.000	12102.760	-6.360	0.000
178.	18557.341	.390	0.000	11999.374	5.200	0.000	12079.862	-6.030	0.000
179.	18558.995	.200	0.000	12018.550	5.260	0.000	12058.217	-5.660	0.000
180.	18559.555	0.000	0.000	12037.961	5.310	0.000	12037.976	-5.310	-0.000

BULK

Z-PLANE (XY-PLANE) EUROPIUM IRON GARNET

BULK

	LNGVEL	LPMI12	LPMI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
0.	6322.037	0.000	0.000	3403.354	0.000	0.000	3403.354	0.000	0.000
1.	6322.103	0.070	0.000	3403.354	-0.000	0.000	3403.235	-0.230	0.000
2.	6322.301	1.140	0.000	3403.354	0.000	0.000	3402.876	-0.450	0.000
3.	6322.629	2.000	0.000	3403.354	0.000	0.000	3402.280	-0.670	0.000
4.	6323.086	2.770	0.000	3403.354	0.000	0.000	3401.451	-0.890	0.000
5.	6323.669	3.480	0.000	3403.354	0.000	0.000	3400.391	-1.110	0.000
6.	6324.376	4.000	0.000	3403.354	0.000	0.000	3479.107	-1.320	0.000
7.	6325.202	4.600	0.000	3403.354	0.000	0.000	3477.605	-1.520	0.000
8.	6326.143	5.200	0.000	3403.354	0.000	0.000	3475.692	-1.710	0.000
9.	6327.195	5.700	0.000	3403.354	0.000	0.000	3473.376	-1.900	0.000
10.	6328.352	6.300	0.000	3403.354	-0.000	0.000	3471.669	-2.080	0.000
11.	6329.607	6.600	0.000	3403.354	0.000	0.000	3469.579	-2.250	0.000
12.	6330.955	7.200	0.000	3403.354	0.000	0.000	3467.119	-2.400	0.000
13.	6332.369	7.760	0.000	3403.354	-0.000	0.000	3464.201	-2.550	0.000
14.	6333.900	8.000	0.000	3403.354	0.000	0.000	3461.737	-2.600	0.000
15.	6335.482	8.600	0.000	3403.354	0.000	0.000	3458.841	-2.600	0.000
16.	6337.126	8.700	0.000	3403.354	0.000	0.000	3455.628	-2.510	0.000
17.	6338.823	8.900	0.000	3403.354	0.000	0.000	3452.713	-3.000	0.000
18.	6340.567	9.160	0.000	3403.354	0.000	0.000	3449.511	-3.080	0.000
19.	6342.347	9.300	0.000	3403.354	0.000	0.000	3446.237	-3.140	0.000
20.	6344.155	9.400	0.000	3403.354	0.000	0.000	3442.207	-3.140	0.000
21.	6345.982	9.500	0.000	3403.354	0.000	0.000	3437.539	-3.220	0.000
22.	6347.818	9.500	0.000	3403.354	0.000	0.000	3432.148	-3.240	0.000
23.	6349.656	9.500	0.000	3403.354	0.000	0.000	3427.751	-3.240	0.000
24.	6351.486	9.400	0.000	3403.354	0.000	0.000	3423.364	-3.230	0.000
25.	6353.299	9.200	0.000	3403.354	0.000	0.000	3422.005	-3.200	0.000
26.	6355.086	9.200	0.000	3403.354	0.000	0.000	3422.688	-3.150	0.000
27.	6356.835	9.000	0.000	3403.354	0.000	0.000	3419.431	-3.690	0.000
28.	6358.550	8.700	0.000	3403.354	0.000	0.000	3416.240	-3.010	0.000
29.	6360.210	8.400	0.000	3403.354	0.000	0.000	3413.157	-2.920	0.000
30.	6361.812	8.100	0.000	3403.354	0.000	0.000	3410.170	-2.620	0.000
31.	6363.348	7.700	0.000	3403.354	0.000	0.000	3407.303	-2.700	0.000
32.	6364.811	7.300	0.000	3403.354	0.000	0.000	3404.569	-2.570	0.000
33.	6366.195	6.900	0.000	3403.354	0.000	0.000	3401.201	-2.420	0.000
34.	6367.492	6.600	0.000	3403.354	0.000	0.000	3397.553	-2.260	0.000
35.	6368.697	6.000	0.000	3403.354	0.000	0.000	3393.294	-2.100	0.000
36.	6369.804	5.400	0.000	3403.354	0.000	0.000	3387.217	-1.920	0.000
37.	6370.809	4.900	0.000	3403.354	0.000	0.000	3383.332	-1.730	0.000
38.	6371.707	4.300	0.000	3403.354	0.000	0.000	3381.646	-1.530	0.000
39.	6372.493	3.800	0.000	3403.354	0.000	0.000	3380.169	-1.330	0.000
40.	6373.164	3.200	0.000	3403.354	0.000	0.000	3380.906	-1.120	0.000
41.	6373.718	2.500	0.000	3403.354	0.000	0.000	3387.665	-0.900	0.000
42.	6374.151	1.900	0.000	3403.354	0.000	0.000	3387.050	-0.680	0.000
43.	6374.462	1.300	0.000	3403.354	0.000	0.000	3386.465	-0.450	0.000
44.	6374.649	0.600	0.000	3403.354	-0.000	0.000	3386.113	-0.230	0.000
45.	6374.711	0.000	0.000	3403.354	0.000	0.000	3385.996	0.000	0.000
46.	6374.649	-0.600	0.000	3403.354	0.000	0.000	3386.113	0.230	0.000
47.	6374.462	-1.300	0.000	3403.354	-0.000	0.000	3386.465	0.450	0.000
48.	6374.151	-1.900	0.000	3403.354	-0.000	0.000	3387.050	0.680	0.000
49.	6373.718	-2.500	0.000	3403.354	-0.000	0.000	3387.665	0.900	0.000

Z-PLANE (XY-PLANE) EUROPIUM IRON GARNET

	LNWEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
50.	6373.164	-.320	0.000	3483.354	0.000	0.000	3388.906	1.120	0.000
51.	6372.493	-.360	0.000	3483.354	0.000	0.000	3390.169	1.330	0.000
52.	6371.707	-.430	0.000	3483.354	0.000	0.000	3391.646	1.530	0.000
53.	6370.889	-.490	0.000	3483.354	0.000	0.000	3393.332	1.730	0.000
54.	6369.804	-.540	0.000	3483.354	0.000	0.000	3395.217	1.920	0.000
55.	6368.697	-.600	0.000	3483.354	0.000	0.000	3397.264	2.100	0.000
56.	6367.492	-.650	0.000	3483.354	0.000	0.000	3399.593	2.260	0.000
57.	6366.195	-.690	0.000	3483.354	0.000	0.000	3401.981	2.420	0.000
58.	6364.811	-.730	0.000	3483.354	0.000	0.000	3404.569	2.570	0.000
59.	6363.348	-.770	0.000	3483.354	0.000	0.000	3407.303	2.700	0.000
60.	6361.812	-.810	0.000	3483.354	0.000	0.000	3410.170	2.820	0.000
61.	6360.210	-.840	0.000	3483.354	0.000	0.000	3413.157	2.920	0.000
62.	6358.550	-.870	0.000	3483.354	0.000	0.000	3416.248	3.010	0.000
63.	6356.839	-.900	0.000	3483.354	0.000	0.000	3419.431	3.090	0.000
64.	6355.086	-.920	0.000	3483.354	0.000	0.000	3422.688	3.150	0.000
65.	6353.299	-.930	0.000	3483.354	0.000	0.000	3426.005	3.200	0.000
66.	6351.486	-.940	0.000	3483.354	0.000	0.000	3429.364	3.230	0.000
67.	6349.656	-.950	0.000	3483.354	0.000	0.000	3432.751	3.240	0.000
68.	6347.818	-.950	0.000	3483.354	0.000	0.000	3436.146	3.240	0.000
69.	6345.982	-.950	0.000	3483.354	0.000	0.000	3439.539	3.220	0.000
70.	6344.155	-.940	0.000	3483.354	0.000	0.000	3442.907	3.190	0.000
71.	6342.347	-.930	0.000	3483.354	0.000	0.000	3446.237	3.140	0.000
72.	6340.567	-.910	0.000	3483.354	0.000	0.000	3449.511	3.080	0.000
73.	6338.823	-.890	0.000	3483.354	0.000	0.000	3452.713	3.000	0.000
74.	6337.126	-.870	0.000	3483.354	0.000	0.000	3455.828	2.910	0.000
75.	6335.482	-.840	0.000	3483.354	0.000	0.000	3458.861	2.800	0.000
76.	6333.900	-.800	0.000	3483.354	0.000	0.000	3461.737	2.680	0.000
77.	6332.389	-.760	0.000	3483.354	0.000	0.000	3464.501	2.550	0.000
78.	6330.955	-.720	0.000	3483.354	0.000	0.000	3467.119	2.410	0.000
79.	6329.607	-.660	0.000	3483.354	0.000	0.000	3469.579	2.250	0.000
80.	6328.352	-.630	0.000	3483.354	0.000	0.000	3471.889	2.060	0.000
81.	6327.195	-.570	0.000	3483.354	0.000	0.000	3473.976	1.900	0.000
82.	6326.143	-.520	0.000	3483.354	0.000	0.000	3475.892	1.710	0.000
83.	6325.202	-.460	0.000	3483.354	0.000	0.000	3477.605	1.520	0.000
84.	6324.376	-.400	0.000	3483.354	0.000	0.000	3479.107	1.320	0.000
85.	6323.669	-.340	0.000	3483.354	0.000	0.000	3480.331	1.110	0.000
86.	6323.066	-.270	0.000	3483.354	0.000	0.000	3481.481	.890	0.000
87.	6322.629	-.200	0.000	3483.354	0.000	0.000	3482.280	.670	0.000
88.	6322.301	-.140	0.000	3483.354	0.000	0.000	3482.876	.450	0.000
89.	6322.103	-.070	0.000	3483.354	0.000	0.000	3483.235	.230	0.000
90.	6322.037	0.000	0.000	3483.354	0.000	0.000	3483.354	0.000	0.000
91.	6322.103	-.070	0.000	3483.354	0.000	0.000	3483.235	-.230	0.000
92.	6322.301	-.140	0.000	3483.354	0.000	0.000	3482.876	-.450	0.000
93.	6322.629	-.200	0.000	3483.354	0.000	0.000	3482.280	-.670	0.000
94.	6323.066	-.270	0.000	3483.354	0.000	0.000	3481.481	-.890	0.000
95.	6323.669	-.340	0.000	3483.354	0.000	0.000	3480.391	-1.110	0.000
96.	6324.376	-.400	0.000	3483.354	0.000	0.000	3479.107	-1.320	0.000
97.	6325.202	-.460	0.000	3483.354	0.000	0.000	3477.605	-1.520	0.000
98.	6326.143	-.520	0.000	3483.354	0.000	0.000	3475.892	-1.710	0.000
99.	6327.195	-.570	0.000	3483.354	0.000	0.000	3473.976	-1.900	0.000

Z-PLANE (XY-PLANE) EUROPIUM IRON GARNET

BULK

	LNVEL	LPM112	LPM113	FSRVEL	FSPM112	FSPM113	SSRVEL	SSPM112	SSPM113
108.	6328.352	.630	0.000	3483.354	0.000	0.000	3471.669	-2.060	0.000
109.	6329.607	.660	0.000	3483.354	0.000	0.000	3469.574	-2.250	0.000
110.	6330.955	.720	0.000	3483.354	0.000	0.000	3467.119	-2.400	0.000
111.	6332.389	.780	0.000	3483.354	-0.000	0.000	3464.501	-2.550	0.000
112.	6333.900	.800	0.000	3483.354	0.000	0.000	3461.737	-2.600	0.000
113.	6335.482	.840	0.000	3483.354	0.000	0.000	3458.841	-2.600	0.000
114.	6337.126	.870	0.000	3483.354	0.000	0.000	3455.828	-2.910	0.000
115.	6338.823	.890	0.000	3483.354	0.000	0.000	3452.713	-3.000	0.000
116.	6340.567	.910	0.000	3483.354	0.000	0.000	3449.511	-3.000	0.000
117.	6342.347	.930	0.000	3483.354	0.000	0.000	3446.237	-3.140	0.000
118.	6344.155	.940	0.000	3483.354	0.000	0.000	3442.907	-3.190	0.000
119.	6345.982	.950	0.000	3483.354	0.000	0.000	3439.539	-3.220	0.000
120.	6347.816	.950	0.000	3483.354	0.000	0.000	3436.140	-3.240	0.000
121.	6349.656	.950	0.000	3483.354	0.000	0.000	3432.751	-3.240	0.000
122.	6351.486	.940	0.000	3483.354	0.000	0.000	3429.364	-3.230	0.000
123.	6353.299	.930	0.000	3483.354	0.000	0.000	3426.005	-3.200	0.000
124.	6355.086	.920	0.000	3483.354	0.000	0.000	3422.688	-3.150	0.000
125.	6356.839	.900	0.000	3483.354	0.000	0.000	3419.431	-3.090	0.000
126.	6358.550	.870	0.000	3483.354	0.000	0.000	3416.240	-3.010	0.000
127.	6360.210	.840	0.000	3483.354	0.000	0.000	3413.157	-2.920	0.000
128.	6361.812	.810	0.000	3483.354	0.000	0.000	3410.170	-2.820	0.000
129.	6363.346	.770	0.000	3483.354	0.000	0.000	3407.303	-2.700	0.000
130.	6364.811	.730	0.000	3483.354	0.000	0.000	3404.569	-2.570	0.000
131.	6366.195	.690	0.000	3483.354	0.000	0.000	3401.981	-2.420	0.000
132.	6367.492	.650	0.000	3483.354	0.000	0.000	3399.553	-2.260	0.000
133.	6368.697	.600	0.000	3483.354	0.000	0.000	3397.294	-2.100	0.000
134.	6369.804	.540	0.000	3483.354	0.000	0.000	3395.217	-1.920	0.000
135.	6370.809	.490	0.000	3483.354	0.000	0.000	3393.332	-1.730	0.000
136.	6371.787	.430	0.000	3483.354	-0.000	0.000	3391.646	-1.530	0.000
137.	6372.693	.360	0.000	3483.354	0.000	0.000	3390.169	-1.330	0.000
138.	6373.464	.320	0.000	3483.354	0.000	0.000	3388.906	-1.120	0.000
139.	6374.116	.250	0.000	3483.354	0.000	0.000	3387.869	-900	0.000
140.	6374.651	.190	0.000	3483.354	0.000	0.000	3387.050	-660	0.000
141.	6374.962	.130	0.000	3483.354	0.000	0.000	3386.465	-450	0.000
142.	6375.052	.060	0.000	3483.354	0.000	0.000	3386.113	-230	0.000
143.	6374.649	-0.060	0.000	3483.354	0.000	0.000	3385.996	-0.000	0.000
144.	6374.462	-0.130	0.000	3483.354	0.000	0.000	3386.113	.230	0.000
145.	6374.151	-0.190	0.000	3483.354	0.000	0.000	3386.465	.450	0.000
146.	6373.718	-0.250	0.000	3483.354	0.000	0.000	3387.050	.660	0.000
147.	6373.164	-0.320	0.000	3483.354	0.000	0.000	3387.865	.960	0.000
148.	6372.493	-0.380	0.000	3483.354	0.000	0.000	3388.906	1.120	0.000
149.	6371.787	-0.430	0.000	3483.354	0.000	0.000	3390.169	1.330	0.000
150.	6370.809	-0.490	0.000	3483.354	-0.000	0.000	3391.646	1.530	0.000
151.	6369.804	-0.540	0.000	3483.354	0.000	0.000	3393.332	1.730	0.000
152.	6368.697	-0.600	0.000	3483.354	0.000	0.000	3395.217	1.920	0.000
153.	6367.492	-0.660	0.000	3483.354	0.000	0.000	3397.294	2.100	0.000
154.	6366.195	-0.730	0.000	3483.354	0.000	0.000	3399.553	2.260	0.000
155.	6364.811	-0.770	0.000	3483.354	-0.000	0.000	3401.981	2.420	0.000
156.	6363.346	-0.770	0.000	3483.354	0.000	0.000	3404.569	2.570	0.000
157.	6363.346	-0.770	0.000	3483.354	-0.000	0.000	3407.303	2.700	0.000

Z-PLANE (XY-PLANE) EUROPIUM IRON GARNET									
	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SRVEL	SSPH12	SSPH13
150.	6351.812	-0.010	0.000	3463.354	0.000	0.000	3410.170	2.620	0.000
151.	6350.216	-0.640	0.000	3463.354	0.000	0.000	3413.157	3.920	0.000
152.	6350.550	-0.670	0.000	3463.354	-0.000	0.000	3416.246	3.010	0.000
153.	6356.039	-0.900	0.000	3463.354	0.000	0.000	3419.431	3.090	0.000
154.	6355.086	-0.920	0.000	3463.354	0.000	0.000	3422.688	3.190	0.000
155.	6353.299	-0.930	0.000	3463.354	0.000	0.000	3426.005	3.280	0.000
156.	6351.486	-0.940	0.000	3463.354	0.000	0.000	3429.364	3.290	0.000
157.	6349.656	-0.950	0.000	3463.354	-0.000	0.000	3432.751	3.240	0.000
158.	6347.818	-0.950	0.000	3463.354	-0.000	0.000	3436.146	3.240	0.000
159.	6345.982	-0.950	0.000	3463.354	-0.000	0.000	3439.539	3.220	0.000
160.	6344.155	-0.940	0.000	3463.354	0.000	0.000	3442.937	3.190	0.000
161.	6342.347	-0.930	0.000	3463.354	0.000	0.000	3446.237	3.140	0.000
162.	6340.567	-0.910	0.000	3463.354	0.000	0.000	3449.511	3.060	0.000
163.	6338.823	-0.890	0.000	3463.354	0.000	0.000	3452.713	3.000	0.000
164.	6337.126	-0.870	0.000	3463.354	0.000	0.000	3455.826	2.910	0.000
165.	6335.482	-0.840	0.000	3463.354	0.000	0.000	3458.841	2.800	0.000
166.	6333.900	-0.800	0.000	3463.354	0.000	0.000	3461.737	2.660	0.000
167.	6332.389	-0.760	0.000	3463.354	0.000	0.000	3464.501	2.550	0.000
168.	6330.955	-0.720	0.000	3463.354	0.000	0.000	3467.119	2.400	0.000
169.	6329.607	-0.660	0.000	3463.354	-0.000	0.000	3469.579	2.250	0.000
170.	6328.352	-0.630	0.000	3463.354	0.000	0.000	3471.869	2.080	0.000
171.	6327.195	-0.570	0.000	3463.354	0.000	0.000	3473.976	1.900	0.000
172.	6326.143	-0.520	0.000	3463.354	-0.000	0.000	3475.892	1.710	0.000
173.	6325.202	-0.460	0.000	3463.354	0.000	0.000	3477.605	1.520	0.000
174.	6324.376	-0.400	0.000	3463.354	0.000	0.000	3479.107	1.320	0.000
175.	6323.669	-0.340	0.000	3463.354	0.000	0.000	3480.491	1.110	0.000
176.	6323.066	-0.270	0.000	3463.354	0.000	0.000	3481.851	0.890	0.000
177.	6322.629	-0.260	0.000	3463.354	-0.000	0.000	3482.280	0.670	0.000
178.	6322.301	-0.140	0.000	3463.354	-0.000	0.000	3482.876	0.450	0.000
179.	6322.103	-0.070	0.000	3463.354	0.000	0.000	3483.235	0.230	0.000
180.	6322.037	0.000	0.000	3463.354	-0.000	0.000	3483.354	0.000	0.000

111-PLANE EUROPIUM IRON GARNET

	LMGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
0.	6374.711	-0.000	0.000	3403.354	-0.000	0.000	3305.996	0.000	-0.000
1.	6374.712	0.000	0.050	3403.295	-0.110	-0.080	3306.055	0.110	-0.080
2.	6374.714	0.000	0.090	3403.119	-0.220	-0.160	3306.233	0.230	-0.160
3.	6374.716	0.000	0.140	3402.825	-0.330	-0.230	3306.528	0.340	-0.240
4.	6374.723	0.000	0.180	3402.416	-0.440	-0.310	3306.939	0.450	-0.320
5.	6374.729	0.000	0.230	3401.892	-0.550	-0.390	3307.466	0.570	-0.400
6.	6374.737	0.000	0.270	3401.256	-0.650	-0.460	3308.105	0.700	-0.470
7.	6374.746	0.000	0.310	3400.516	-0.750	-0.540	3308.855	0.830	-0.520
8.	6374.756	-0.010	0.350	3479.657	-0.850	-0.610	3309.712	0.900	-0.620
9.	6374.767	-0.010	0.400	3478.700	-0.950	-0.680	3308.674	0.960	-0.650
10.	6374.779	-0.010	0.440	3477.643	-1.040	-0.750	3391.735	1.070	-0.760
11.	6374.791	-0.010	0.480	3476.491	-1.130	-0.820	3392.092	1.160	-0.830
12.	6374.804	-0.010	0.520	3475.249	-1.210	-0.880	3394.140	1.250	-0.900
13.	6374.818	-0.010	0.550	3473.922	-1.290	-0.950	3395.472	1.330	-0.960
14.	6374.832	-0.010	0.590	3472.517	-1.360	-1.010	3396.863	1.400	-1.020
15.	6374.846	-0.010	0.620	3471.041	-1.430	-1.060	3398.365	1.460	-1.060
16.	6374.860	-0.010	0.650	3469.503	-1.480	-1.110	3399.909	1.520	-1.100
17.	6374.874	-0.010	0.680	3467.910	-1.530	-1.170	3401.507	1.560	-1.130
18.	6374.887	-0.010	0.710	3466.276	-1.560	-1.220	3403.147	1.600	-1.160
19.	6374.901	-0.010	0.740	3464.610	-1.590	-1.260	3404.818	1.620	-1.210
20.	6374.913	-0.010	0.760	3462.929	-1.600	-1.310	3406.504	1.630	-1.310
21.	6374.925	-0.010	0.780	3461.250	-1.590	-1.350	3408.189	1.620	-1.350
22.	6374.936	-0.010	0.800	3459.592	-1.550	-1.360	3409.851	1.580	-1.330
23.	6374.946	0.000	0.820	3457.981	-1.500	-1.410	3411.467	1.520	-1.410
24.	6374.955	0.000	0.840	3456.446	-1.410	-1.440	3413.005	1.430	-1.440
25.	6374.962	0.000	0.850	3455.025	-1.280	-1.460	3414.429	1.300	-1.460
26.	6374.969	0.000	0.860	3453.758	-1.110	-1.460	3415.694	1.130	-1.460
27.	6374.974	0.000	0.870	3452.696	-0.900	-1.500	3416.763	0.910	-1.440
28.	6374.976	0.000	0.870	3451.888	-0.630	-1.510	3417.573	0.640	-1.500
29.	6374.980	0.000	0.880	3451.380	-0.330	-1.510	3418.081	0.380	-1.510
30.	6374.980	-0.000	0.880	3451.207	0.000	-1.520	3418.255	0.000	-1.510
31.	6374.980	-0.000	0.880	3451.380	0.330	-1.510	3418.081	0.330	-1.510
32.	6374.977	-0.000	0.870	3451.688	0.630	-1.510	3417.573	0.640	-1.500
33.	6374.974	-0.000	0.870	3452.696	0.900	-1.500	3416.763	0.910	-1.490
34.	6374.969	-0.000	0.860	3453.758	1.110	-1.460	3415.698	1.130	-1.460
35.	6374.962	-0.000	0.850	3455.025	1.260	-1.460	3414.429	1.300	-1.460
36.	6374.955	-0.000	0.840	3456.446	1.410	-1.440	3413.005	1.430	-1.440
37.	6374.946	-0.000	0.820	3457.981	1.500	-1.410	3411.467	1.520	-1.410
38.	6374.936	-0.010	0.800	3459.592	1.550	-1.380	3409.851	1.580	-1.380
39.	6374.925	-0.010	0.780	3461.250	1.590	-1.350	3408.189	1.620	-1.350
40.	6374.913	-0.010	0.760	3462.929	1.600	-1.310	3406.504	1.630	-1.310
41.	6374.901	-0.010	0.740	3464.610	1.590	-1.260	3404.818	1.620	-1.270
42.	6374.887	-0.010	0.710	3466.276	1.560	-1.220	3403.147	1.600	-1.230
43.	6374.874	-0.010	0.680	3467.910	1.530	-1.170	3401.507	1.560	-1.160
44.	6374.860	-0.010	0.650	3469.503	1.480	-1.120	3399.909	1.520	-1.130
45.	6374.846	-0.010	0.620	3471.041	1.430	-1.060	3398.365	1.460	-1.080
46.	6374.832	-0.010	0.590	3472.517	1.360	-1.010	3396.863	1.400	-1.020
47.	6374.818	-0.010	0.550	3473.922	1.290	-0.950	3395.472	1.330	-0.960
48.	6374.804	-0.010	0.520	3475.249	1.210	-0.880	3394.140	1.250	-0.900
49.	6374.791	-0.010	0.480	3476.491	1.130	-0.820	3392.092	1.160	-0.830

111-PLANE EUROPIUM IRON GARNET

BULK

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
50.	6378.779	-0.010	0.440	3477.643	1.040	-0.750	3391.735	-1.070	-0.760
51.	6378.767	-0.010	0.400	3478.700	0.950	-0.680	3390.674	-0.980	-0.690
52.	6378.756	-0.010	0.360	3479.657	0.850	-0.610	3389.712	-0.880	-0.620
53.	6378.746	-0.000	0.310	3480.510	0.750	-0.540	3388.655	-0.790	-0.550
54.	6378.737	-0.000	0.270	3481.256	0.650	-0.460	3388.105	-0.700	-0.470
55.	6378.729	-0.000	0.230	3481.892	0.550	-0.390	3387.466	-0.610	-0.400
56.	6378.723	-0.000	0.180	3482.416	0.440	-0.310	3386.939	-0.520	-0.320
57.	6378.716	-0.000	0.140	3482.825	0.330	-0.230	3386.528	-0.430	-0.240
58.	6378.714	-0.000	0.090	3483.119	0.220	-0.160	3386.233	-0.340	-0.160
59.	6378.712	-0.000	0.050	3483.295	0.110	-0.080	3385.996	-0.250	-0.080
60.	6378.711	0.000	0.000	3483.354	-0.000	0.000	3385.855	-0.160	-0.000
61.	6378.712	0.000	-0.050	3483.295	-0.110	0.060	3385.712	-0.070	0.060
62.	6378.714	0.000	-0.100	3483.119	-0.220	0.160	3385.570	0.020	0.160
63.	6378.716	0.000	-0.140	3482.825	-0.330	0.230	3385.428	0.110	0.230
64.	6378.723	0.000	-0.180	3482.416	-0.440	0.310	3385.286	0.200	0.310
65.	6378.729	0.000	-0.230	3481.892	-0.550	0.390	3385.144	0.290	0.390
66.	6378.737	0.000	-0.270	3481.256	-0.650	0.460	3384.999	0.380	0.460
67.	6378.746	0.000	-0.310	3480.510	-0.750	0.540	3384.855	0.470	0.540
68.	6378.756	0.010	-0.360	3479.657	-0.850	0.610	3384.712	0.560	0.610
69.	6378.767	0.010	-0.400	3478.700	-0.950	0.680	3384.570	0.650	0.680
70.	6378.779	0.010	-0.440	3477.643	-1.040	0.750	3384.428	0.740	0.750
71.	6378.791	0.010	-0.480	3476.491	-1.130	0.820	3384.286	0.830	0.820
72.	6378.804	0.010	-0.520	3475.245	-1.210	0.890	3384.144	0.920	0.890
73.	6378.816	0.010	-0.550	3473.922	-1.290	0.950	3383.999	1.010	0.950
74.	6378.832	0.010	-0.590	3472.517	-1.360	1.010	3383.855	1.100	1.020
75.	6378.846	0.010	-0.620	3471.041	-1.430	1.060	3383.712	1.190	1.090
76.	6378.860	0.010	-0.650	3469.503	-1.480	1.120	3383.570	1.280	1.130
77.	6378.874	0.010	-0.680	3467.910	-1.530	1.170	3401.507	1.370	1.180
78.	6378.887	0.010	-0.710	3466.276	-1.560	1.220	3403.147	1.460	1.230
79.	6378.901	0.010	-0.740	3464.610	-1.590	1.260	3404.816	1.550	1.270
80.	6378.913	0.010	-0.760	3462.929	-1.600	1.310	3406.504	1.630	1.310
81.	6378.925	0.010	-0.780	3461.244	-1.590	1.350	3408.189	1.620	1.350
82.	6378.936	0.010	-0.800	3459.592	-1.550	1.380	3409.851	1.580	1.360
83.	6378.946	0.000	-0.820	3457.981	-1.500	1.410	3411.467	1.520	1.410
84.	6378.955	0.000	-0.840	3456.446	-1.410	1.440	3413.005	1.430	1.440
85.	6378.962	0.000	-0.850	3455.024	-1.410	1.460	3414.429	1.300	1.460
86.	6378.969	0.000	-0.860	3453.756	-1.280	1.480	3415.698	1.130	1.480
87.	6378.974	0.000	-0.870	3452.696	-1.110	1.500	3416.763	0.910	1.490
88.	6378.976	0.000	-0.870	3451.888	-0.830	1.510	3417.573	0.640	1.500
89.	6378.980	0.000	-0.860	3451.360	-0.330	1.510	3418.081	0.330	1.510
90.	6378.980	-0.000	-0.880	3451.207	0.000	1.520	3418.255	-0.000	1.510
91.	6378.980	-0.000	-0.880	3451.280	0.330	1.510	3418.081	-0.330	1.510
92.	6378.976	-0.000	-0.870	3451.088	0.630	1.500	3417.573	-0.640	1.500
93.	6378.974	-0.000	-0.870	3451.696	0.900	1.500	3416.763	-0.910	1.490
94.	6378.969	-0.000	-0.860	3453.758	1.110	1.460	3415.698	-1.130	1.460
95.	6378.962	-0.000	-0.850	3455.024	1.280	1.460	3414.429	-1.300	1.460
96.	6378.955	-0.000	-0.840	3456.446	1.410	1.440	3413.005	-1.430	1.440
97.	6378.946	-0.000	-0.820	3457.981	1.500	1.410	3411.467	-1.520	1.410
98.	6378.936	-0.010	-0.800	3459.592	1.550	1.360	3409.851	-1.580	1.360
99.	6378.925	-0.010	-0.780	3461.249	1.590	1.350	3408.189	-1.620	1.350

111-PLANE EUROPIUM IRON GARNET

BULK

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
100.	6374.913	-0.10	-0.760	3462.929	1.600	1.310	3406.504	-1.630	1.310
101.	6374.901	-0.10	-0.740	3464.610	1.590	1.260	3404.816	-1.620	1.270
102.	6374.887	-0.10	-0.710	3466.276	1.560	1.220	3403.147	-1.600	1.230
103.	6374.874	-0.10	-0.680	3467.910	1.530	1.170	3401.507	-1.560	1.160
104.	6374.860	-0.10	-0.650	3469.503	1.480	1.120	3399.909	-1.520	1.130
105.	6374.846	-0.10	-0.620	3471.041	1.430	1.060	3398.365	-1.460	1.080
106.	6374.832	-0.10	-0.590	3472.517	1.360	1.010	3396.883	-1.400	1.020
107.	6374.818	-0.10	-0.550	3473.922	1.290	0.950	3395.472	-1.330	0.960
108.	6374.804	-0.10	-0.520	3475.249	1.210	0.880	3394.140	-1.250	0.900
109.	6374.791	-0.10	-0.480	3476.491	1.130	0.820	3392.892	-1.160	0.830
110.	6374.779	-0.10	-0.440	3477.643	1.040	0.750	3391.735	-1.070	0.760
111.	6374.767	-0.10	-0.400	3478.700	0.950	0.680	3390.674	-0.960	0.690
112.	6374.756	-0.10	-0.360	3479.657	0.850	0.610	3389.712	-0.880	0.620
113.	6374.746	-0.000	-0.310	3480.510	0.750	0.540	3388.855	-0.780	0.550
114.	6374.737	-0.000	-0.270	3481.256	0.650	0.460	3388.105	-0.670	0.470
115.	6374.729	-0.000	-0.230	3481.892	0.550	0.390	3387.466	-0.570	0.400
116.	6374.723	-0.000	-0.180	3482.416	0.440	0.310	3386.939	-0.450	0.320
117.	6374.716	-0.000	-0.140	3482.825	0.330	0.230	3386.528	-0.340	0.240
118.	6374.714	-0.000	-0.090	3483.119	0.220	0.160	3386.233	-0.230	0.160
119.	6374.712	-0.000	0.000	3483.295	0.110	0.060	3385.955	0.000	0.000
120.	6374.711	-0.000	0.000	3483.354	0.000	0.000	3385.696	0.000	0.000
121.	6374.712	0.000	0.050	3483.295	-0.110	-0.060	3385.455	0.110	-0.080
122.	6374.714	0.000	0.090	3483.119	-0.220	-0.160	3385.233	0.230	-0.160
123.	6374.716	0.000	0.140	3482.825	-0.330	-0.230	3385.028	0.340	-0.240
124.	6374.723	0.000	0.180	3482.416	-0.440	-0.310	3384.839	0.450	-0.320
125.	6374.729	0.000	0.230	3481.892	-0.550	-0.390	3384.666	0.570	-0.400
126.	6374.737	0.000	0.270	3481.256	-0.650	-0.460	3384.510	0.670	-0.470
127.	6374.746	0.000	0.310	3480.510	-0.750	-0.540	3384.365	0.780	-0.500
128.	6374.756	0.000	0.360	3479.657	-0.850	-0.610	3384.233	0.880	-0.520
129.	6374.767	0.000	0.400	3478.700	-0.950	-0.680	3384.105	0.980	-0.500
130.	6374.779	0.000	0.440	3477.643	-1.040	-0.750	3383.974	1.070	-0.500
131.	6374.791	0.000	0.480	3476.491	-1.130	-0.820	3383.855	1.160	-0.500
132.	6374.804	0.000	0.520	3475.245	-1.210	-0.880	3383.742	1.250	-0.500
133.	6374.816	0.000	0.550	3473.922	-1.290	-0.950	3383.635	1.330	-0.500
134.	6374.832	0.000	0.590	3472.517	-1.360	-1.010	3383.533	1.400	-1.020
135.	6374.846	0.000	0.620	3471.041	-1.430	-1.060	3383.435	1.460	-1.060
136.	6374.860	0.000	0.650	3469.503	-1.480	-1.120	3383.340	1.520	-1.130
137.	6374.874	0.000	0.680	3467.910	-1.530	-1.170	3383.247	1.560	-1.160
138.	6374.887	0.000	0.710	3466.276	-1.560	-1.220	3403.147	1.600	-1.230
139.	6374.901	0.000	0.740	3464.610	-1.590	-1.260	3404.816	1.620	-1.270
140.	6374.913	0.000	0.760	3462.929	-1.600	-1.310	3406.504	1.630	-1.310
141.	6374.925	0.000	0.780	3461.250	-1.590	-1.350	3408.189	1.620	-1.350
142.	6374.936	0.000	0.800	3459.592	-1.550	-1.360	3409.851	1.560	-1.360
143.	6374.946	0.000	0.820	3457.981	-1.500	-1.410	3411.487	1.520	-1.410
144.	6374.955	0.000	0.840	3456.446	-1.410	-1.440	3413.005	1.430	-1.440
145.	6374.962	0.000	0.850	3454.875	-1.260	-1.460	3414.429	1.300	-1.460
146.	6374.969	0.000	0.860	3453.258	-1.110	-1.480	3415.698	1.130	-1.460
147.	6374.974	0.000	0.870	3452.686	-0.900	-1.500	3416.763	0.910	-1.460
148.	6374.977	0.000	0.870	3452.158	-0.630	-1.510	3417.573	0.640	-1.460
149.	6374.980	0.000	0.860	3451.680	-0.330	-1.510	3418.061	0.330	-1.510

111-PLANE EUROPIUM IRON GARNET

BULK

	LPM12	LPM13	FSRVEL	FSPM12	FSPM13	SSRVEL	SSPM12	SSPM13
150.	0.000	.880	3451.207	-0.000	-1.520	3416.255	-0.000	-1.510
151.	-0.000	.880	3451.340	.330	-1.510	3416.081	-.330	-1.510
152.	-0.000	.870	3451.886	.630	-1.510	3417.573	-.640	-1.500
153.	-0.000	.870	3452.696	.900	-1.500	3416.696	-.910	-1.490
154.	-0.000	.860	3453.758	1.110	-1.460	3415.696	-1.130	-1.460
155.	-0.000	.850	3455.025	1.280	-1.460	3414.429	-1.300	-1.460
156.	-0.000	.840	3456.446	1.410	-1.440	3413.005	-1.430	-1.440
157.	-0.000	.820	3457.981	1.500	-1.410	3411.467	-1.520	-1.410
158.	-0.010	.800	3459.592	1.550	-1.360	3409.651	-1.580	-1.360
159.	-0.010	.780	3461.250	1.590	-1.350	3408.189	-1.620	-1.350
160.	-0.010	.760	3462.929	1.600	-1.310	3406.504	-1.630	-1.310
161.	-0.010	.740	3464.610	1.590	-1.260	3404.818	-1.620	-1.270
162.	-0.010	.710	3466.276	1.560	-1.220	3403.147	-1.600	-1.230
163.	-0.010	.680	3467.910	1.530	-1.170	3401.507	-1.560	-1.100
164.	-0.010	.650	3469.503	1.480	-1.120	3399.909	-1.520	-1.130
165.	-0.010	.620	3471.041	1.430	-1.060	3398.365	-1.460	-1.060
166.	-0.010	.590	3472.517	1.360	-1.010	3396.883	-1.400	-1.020
167.	-0.010	.550	3473.922	1.290	-.950	3395.472	-1.330	-.960
168.	-0.010	.520	3475.249	1.210	-.860	3394.140	-1.250	-.940
169.	-0.010	.480	3476.491	1.130	-.820	3392.892	-1.160	-.830
170.	-0.010	.440	3477.643	1.040	-.750	3391.735	-1.070	-.760
171.	-0.010	.400	3478.700	.950	-.660	3390.674	-.980	-.690
172.	-0.010	.360	3479.657	.850	-.610	3389.712	-.900	-.620
173.	-0.000	.310	3480.510	.750	-.540	3388.855	-.780	-.550
174.	-0.000	.270	3481.256	.650	-.460	3388.105	-.670	-.470
175.	-0.000	.230	3481.892	.550	-.390	3387.466	-.570	-.440
176.	-0.000	.180	3482.416	.440	-.310	3386.939	-.450	-.320
177.	-0.000	.140	3482.825	.330	-.230	3386.528	-.340	-.240
178.	-0.000	.090	3483.119	.220	-.160	3386.233	-.230	-.160
179.	-0.000	.050	3483.295	.110	-.080	3386.055	-.110	-.080
180.	0.000	-0.000	3483.354	-0.000	0.000	3385.996	0.000	0.000

110-PLANE EUROPIUM IRON GARNET

	LNGVEL	LPM12	LPM13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
0.	6392.173	0.000	0.000	3416.757	1.550	-0.000	3416.756	-1.550	-0.000
1.	6392.130	-0.040	-0.000	3420.375	1.560	0.000	3417.217	-1.410	-0.000
2.	6392.002	-0.090	0.000	3422.011	1.560	0.000	3415.820	-1.270	0.000
3.	6391.784	-0.140	0.000	3423.662	1.590	0.000	3414.573	-1.120	0.000
4.	6391.475	-0.160	0.000	3425.326	1.600	0.000	3413.462	-0.970	0.000
5.	6391.074	-0.230	0.000	3427.001	1.610	0.000	3412.552	-0.820	0.000
6.	6390.578	-0.280	0.000	3428.685	1.620	0.000	3411.786	-0.650	0.000
7.	6389.988	-0.330	0.000	3430.375	1.620	0.000	3411.194	-0.490	0.000
8.	6389.303	-0.360	0.000	3432.071	1.620	0.000	3410.772	-0.320	0.000
9.	6388.522	-0.430	0.000	3433.770	1.620	0.000	3410.525	-0.150	0.000
10.	6387.647	-0.470	0.000	3435.465	1.620	0.000	3410.454	0.000	0.000
11.	6386.677	-0.520	0.000	3437.166	1.620	0.000	3410.559	0.150	0.000
12.	6385.615	-0.570	0.000	3438.861	1.610	0.000	3410.641	0.360	0.000
13.	6384.461	-0.620	0.000	3440.545	1.610	0.000	3411.297	0.520	0.000
14.	6383.219	-0.660	0.000	3442.231	1.600	0.000	3411.925	0.690	0.000
15.	6381.890	-0.710	0.000	3443.902	1.590	0.000	3412.724	0.650	0.000
16.	6380.478	-0.750	0.000	3445.562	1.560	0.000	3413.680	1.010	0.000
17.	6378.986	-0.790	0.000	3447.209	1.560	0.000	3414.814	1.160	0.000
18.	6377.418	-0.830	0.000	3448.839	1.540	0.000	3416.097	1.310	0.000
19.	6375.776	-0.860	0.000	3450.453	1.530	0.000	3417.529	1.450	0.000
20.	6374.070	-0.900	0.000	3452.046	1.510	0.000	3419.105	1.500	0.000
21.	6372.300	-0.930	0.000	3453.619	1.480	0.000	3420.816	1.700	0.000
22.	6370.472	-0.960	0.000	3455.168	1.460	0.000	3422.655	1.620	0.000
23.	6368.593	-0.980	0.000	3456.691	1.430	0.000	3424.613	1.930	0.000
24.	6366.668	-1.000	0.000	3458.188	1.410	0.000	3426.680	2.030	0.000
25.	6364.704	-1.020	0.000	3459.656	1.380	0.000	3428.847	2.120	0.000
26.	6362.706	-1.040	0.000	3461.094	1.350	0.000	3431.103	2.200	0.000
27.	6360.682	-1.050	0.000	3462.499	1.320	0.000	3433.437	2.260	0.000
28.	6358.639	-1.060	0.000	3463.871	1.280	0.000	3435.837	2.320	0.000
29.	6356.564	-1.060	0.000	3465.207	1.250	0.000	3438.293	2.370	0.000
30.	6354.453	-1.060	0.000	3466.505	1.210	0.000	3440.742	2.400	0.000
31.	6352.465	-1.050	0.000	3467.765	1.170	0.000	3443.321	2.420	0.000
32.	6350.417	-1.050	0.000	3468.985	1.130	0.000	3445.870	2.430	0.000
33.	6348.386	-1.040	0.000	3470.164	1.090	0.000	3448.424	2.430	0.000
34.	6346.380	-1.030	0.000	3471.299	1.050	0.000	3450.972	2.420	0.000
35.	6344.407	-1.010	0.000	3472.390	1.010	0.000	3453.501	2.390	0.000
36.	6342.475	-0.990	0.000	3473.436	0.970	0.000	3455.999	2.350	0.000
37.	6340.590	-0.960	0.000	3474.434	0.920	0.000	3458.452	2.300	0.000
38.	6338.761	-0.930	0.000	3475.385	0.870	0.000	3460.850	2.240	0.000
39.	6336.994	-0.900	0.000	3476.286	0.830	0.000	3463.180	2.170	0.000
40.	6335.296	-0.860	0.000	3477.138	0.780	0.000	3465.430	2.090	0.000
41.	6333.675	-0.820	0.000	3477.938	0.730	0.000	3467.589	2.000	0.000
42.	6332.138	-0.770	0.000	3478.686	0.680	0.000	3469.647	1.890	0.000
43.	6330.689	-0.730	0.000	3479.380	0.630	0.000	3471.593	1.760	0.000
44.	6329.336	-0.680	0.000	3480.022	0.580	0.000	3473.417	1.660	0.000
45.	6328.084	-0.630	0.000	3480.608	0.530	0.000	3475.111	1.530	0.000
46.	6326.936	-0.570	0.000	3481.139	0.470	0.000	3476.665	1.400	0.000
47.	6325.903	-0.510	0.000	3481.615	0.420	0.000	3478.072	1.260	0.000
48.	6324.983	-0.450	0.000	3482.033	0.370	0.000	3479.325	1.110	0.000
49.	6324.183	-0.380	0.000	3482.395	0.310	0.000	3480.417	0.950	0.000

110-PLANE EUROPIUM IRON GARNET

BULK

	LPMI12	LPMI13	FSPWEL	FSPMI12	FSPMI13	SSRWEL	SSPMI12	SSPMI13
50.	6323.506	0.000	3482.700	.250	-0.000	3481.343	.790	0.000
51.	6322.954	-0.250	3482.947	.210	0.000	3482.098	.630	0.000
52.	6322.530	-1.190	3483.136	.150	0.000	3482.679	.460	-0.000
53.	6322.236	-1.120	3483.266	.100	0.000	3483.062	.300	0.000
54.	6322.073	-0.500	3483.339	.040	-0.000	3483.305	.040	-0.000
55.	6322.042	.020	3483.352	-.070	0.000	3483.348	-.010	-0.000
56.	6322.142	.050	3483.306	-.070	0.000	3483.210	-.220	-0.000
57.	6322.375	.150	3483.205	-.120	0.000	3482.891	-.360	-0.000
58.	6322.736	.220	3483.043	-.160	0.000	3482.394	-.550	-0.000
59.	6323.229	.290	3482.824	-.230	0.000	3481.721	-.720	-0.000
60.	6323.848	.350	3482.546	-.290	0.000	3480.875	-.880	-0.000
61.	6324.590	.420	3482.211	-.340	0.000	3479.860	-1.030	-0.000
62.	6325.454	.460	3481.819	-.400	0.000	3478.683	-1.130	-0.000
63.	6326.435	.540	3481.371	-.450	0.000	3477.348	-1.330	-0.000
64.	6327.529	.600	3480.866	-.500	0.000	3475.862	-1.470	-0.000
65.	6328.732	.650	3480.305	-.550	0.000	3474.233	-1.600	-0.000
66.	6330.036	.700	3479.690	-.610	0.000	3472.470	-1.730	-0.000
67.	6331.442	.750	3479.020	-.660	0.000	3470.580	-1.840	-0.000
68.	6332.939	.800	3478.297	-.710	0.000	3468.574	-1.950	-0.000
69.	6334.521	.840	3477.522	-.760	0.000	3466.461	-2.050	-0.000
70.	6336.183	.880	3476.694	-.810	0.000	3464.252	-2.130	-0.000
71.	6337.916	.920	3475.817	-.850	0.000	3461.959	-2.210	-0.000
72.	6339.719	.950	3474.889	-.900	0.000	3459.592	-2.280	-0.000
73.	6341.575	.980	3473.913	-.940	0.000	3457.163	-2.330	-0.000
74.	6343.490	1.000	3472.889	-.980	0.000	3454.685	-2.370	-0.000
75.	6345.444	1.020	3471.820	-1.030	0.000	3452.169	-2.400	-0.000
76.	6347.436	1.040	3470.705	-1.080	0.000	3449.629	-2.420	-0.000
77.	6349.455	1.050	3469.547	-1.120	0.000	3447.076	-2.430	-0.000
78.	6351.496	1.060	3468.346	-1.160	0.000	3444.523	-2.430	-0.000
79.	6353.551	1.060	3467.105	-1.190	0.000	3441.983	-2.410	-0.000
80.	6355.611	1.060	3465.824	-1.230	0.000	3439.468	-2.380	-0.000
81.	6357.670	1.060	3464.506	-1.270	0.000	3436.990	-2.340	-0.000
82.	6359.720	1.050	3463.151	-1.300	0.000	3434.562	-2.290	-0.000
83.	6361.754	1.040	3461.761	-1.330	0.000	3432.195	-2.230	0.000
84.	6363.765	1.030	3460.339	-1.360	0.000	3429.901	-2.160	-0.000
85.	6365.746	1.010	3458.885	-1.390	0.000	3427.691	-2.070	-0.000
86.	6367.690	.990	3457.401	-1.420	0.000	3425.576	-1.960	-0.000
87.	6369.591	.970	3455.890	-1.450	0.000	3423.565	-1.870	-0.000
88.	6371.444	.940	3454.353	-1.470	0.000	3421.669	-1.760	-0.000
89.	6373.242	.910	3452.791	-1.500	0.000	3419.896	-1.640	0.000
90.	6374.980	.860	3451.207	-1.520	0.000	3418.255	-1.510	0.000
91.	6376.652	.840	3449.603	-1.540	0.000	3416.754	-1.370	-0.000
92.	6378.255	.810	3447.980	-1.560	0.000	3415.301	-1.230	0.000
93.	6379.784	.770	3446.341	-1.570	0.000	3414.280	-1.080	-0.000
94.	6381.234	.730	3444.687	-1.560	0.000	3413.459	-.920	-0.000
95.	6382.682	.680	3443.021	-1.590	0.000	3412.281	-.760	0.000
96.	6384.066	.640	3441.344	-1.600	0.000	3411.572	-.680	-0.000
97.	6385.481	.590	3439.659	-1.610	0.000	3411.034	-.430	-0.000
98.	6386.927	.540	3437.967	-1.620	0.000	3410.670	-.270	-0.000
99.	6388.401	.500	3436.270	-1.620	0.000	3410.482	-.100	-0.000

110-PLANE EUROPIUM IRON GARNET

	LHGVEL	LPMI12	LPMI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
100.	6388.121	.450	0.000	3434.572	-1.620	0.000	3410.470	.070	0.000
101.	6388.946	.400	0.000	3432.673	-1.620	0.000	3410.634	.240	0.000
102.	6389.677	.350	0.000	3431.175	-1.620	0.000	3410.973	.410	0.000
103.	6390.312	.300	0.000	3429.462	-1.620	0.000	3411.466	.560	0.000
104.	6390.852	.250	0.000	3427.794	-1.610	0.000	3412.170	.740	0.000
105.	6391.297	.200	0.000	3426.115	-1.600	0.000	3413.022	.900	0.000
106.	6391.650	.160	0.000	3424.446	-1.590	0.000	3414.036	1.050	0.000
107.	6391.910	.110	0.000	3422.788	-1.580	0.000	3415.212	1.200	0.000
108.	6392.081	.060	0.000	3421.145	-1.570	0.000	3416.539	1.350	0.000
109.	6392.163	.020	0.000	3419.516	-1.550	0.000	3418.013	1.460	0.000
110.	6392.161	-.020	0.000	3417.909	-1.540	0.000	3419.626	1.610	0.000
111.	6392.077	-.060	0.000	3416.320	-1.520	0.000	3421.371	1.730	0.000
112.	6391.914	-.100	0.000	3414.754	-1.490	0.000	3423.239	1.850	0.000
113.	6391.676	-.140	0.000	3413.211	-1.470	0.000	3425.221	1.950	0.000
114.	6391.367	-.180	0.000	3411.695	-1.450	0.000	3427.307	2.040	0.000
115.	6390.992	-.210	0.000	3410.206	-1.420	0.000	3429.489	2.130	0.000
116.	6390.554	-.240	0.000	3408.747	-1.390	0.000	3431.754	2.200	0.000
117.	6390.059	-.270	0.000	3407.319	-1.360	0.000	3434.093	2.270	0.000
118.	6389.511	-.290	0.000	3405.925	-1.330	0.000	3436.493	2.320	0.000
119.	6388.917	-.320	0.000	3404.566	-1.290	0.000	3438.944	2.360	0.000
120.	6388.281	-.340	0.000	3403.244	-1.260	0.000	3441.434	2.390	0.000
121.	6387.609	-.350	0.000	3401.960	-1.220	0.000	3443.950	2.410	0.000
122.	6386.906	-.370	0.000	3400.716	-1.180	0.000	3446.481	2.410	0.000
123.	6386.179	-.360	0.000	3399.513	-1.140	0.000	3449.014	2.410	0.000
124.	6385.433	-.390	0.000	3398.354	-1.100	0.000	3451.537	2.390	0.000
125.	6384.674	-.390	0.000	3397.235	-1.060	0.000	3454.038	2.360	0.000
126.	6383.907	-.350	0.000	3396.170	-1.010	0.000	3456.505	2.320	0.000
127.	6383.140	-.350	0.000	3395.146	-.960	0.000	3458.925	2.270	0.000
128.	6382.376	-.390	0.000	3394.175	-.920	0.000	3461.288	2.210	0.000
129.	6381.623	-.380	0.000	3393.252	-.870	0.000	3463.581	2.140	0.000
130.	6380.885	-.370	0.000	3392.380	-.820	0.000	3465.794	2.050	0.000
131.	6380.169	-.360	0.000	3391.559	-.770	0.000	3467.916	1.950	0.000
132.	6379.476	-.350	0.000	3390.792	-.720	0.000	3469.936	1.860	0.000
133.	6378.818	-.330	0.000	3390.079	-.660	0.000	3471.845	1.750	0.000
134.	6378.194	-.310	0.000	3389.421	-.610	0.000	3473.633	1.630	0.000
135.	6377.611	-.290	0.000	3388.819	-.560	0.000	3475.293	1.500	0.000
136.	6377.071	-.270	0.000	3388.273	-.500	0.000	3476.814	1.370	0.000
137.	6376.580	-.240	0.000	3387.785	-.450	0.000	3478.191	1.230	0.000
138.	6376.140	-.210	0.000	3387.354	-.390	0.000	3479.416	1.080	0.000
139.	6375.755	-.180	0.000	3386.982	-.330	0.000	3480.484	.930	0.000
140.	6375.427	-.150	0.000	3386.664	-.270	0.000	3481.389	.780	0.000
141.	6375.159	-.120	0.000	3386.415	-.220	0.000	3482.127	.620	0.000
142.	6374.952	-.090	0.000	3386.221	-.160	0.000	3482.699	.450	0.000
143.	6374.808	-.060	0.000	3386.087	-.100	0.000	3483.086	.290	0.000
144.	6374.729	-.020	0.000	3386.012	-.040	0.000	3483.307	.120	0.000
145.	6374.713	.010	0.000	3385.998	.020	0.000	3483.346	-.040	0.000
146.	6374.763	.040	0.000	3386.044	.070	0.000	3483.213	-.210	0.000
147.	6374.876	.070	0.000	3386.150	.130	0.000	3482.902	-.360	0.000
148.	6375.054	.110	0.000	3386.316	.190	0.000	3482.417	-.540	0.000
149.	6375.293	.140	0.000	3386.542	.250	0.000	3481.759	-.700	0.000

BULK

110-PLANE EUROPIUM IRON GARNET

BULK

	LANGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
150.	6375.593	.170	0.000	3366.827	.316	0.000	3480.932	-.860	0.000
151.	6375.951	.200	0.000	3387.171	.360	0.000	3479.940	-1.014	0.000
152.	6376.366	.230	0.000	3387.574	.420	0.000	3476.789	-1.160	0.000
153.	6376.833	.250	0.000	3386.836	.470	-0.000	3477.483	-1.300	0.000
154.	6377.350	.260	0.000	3386.594	.530	0.000	3476.026	-1.440	0.000
155.	6377.914	.300	0.000	3389.130	.580	0.000	3474.433	-1.570	0.000
156.	6378.519	.320	0.000	3389.762	.640	0.000	3472.705	-1.690	0.000
157.	6379.162	.340	0.000	3390.449	.690	0.000	3470.852	-1.810	0.000
158.	6379.839	.360	0.000	3391.191	.740	0.000	3468.843	-1.910	0.000
159.	6380.544	.370	0.000	3391.986	.800	0.000	3466.688	-2.010	0.000
160.	6381.273	.380	0.000	3392.834	.850	0.000	3464.436	-2.100	0.000
161.	6382.019	.390	0.000	3393.733	.890	0.000	3462.180	-2.180	0.000
162.	6382.779	.390	0.000	3394.683	.940	0.000	3460.048	-2.240	0.000
163.	6383.545	.390	0.000	3395.682	.990	0.000	3457.854	-2.300	0.000
164.	6384.313	.390	0.000	3396.729	1.030	0.000	3455.207	-2.340	0.000
165.	6385.076	.390	0.000	3397.822	1.060	0.000	3452.721	-2.380	0.000
166.	6385.829	.380	0.000	3398.960	1.120	0.000	3450.207	-2.400	0.000
167.	6386.566	.370	0.000	3400.143	1.160	0.000	3447.677	-2.410	0.000
168.	6387.281	.360	0.000	3401.367	1.200	0.000	3445.144	-2.410	0.000
169.	6387.968	.350	0.000	3402.633	1.240	0.000	3442.619	-2.400	0.000
170.	6388.622	.330	0.000	3403.937	1.280	0.000	3440.115	-2.370	0.000
171.	6389.236	.300	0.000	3405.279	1.310	0.000	3437.645	-2.340	0.000
172.	6389.807	.280	-0.000	3406.657	1.340	0.000	3435.219	-2.290	0.000
173.	6390.327	.250	-0.000	3408.069	1.380	0.000	3432.849	-2.230	0.000
174.	6390.792	.220	-0.000	3409.513	1.410	-0.000	3430.548	-2.170	0.000
175.	6391.196	.190	0.000	3410.988	1.430	-0.000	3428.326	-2.090	0.000
176.	6391.539	.160	-0.000	3412.492	1.460	-0.000	3426.193	-2.000	0.000
177.	6391.811	.120	-0.000	3414.023	1.480	-0.000	3424.160	-1.900	0.000
178.	6392.010	.080	-0.000	3415.578	1.510	-0.000	3422.237	-1.790	0.000
179.	6392.131	.040	-0.000	3417.157	1.530	-0.000	3420.434	-1.670	0.000
180.	6392.173	0.000	-0.000	3418.756	1.550	0.000	3418.757	-1.550	0.000

Z-PLANE (XY-PLANE) GADOLINIUM GALLIUM GARNET

	LNCVEL	LPHI12	LPHI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
0.	6347.249	0.000	0.000	3567.782	0.000	0.000	3567.782	0.000	0.000
1.	6347.317	.070	0.000	3567.782	0.000	0.000	3567.661	-2.220	0.000
2.	6347.520	.140	0.000	3567.782	-0.000	0.000	3567.299	-4.440	0.000
3.	6347.858	.210	0.000	3567.782	0.000	0.000	3566.698	-6.660	0.000
4.	6348.328	.280	0.000	3567.782	0.000	0.000	3565.860	-8.880	0.000
5.	6348.929	.340	0.000	3567.782	-0.000	0.000	3564.791	-1.090	0.000
6.	6349.657	.410	0.000	3567.782	0.000	0.000	3563.495	-1.300	0.000
7.	6350.507	.470	0.000	3567.782	0.000	0.000	3561.978	-1.500	0.000
8.	6351.477	.530	0.000	3567.782	0.000	0.000	3560.250	-1.690	0.000
9.	6352.560	.590	0.000	3567.782	0.000	0.000	3558.317	-1.870	0.000
10.	6353.750	.640	0.000	3567.782	0.000	0.000	3556.190	-2.050	0.000
11.	6355.043	.690	0.000	3567.782	0.000	0.000	3553.880	-2.210	0.000
12.	6356.430	.740	0.000	3567.782	-0.000	0.000	3551.398	-2.370	0.000
13.	6357.906	.780	0.000	3567.782	0.000	0.000	3548.750	-2.510	0.000
14.	6359.461	.820	0.000	3567.782	0.000	0.000	3545.960	-2.640	0.000
15.	6361.089	.860	0.000	3567.782	0.000	0.000	3543.047	-2.760	0.000
16.	6362.781	.890	0.000	3567.782	0.000	0.000	3540.008	-2.870	0.000
17.	6364.528	.910	0.000	3567.782	0.000	0.000	3536.865	-2.960	0.000
18.	6366.322	.940	0.000	3567.782	0.000	0.000	3533.635	-3.030	0.000
19.	6368.153	.950	0.000	3567.782	0.000	0.000	3530.334	-3.100	0.000
20.	6370.013	.960	0.000	3567.782	0.000	0.000	3526.977	-3.140	0.000
21.	6371.893	.970	0.000	3567.782	0.000	0.000	3523.580	-3.170	0.000
22.	6373.782	.970	0.000	3567.782	0.000	0.000	3520.162	-3.190	0.000
23.	6375.672	.970	0.000	3567.782	0.000	0.000	3516.737	-3.190	0.000
24.	6377.554	.960	0.000	3567.782	0.000	0.000	3513.323	-3.180	0.000
25.	6379.418	.950	0.000	3567.782	0.000	0.000	3509.937	-3.150	0.000
26.	6381.256	.940	0.000	3567.782	0.000	0.000	3506.594	-3.100	0.000
27.	6383.059	.920	0.000	3567.782	-0.000	0.000	3503.312	-3.040	0.000
28.	6384.818	.890	0.000	3567.782	-0.000	0.000	3500.105	-2.960	0.000
29.	6386.525	.860	0.000	3567.782	0.000	0.000	3496.989	-2.870	0.000
30.	6388.172	.830	0.000	3567.782	-0.000	0.000	3493.980	-2.770	0.000
31.	6389.751	.790	0.000	3567.782	0.000	0.000	3491.091	-2.650	0.000
32.	6391.255	.750	0.000	3567.782	0.000	0.000	3488.337	-2.520	0.000
33.	6392.677	.710	0.000	3567.782	-0.000	0.000	3485.731	-2.380	0.000
34.	6394.010	.660	0.000	3567.782	0.000	0.000	3483.264	-2.230	0.000
35.	6395.249	.610	0.000	3567.782	0.000	0.000	3481.010	-2.060	0.000
36.	6396.387	.560	0.000	3567.782	0.000	0.000	3478.916	-1.880	0.000
37.	6397.415	.500	0.000	3567.782	0.000	0.000	3477.019	-1.700	0.000
38.	6398.342	.440	0.000	3567.782	0.000	0.000	3475.321	-1.510	0.000
39.	6399.150	.380	0.000	3567.782	0.000	0.000	3473.833	-1.300	0.000
40.	6399.840	.320	0.000	3567.782	-0.000	0.000	3472.562	-1.100	0.000
41.	6400.408	.260	0.000	3567.782	0.000	0.000	3471.514	-0.860	0.000
42.	6400.853	.200	0.000	3567.782	0.000	0.000	3470.693	-0.670	0.000
43.	6401.173	.130	0.000	3567.782	0.000	0.000	3470.104	-0.450	0.000
44.	6401.365	.070	0.000	3567.782	-0.000	0.000	3469.750	-0.220	0.000
45.	6401.429	0.000	0.000	3567.782	0.000	0.000	3469.631	0.000	0.000
46.	6401.365	-.070	0.000	3567.782	0.000	0.000	3469.750	.220	0.000
47.	6401.173	-.130	0.000	3567.782	0.000	0.000	3470.104	.450	0.000
48.	6400.853	-.200	0.000	3567.782	0.000	0.000	3470.693	.670	0.000
49.	6400.408	-.260	0.000	3567.782	0.000	0.000	3471.514	.860	0.000

BULK

Z-PLANE (XY-PLANE) GADOLINIUM GALLIUM GARNET

BULK

	LMSVEL	LPHI12	LPHI13	FSPVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
50.	6399.840	-320	0.000	3567.762	0.000	0.000	3472.562	1.100	0.000
51.	6399.150	-308	0.000	3567.762	-0.000	0.000	3473.833	1.300	0.000
52.	6398.342	-440	0.000	3567.762	0.000	0.000	3475.321	1.510	0.000
53.	6397.419	-500	0.000	3567.762	0.000	0.000	3477.819	1.700	0.000
54.	6396.387	-560	0.000	3567.762	0.000	0.000	3478.918	1.680	0.000
55.	6395.249	-610	0.000	3567.762	0.000	0.000	3481.010	2.060	0.000
56.	6394.010	-660	0.000	3567.762	-0.000	0.000	3483.284	2.230	0.000
57.	6392.677	-710	0.000	3567.762	0.000	0.000	3485.731	2.300	0.000
58.	6391.255	-750	0.000	3567.762	0.000	0.000	3484.337	2.520	0.000
59.	6389.751	-790	0.000	3567.762	0.000	0.000	3481.091	2.650	0.000
60.	6388.172	-830	0.000	3567.762	0.000	0.000	3493.980	2.770	0.000
61.	6386.525	-860	0.000	3567.762	0.000	0.000	3496.989	2.670	0.000
62.	6384.816	-890	0.000	3567.762	0.000	0.000	3500.105	2.560	0.000
63.	6383.059	-920	0.000	3567.762	0.000	0.000	3503.312	3.040	0.000
64.	6381.256	-940	0.000	3567.762	0.000	0.000	3506.594	3.100	0.000
65.	6379.410	-958	0.000	3567.762	-0.000	0.000	3509.937	3.150	0.000
66.	6377.556	-968	0.000	3567.762	0.000	0.000	3513.323	3.180	0.000
67.	6375.672	-978	0.000	3567.762	-0.000	0.000	3516.737	3.190	0.000
68.	6373.762	-970	0.000	3567.762	0.000	0.000	3520.162	3.190	0.000
69.	6371.893	-970	0.000	3567.762	0.000	0.000	3523.580	3.170	0.000
70.	6370.013	-968	0.000	3567.762	-0.000	0.000	3526.977	3.140	0.000
71.	6368.153	-958	0.000	3567.762	0.000	0.000	3530.334	3.100	0.000
72.	6366.322	-940	0.000	3567.762	-0.000	0.000	3533.635	3.030	0.000
73.	6364.526	-910	0.000	3567.762	0.000	0.000	3536.865	2.960	0.000
74.	6362.781	-890	0.000	3567.762	-0.000	0.000	3540.000	2.670	0.000
75.	6361.089	-860	0.000	3567.762	0.000	0.000	3543.047	2.760	0.000
76.	6359.461	-820	0.000	3567.762	0.000	0.000	3545.968	2.640	0.000
77.	6357.906	-780	0.000	3567.762	0.000	0.000	3548.756	2.510	0.000
78.	6356.430	-740	0.000	3567.762	0.000	0.000	3551.398	2.370	0.000
79.	6355.043	-690	0.000	3567.762	0.000	0.000	3553.880	2.210	0.000
80.	6353.750	-640	0.000	3567.762	0.000	0.000	3556.190	2.050	0.000
81.	6352.560	-590	0.000	3567.762	0.000	0.000	3558.317	1.870	0.000
82.	6351.477	-530	0.000	3567.762	0.000	0.000	3560.250	1.690	0.000
83.	6350.507	-470	0.000	3567.762	0.000	0.000	3561.976	1.500	0.000
84.	6349.657	-410	0.000	3567.762	0.000	0.000	3563.495	1.300	0.000
85.	6348.929	-340	0.000	3567.762	0.000	0.000	3564.791	1.090	0.000
86.	6348.328	-280	0.000	3567.762	0.000	0.000	3565.860	.880	0.000
87.	6347.858	-210	0.000	3567.762	0.000	0.000	3566.698	.660	0.000
88.	6347.520	-140	0.000	3567.762	0.000	0.000	3567.299	.440	0.000
89.	6347.317	-80	0.000	3567.762	-0.000	0.000	3567.661	.220	0.000
90.	6347.249	0.000	0.000	3567.762	0.000	0.000	3567.762	0.000	0.000
91.	6347.317	.070	0.000	3567.762	0.000	0.000	3567.661	-.220	0.000
92.	6347.520	140	0.000	3567.762	0.000	0.000	3567.299	-.440	0.000
93.	6348.058	210	0.000	3567.762	0.000	0.000	3566.698	-.660	0.000
94.	6348.328	280	0.000	3567.762	-0.000	0.000	3565.860	-.880	0.000
95.	6348.929	340	0.000	3567.762	-0.000	0.000	3564.791	-1.090	0.000
96.	6349.657	410	0.000	3567.762	0.000	0.000	3563.495	-1.300	0.000
97.	6350.507	470	0.000	3567.762	-0.000	0.000	3561.976	-1.500	0.000
98.	6351.477	530	0.000	3567.762	0.000	0.000	3560.250	-1.690	0.000
99.	6352.560	590	0.000	3567.762	0.000	0.000	3558.317	-1.870	0.000

Z-PLANE (XY-PLANE) GADOLINIUM GALLIUM GARNET

BULK

	LMGVEL	LPHI12	LPHI13	FSPVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
100.	6353.750	.640	0.000	3567.782	0.000	0.000	3556.190	-2.650	0.000
101.	6355.043	.690	0.000	3567.782	-0.000	0.000	3553.080	-2.210	0.000
102.	6356.430	.740	0.000	3567.782	0.000	0.000	3551.334	-2.370	0.000
103.	6357.906	.780	0.000	3567.782	-0.000	0.000	3548.756	-2.510	0.000
104.	6359.461	.820	0.000	3567.782	0.000	0.000	3545.968	-2.640	0.000
105.	6361.889	.860	0.000	3567.782	0.000	0.000	3543.087	-2.760	0.000
106.	6362.781	.890	0.000	3567.782	0.000	0.000	3540.008	-2.870	0.000
107.	6364.526	.910	0.000	3567.782	0.000	0.000	3536.865	-2.960	0.000
108.	6366.322	.940	0.000	3567.782	0.000	0.000	3533.635	-3.030	0.000
109.	6368.153	.950	0.000	3567.782	0.000	0.000	3530.334	-3.100	0.000
110.	6370.813	.960	0.000	3567.782	0.000	0.000	3526.977	-3.140	0.000
111.	6371.893	.970	0.000	3567.782	0.000	0.000	3523.560	-3.170	0.000
112.	6373.782	.970	0.000	3567.782	0.000	0.000	3520.162	-3.190	0.000
113.	6375.672	.970	0.000	3567.782	0.000	0.000	3516.737	-3.190	0.000
114.	6377.554	.960	0.000	3567.782	0.000	0.000	3513.323	-3.140	0.000
115.	6379.410	.950	0.000	3567.782	0.000	0.000	3509.937	-3.150	0.000
116.	6381.256	.940	0.000	3567.782	0.000	0.000	3506.594	-3.100	0.000
117.	6383.059	.920	0.000	3567.782	0.000	0.000	3503.312	-3.040	0.000
118.	6384.818	.890	0.000	3567.782	0.000	0.000	3500.105	-2.960	0.000
119.	6386.525	.860	0.000	3567.782	0.000	0.000	3496.989	-2.870	0.000
120.	6388.172	.830	0.000	3567.782	-0.000	0.000	3493.940	-2.770	0.000
121.	6389.751	.790	0.000	3567.782	0.000	0.000	3491.051	-2.650	0.000
122.	6391.255	.750	0.000	3567.782	-0.000	0.000	3488.337	-2.520	0.000
123.	6392.677	.710	0.000	3567.782	0.000	0.000	3485.731	-2.380	0.000
124.	6394.010	.660	0.000	3567.782	0.000	0.000	3483.264	-2.230	0.000
125.	6395.249	.610	0.000	3567.782	-0.000	0.000	3481.010	-2.080	0.000
126.	6396.387	.560	0.000	3567.782	0.000	0.000	3478.918	-1.900	0.000
127.	6397.419	.508	0.000	3567.782	0.000	0.000	3477.019	-1.700	0.000
128.	6398.342	.440	0.000	3567.782	-0.000	0.000	3475.321	-1.510	0.000
129.	6399.150	.380	0.000	3567.782	0.000	0.000	3473.833	-1.300	0.000
130.	6399.840	.320	0.000	3567.782	0.000	0.000	3472.562	-1.100	0.000
131.	6400.408	.260	0.000	3567.782	0.000	0.000	3471.514	-0.860	0.000
132.	6400.853	.200	0.000	3567.782	0.000	0.000	3470.693	-0.670	0.000
133.	6401.173	.130	0.000	3567.782	0.000	0.000	3470.184	-0.500	0.000
134.	6401.365	-.070	0.000	3567.782	0.000	0.000	3469.750	-0.250	0.000
135.	6401.429	-0.000	0.000	3567.782	0.000	0.000	3469.631	0.000	0.000
136.	6401.365	-.070	0.000	3567.782	0.000	0.000	3469.750	.220	0.000
137.	6401.173	-0.130	0.000	3567.782	0.000	0.000	3470.184	.450	0.000
138.	6400.853	-0.200	0.000	3567.782	0.000	0.000	3470.693	.670	0.000
139.	6400.406	-0.260	0.000	3567.782	0.000	0.000	3471.514	.880	0.000
140.	6399.840	-0.320	0.000	3567.782	0.000	0.000	3472.562	1.000	0.000
141.	6399.150	-0.380	0.000	3567.782	0.000	0.000	3473.833	1.300	0.000
142.	6398.342	-0.440	0.000	3567.782	0.000	0.000	3475.321	1.510	0.000
143.	6397.419	-0.500	0.000	3567.782	0.000	0.000	3477.019	1.700	0.000
144.	6396.387	-0.560	0.000	3567.782	0.000	0.000	3478.918	1.860	0.000
145.	6395.249	-0.610	0.000	3567.782	0.000	0.000	3481.010	2.060	0.000
146.	6394.010	-0.660	0.000	3567.782	-0.000	0.000	3483.264	2.300	0.000
147.	6392.677	-0.710	0.000	3567.782	0.000	0.000	3485.731	2.520	0.000
148.	6391.255	-0.750	0.000	3567.782	0.000	0.000	3488.337	2.650	0.000
149.	6389.751	-0.790	0.000	3567.782	-0.000	0.000	3491.051	2.650	0.000

Z-PLANE (XY-PLANE) GADOLINIUM GALLIUM GARNET

BULK

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
150.	6306.172	-830	0.000	3567.782	0.000	0.000	3693.980	2.770	0.000
151.	6306.525	-860	0.000	3567.782	0.000	0.000	3696.989	2.670	0.000
152.	6304.816	-890	0.000	3567.782	0.000	0.000	3500.105	2.960	0.000
153.	6303.059	-920	0.000	3567.782	0.000	0.000	3503.312	3.040	0.000
154.	6301.256	-940	0.000	3567.782	0.000	0.000	3506.594	3.100	0.000
155.	6379.416	-950	0.000	3567.782	0.000	0.000	3509.937	3.150	0.000
156.	6377.554	-960	0.000	3567.782	0.000	0.000	3513.323	3.100	0.000
157.	6375.672	-970	0.000	3567.782	0.000	0.000	3516.737	3.190	0.000
158.	6373.782	-970	0.000	3567.782	0.000	0.000	3520.162	3.150	0.000
159.	6371.893	-970	0.000	3567.782	-0.000	0.000	3523.580	3.170	0.000
160.	6370.013	-960	0.000	3567.782	-0.000	0.000	3526.977	3.140	0.000
161.	6368.153	-950	0.000	3567.782	0.000	0.000	3530.334	3.100	0.000
162.	6366.322	-940	0.000	3567.782	0.000	0.000	3533.635	3.030	0.000
163.	6364.526	-910	0.000	3567.782	0.000	0.000	3536.865	2.560	0.000
164.	6362.761	-890	0.000	3567.782	0.000	0.000	3540.008	2.670	0.000
165.	6361.009	-860	0.000	3567.782	0.000	0.000	3543.047	2.760	0.000
166.	6359.461	-820	0.000	3567.782	0.000	0.000	3545.968	2.640	0.000
167.	6357.906	-760	0.000	3567.782	0.000	0.000	3548.756	2.510	0.000
168.	6356.430	-740	0.000	3567.782	0.000	0.000	3551.398	2.370	0.000
169.	6355.043	-690	0.000	3567.782	0.000	0.000	3553.880	2.210	0.000
170.	6353.750	-640	0.000	3567.782	-0.000	0.000	3556.190	2.050	0.000
171.	6352.560	-590	0.000	3567.782	-0.000	0.000	3558.317	1.870	0.000
172.	6351.477	-530	0.000	3567.782	0.000	0.000	3560.250	1.650	0.000
173.	6349.657	-470	0.000	3567.782	0.000	0.000	3561.976	1.500	0.000
174.	6348.929	-340	0.000	3567.782	0.000	0.000	3563.495	1.300	0.000
175.	6348.328	-260	0.000	3567.782	0.000	0.000	3564.791	1.090	0.000
176.	6347.858	-210	0.000	3567.782	0.000	0.000	3565.860	.860	0.000
177.	6347.520	-140	0.000	3567.782	0.000	0.000	3566.698	.660	0.000
178.	6347.317	-670	0.000	3567.782	0.000	0.000	3567.299	.440	0.000
179.	6347.249	0.000	0.000	3567.782	-0.000	0.000	3567.661	.220	0.000
180.							3567.782	0.000	0.000

111-PLANE GADOLINIUM GALLIUM GARNET

BULK

	LNGVEL	LPMI12	LPMI13	FSPVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
0.	6401.429	-0.000	0.000	3567.782	-0.000	0.000	3469.631	0.600	0.000
1.	6401.430	0.000	0.050	3567.722	-0.110	-0.080	3469.691	.110	-0.080
2.	6401.432	0.000	0.090	3567.544	-0.220	-0.150	3469.670	.230	-0.160
3.	6401.436	0.000	0.140	3567.246	-0.330	-0.230	3470.167	.340	-0.230
4.	6401.441	0.000	0.190	3566.835	-0.430	-0.310	3470.562	.450	-0.310
5.	6401.448	0.000	0.230	3566.307	-0.540	-0.360	3471.112	.560	-0.390
6.	6401.456	0.000	0.280	3565.865	-0.640	-0.460	3471.756	.660	-0.480
7.	6401.466	0.010	0.320	3564.913	-0.740	-0.530	3472.511	.770	-0.540
8.	6401.477	0.010	0.370	3564.052	-0.840	-0.600	3473.375	.870	-0.610
9.	6401.488	0.010	0.410	3563.087	-0.940	-0.670	3474.343	.960	-0.680
10.	6401.501	0.010	0.450	3562.021	-1.030	-0.740	3475.412	1.060	-0.750
11.	6401.514	0.010	0.490	3560.859	-1.110	-0.810	3476.576	1.140	-0.820
12.	6401.529	0.010	0.530	3559.606	-1.200	-0.870	3477.835	1.230	-0.880
13.	6401.543	0.010	0.570	3558.266	-1.270	-0.930	3479.177	1.300	-0.940
14.	6401.558	0.010	0.600	3556.851	-1.340	-0.990	3480.598	1.380	-1.000
15.	6401.573	0.010	0.640	3555.363	-1.400	-1.050	3482.091	1.440	-1.060
16.	6401.588	0.010	0.670	3553.811	-1.460	-1.100	3483.647	1.490	-1.110
17.	6401.603	0.010	0.700	3552.206	-1.510	-1.150	3485.256	1.540	-1.160
18.	6401.618	0.010	0.730	3550.558	-1.560	-1.200	3486.909	1.570	-1.210
19.	6401.632	0.010	0.750	3548.878	-1.600	-1.240	3488.592	1.600	-1.250
20.	6401.645	0.010	0.780	3547.184	-1.640	-1.290	3490.291	1.630	-1.290
21.	6401.656	0.010	0.800	3545.490	-1.670	-1.320	3491.986	1.650	-1.330
22.	6401.670	0.010	0.820	3543.819	-1.700	-1.360	3493.662	1.660	-1.360
23.	6401.680	0.010	0.840	3542.195	-1.730	-1.390	3495.289	1.670	-1.390
24.	6401.690	0.000	0.860	3540.546	-1.760	-1.420	3496.839	1.680	-1.410
25.	6401.698	0.000	0.870	3539.215	-1.790	-1.440	3498.274	1.690	-1.440
26.	6401.705	0.000	0.880	3537.935	-1.810	-1.460	3499.552	1.710	-1.470
27.	6401.710	0.000	0.890	3536.866	-1.830	-1.470	3500.824	1.720	-1.470
28.	6401.714	0.000	0.890	3536.054	-1.850	-1.480	3501.440	1.730	-1.480
29.	6401.716	0.000	0.900	3535.542	-1.870	-1.490	3501.952	1.740	-1.480
30.	6401.717	0.000	0.900	3535.366	-1.890	-1.490	3502.127	1.750	-1.490
31.	6401.716	0.000	0.900	3535.542	-1.910	-1.490	3501.952	1.760	-1.490
32.	6401.714	0.000	0.890	3536.054	-1.930	-1.480	3501.440	1.770	-1.480
33.	6401.710	0.000	0.890	3536.866	-1.950	-1.470	3500.824	1.780	-1.470
34.	6401.705	0.000	0.880	3537.935	-1.970	-1.460	3499.552	1.790	-1.460
35.	6401.696	0.000	0.870	3539.215	-1.990	-1.440	3498.274	1.800	-1.440
36.	6401.690	0.000	0.860	3540.546	-2.010	-1.420	3496.839	1.810	-1.420
37.	6401.680	0.000	0.840	3542.195	-2.030	-1.390	3495.289	1.820	-1.390
38.	6401.670	0.000	0.820	3543.819	-2.050	-1.360	3493.662	1.830	-1.360
39.	6401.656	0.000	0.800	3545.490	-2.070	-1.320	3491.986	1.840	-1.330
40.	6401.645	0.000	0.780	3547.184	-2.090	-1.290	3490.291	1.850	-1.300
41.	6401.632	0.000	0.750	3548.878	-2.110	-1.240	3488.592	1.860	-1.270
42.	6401.616	0.000	0.730	3550.558	-2.130	-1.200	3486.909	1.870	-1.250
43.	6401.603	0.000	0.700	3552.206	-2.150	-1.150	3485.256	1.880	-1.220
44.	6401.588	0.000	0.670	3553.811	-2.170	-1.100	3483.647	1.890	-1.190
45.	6401.573	0.000	0.640	3555.363	-2.190	-1.050	3482.091	1.900	-1.160
46.	6401.558	0.000	0.600	3556.851	-2.210	-0.990	3480.598	1.910	-1.130
47.	6401.543	0.000	0.570	3558.266	-2.230	-0.930	3479.177	1.920	-1.100
48.	6401.529	0.000	0.530	3559.606	-2.250	-0.870	3477.835	1.930	-1.070
49.	6401.514	0.000	0.490	3560.859	-2.270	-0.810	3476.578	1.940	-1.040

111-PLANE GADOLINIUM GALLIUM GARNET

	LMSVEL	LPM12	LPM13	FSRVEL	FSPM12	FSPM13	SSRVEL	SSPM12	SSPM13
50.	6401.501	-0.010	.450	3562.021	1.030	-1.740	3475.412	-1.060	-1.750
51.	6401.480	-0.010	.410	3563.087	.940	-1.670	3474.343	-1.960	-1.600
52.	6401.477	-0.010	.370	3564.052	.840	-1.600	3473.375	-0.870	-1.510
53.	6401.466	-0.010	.320	3564.913	.740	-1.530	3472.511	-0.770	-1.420
54.	6401.456	-0.000	.280	3565.665	.640	-1.460	3471.756	-0.660	-1.330
55.	6401.448	-0.000	.230	3566.307	.540	-1.390	3471.112	-0.560	-1.240
56.	6401.441	-0.000	.190	3566.835	.430	-1.310	3470.582	-0.450	-1.150
57.	6401.436	-0.000	.140	3567.248	.330	-1.230	3470.167	-0.340	-1.060
58.	6401.432	-0.000	.090	3567.544	.220	-1.150	3469.870	-0.230	-0.970
59.	6401.430	-0.000	.050	3567.722	.110	-1.080	3469.691	-0.120	-0.880
60.	6401.429	0.000	0.000	3567.772	0.000	0.000	3469.631	0.000	0.000
61.	6401.430	0.000	-0.050	3567.544	-0.110	.150	3469.670	.230	.160
62.	6401.432	0.000	-0.100	3567.248	-0.220	.230	3470.167	.340	.230
63.	6401.436	0.000	-0.150	3566.835	-0.330	.310	3470.582	.450	.310
64.	6401.441	0.000	-0.190	3566.307	-0.430	.360	3471.112	.560	.350
65.	6401.446	0.000	-0.230	3565.665	-0.540	.400	3471.756	.660	.400
66.	6401.456	0.000	-0.280	3564.913	-0.640	.430	3472.511	.770	.540
67.	6401.466	0.010	-0.320	3564.052	-0.740	.460	3473.375	.870	.610
68.	6401.477	0.010	-0.370	3563.087	-0.840	.480	3474.343	.960	.680
69.	6401.486	0.010	-0.410	3562.021	-0.940	.500	3475.412	1.060	.750
70.	6401.501	0.010	-0.450	3560.855	-1.030	.510	3476.578	1.180	.820
71.	6401.514	0.010	-0.490	3559.606	-1.110	.520	3477.835	1.230	.860
72.	6401.529	0.010	-0.530	3558.266	-1.200	.530	3479.177	1.300	.940
73.	6401.543	0.010	-0.570	3556.851	-1.270	.540	3480.596	1.360	1.000
74.	6401.556	0.010	-0.600	3555.363	-1.340	.550	3482.091	1.440	1.060
75.	6401.573	0.010	-0.640	3553.811	-1.400	.560	3483.647	1.500	1.110
76.	6401.588	0.010	-0.670	3552.206	-1.460	.570	3485.256	1.570	1.160
77.	6401.603	0.010	-0.700	3550.557	-1.510	.580	3486.909	1.620	1.200
78.	6401.616	0.010	-0.730	3548.870	-1.560	.590	3488.592	1.670	1.250
79.	6401.632	0.010	-0.760	3547.164	-1.570	.600	3490.291	1.700	1.290
80.	6401.645	0.010	-0.800	3545.490	-1.560	.610	3491.980	1.750	1.330
81.	6401.658	0.010	-0.820	3543.819	-1.530	.620	3493.662	1.780	1.370
82.	6401.670	0.010	-0.840	3542.195	-1.470	.630	3495.344	1.800	1.410
83.	6401.680	0.000	-0.860	3540.648	-1.350	.640	3497.024	1.820	1.450
84.	6401.690	0.000	-0.870	3539.215	-1.260	.650	3498.704	1.840	1.490
85.	6401.698	0.000	-0.890	3537.835	-1.100	.660	3499.384	1.860	1.530
86.	6401.705	0.000	-0.890	3536.542	-.660	.670	3500.064	1.880	1.570
87.	6401.710	0.000	-0.890	3535.266	-.320	.680	3500.744	1.900	1.610
88.	6401.716	0.000	-0.900	3534.006	0.000	.690	3501.424	1.920	1.650
89.	6401.717	0.000	-0.900	3532.754	.620	.700	3502.104	1.940	1.690
90.	6401.716	0.000	-0.900	3531.542	1.100	.710	3502.784	1.960	1.730
91.	6401.714	0.000	-0.890	3530.366	1.260	.720	3503.464	1.980	1.770
92.	6401.714	0.000	-0.890	3529.215	1.400	.730	3504.144	2.000	1.810
93.	6401.710	0.000	-0.890	3528.064	1.560	.740	3504.824	2.020	1.850
94.	6401.705	0.000	-0.870	3526.939	1.700	.750	3505.504	2.040	1.890
95.	6401.698	0.000	-0.870	3525.835	1.820	.760	3506.184	2.060	1.930
96.	6401.690	0.000	-0.860	3524.748	1.940	.770	3506.864	2.080	1.970
97.	6401.680	0.010	-0.840	3523.666	2.060	.780	3507.544	2.100	2.010
98.	6401.670	0.010	-0.820	3522.594	2.180	.790	3508.224	2.120	2.050
99.	6401.656	0.010	-0.800	3521.540	2.300	.800	3508.904	2.140	2.090

111-PLANE GADOLINIUM GALLIUM GARNET

	LNGVEL	LPMI12	LPMI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
100.	6401.645	-0.010	-0.700	3547.104	1.570	1.290	3430.291	-1.600	SSPMI13
101.	6401.632	-0.010	-0.750	3548.678	1.560	1.240	3488.592	-1.590	1.290
102.	6401.618	-0.010	-0.730	3550.557	1.540	1.200	3486.909	-1.570	1.250
103.	6401.603	-0.010	-0.700	3552.206	1.510	1.150	3485.256	-1.540	1.210
104.	6401.588	-0.010	-0.670	3553.811	1.460	1.100	3483.647	-1.510	1.160
105.	6401.573	-0.010	-0.640	3555.363	1.400	1.050	3482.091	-1.490	1.110
106.	6401.558	-0.010	-0.600	3556.851	1.340	0.990	3480.546	-1.440	1.060
107.	6401.543	-0.010	-0.570	3558.268	1.270	0.930	3479.177	-1.380	1.000
108.	6401.529	-0.010	-0.530	3559.606	1.200	0.870	3477.835	-1.330	0.940
109.	6401.514	-0.010	-0.490	3560.859	1.110	0.810	3476.576	-1.230	0.880
110.	6401.501	-0.010	-0.450	3562.021	1.030	0.740	3475.412	-1.140	0.820
111.	6401.488	-0.010	-0.410	3563.087	0.940	0.670	3474.343	-1.060	0.760
112.	6401.477	-0.010	-0.370	3564.052	0.840	0.600	3473.375	-0.960	0.700
113.	6401.466	-0.010	-0.320	3564.913	0.740	0.530	3472.511	-0.870	0.640
114.	6401.456	-0.000	-0.280	3565.665	0.640	0.460	3471.756	-0.770	0.580
115.	6401.448	-0.000	-0.230	3566.307	0.540	0.380	3471.112	-0.660	0.520
116.	6401.441	-0.000	-0.190	3566.835	0.430	0.310	3470.582	-0.560	0.460
117.	6401.436	-0.000	-0.140	3567.248	0.330	0.230	3470.167	-0.450	0.400
118.	6401.432	-0.000	-0.090	3567.544	0.220	0.150	3469.870	-0.340	0.340
119.	6401.430	-0.000	-0.050	3567.722	0.110	0.080	3469.691	-0.230	0.280
120.	6401.429	-0.000	0.000	3567.782	0.000	0.000	3469.631	-0.110	0.220
121.	6401.430	0.000	0.050	3567.722	-0.110	-0.060	3469.691	0.000	0.160
122.	6401.432	0.000	0.090	3567.544	-0.220	-0.150	3469.870	0.110	0.100
123.	6401.436	0.000	0.140	3567.248	-0.330	-0.230	3470.167	0.230	0.040
124.	6401.441	0.000	0.190	3566.835	-0.430	-0.310	3470.582	0.340	0.000
125.	6401.448	0.000	0.230	3566.307	-0.540	-0.380	3471.112	0.450	0.000
126.	6401.456	0.000	0.280	3565.665	-0.640	-0.460	3471.756	0.560	0.000
127.	6401.466	0.010	0.320	3564.913	-0.740	-0.530	3472.511	0.660	0.000
128.	6401.477	0.010	0.370	3564.052	-0.840	-0.600	3473.375	0.770	0.000
129.	6401.488	0.010	0.410	3563.087	-0.940	-0.670	3474.343	0.870	0.000
130.	6401.501	0.010	0.450	3562.021	-1.030	-0.740	3475.412	0.960	0.000
131.	6401.514	0.010	0.490	3560.859	-1.110	-0.810	3476.576	1.060	0.000
132.	6401.529	0.010	0.530	3559.606	-1.200	-0.870	3477.835	1.140	0.000
133.	6401.543	0.010	0.570	3558.268	-1.270	-0.930	3479.177	1.230	0.000
134.	6401.558	0.010	0.600	3556.851	-1.340	-0.990	3480.596	1.300	0.000
135.	6401.573	0.010	0.640	3555.363	-1.400	-1.050	3482.091	1.360	0.000
136.	6401.588	0.010	0.670	3553.811	-1.460	-1.100	3483.647	1.400	0.000
137.	6401.603	0.010	0.700	3552.206	-1.510	-1.150	3485.256	1.440	0.000
138.	6401.618	0.010	0.730	3550.558	-1.540	-1.200	3486.909	1.490	0.000
139.	6401.632	0.010	0.750	3548.878	-1.560	-1.240	3488.592	1.540	0.000
140.	6401.645	0.010	0.760	3547.184	-1.570	-1.250	3490.291	1.590	0.000
141.	6401.658	0.010	0.800	3545.490	-1.560	-1.240	3491.988	1.600	0.000
142.	6401.670	0.010	0.820	3543.819	-1.530	-1.200	3493.662	1.590	0.000
143.	6401.680	0.010	0.840	3542.195	-1.470	-1.130	3495.289	1.560	0.000
144.	6401.690	0.000	0.860	3540.646	-1.390	-1.050	3496.939	1.500	0.000
145.	6401.698	0.000	0.870	3539.215	-1.260	-0.940	3498.674	1.410	0.000
146.	6401.705	0.000	0.880	3537.935	-1.100	-0.810	3499.552	1.260	0.000
147.	6401.710	0.000	0.890	3536.866	-0.880	-0.650	3500.624	1.110	0.000
148.	6401.714	0.000	0.890	3536.054	-0.620	-0.480	3501.440	0.930	0.000
149.	6401.716	0.000	0.900	3535.542	-0.320	-0.190	3501.952	0.630	0.000

BULK

111-PLANE GADOLINIUM GALLIUM GARNET

	LNGL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
150.	6401.717	0.000	.900	3535.366	-0.000	-1.450	3502.127	-0.000	-1.460
151.	6401.716	-0.000	.900	3535.542	.320	-1.490	3501.952	-0.330	-1.460
152.	6401.714	-0.000	.890	3536.054	.650	-1.460	3501.640	-0.630	-1.460
153.	6401.710	-0.000	.890	3536.866	.880	-1.470	3498.624	-0.890	-1.470
154.	6401.705	-0.000	.880	3537.939	1.100	-1.460	3499.552	-1.110	-1.450
155.	6401.698	-0.000	.870	3539.215	1.260	-1.440	3498.274	-1.280	-1.440
156.	6401.690	-0.000	.860	3540.646	1.390	-1.420	3496.839	-1.410	-1.410
157.	6401.680	-0.010	.840	3542.195	1.470	-1.390	3495.289	-1.500	-1.390
158.	6401.670	-0.010	.820	3543.619	1.530	-1.360	3493.662	-1.560	-1.360
159.	6401.658	-0.010	.800	3545.430	1.566	-1.320	3491.988	-1.590	-1.330
160.	6401.645	-0.010	.780	3547.184	1.578	-1.290	3490.291	-1.600	-1.290
161.	6401.632	-0.010	.750	3548.876	1.560	-1.240	3488.592	-1.590	-1.250
162.	6401.610	-0.010	.730	3550.556	1.540	-1.200	3486.909	-1.570	-1.210
163.	6401.603	-0.010	.700	3552.206	1.510	-1.150	3485.256	-1.540	-1.160
164.	6401.588	-0.010	.670	3553.811	1.460	-1.100	3483.647	-1.490	-1.110
165.	6401.573	-0.010	.640	3555.363	1.400	-1.050	3482.091	-1.440	-1.060
166.	6401.558	-0.010	.600	3556.851	1.340	-0.990	3480.598	-1.380	-1.000
167.	6401.543	-0.010	.570	3558.266	1.270	-0.930	3479.177	-1.300	-0.940
168.	6401.529	-0.010	.530	3559.606	1.200	-0.870	3477.835	-1.230	-0.880
169.	6401.514	-0.010	.490	3560.859	1.110	-0.810	3476.578	-1.140	-0.820
170.	6401.501	-0.010	.450	3562.021	1.030	-0.740	3475.412	-1.060	-0.750
171.	6401.486	-0.010	.410	3563.087	.940	-0.670	3474.343	-0.960	-0.680
172.	6401.477	-0.010	.370	3564.052	.840	-0.600	3473.375	-0.870	-0.610
173.	6401.466	-0.010	.320	3564.913	.740	-0.530	3472.511	-0.770	-0.540
174.	6401.456	-0.000	.280	3565.665	.640	-0.460	3471.756	-0.660	-0.470
175.	6401.446	-0.000	.230	3566.307	.540	-0.360	3471.112	-0.560	-0.370
176.	6401.441	-0.000	.190	3566.835	.430	-0.310	3470.582	-0.450	-0.310
177.	6401.436	-0.000	.140	3567.248	.330	-0.230	3470.167	-0.340	-0.230
178.	6401.432	-0.000	.090	3567.544	.220	-0.150	3469.870	-0.230	-0.160
179.	6401.430	-0.000	.050	3567.722	.110	-0.060	3469.691	-0.110	-0.060
180.	6401.429	0.000	0.000	3567.782	-0.000	-0.000	3469.631	0.000	0.000

110-PLANE GADOLINIUM GALLIUM GARNET

	LHGVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SRVEL	SSPH12	SSPH13
0.	6419.387	0.000	-0.000	3502.654	1.520	-0.000	3502.653	-1.520	-0.000
1.	6419.344	-0.040	-0.000	3504.285	1.540	-0.000	3501.102	-1.390	-0.000
2.	6419.211	-0.090	-0.000	3505.934	1.550	-0.000	3499.693	-1.250	-0.000
3.	6418.988	-0.140	-0.000	3507.598	1.560	-0.000	3498.436	-1.110	-0.000
4.	6418.670	-0.190	-0.000	3509.276	1.570	-0.000	3497.335	-0.960	-0.000
5.	6418.256	-0.240	-0.000	3510.964	1.580	-0.000	3496.394	-0.800	-0.000
6.	6417.749	-0.290	-0.000	3512.662	1.590	-0.000	3495.627	-0.640	-0.000
7.	6417.142	-0.340	-0.000	3514.366	1.590	-0.000	3495.027	-0.480	-0.000
8.	6416.436	-0.390	-0.000	3516.076	1.600	-0.000	3494.601	-0.320	-0.000
9.	6415.636	-0.440	-0.000	3517.788	1.600	-0.000	3494.351	-0.150	-0.000
10.	6414.736	-0.490	-0.000	3519.501	1.600	-0.000	3494.278	0.020	-0.000
11.	6413.739	-0.530	-0.000	3521.213	1.590	-0.000	3494.363	0.180	-0.000
12.	6412.647	-0.580	-0.000	3522.921	1.590	-0.000	3494.605	0.350	-0.000
13.	6411.462	-0.630	-0.000	3524.623	1.560	-0.000	3495.123	0.510	-0.000
14.	6410.185	-0.680	-0.000	3526.316	1.570	-0.000	3495.756	0.670	-0.000
15.	6408.820	-0.720	-0.000	3528.003	1.560	-0.000	3496.559	0.830	-0.000
16.	6407.368	-0.760	-0.000	3529.677	1.550	-0.000	3497.529	0.990	-0.000
17.	6405.835	-0.810	-0.000	3531.337	1.540	-0.000	3498.663	1.140	-0.000
18.	6404.223	-0.850	-0.000	3532.981	1.520	-0.000	3499.954	1.280	-0.000
19.	6402.537	-0.880	-0.000	3534.607	1.500	-0.000	3501.396	1.420	-0.000
20.	6400.781	-0.920	-0.000	3536.214	1.480	-0.000	3502.983	1.550	-0.000
21.	6398.962	-0.950	-0.000	3537.795	1.460	-0.000	3504.706	1.680	-0.000
22.	6397.083	-0.980	-0.000	3539.361	1.440	-0.000	3506.554	1.790	-0.000
23.	6395.151	-1.000	-0.000	3540.896	1.410	-0.000	3508.531	1.900	-0.000
24.	6393.172	-1.030	-0.000	3542.407	1.390	-0.000	3510.634	2.000	-0.000
25.	6391.152	-1.050	-0.000	3543.887	1.360	-0.000	3512.797	2.080	-0.000
26.	6389.098	-1.060	-0.000	3545.336	1.330	-0.000	3515.071	2.160	-0.000
27.	6387.016	-1.080	-0.000	3546.753	1.300	-0.000	3517.423	2.230	-0.000
28.	6384.915	-1.090	-0.000	3548.136	1.260	-0.000	3519.842	2.290	-0.000
29.	6382.801	-1.090	-0.000	3549.483	1.230	-0.000	3522.338	2.330	-0.000
30.	6380.681	-1.090	-0.000	3550.793	1.190	-0.000	3524.837	2.360	-0.000
31.	6378.564	-1.090	-0.000	3552.063	1.160	-0.000	3527.368	2.380	-0.000
32.	6376.457	-1.080	-0.000	3553.293	1.120	-0.000	3529.957	2.390	-0.000
33.	6374.368	-1.070	-0.000	3554.481	1.080	-0.000	3532.533	2.390	-0.000
34.	6372.305	-1.050	-0.000	3555.626	1.040	-0.000	3535.103	2.380	-0.000
35.	6370.275	-1.040	-0.000	3556.726	0.990	-0.000	3537.654	2.350	-0.000
36.	6368.266	-1.020	-0.000	3557.780	0.950	-0.000	3540.173	2.320	-0.000
37.	6366.347	-0.990	-0.000	3558.787	0.910	-0.000	3542.648	2.270	-0.000
38.	6364.464	-0.960	-0.000	3559.746	0.860	-0.000	3545.067	2.210	-0.000
39.	6362.646	-0.920	-0.000	3560.655	0.810	-0.000	3547.418	2.140	-0.000
40.	6360.899	-0.880	-0.000	3561.513	0.770	-0.000	3549.688	2.060	-0.000
41.	6359.211	-0.840	-0.000	3562.320	0.720	-0.000	3551.868	1.970	-0.000
42.	6357.646	-0.790	-0.000	3563.074	0.670	-0.000	3553.944	1.870	-0.000
43.	6356.137	-0.750	-0.000	3563.775	0.620	-0.000	3555.908	1.760	-0.000
44.	6354.764	-0.690	-0.000	3564.421	0.570	-0.000	3557.750	1.640	-0.000
45.	6353.475	-0.640	-0.000	3565.012	0.520	-0.000	3559.459	1.510	-0.000
46.	6352.295	-0.590	-0.000	3565.566	0.470	-0.000	3561.028	1.380	-0.000
47.	6351.229	-0.520	-0.000	3566.027	0.420	-0.000	3562.448	1.240	-0.000
48.	6350.282	-0.460	-0.000	3566.450	0.360	-0.000	3563.713	1.090	-0.000
49.	6349.456	-0.390	-0.000	3566.815	0.310	-0.000	3564.816	0.940	-0.000

BULK

110-PLANE GADOLINIUM GALLIUM GARNET

BULK

	LMGVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
50.	6348.761	-.330	0.000	3567.122	.260	-0.000	3565.751	.760	-0.000
51.	6348.193	-.260	0.000	3567.371	.200	0.000	3566.513	.620	-0.000
52.	6347.756	-.190	0.000	3567.561	.150	0.000	3567.100	.460	-0.000
53.	6347.453	-.120	0.000	3567.693	.090	0.000	3567.507	.290	-0.000
54.	6347.286	-.050	0.000	3567.766	.040	-0.000	3567.732	.040	-0.000
55.	6347.254	.020	0.000	3567.780	-.010	-0.000	3567.775	-.010	-0.000
56.	6347.357	.090	0.000	3567.735	-.070	-0.000	3567.636	-.210	-0.000
57.	6347.596	.160	0.000	3567.631	-.120	-0.000	3567.314	-.360	-0.000
58.	6347.970	.230	0.000	3567.466	-.160	-0.000	3566.612	-.540	-0.000
59.	6348.476	.300	0.000	3567.247	-.230	-0.000	3566.132	-.710	-0.000
60.	6349.113	.360	0.000	3566.967	-.280	0.000	3565.278	-.870	-0.000
61.	6349.878	.430	0.000	3566.629	-.340	0.000	3564.254	-1.020	-0.000
62.	6350.767	.490	0.000	3566.234	-.390	-0.000	3563.065	-1.170	-0.000
63.	6351.777	.550	0.000	3565.781	-.440	-0.000	3561.717	-1.310	-0.000
64.	6352.904	.610	0.000	3565.272	-.490	-0.000	3560.218	-1.450	-0.000
65.	6354.142	.670	0.000	3564.707	-.550	-0.000	3558.573	-1.580	-0.000
66.	6355.487	.720	-0.000	3564.087	-.600	0.000	3556.793	-1.700	-0.000
67.	6356.932	.770	0.000	3563.411	-.650	-0.000	3554.886	-1.820	-0.000
68.	6358.473	.820	0.000	3562.682	-.700	0.000	3552.861	-1.920	-0.000
69.	6360.101	.860	0.000	3561.900	-.740	-0.000	3550.729	-2.020	-0.000
70.	6361.812	.900	0.000	3561.066	-.790	-0.000	3548.580	-2.100	-0.000
71.	6363.598	.940	0.000	3560.181	-.840	-0.000	3546.166	-2.180	-0.000
72.	6365.451	.970	0.000	3559.246	-.890	-0.000	3543.748	-2.240	-0.000
73.	6367.364	1.000	0.000	3558.262	-.930	0.000	3541.348	-2.300	-0.000
74.	6369.331	1.030	0.000	3557.230	-.970	-0.000	3538.848	-2.340	-0.000
75.	6371.342	1.050	-0.000	3556.151	-1.020	-0.000	3536.310	-2.370	-0.000
76.	6373.391	1.060	0.000	3555.027	-1.060	-0.000	3533.748	-2.390	-0.000
77.	6375.465	1.060	0.000	3553.859	-1.100	0.000	3531.173	-2.390	-0.000
78.	6377.568	1.060	0.000	3552.649	-1.140	-0.000	3528.599	-2.390	-0.000
79.	6379.681	1.090	0.000	3551.397	-1.160	0.000	3526.038	-2.370	0.000
80.	6381.801	1.090	-0.000	3550.106	-1.210	-0.000	3523.502	-2.350	-0.000
81.	6383.916	1.090	0.000	3548.776	-1.250	-0.000	3521.005	-2.310	-0.000
82.	6386.027	1.080	0.000	3547.410	-1.260	-0.000	3518.557	-2.260	-0.000
83.	6388.118	1.070	-0.000	3546.009	-1.310	-0.000	3516.172	-2.190	-0.000
84.	6390.186	1.050	0.000	3544.575	-1.340	-0.000	3513.860	-2.120	-0.000
85.	6392.223	1.040	0.000	3543.104	-1.370	-0.000	3511.633	-2.040	-0.000
86.	6394.222	1.020	-0.000	3541.613	-1.400	-0.000	3509.501	-1.950	-0.000
87.	6396.177	.990	0.000	3540.090	-1.430	-0.000	3507.475	-1.840	-0.000
88.	6398.082	.960	0.000	3538.540	-1.450	-0.000	3505.565	-1.730	-0.000
89.	6399.930	.930	0.000	3536.965	-1.470	0.000	3503.780	-1.610	-0.000
90.	6401.717	.900	0.000	3535.368	-1.490	0.000	3502.127	-1.480	-0.000
91.	6403.436	.860	0.000	3533.751	-1.510	-0.000	3500.616	-1.350	-0.000
92.	6405.083	.830	-0.000	3532.115	-1.530	0.000	3498.253	-1.210	0.000
93.	6406.655	.780	0.000	3530.462	-1.540	-0.000	3496.044	-1.060	-0.000
94.	6408.145	.740	0.000	3528.795	-1.560	0.000	3493.996	-.910	-0.000
95.	6409.552	.700	-0.000	3527.115	-1.570	-0.000	3496.114	-.750	0.000
96.	6410.871	.650	-0.000	3525.424	-1.580	-0.000	3493.400	-.590	-0.000
97.	6412.099	.610	0.000	3523.725	-1.590	-0.000	3490.660	-.430	-0.000
98.	6413.236	.560	0.000	3522.019	-1.590	-0.000	3494.494	-.260	-0.000
99.	6414.277	.510	0.000	3520.305	-1.600	0.000	3494.305	-.090	-0.000

110-PLANE GADOLINIUM GALLIUM GARNET

BULK

	LNGL	LPN12	LPN13	FSRVEL	FSPN12	FSPN13	SSRVEL	SSPN12	SSPN13
100.	6415.223	.460	-0.000	3518.597	-1.600	0.000	3494.294	.670	-0.000
101.	6416.071	.410	-0.000	3516.884	-1.600	0.000	3494.461	.240	-0.000
102.	6416.822	.360	-0.000	3515.173	-1.600	0.000	3494.604	.400	-0.000
103.	6417.475	.310	0.000	3513.466	-1.590	0.000	3495.322	.670	-0.600
104.	6418.030	.260	-0.000	3511.764	-1.590	0.000	3496.013	.730	-0.000
105.	6418.888	.210	0.000	3510.071	-1.580	0.000	3496.672	.680	-0.000
106.	6419.650	.160	0.000	3508.386	-1.570	0.000	3497.696	1.040	-0.000
107.	6419.117	.110	0.000	3506.718	-1.560	0.000	3499.080	1.100	-0.000
108.	6419.293	.070	0.000	3505.061	-1.540	0.000	3500.418	1.320	-0.600
109.	6419.378	.020	0.000	3503.421	-1.530	0.000	3501.904	1.460	-0.000
110.	6419.375	-.020	0.000	3501.799	-1.510	0.000	3503.530	1.590	0.000
111.	6419.289	-.070	0.000	3500.198	-1.490	0.000	3505.289	1.710	0.000
112.	6419.121	-.110	0.000	3498.619	-1.470	0.000	3507.171	1.620	0.000
113.	6418.877	-.140	0.000	3497.064	-1.450	0.000	3509.169	1.920	0.000
114.	6418.559	-.180	0.000	3495.535	-1.420	0.000	3511.273	2.010	0.000
115.	6418.173	-.210	-0.000	3494.034	-1.400	0.000	3513.471	2.090	0.000
116.	6417.723	-.250	0.000	3492.563	-1.370	0.000	3515.755	2.170	0.000
117.	6417.214	-.270	0.000	3491.124	-1.340	0.000	3518.112	2.230	0.000
118.	6416.652	-.300	0.000	3489.719	-1.310	0.000	3520.532	2.260	0.000
119.	6416.040	-.320	0.000	3488.349	-1.270	0.000	3523.002	2.320	0.000
120.	6415.367	-.340	0.000	3487.016	-1.240	0.000	3525.512	2.350	0.600
121.	6414.695	-.360	0.000	3485.722	-1.200	0.000	3528.048	2.370	0.600
122.	6413.973	-.380	0.000	3484.468	-1.160	0.000	3530.600	2.370	0.600
123.	6413.225	-.390	0.000	3483.256	-1.120	0.000	3533.153	2.350	0.000
124.	6412.456	-.400	0.000	3482.087	-1.060	0.000	3535.697	2.320	0.000
125.	6411.677	-.400	0.000	3480.964	-1.040	0.000	3538.216	2.320	0.000
126.	6410.885	-.400	0.000	3479.886	-.990	0.000	3540.705	2.280	0.000
127.	6410.100	-.400	0.000	3478.856	-.950	0.000	3543.146	2.230	0.000
128.	6409.315	-.400	0.000	3477.876	-.900	0.000	3545.526	2.170	-0.000
129.	6408.540	-.390	0.000	3476.945	-.850	0.000	3547.840	2.100	-0.000
130.	6407.781	-.380	0.000	3476.066	-.810	0.000	3550.072	2.020	0.000
131.	6407.044	-.370	0.000	3475.239	-.760	0.000	3552.211	1.930	0.000
132.	6406.333	-.360	0.000	3474.466	-.700	0.000	3554.249	1.830	-0.000
133.	6405.655	-.360	0.000	3473.747	-.650	0.000	3556.174	1.720	0.600
134.	6405.013	-.360	0.000	3473.084	-.600	0.000	3557.977	1.600	0.000
135.	6404.412	-.350	0.000	3472.477	-.550	0.000	3559.650	1.480	0.000
136.	6403.857	-.340	0.000	3471.927	-.490	0.000	3561.185	1.350	-0.000
137.	6403.352	-.330	0.000	3471.435	-.440	0.000	3562.574	1.210	-0.000
138.	6402.899	-.320	0.000	3471.001	-.380	0.000	3563.810	1.070	-0.000
139.	6402.503	-.310	0.000	3470.626	-.330	0.000	3564.807	.920	-0.000
140.	6402.165	-.300	0.000	3470.310	-.270	0.000	3565.600	.760	0.000
141.	6401.889	-.300	0.000	3470.054	-.210	0.000	3566.244	.610	0.000
142.	6401.677	-.290	0.000	3469.858	-.160	0.000	3566.716	.450	-0.000
143.	6401.529	-.280	0.000	3469.723	-.100	0.000	3567.113	.280	-0.000
144.	6401.447	-.270	0.000	3469.648	-.040	0.000	3567.433	.120	-0.000
145.	6401.431	-.010	0.000	3469.634	.020	0.000	3567.776	-.040	0.000
146.	6401.482	.040	0.000	3469.680	.070	0.000	3568.139	-.210	0.000
147.	6401.599	.060	0.000	3469.787	.130	0.000	3568.526	-.370	0.000
148.	6401.781	.110	0.000	3469.954	.190	0.000	3568.836	-.530	0.000
149.	6402.027	.140	0.000	3470.182	.240	0.000	3569.172	-.690	0.000

110-PLANE GADOLINIUM GALLIUM GARNET

BULK

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
150.	6402.336	.170	0.000	3470.469	.300	0.000	3565.336	-1.650	0.000
151.	6402.705	.200	0.000	3470.816	.360	0.000	3564.338	-1.000	0.000
152.	6403.131	.230	0.000	3471.222	.410	0.000	3563.177	-1.140	0.000
153.	6403.612	.268	0.000	3471.687	.470	0.000	3561.859	-1.280	0.000
154.	6404.144	.290	0.000	3472.210	.520	0.000	3560.393	-1.420	0.000
155.	6404.724	.310	0.000	3472.790	.560	-0.000	3558.784	-1.550	0.000
156.	6405.367	.330	0.000	3473.427	.630	0.000	3557.041	-1.670	0.000
157.	6406.089	.350	0.000	3474.120	.660	0.000	3555.172	-1.780	0.000
158.	6406.705	.360	0.000	3474.867	.730	-0.000	3553.166	-1.880	0.000
159.	6407.430	.390	0.000	3475.669	.760	0.000	3551.044	-1.980	0.000
160.	6408.179	.400	0.000	3476.524	.830	0.000	3548.904	-2.070	0.000
161.	6408.947	.400	0.000	3477.450	.860	-0.000	3546.629	-2.140	0.000
162.	6409.728	.400	0.000	3478.387	.930	0.000	3544.278	-2.210	0.000
163.	6410.516	.400	0.000	3479.394	.970	-0.000	3541.864	-2.260	0.000
164.	6411.306	.400	0.000	3480.449	1.020	0.000	3539.397	-2.310	0.000
165.	6412.091	.400	0.000	3481.551	1.060	-0.000	3536.890	-2.340	0.000
166.	6412.865	.390	0.000	3482.699	1.100	0.000	3534.356	-2.360	0.000
167.	6413.623	.380	0.000	3483.891	1.140	0.000	3531.805	-2.370	0.000
168.	6414.356	.370	0.000	3485.125	1.180	-0.000	3529.252	-2.370	0.000
169.	6415.065	.350	0.000	3486.400	1.220	0.000	3526.707	-2.360	0.000
170.	6415.737	.330	0.000	3487.715	1.260	0.000	3524.183	-2.340	0.000
171.	6416.369	.310	0.000	3489.068	1.290	0.000	3521.692	-2.300	0.000
172.	6416.955	.290	0.000	3490.457	1.320	0.000	3519.247	-2.260	0.000
173.	6417.490	.260	0.000	3491.860	1.350	0.000	3516.859	-2.200	0.000
174.	6417.966	.230	0.000	3493.336	1.380	-0.000	3514.539	-2.130	0.000
175.	6418.385	.200	0.000	3494.823	1.410	0.000	3512.299	-2.050	0.000
176.	6418.736	.160	0.000	3496.339	1.440	0.000	3510.149	-1.960	0.000
177.	6419.015	.120	0.000	3497.881	1.460	-0.000	3508.101	-1.870	0.000
178.	6419.220	.080	-0.000	3499.449	1.480	0.000	3506.162	-1.780	0.000
179.	6419.345	.040	0.000	3501.041	1.500	-0.000	3504.344	-1.640	0.000
180.	6419.387	0.000	0.000	3502.653	1.520	0.000	3502.654	-1.520	-0.000

Z-PLANE (XY-PLANE) GALLIUM ARSENIIDE

BULK

	LNGVEL	LPMI12	LPMI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
0.	4733.978	8.000	0.000	3347.428	0.000	0.000	3347.428	0.000	0.000
1.	4734.923	1.310	0.000	3347.437	-0.000	0.000	3346.850	-2.620	0.000
2.	4737.765	2.588	0.000	3347.464	0.000	0.000	3342.054	-5.200	0.000
3.	4742.400	3.868	0.000	3347.509	0.000	0.000	3335.486	-7.720	0.000
4.	4748.817	5.010	0.000	3347.571	0.000	0.000	3326.343	-10.140	0.000
5.	4756.904	6.118	0.000	3347.651	0.000	0.000	3314.767	-12.430	0.000
6.	4766.549	7.110	0.000	3347.746	0.000	0.000	3300.683	-14.590	0.000
7.	4777.625	8.020	0.000	3347.861	0.000	0.000	3284.832	-16.540	0.000
8.	4789.994	8.850	0.000	3347.990	0.000	0.000	3266.789	-18.440	0.000
9.	4803.514	9.510	0.000	3348.134	0.000	0.000	3246.855	-20.140	0.000
10.	4818.081	10.100	0.000	3348.293	0.000	0.000	3225.260	-21.660	0.000
11.	4833.430	10.590	0.000	3348.466	0.000	0.000	3202.151	-23.070	0.000
12.	4849.542	10.990	0.000	3348.651	0.000	0.000	3177.698	-24.320	0.000
13.	4866.241	11.290	0.000	3348.849	0.000	0.000	3152.066	-25.440	0.000
14.	4883.399	11.500	0.000	3349.056	0.000	0.000	3125.417	-26.420	0.000
15.	4900.886	11.640	0.000	3349.277	0.000	0.000	3097.909	-27.280	0.000
16.	4918.618	11.710	0.000	3349.504	0.000	0.000	3069.693	-28.030	0.000
17.	4936.460	11.728	0.000	3349.740	0.000	0.000	3040.918	-28.660	0.000
18.	4954.326	11.668	0.000	3349.983	0.000	0.000	3011.723	-29.180	0.000
19.	4972.124	11.550	0.000	3350.230	0.000	0.000	2982.248	-29.600	0.000
20.	4989.774	11.390	0.000	3350.483	0.000	0.000	2952.622	-29.920	0.000
21.	5007.198	11.190	0.000	3350.738	0.000	0.000	2922.976	-30.140	0.000
22.	5024.328	10.950	0.000	3350.995	0.000	0.000	2893.432	-30.250	0.000
23.	5041.099	10.670	0.000	3351.253	0.000	0.000	2864.112	-30.260	0.000
24.	5057.455	10.360	0.000	3351.511	0.000	0.000	2835.132	-30.160	0.000
25.	5073.341	10.010	0.000	3351.766	0.000	0.000	2806.606	-29.980	0.000
26.	5088.708	9.650	0.000	3352.018	0.000	0.000	2778.645	-29.690	0.000
27.	5103.514	9.250	0.000	3352.268	0.000	0.000	2751.357	-29.270	0.000
28.	5117.717	8.840	0.000	3352.508	0.000	0.000	2724.647	-28.750	0.000
29.	5131.280	8.400	0.000	3352.744	0.000	0.000	2699.219	-28.100	0.000
30.	5144.170	7.950	0.000	3352.971	0.000	0.000	2674.572	-27.330	0.000
31.	5156.357	7.490	0.000	3353.190	0.000	0.000	2651.001	-26.430	0.000
32.	5167.812	7.000	0.000	3353.396	0.000	0.000	2628.600	-25.400	0.000
33.	5178.511	6.510	0.000	3353.586	0.000	0.000	2607.459	-24.230	0.000
34.	5188.432	6.000	0.000	3353.761	0.000	0.000	2587.663	-22.920	0.000
35.	5197.553	5.490	0.000	3353.923	0.000	0.000	2569.292	-21.460	0.000
36.	5205.858	4.960	0.000	3354.112	0.000	0.000	2552.424	-19.860	0.000
37.	5213.329	4.430	0.000	3354.256	0.000	0.000	2537.126	-18.120	0.000
38.	5219.954	3.890	0.000	3354.365	0.000	0.000	2523.470	-16.230	0.000
39.	5225.719	3.350	0.000	3354.448	0.000	0.000	2511.510	-14.200	0.000
40.	5230.613	2.800	0.000	3354.504	0.000	0.000	2501.296	-12.050	0.000
41.	5234.632	2.240	0.000	3354.674	0.000	0.000	2492.880	-9.750	0.000
42.	5237.763	1.680	0.000	3354.736	0.000	0.000	2486.293	-7.430	0.000
43.	5240.004	1.120	0.000	3354.791	0.000	0.000	2481.567	-5.000	0.000
44.	5241.350	0.560	0.000	3354.808	0.000	0.000	2478.723	-2.510	0.000
45.	5241.799	0.000	0.000	3354.817	0.000	0.000	2477.773	0.000	0.000
46.	5241.350	-0.560	0.000	3354.808	0.000	0.000	2478.723	2.510	0.000
47.	5240.004	-1.120	0.000	3354.791	0.000	0.000	2481.567	5.000	0.000
48.	5237.763	-1.680	0.000	3354.736	0.000	0.000	2486.293	7.430	0.000
49.	5234.632	-2.240	0.000	3354.674	0.000	0.000	2492.880	9.790	0.000

Z-PLANE (XY-PLANE) GALLIUM ARSENIDE

	LNGVEL	LPHI12	LPHI13	FSPVEL	FSPM12	FSPM13	SSRVEL	SSPM12	SSPM13
50.	5230.615	-2.000	0.000	3354.894	-0.090	0.000	2501.296	12.050	0.000
51.	5235.719	-3.350	0.000	3354.490	-0.100	0.000	2511.510	14.200	0.000
52.	5239.934	-4.090	0.000	3354.385	-0.120	0.000	2523.470	16.230	0.000
53.	5243.329	-4.830	0.000	3354.256	-0.130	0.000	2537.128	18.120	0.000
54.	5205.856	-4.960	0.000	3354.112	-0.150	0.000	2552.424	19.660	0.000
55.	5197.553	-5.490	0.000	3353.953	-0.160	0.000	2569.292	21.460	0.000
56.	5188.432	-6.000	0.000	3353.781	-0.160	0.000	2587.663	22.920	0.000
57.	5178.511	-6.510	0.000	3353.596	-0.190	0.000	2607.459	24.230	0.000
58.	5167.812	-7.000	0.000	3353.396	-0.200	0.000	2626.600	25.400	0.000
59.	5156.357	-7.450	0.000	3353.190	-0.210	0.000	2651.881	26.430	0.000
60.	5144.170	-7.950	0.000	3352.971	-0.220	0.000	2674.372	27.330	0.000
61.	5131.260	-8.400	0.000	3352.744	-0.230	0.000	2699.219	28.100	0.000
62.	5117.717	-8.840	0.000	3352.506	-0.230	0.000	2724.647	28.750	0.000
63.	5103.514	-9.250	0.000	3352.266	-0.240	0.000	2751.357	29.270	0.000
64.	5088.706	-9.650	0.000	3352.018	-0.250	0.000	2776.645	29.660	0.000
65.	5073.361	-10.010	0.000	3351.766	-0.250	0.000	2806.606	29.980	0.000
66.	5057.455	-10.360	0.000	3351.511	-0.250	0.000	2835.132	30.160	0.000
67.	5041.099	-10.670	0.000	3351.253	-0.250	0.000	2864.112	30.260	0.000
68.	5024.326	-10.950	0.000	3350.995	-0.250	0.000	2893.432	30.250	0.000
69.	5007.158	-11.390	0.000	3350.736	-0.250	0.000	2922.976	30.140	0.000
70.	4989.774	-11.500	0.000	3350.483	-0.250	0.000	2952.622	29.920	0.000
71.	4972.124	-11.550	0.000	3350.230	-0.250	0.000	2982.248	29.600	0.000
72.	4954.326	-11.660	0.000	3349.983	-0.240	0.000	3011.723	29.160	0.000
73.	4936.460	-11.720	0.000	3349.740	-0.230	0.000	3040.916	28.660	0.000
74.	4918.616	-11.710	0.000	3349.504	-0.230	0.000	3069.693	28.030	0.000
75.	4900.886	-11.640	0.000	3349.277	-0.220	0.000	3097.909	27.260	0.000
76.	4883.399	-11.500	0.000	3349.056	-0.210	0.000	3125.417	26.420	0.000
77.	4866.241	-11.250	0.000	3348.849	-0.200	0.000	3152.066	25.440	0.000
78.	4849.542	-10.950	0.000	3348.651	-0.190	0.000	3177.698	24.320	0.000
79.	4833.430	-10.590	0.000	3348.466	-0.160	0.000	3202.151	23.070	0.000
80.	4818.041	-10.100	0.000	3348.293	-0.160	0.000	3225.260	21.660	0.000
81.	4803.514	-9.510	0.000	3348.134	-0.150	0.000	3246.655	20.140	0.000
82.	4789.994	-8.820	0.000	3347.990	-0.130	0.000	3266.769	18.440	0.000
83.	4777.625	-8.020	0.000	3347.861	-0.120	0.000	3284.832	16.590	0.000
84.	4766.549	-7.110	0.000	3347.746	-0.100	0.000	3300.883	14.590	0.000
85.	4756.904	-6.110	0.000	3347.651	-0.090	0.000	3314.767	12.430	0.000
86.	4748.017	-5.010	0.000	3347.571	-0.070	0.000	3326.343	10.140	0.000
87.	4742.400	-3.640	0.000	3347.509	-0.050	0.000	3335.486	7.720	0.000
88.	4737.745	-2.590	0.000	3347.464	-0.040	0.000	3342.894	5.200	0.000
89.	4734.923	-1.310	0.000	3347.437	0.000	0.000	3346.090	2.620	0.000
90.	4733.976	0.000	0.000	3347.426	0.000	0.000	3347.426	0.000	0.000
91.	4734.923	1.310	0.000	3347.437	0.000	0.000	3346.090	-2.620	0.000
92.	4737.745	2.590	0.000	3347.464	0.000	0.000	3335.486	-5.200	0.000
93.	4742.400	3.640	0.000	3347.509	0.000	0.000	3326.343	-7.720	0.000
94.	4748.017	5.010	0.000	3347.571	0.000	0.000	3314.767	-10.140	0.000
95.	4756.904	6.110	0.000	3347.651	0.000	0.000	3300.883	-12.430	0.000
96.	4766.549	7.110	0.000	3347.746	0.000	0.000	3284.832	-14.590	0.000
97.	4777.625	8.020	0.000	3347.861	0.000	0.000	3266.769	-16.590	0.000
98.	4789.994	8.820	0.000	3348.056	0.000	0.000	3246.655	-18.440	0.000
99.	4803.514	9.510	0.000	3348.134	0.000	0.000	3225.417	-20.140	0.000

Z-PLANE (XY-PLANE) GALLIUM ARSENIDE

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
100.	4618.041	10.100	0.000	3348.293	.160	0.000	3225.260	-21.680	0.000
101.	4633.430	10.590	0.000	3348.466	.160	0.000	3202.151	-23.070	0.000
102.	4649.542	10.940	0.000	3348.651	.190	0.000	3177.698	-24.320	0.000
103.	4666.241	11.250	0.000	3348.849	.200	0.000	3152.066	-25.440	0.000
104.	4683.399	11.500	0.000	3349.058	.210	0.000	3125.417	-26.420	0.000
105.	4901.896	11.640	0.000	3349.277	.220	0.000	3097.909	-27.280	0.000
106.	4918.618	11.710	0.000	3349.504	.230	0.000	3069.693	-28.030	0.000
107.	4936.460	11.720	0.000	3349.740	.230	0.000	3040.918	-28.660	0.000
108.	4954.326	11.660	0.000	3349.983	.240	0.000	3011.723	-29.160	0.000
109.	4972.124	11.550	0.000	3350.230	.250	0.000	2982.248	-29.600	0.000
110.	4989.774	11.390	0.000	3350.483	.250	0.000	2952.622	-29.920	0.000
111.	5007.156	11.190	0.000	3350.736	.250	0.000	2922.976	-30.140	0.000
112.	5024.326	10.950	0.000	3350.995	.250	0.000	2893.432	-30.250	0.000
113.	5041.099	10.670	0.000	3351.253	.250	0.000	2864.112	-30.260	0.000
114.	5057.455	10.360	0.000	3351.511	.250	0.000	2835.132	-30.160	0.000
115.	5073.341	10.010	0.000	3351.766	.250	0.000	2806.606	-29.960	0.000
116.	5088.706	9.650	0.000	3352.016	.250	0.000	2778.645	-29.660	0.000
117.	5103.514	9.290	0.000	3352.266	.240	0.000	2751.357	-29.270	0.000
118.	5117.717	8.840	0.000	3352.506	.230	0.000	2724.847	-28.790	0.000
119.	5131.280	8.400	0.000	3352.744	.230	0.000	2699.219	-28.100	0.000
120.	5144.170	7.950	0.000	3352.971	.220	0.000	2674.572	-27.330	0.000
121.	5156.357	7.490	0.000	3353.190	.210	0.000	2651.011	-26.430	0.000
122.	5167.812	7.000	0.000	3353.396	.200	0.000	2628.600	-25.400	0.000
123.	5178.511	6.510	0.000	3353.596	.190	0.000	2607.459	-24.230	0.000
124.	5188.432	6.000	0.000	3353.781	.180	0.000	2587.683	-22.920	0.000
125.	5197.553	5.490	0.000	3353.953	.160	0.000	2569.292	-21.460	0.000
126.	5205.858	4.960	0.000	3354.112	.150	0.000	2552.424	-19.860	0.000
127.	5213.329	4.430	0.000	3354.256	.130	0.000	2537.128	-16.120	0.000
128.	5219.954	3.650	0.000	3354.385	.120	0.000	2523.470	-16.230	0.000
129.	5225.719	3.350	0.000	3354.494	.100	0.000	2511.510	-14.200	0.000
130.	5230.615	2.800	0.000	3354.594	.090	0.000	2501.298	-12.050	0.000
131.	5234.632	2.250	0.000	3354.674	.070	0.000	2492.880	-9.790	0.000
132.	5237.763	1.680	0.000	3354.736	.050	0.000	2486.293	-7.430	0.000
133.	5240.004	1.120	0.000	3354.781	.040	0.000	2481.567	-5.000	0.000
134.	5241.350	.560	0.000	3354.808	.020	0.000	2476.723	-2.510	0.000
135.	5241.799	-0.000	0.000	3354.817	-0.000	0.000	2472.773	0.000	0.000
136.	5241.350	-0.560	0.000	3354.808	-0.020	0.000	2468.723	2.510	0.000
137.	5237.763	-1.120	0.000	3354.781	-0.040	0.000	2464.567	5.000	0.000
138.	5234.632	-1.680	0.000	3354.736	-0.050	0.000	2460.293	7.430	0.000
139.	5230.615	-2.250	0.000	3354.674	-0.070	0.000	2452.880	9.790	0.000
140.	5225.719	-2.800	0.000	3354.594	-0.090	0.000	2451.298	12.050	0.000
141.	5221.954	-3.350	0.000	3354.498	-0.100	0.000	2451.510	14.200	0.000
142.	5219.954	-3.650	0.000	3354.385	-0.120	0.000	2453.470	16.230	0.000
143.	5218.329	-4.430	0.000	3354.236	-0.130	0.000	2457.128	18.120	0.000
144.	5215.856	-4.960	0.000	3354.112	-0.150	0.000	2452.424	19.860	0.000
145.	5213.329	-5.490	0.000	3353.953	-0.160	0.000	2459.292	21.460	0.000
146.	5210.432	-6.000	0.000	3353.781	-0.160	0.000	2467.663	22.920	0.000
147.	5207.511	-6.510	0.000	3353.596	-0.190	0.000	2478.645	24.230	0.000
148.	5204.612	-7.000	0.000	3353.396	-0.200	0.000	2491.600	25.400	0.000
149.	5201.719	-7.490	0.000	3353.190	-0.210	0.000	2506.600	26.430	0.000

BULK

2-PLANE (XY-PLANE) GALLIUM ARSENIDE

	LNGWEL	LPHI12	LPHI13	FSRWEL	FSPHI12	FSPHI13	SSRWEL	SSPHI12	SSPHI13
150.	5144.170	-7.950	0.000	3352.971	-220	0.000	2674.572	27.330	0.000
151.	5131.280	-8.400	0.000	3352.744	-230	0.000	2693.215	26.100	0.000
152.	5117.717	-8.848	0.000	3352.508	-230	0.000	2744.847	26.750	0.000
153.	5103.514	-9.250	0.000	3352.266	-240	0.000	2751.357	29.270	0.000
154.	5088.708	-9.650	0.000	3352.018	-250	0.000	2778.645	29.680	0.000
155.	5073.341	-10.010	0.000	3351.766	-250	0.000	2806.606	29.960	0.000
156.	5057.455	-10.340	0.000	3351.511	-250	0.000	2835.132	30.180	0.000
157.	5041.099	-10.670	0.000	3351.253	-250	0.000	2864.112	30.260	0.000
158.	5024.328	-10.950	0.000	3350.995	-250	0.000	2893.432	30.250	0.000
159.	5007.198	-11.150	0.000	3350.738	-250	0.000	2922.376	30.140	0.000
160.	4989.774	-11.350	0.000	3350.483	-250	0.000	2952.622	29.920	0.000
161.	4972.124	-11.550	0.000	3350.230	-250	0.000	2982.248	29.500	0.000
162.	4954.326	-11.660	0.000	3349.983	-240	0.000	3011.233	29.180	0.000
163.	4936.468	-11.720	0.000	3349.740	-230	0.000	3040.318	28.660	0.000
164.	4918.618	-11.710	0.000	3349.504	-230	0.000	3069.693	28.030	0.000
165.	4900.896	-11.640	0.000	3349.277	-220	0.000	3097.909	27.260	0.000
166.	4883.399	-11.500	0.000	3349.058	-210	0.000	3125.417	26.420	0.000
167.	4866.241	-11.290	0.000	3348.849	-200	0.000	3152.066	25.440	0.000
168.	4849.542	-10.980	0.000	3348.651	-190	0.000	3177.696	24.320	0.000
169.	4833.430	-10.550	0.000	3348.466	-180	0.000	3202.151	23.070	0.000
170.	4818.041	-10.100	0.000	3348.293	-160	0.000	3225.260	21.660	0.000
171.	4803.514	-9.510	0.000	3348.134	-150	0.000	3246.855	20.140	0.000
172.	4789.994	-8.820	0.000	3347.990	-130	0.000	3266.769	18.440	0.000
173.	4777.625	-8.020	0.000	3347.861	-120	0.000	3284.832	16.590	0.000
174.	4766.545	-7.110	0.000	3347.748	-100	0.000	3300.883	14.540	0.000
175.	4756.804	-6.110	0.000	3347.651	-80	0.000	3314.767	12.430	0.000
176.	4748.617	-5.010	0.000	3347.571	-70	0.000	3326.343	10.140	0.000
177.	4742.400	-3.840	0.000	3347.509	-60	0.000	3335.466	7.720	0.000
178.	4737.745	-2.590	0.000	3347.464	-50	0.000	3342.094	5.200	0.000
179.	4734.923	-1.310	0.000	3347.437	-40	0.000	3346.090	2.620	0.000
180.	4733.976	0.000	0.000	3347.428	-30	0.000	3347.428	0.000	0.000

111-PLANE GALLIUM ARSENIDE

BULK

	LMGVEL	LPM12	LPM13	FSRVEL	FSPM12	FSPM13	SSRVEL	SSPM12	SSPM13
0.	5241.799	-0.000	0.000	3354.817	-0.000	0.000	2477.773	0.000	-0.000
1.	5241.807	.110	.480	3354.293	-1.030	-0.710	2476.297	1.390	-0.000
2.	5242.149	.220	.950	3352.723	-2.050	-1.420	2479.867	2.770	-1.590
3.	5242.581	.320	1.420	3350.115	-3.060	-2.130	2482.475	4.120	-2.300
4.	5243.180	.430	1.880	3346.461	-4.060	-2.830	2486.110	5.450	-3.150
5.	5243.937	.520	2.340	3341.836	-5.040	-3.520	2490.756	6.740	-3.910
6.	5244.843	.610	2.790	3336.206	-6.000	-4.200	2496.390	7.990	-4.650
7.	5245.888	.690	3.220	3329.614	-6.930	-4.870	2502.917	9.190	-5.370
8.	5247.059	.770	3.650	3322.092	-7.830	-5.520	2510.507	10.330	-6.080
9.	5248.342	.830	4.060	3313.677	-8.700	-6.160	2518.942	11.390	-6.730
10.	5249.722	.890	4.460	3304.410	-9.530	-6.760	2528.222	12.390	-7.370
11.	5251.184	.940	4.840	3294.338	-10.310	-7.360	2538.310	13.300	-7.960
12.	5252.710	.970	5.200	3283.513	-11.040	-7.970	2549.155	14.140	-8.500
13.	5254.284	.990	5.550	3271.993	-11.720	-8.530	2560.699	14.800	-9.000
14.	5255.887	1.010	5.880	3259.844	-12.330	-9.070	2572.876	15.520	-9.500
15.	5257.501	1.010	6.190	3247.137	-12.880	-9.550	2585.613	16.060	-10.000
16.	5259.110	1.000	6.490	3233.954	-13.350	-10.000	2598.830	16.490	-10.400
17.	5260.695	.960	6.760	3220.385	-13.730	-10.560	2612.436	16.800	-10.870
18.	5262.240	.950	7.010	3206.534	-14.000	-11.010	2626.326	16.980	-11.220
19.	5263.728	.910	7.250	3192.516	-14.160	-11.430	2640.382	17.010	-11.530
20.	5265.143	.860	7.460	3178.472	-14.170	-11.830	2654.469	16.670	-11.800
21.	5266.471	.800	7.650	3164.552	-14.030	-12.210	2668.429	16.350	-12.030
22.	5267.697	.730	7.820	3150.942	-13.660	-12.560	2682.079	16.000	-12.220
23.	5268.811	.660	7.980	3137.853	-13.100	-12.860	2695.205	15.200	-12.350
24.	5269.799	.570	8.110	3125.534	-12.250	-13.170	2707.559	14.110	-12.500
25.	5270.653	.490	8.220	3114.267	-11.070	-13.430	2718.656	12.670	-12.500
26.	5271.363	.400	8.310	3104.370	-9.530	-13.650	2728.779	10.850	-12.650
27.	5271.923	.300	8.380	3096.180	-7.610	-13.840	2738.990	8.620	-12.650
28.	5272.327	.200	8.430	3090.028	-5.330	-13.970	2743.157	6.010	-12.710
29.	5272.571	.100	8.460	3086.203	-2.750	-14.060	2746.992	3.090	-12.720
30.	5272.652	.000	8.470	3084.904	0.000	-14.050	2748.294	0.000	-12.720
31.	5272.571	-.100	8.460	3086.203	2.750	-14.060	2746.992	-3.090	-12.720
32.	5272.327	-.200	8.430	3090.028	5.330	-13.970	2743.157	-6.010	-12.710
33.	5271.923	-.300	8.380	3096.180	7.610	-13.840	2738.990	-8.620	-12.650
34.	5271.363	-.400	8.310	3104.370	9.530	-13.650	2736.990	-10.850	-12.650
35.	5270.653	-.490	8.220	3114.267	11.070	-13.430	2728.779	-12.670	-12.500
36.	5269.799	-.570	8.110	3125.534	12.250	-13.170	2718.656	-14.110	-12.500
37.	5268.811	-.660	7.980	3137.853	13.100	-12.860	2695.205	-15.200	-12.350
38.	5267.697	-.730	7.820	3150.942	13.660	-12.560	2682.079	-16.000	-12.220
39.	5266.471	-.800	7.650	3164.552	14.030	-12.210	2668.429	-16.550	-12.030
40.	5265.143	-.860	7.460	3178.472	14.170	-11.830	2654.469	-16.670	-11.800
41.	5263.728	-.910	7.250	3192.516	14.160	-11.430	2640.382	-17.010	-11.530
42.	5262.240	-.950	7.010	3206.534	14.000	-11.010	2626.326	-16.980	-11.220
43.	5260.695	-.980	6.760	3220.385	13.730	-10.560	2612.436	-16.800	-10.870
44.	5259.110	-1.000	6.490	3233.954	13.350	-10.090	2598.831	-16.450	-10.400
45.	5257.581	-1.010	6.190	3247.137	12.880	-9.590	2585.613	-16.160	-10.000
46.	5255.887	-1.010	5.880	3259.844	12.330	-9.070	2572.876	-15.520	-9.500
47.	5254.284	-.990	5.550	3271.993	11.720	-8.530	2560.699	-14.860	-9.000
48.	5252.710	-.970	5.200	3283.513	11.040	-7.970	2549.155	-14.140	-8.500
49.	5251.184	-.940	4.840	3294.338	10.310	-7.360	2538.310	-13.300	-7.960

111-PLANE GALLIUM ARSENIDE

BULK

	LNGVEL	LPM12	LPM13	FSRVEL	FSPM12	FSPM13	SSRVEL	SSPM12	SSPM13
58.	5249.722	-0.850	4.460	3384.810	9.530	-6.760	2528.222	-12.390	-7.370
59.	5249.362	-0.830	4.060	3313.677	8.700	-6.160	2518.942	-11.390	-6.730
52.	5247.859	-0.770	3.650	3322.092	7.830	-5.520	2510.517	-10.330	-6.060
53.	5245.888	-0.650	3.220	3329.614	6.930	-4.670	2502.987	-9.190	-5.370
54.	5244.843	-0.610	2.790	3336.206	6.000	-4.200	2496.390	-7.990	-4.650
55.	5243.937	-0.520	2.340	3341.838	5.040	-3.520	2490.756	-6.740	-3.910
56.	5243.140	-0.430	1.800	3346.481	4.060	-2.630	2486.110	-5.450	-3.150
57.	5242.581	-0.320	1.420	3350.115	3.060	-2.130	2482.475	-4.120	-2.350
58.	5242.149	-0.220	.950	3352.723	2.050	-1.420	2479.867	-2.770	-1.590
59.	5241.867	-0.110	.480	3354.293	1.030	-0.710	2478.297	-1.390	-0.800
60.	5241.799	0.000	0.000	3354.817	-0.000	0.000	2477.773	-0.000	0.000
61.	5241.867	.110	-.480	3354.293	-1.030	.710	2478.297	1.390	0.800
62.	5242.149	.220	-.950	3352.723	-2.050	1.420	2479.867	2.770	1.590
63.	5242.581	.320	-1.420	3350.115	-3.060	2.130	2482.475	4.120	2.350
64.	5243.140	.430	-1.800	3346.481	-4.060	2.630	2486.110	5.450	3.150
65.	5243.937	.520	-2.340	3341.838	-5.040	3.520	2490.756	6.740	3.910
66.	5244.843	.610	-2.790	3336.206	-6.000	4.200	2496.390	7.990	4.650
67.	5245.888	.650	-3.220	3329.614	-6.930	4.670	2502.987	9.190	5.370
68.	5247.059	.700	-3.650	3322.092	-7.830	5.520	2510.516	10.330	6.060
69.	5248.342	.830	-4.060	3313.677	-8.700	6.160	2518.942	11.390	6.730
70.	5249.722	.980	-4.460	3304.810	-9.530	6.760	2528.222	12.390	7.370
71.	5251.164	.940	-4.840	3294.338	-10.310	7.360	2538.310	13.300	7.950
72.	5252.710	.970	-5.200	3283.513	-11.040	7.970	2549.155	14.140	8.550
73.	5254.264	.990	-5.550	3271.993	-11.720	8.530	2560.699	14.880	9.090
74.	5255.867	1.010	-5.880	3259.844	-12.330	9.070	2572.876	15.520	9.590
75.	5257.582	1.010	-6.190	3247.137	-12.860	9.590	2585.613	16.060	10.000
76.	5259.110	1.000	-6.490	3233.954	-13.350	10.090	2598.630	16.490	10.400
77.	5260.655	.980	-6.760	3220.385	-13.730	10.560	2612.436	16.800	10.870
78.	5262.240	.950	-7.010	3206.534	-14.000	11.010	2626.326	16.980	11.220
79.	5263.726	.910	-7.250	3192.516	-14.160	11.430	2640.382	17.010	11.530
80.	5265.143	.860	-7.460	3178.472	-14.170	11.630	2654.464	16.670	11.800
81.	5266.471	.800	-7.650	3164.552	-14.030	12.210	2668.429	16.550	12.030
82.	5267.698	.730	-7.820	3150.942	-13.660	12.560	2682.078	16.000	12.220
83.	5268.811	.660	-7.980	3137.853	-13.100	12.660	2695.204	15.200	12.300
84.	5269.799	.570	-8.110	3125.533	-12.250	13.170	2707.558	14.110	12.350
85.	5270.653	.490	-8.220	3114.267	-11.070	13.430	2716.856	12.670	12.590
86.	5271.363	.400	-8.310	3104.370	-9.530	13.650	2726.779	10.650	12.690
87.	5271.923	.300	-8.380	3096.140	-7.610	13.640	2736.990	8.620	12.690
88.	5272.327	.200	-8.430	3090.826	-5.330	13.970	2743.157	6.010	12.710
89.	5272.571	.100	-8.460	3086.293	-2.750	14.060	2746.991	3.090	12.720
90.	5272.653	0.000	-8.470	3084.984	0.000	14.090	2748.293	-0.000	12.720
91.	5272.571	-.100	-8.460	3086.293	2.750	14.060	2746.991	-3.090	12.720
92.	5272.327	-.200	-8.430	3090.826	5.330	13.970	2743.157	-6.010	12.710
93.	5271.923	-.300	-8.380	3096.140	7.610	13.640	2736.990	-8.620	12.690
94.	5271.363	-.400	-8.310	3104.370	9.530	13.650	2726.779	-10.650	12.690
95.	5270.653	-.490	-8.220	3114.267	11.070	13.430	2716.856	-12.670	12.590
96.	5269.799	-.570	-8.110	3125.533	12.250	13.170	2707.558	-14.110	12.350
97.	5268.811	-.660	-7.980	3137.853	13.100	12.660	2695.204	-15.200	12.300
98.	5267.698	-.730	-7.820	3150.942	13.660	12.560	2682.078	-16.000	12.220
99.	5266.471	-.800	-7.650	3164.552	14.030	12.210	2668.429	-16.550	12.030

111-PLANE GALLIUM ARSENIDE

BULK

	LNGVEL	LPM112	LPM113	FSRVEL	FSPM112	FSPM113	SSRVEL	SSPM112	SSPM113
100.	5265.143	-0.860	-7.460	3170.472	14.170	11.630	2554.469	-16.670	11.600
101.	5263.728	-0.910	-7.250	3192.518	14.160	11.430	2640.382	-17.010	11.530
102.	5262.290	-0.960	-7.010	3206.534	14.000	11.010	2626.326	-16.590	11.270
103.	5260.695	-0.980	-6.760	3220.385	13.730	10.560	2612.436	-16.800	10.870
104.	5259.110	-1.000	-6.490	3233.954	13.350	10.090	2598.630	-16.490	10.460
105.	5257.502	-1.010	-6.190	3247.137	12.860	9.590	2585.613	-16.060	10.050
106.	5255.867	-1.010	-5.880	3259.844	12.330	9.070	2572.876	-15.520	9.590
107.	5254.284	-0.990	-5.550	3271.993	11.720	8.530	2560.699	-14.880	9.090
108.	5252.710	-0.970	-5.200	3283.513	11.040	7.970	2549.155	-14.140	8.550
109.	5251.144	-0.940	-4.840	3294.336	10.310	7.360	2538.310	-13.300	7.960
110.	5249.722	-0.890	-4.460	3304.410	9.530	6.760	2528.222	-12.390	7.310
111.	5248.342	-0.830	-4.060	3313.677	8.700	6.160	2518.942	-11.390	6.730
112.	5247.059	-0.770	-3.650	3322.092	7.830	5.520	2510.516	-10.330	6.060
113.	5245.868	-0.690	-3.220	3329.614	6.930	4.870	2502.987	-9.190	5.370
114.	5244.843	-0.610	-2.790	3336.206	6.000	4.200	2496.390	-7.990	4.620
115.	5243.937	-0.520	-2.340	3341.836	5.040	3.520	2490.756	-6.740	3.810
116.	5243.180	-0.430	-1.880	3346.461	4.060	2.830	2486.110	-5.450	3.150
117.	5242.581	-0.320	-1.420	3350.115	3.060	2.130	2482.475	-4.120	2.500
118.	5242.149	-0.220	-0.950	3352.723	2.050	1.420	2479.867	-2.770	1.930
119.	5241.887	-0.110	-0.480	3354.293	1.030	0.710	2478.297	-1.390	1.350
120.	5241.799	-0.000	0.000	3354.817	0.000	0.000	2477.773	0.000	0.800
121.	5241.887	0.110	0.480	3354.293	-1.030	-0.710	2478.297	1.390	-0.800
122.	5242.149	0.220	0.950	3352.723	-2.050	-1.420	2479.867	2.770	-1.930
123.	5242.581	0.320	1.420	3350.115	-3.060	-2.130	2482.475	4.120	-3.150
124.	5243.180	0.430	1.880	3346.461	-4.060	-2.830	2486.110	5.450	-3.810
125.	5243.937	0.520	2.340	3341.836	-5.040	-3.520	2490.756	6.740	-4.620
126.	5244.843	0.610	2.790	3336.206	-6.000	-4.200	2496.390	7.990	-5.370
127.	5245.868	0.690	3.220	3329.614	-6.930	-4.870	2502.987	9.190	-6.060
128.	5247.059	0.770	3.650	3322.092	-7.830	-5.520	2510.517	10.330	-6.730
129.	5248.342	0.830	4.060	3313.677	-8.700	-6.160	2518.942	11.390	-7.310
130.	5249.722	0.890	4.460	3304.410	-9.530	-6.760	2528.222	12.390	-7.960
131.	5251.144	0.940	4.840	3294.336	-10.310	-7.360	2538.310	13.300	-8.550
132.	5252.710	0.970	5.200	3283.513	-11.040	-7.970	2549.155	14.140	-9.090
133.	5254.284	0.990	5.550	3271.993	-11.720	-8.530	2560.699	14.880	-9.590
134.	5255.867	1.010	5.880	3259.844	-12.330	-9.070	2572.876	15.520	-10.050
135.	5257.501	1.010	6.190	3247.137	-12.860	-9.590	2585.613	16.060	-10.460
136.	5259.110	1.000	6.490	3233.954	-13.350	-10.090	2598.631	16.490	-10.870
137.	5260.695	0.980	6.760	3220.385	-13.730	-10.560	2612.436	16.800	-11.270
138.	5262.290	0.960	7.010	3206.534	-14.000	-11.010	2626.326	16.990	-11.530
139.	5263.728	0.940	7.250	3192.518	-14.160	-11.430	2640.382	17.010	-11.800
140.	5265.143	0.890	7.460	3178.472	-14.170	-11.630	2654.469	16.670	-12.050
141.	5266.697	0.830	7.650	3164.552	-14.000	-12.010	2668.429	16.590	-12.270
142.	5267.697	0.770	7.820	3150.942	-13.680	-12.360	2682.079	16.000	-12.460
143.	5268.811	0.660	7.980	3137.853	-13.100	-12.680	2695.205	15.200	-12.360
144.	5269.799	0.570	8.110	3125.534	-12.250	-13.170	2707.559	14.110	-12.500
145.	5270.653	0.450	8.220	3114.267	-11.070	-13.430	2718.856	12.670	-12.590
146.	5271.363	0.400	8.310	3104.370	-9.530	-13.650	2728.774	10.650	-12.620
147.	5271.923	0.300	8.380	3096.180	-7.610	-13.840	2736.990	8.620	-12.690
148.	5272.327	0.260	8.430	3090.028	-5.930	-13.970	2743.157	6.010	-12.710
149.	5272.571	0.100	8.460	3086.283	-2.750	-14.060	2746.992	3.090	-12.720

111-PLANE GALLIUM ARSENIOE

BULK

	LMGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
150.	5272.852	0.000	6.470	3084.904	-0.000	-14.090	2746.294	-0.000	-12.720
151.	5272.571	-1.00	6.460	3086.203	2.756	-14.060	2746.992	-3.090	-12.720
152.	5272.327	-2.00	6.430	3090.628	5.330	-13.970	2743.157	-6.010	-12.710
153.	5271.923	-3.00	6.380	3096.180	7.610	-13.840	2736.990	-6.820	-12.690
154.	5271.363	-4.00	6.310	3104.370	9.590	-13.690	2726.779	-10.690	-12.650
155.	5270.653	-4.90	6.220	3114.267	11.070	-13.490	2718.856	-12.670	-12.590
156.	5269.799	-5.70	6.110	3125.934	12.250	-13.170	2707.559	-14.110	-12.560
157.	5268.811	-6.60	7.980	3137.853	13.100	-12.660	2695.205	-15.200	-12.360
158.	5267.697	-7.50	7.820	3150.942	13.680	-12.560	2682.079	-16.000	-12.220
159.	5266.471	-8.00	7.650	3184.552	14.030	-12.210	2666.429	-16.590	-12.030
160.	5265.143	-8.60	7.460	3178.472	14.170	-11.830	2654.469	-16.870	-11.800
161.	5263.728	-9.10	7.250	3192.516	14.160	-11.430	2640.382	-17.010	-11.530
162.	5262.240	-9.50	7.010	3206.534	14.000	-11.010	2626.326	-16.900	-11.220
163.	5260.695	-9.80	6.760	3220.585	13.730	-10.560	2612.436	-16.600	-10.870
164.	5259.110	-1.000	6.490	3233.954	13.350	-10.090	2598.630	-16.440	-10.480
165.	5257.501	-1.010	6.190	3247.137	12.886	-9.590	2585.613	-16.060	-10.050
166.	5255.867	-1.010	5.880	3259.844	12.330	-9.070	2572.676	-15.520	-9.590
167.	5254.264	-9.90	5.550	3271.993	11.720	-8.530	2560.699	-14.660	-9.000
168.	5252.710	-9.70	5.200	3283.513	11.046	-7.970	2549.155	-14.140	-8.500
169.	5251.184	-9.40	4.840	3294.338	10.310	-7.380	2538.310	-13.300	-7.980
170.	5249.722	-8.90	4.460	3304.410	9.530	-6.760	2526.222	-12.390	-7.370
171.	5248.342	-8.50	4.060	3313.677	8.700	-6.160	2514.942	-11.390	-6.730
172.	5247.059	-7.70	3.650	3322.092	7.830	-5.520	2503.517	-10.330	-6.060
173.	5245.880	-6.90	3.220	3329.614	6.930	-4.870	2502.987	-9.190	-5.370
174.	5244.843	-6.10	2.790	3336.206	6.000	-4.200	2496.390	-7.990	-4.650
175.	5243.937	-5.20	2.340	3341.836	5.040	-3.520	2490.756	-6.740	-3.910
176.	5243.180	-4.30	1.880	3346.481	4.060	-2.830	2486.110	-5.450	-3.150
177.	5242.581	-3.60	1.420	3350.115	3.060	-2.130	2482.475	-4.120	-2.380
178.	5242.149	-2.20	.950	3352.723	2.050	-1.420	2479.867	-2.770	-1.690
179.	5241.867	-1.10	.480	3354.293	1.030	-0.710	2476.297	-1.390	-1.000
180.	5241.759	0.000	-0.000	3354.817	-0.000	0.000	2477.773	0.000	0.000

110-PLANE GALLIUM ARSENIDE

BULK

	LMGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
0.	5406.502	0.000	-0.000	2797.062	-16.970	0.000	2797.050	16.970	-0.000
1.	5406.250	-0.400	-0.000	2783.472	-15.940	0.000	2612.796	16.540	0.000
2.	5405.245	-1.020	0.000	2770.140	-14.610	-0.000	2627.627	16.540	0.000
3.	5403.554	-1.240	-0.000	2757.923	-13.590	-0.000	2642.823	16.540	0.000
4.	5401.165	-1.670	-0.000	2746.877	-12.290	-0.000	2656.066	16.500	0.000
5.	5398.066	-2.100	-0.000	2737.051	-10.900	-0.000	2673.235	16.640	-0.000
6.	5394.256	-2.540	-0.000	2728.491	-9.430	-0.000	2686.412	16.750	0.000
7.	5389.723	-3.020	-0.000	2721.236	-7.900	-0.000	2503.580	16.650	0.000
8.	5384.463	-3.420	-0.000	2715.326	-6.300	-0.000	2510.719	16.530	0.000
9.	5378.475	-3.670	-0.000	2710.767	-4.650	-0.000	2933.611	16.390	-0.000
10.	5371.757	-4.320	-0.000	2707.645	-2.950	0.000	2946.660	16.240	0.000
11.	5364.306	-4.770	-0.000	2705.917	-1.230	-0.000	2963.768	16.070	0.000
12.	5356.133	-5.220	-0.000	2705.616	.510	-0.000	2976.638	15.650	0.000
13.	5347.233	-5.670	-0.000	2706.755	2.256	-0.000	2993.374	15.630	-0.000
14.	5337.614	-6.110	-0.000	2709.327	3.980	-0.000	3007.979	15.470	0.000
15.	5327.203	-6.550	-0.000	2713.324	5.650	-0.000	3022.437	15.250	-0.000
16.	5316.250	-6.950	-0.000	2718.751	7.360	-0.000	3036.735	15.010	0.000
17.	5304.524	-7.430	-0.000	2725.575	8.980	-0.000	3056.855	14.760	0.000
18.	5292.117	-7.890	-0.000	2733.778	10.550	-0.000	3066.784	14.500	0.000
19.	5279.844	-8.260	0.000	2743.330	12.040	-0.000	3076.506	14.220	-0.000
20.	5265.321	-8.650	0.000	2754.197	13.470	-0.000	3092.012	13.530	-0.000
21.	5250.967	-9.090	-0.000	2766.338	14.810	-0.000	3105.203	13.640	0.000
22.	5236.000	-9.460	-0.000	2774.708	16.060	-0.000	3118.308	13.330	0.000
23.	5220.444	-9.860	-0.000	2794.257	17.220	-0.000	3131.074	13.020	0.000
24.	5204.323	-10.230	-0.000	2809.927	18.290	-0.000	3143.569	12.630	0.000
25.	5187.865	-10.560	-0.000	2826.660	19.260	-0.000	3155.781	12.360	0.000
26.	5170.500	-10.920	-0.000	2844.390	20.140	-0.000	3167.699	12.020	0.000
27.	5152.861	-11.240	0.000	2863.046	20.910	-0.000	3179.311	11.660	0.000
28.	5134.783	-11.530	0.000	2882.556	21.590	-0.000	3190.607	11.310	0.000
29.	5116.306	-11.800	0.000	2902.841	22.170	-0.000	3201.576	10.940	0.000
30.	5097.472	-12.050	-0.000	2923.819	22.650	-0.000	3212.286	10.570	0.000
31.	5078.328	-12.270	-0.000	2945.403	23.030	-0.000	3222.494	10.190	0.000
32.	5058.925	-12.460	-0.000	2967.503	23.320	-0.000	3232.425	9.610	0.000
33.	5039.317	-12.620	0.000	2990.024	23.510	-0.000	3241.992	9.410	0.000
34.	5019.564	-12.740	-0.000	3012.865	23.600	-0.000	3251.166	9.020	0.000
35.	4999.731	-12.820	-0.000	3035.925	23.580	-0.000	3259.999	8.620	0.000
36.	4979.889	-12.850	0.000	3059.094	23.470	-0.000	3268.495	8.210	0.000
37.	4960.113	-12.830	0.000	3082.259	23.260	-0.000	3276.455	7.600	0.000
38.	4940.485	-12.760	0.000	3105.303	22.940	-0.000	3284.062	7.360	0.000
39.	4921.094	-12.630	0.000	3128.103	22.520	-0.000	3291.301	6.960	0.000
40.	4902.035	-12.430	0.000	3150.530	21.980	-0.000	3298.185	6.540	0.000
41.	4883.410	-12.170	0.000	3172.452	21.330	-0.000	3304.489	6.110	0.000
42.	4865.326	-11.820	0.000	3193.731	20.560	-0.000	3310.447	5.680	0.000
43.	4847.898	-11.400	0.000	3214.224	19.670	-0.000	3315.974	5.240	0.000
44.	4831.245	-10.690	0.000	3233.787	18.650	-0.000	3321.066	4.610	0.000
45.	4815.493	-10.290	0.000	3252.270	17.500	-0.000	3325.927	4.370	-0.000
46.	4800.769	-9.660	0.000	3269.523	16.210	-0.000	3329.927	3.520	-0.000
47.	4787.283	-8.610	0.000	3285.399	14.790	-0.000	3333.669	3.460	0.000
48.	4774.921	-7.920	0.000	3299.749	13.230	-0.000	3337.001	3.030	0.000
49.	4764.049	-6.940	0.000	3312.435	11.540	-0.000	3339.661	2.590	0.000

110-PLANE GALLIUM ARSENIIDE

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
50.	4754.784	-5.880	0.000	3333.325	9.740	-0.000	3342.266	2.140	0.000
51.	4746.932	-4.730	0.000	3332.301	7.820	-0.000	3344.214	1.690	0.000
52.	4743.887	-3.520	0.000	3339.262	5.800	-0.000	3345.703	1.240	-0.000
53.	4736.821	-2.260	0.000	3344.125	3.720	-0.000	3346.733	.780	0.000
54.	4734.498	-.960	0.000	3346.833	1.600	0.000	3347.303	.330	0.000
55.	4734.044	.350	0.000	3347.412	-.120	0.000	3347.351	-.570	0.000
56.	4735.488	1.650	0.000	3345.674	-2.720	-0.000	3347.060	-1.570	-0.000
57.	4730.883	2.930	0.000	3341.823	-4.830	-0.000	3346.247	-1.020	-0.880
58.	4743.947	4.170	0.000	3335.843	-6.880	0.000	3344.374	-1.470	-0.300
59.	4750.854	5.350	0.000	3327.807	-8.840	0.000	3343.242	-1.920	-0.000
60.	4759.441	6.450	0.000	3317.806	-10.710	0.000	3341.053	-2.370	-0.000
61.	4769.686	7.470	0.000	3305.952	-12.450	0.000	3338.407	-2.820	-0.000
62.	4781.238	8.400	0.000	3292.371	-14.070	0.000	3335.388	-3.270	-0.880
63.	4794.214	9.240	0.000	3277.137	-15.560	0.000	3331.758	-3.710	-0.000
64.	4808.488	9.970	0.000	3260.576	-16.910	0.000	3327.760	-4.160	-0.000
65.	4823.691	10.620	0.000	3242.654	-18.120	0.000	3323.317	-4.600	-0.000
66.	4839.934	11.170	0.000	3223.593	-19.200	0.000	3318.432	-5.040	-0.000
67.	4857.011	11.630	0.000	3203.510	-20.160	0.000	3313.110	-5.470	-0.000
68.	4874.880	12.010	0.000	3182.584	-20.980	0.000	3307.354	-5.900	-0.000
69.	4893.184	12.310	0.000	3160.946	-21.650	0.000	3301.171	-6.330	-0.000
70.	4912.051	12.540	0.000	3138.743	-22.260	0.000	3294.565	-6.760	-0.000
71.	4931.297	12.700	0.000	3116.103	-22.760	0.000	3287.541	-7.160	-0.000
72.	4950.825	12.600	0.000	3093.159	-23.120	0.000	3280.105	-7.600	-0.000
73.	4970.542	12.450	0.000	3070.035	-23.390	0.000	3272.264	-8.010	-0.000
74.	4990.362	12.240	0.000	3046.854	-23.550	0.000	3264.025	-8.420	-0.000
75.	5010.209	12.000	-0.000	3023.729	-23.600	0.000	3255.394	-8.830	-0.600
76.	5030.088	12.600	0.000	3000.771	-23.560	-0.000	3246.378	-9.230	-0.000
77.	5049.692	12.540	0.000	2978.086	-23.420	0.000	3236.286	-9.620	-0.000
78.	5069.199	12.370	0.000	2955.776	-23.180	0.000	3227.226	-10.010	-0.000
79.	5088.472	12.160	-0.000	2933.937	-22.840	0.000	3217.107	-10.390	-0.000
80.	5107.458	11.930	0.000	2912.662	-22.410	0.000	3206.837	-10.770	-0.000
81.	5126.109	11.660	0.000	2892.035	-21.880	0.000	3195.625	-11.140	-0.000
82.	5144.381	11.360	0.000	2872.153	-21.250	0.000	3184.683	-11.500	-0.000
83.	5162.232	11.070	0.000	2853.084	-20.520	0.000	3173.219	-11.850	-0.000
84.	5179.625	10.740	-0.000	2834.908	-19.690	0.000	3161.444	-12.200	-0.000
85.	5196.526	10.400	0.000	2817.697	-18.760	0.000	3149.369	-12.530	-0.000
86.	5212.984	10.040	-0.000	2801.517	-17.740	0.000	3137.006	-12.860	-0.000
87.	5228.729	9.660	-0.000	2786.432	-16.620	0.000	3124.366	-13.180	-0.000
88.	5243.977	9.260	0.000	2772.499	-15.410	0.000	3111.462	-13.500	-0.000
89.	5258.623	8.880	0.000	2759.772	-14.110	0.000	3098.305	-13.800	-0.000
90.	5272.647	8.470	-0.000	2748.298	-12.730	0.000	3084.910	-14.090	-0.000
91.	5286.029	8.050	0.000	2738.120	-11.260	0.000	3071.288	-14.370	-0.000
92.	5298.752	7.630	-0.000	2729.277	-9.730	0.000	3057.454	-14.640	-0.000
93.	5310.881	7.200	0.000	2721.799	-8.130	0.000	3043.422	-14.890	-0.000
94.	5322.162	6.760	0.000	2715.713	-6.480	0.000	3029.207	-15.140	-0.000
95.	5332.826	6.320	0.000	2711.038	-4.790	0.000	3014.822	-15.370	-0.000
96.	5342.762	5.880	0.000	2707.770	-3.070	0.000	3000.284	-15.590	-0.000
97.	5352.022	5.430	0.000	2705.976	-1.330	0.000	2985.608	-15.790	-0.000
98.	5360.540	4.980	-0.000	2705.598	0.410	0.000	2970.810	-15.990	-0.000
99.	5368.332	4.530	-0.000	2706.652	2.140	0.000	2955.810	-16.160	-0.000

110-PLANE GALLIUM ARSENIDE

	LNGVEL	LPMI12	LPMI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
100.	5375.395	4.080	-0.000	2709.126	3.850	0.000	2940.914	-16.320	0.000
101.	5381.728	3.640	0.000	2713.011	5.520	0.000	2925.849	-16.470	-0.000
102.	5387.331	3.190	0.000	2718.278	7.150	0.000	2910.730	-16.600	-0.000
103.	5392.206	2.750	0.000	2724.902	8.720	0.000	2895.574	-16.710	-0.000
104.	5396.358	2.310	0.000	2732.051	10.220	0.000	2880.399	-16.800	-0.000
105.	5399.792	1.870	0.000	2742.004	11.640	0.000	2865.223	-16.870	-0.000
106.	5402.514	1.440	0.000	2752.561	12.990	0.000	2850.066	-16.930	-0.000
107.	5404.533	1.020	-0.000	2764.231	14.250	0.000	2834.946	-16.970	-0.000
108.	5405.661	.600	-0.000	2777.044	15.420	0.000	2819.861	-16.960	-0.000
109.	5406.508	.190	-0.000	2790.942	16.490	0.000	2804.893	-16.900	-0.000
110.	5406.490	-.210	-0.000	2805.865	17.460	0.000	2789.994	-16.950	-0.000
111.	5405.823	-.600	0.000	2821.748	18.360	0.000	2775.221	-16.900	-0.000
112.	5404.523	-.960	0.000	2838.524	19.150	0.000	2760.578	-16.820	-0.000
113.	5402.611	-1.340	-0.000	2856.123	19.840	0.000	2746.090	-16.730	0.000
114.	5400.108	-1.700	0.000	2874.470	20.440	0.000	2731.777	-16.610	-0.000
115.	5397.039	-2.030	-0.000	2893.491	20.950	0.000	2717.660	-16.460	-0.000
116.	5393.428	-2.360	-0.000	2913.106	21.360	0.000	2703.760	-16.250	-0.000
117.	5389.306	-2.660	-0.000	2933.235	21.690	0.000	2690.096	-16.050	0.000
118.	5384.700	-2.950	0.000	2953.797	21.920	0.000	2676.686	-15.800	0.000
119.	5379.645	-3.210	0.000	2974.707	22.080	0.000	2663.559	-15.610	0.000
120.	5374.175	-3.460	0.000	2995.860	22.140	0.000	2650.727	-15.320	0.000
121.	5368.327	-3.680	0.000	3017.229	22.120	0.000	2638.212	-15.010	0.000
122.	5362.140	-3.880	-0.000	3038.866	22.020	0.000	2626.035	-14.670	0.000
123.	5355.657	-4.050	0.000	3060.810	21.840	0.000	2614.215	-14.310	0.000
124.	5348.922	-4.190	-0.000	3083.145	21.580	0.000	2602.772	-13.910	0.000
125.	5341.981	-4.310	0.000	3102.606	21.230	0.000	2591.725	-13.460	0.000
126.	5334.884	-4.400	-0.000	3123.497	20.810	0.000	2581.092	-13.020	0.000
127.	5327.680	-4.450	0.000	3144.022	20.310	0.000	2570.891	-12.540	0.000
128.	5320.423	-4.470	-0.000	3164.091	19.730	0.000	2561.140	-12.020	0.000
129.	5313.167	-4.460	-0.000	3183.612	19.060	0.000	2551.856	-11.460	-0.000
130.	5305.969	-4.420	-0.000	3202.494	18.340	0.000	2543.056	-10.910	0.000
131.	5298.884	-4.330	0.000	3220.647	17.530	0.000	2534.755	-10.310	0.000
132.	5291.972	-4.210	0.000	3237.983	16.650	0.000	2526.969	-9.660	0.000
133.	5285.290	-4.060	0.000	3254.415	15.690	0.000	2519.712	-9.030	0.000
134.	5278.897	-3.870	-0.000	3269.650	14.650	0.000	2512.997	-8.330	0.000
135.	5272.846	-3.640	-0.000	3284.230	13.550	0.000	2506.837	-7.650	-0.000
136.	5267.200	-3.380	-0.000	3297.455	12.370	0.000	2501.244	-6.930	-0.000
137.	5262.005	-3.090	-0.000	3309.457	11.140	0.000	2496.227	-6.190	0.000
138.	5257.315	-2.760	-0.000	3320.171	9.840	0.000	2491.796	-5.430	0.000
139.	5253.175	-2.400	-0.000	3329.532	8.460	0.000	2487.984	-4.650	0.000
140.	5249.627	-2.020	-0.000	3337.486	7.060	0.000	2484.732	-3.860	-0.000
141.	5246.707	-1.620	0.000	3343.984	5.630	0.000	2482.110	-3.060	-0.000
142.	5244.447	-1.200	-0.000	3348.987	4.150	0.000	2480.101	-2.250	-0.000
143.	5242.869	-.770	-0.000	3352.464	2.650	0.000	2478.711	-1.430	0.000
144.	5241.992	-.330	-0.000	3354.394	1.130	0.000	2477.942	-.610	0.000
145.	5241.824	.110	0.000	3354.762	-.400	-0.000	2477.795	.220	0.000
146.	5242.367	.560	0.000	3353.569	-1.930	0.000	2478.271	1.040	0.000
147.	5243.616	1.000	0.000	3350.820	-3.450	-0.000	2479.368	1.660	0.000
148.	5245.556	1.430	0.000	3346.534	-4.940	0.000	2481.089	2.600	0.000
149.	5248.168	1.840	0.000	3340.737	-6.400	-0.000	2483.448	3.430	0.000

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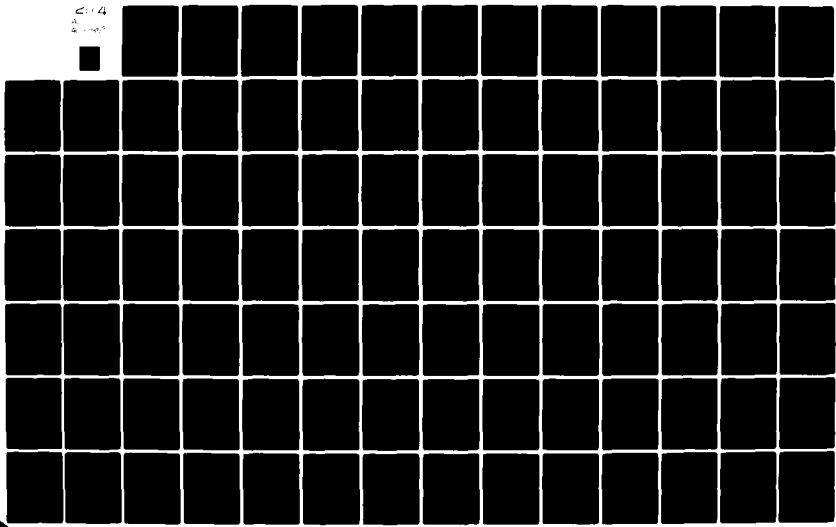
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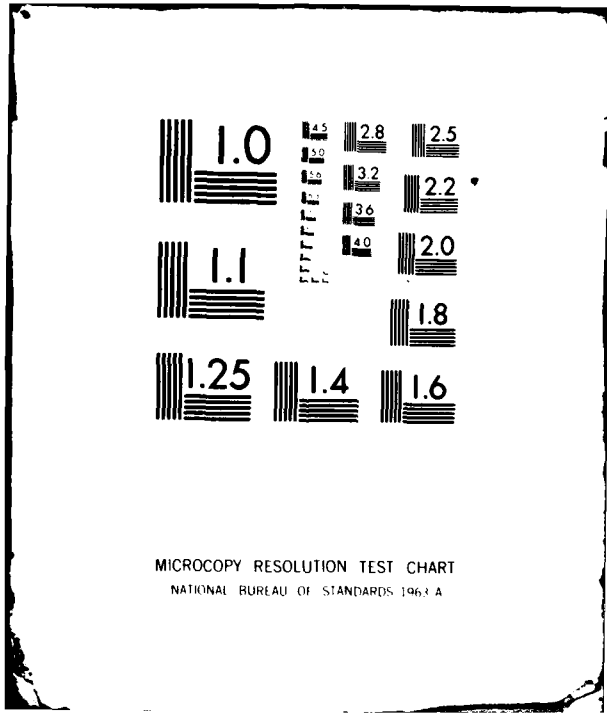
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS 1963-A

110-PLANE GALLIUM ARSENIDE

BULK

	LNVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
150.	5251.424	2.230	0.000	3233.465	-7.830	-0.000	2486.363	4.280	0.000
151.	5255.289	2.600	0.000	3324.761	-9.200	-0.000	2489.313	5.060	0.000
152.	5259.726	2.940	0.000	3314.679	-10.530	-0.000	2494.063	5.830	0.000
153.	5264.688	3.250	0.000	3303.276	-11.800	-0.000	2498.604	6.540	0.000
154.	5270.129	3.520	0.000	3290.620	-13.006	-0.000	2504.126	7.310	0.000
155.	5275.955	3.770	0.000	3276.780	-14.140	-0.000	2510.020	8.020	0.000
156.	5282.233	3.970	0.000	3261.832	-15.210	-0.000	2516.474	8.710	0.000
157.	5288.786	4.150	0.000	3245.857	-16.200	-0.000	2523.477	9.360	0.000
158.	5295.597	4.280	0.000	3228.937	-17.120	-0.000	2531.015	10.020	0.000
159.	5302.607	4.360	0.000	3211.156	-17.970	-0.000	2539.075	10.630	0.000
160.	5309.759	4.440	0.000	3192.604	-18.740	-0.000	2547.641	11.210	0.000
161.	5316.955	4.470	0.000	3173.376	-19.430	-0.000	2556.699	11.770	0.000
162.	5324.256	4.470	0.000	3153.597	-20.050	-0.000	2566.231	12.300	0.000
163.	5331.494	4.430	0.000	3133.236	-20.590	-0.000	2576.222	12.600	0.000
164.	5338.648	4.360	0.000	3112.507	-21.050	-0.000	2586.653	13.270	0.000
165.	5345.669	4.250	0.000	3091.462	-21.430	-0.000	2597.507	13.710	0.000
166.	5352.507	4.120	0.000	3070.193	-21.730	-0.000	2608.766	14.120	0.000
167.	5359.114	3.960	0.000	3048.789	-21.950	-0.000	2620.411	14.500	0.000
168.	5365.446	3.760	0.000	3027.342	-22.090	-0.000	2632.421	14.860	0.000
169.	5371.459	3.560	0.000	3005.940	-22.140	-0.000	2644.779	15.180	0.000
170.	5377.113	3.330	0.000	2984.673	-22.120	-0.000	2657.464	15.460	0.000
171.	5382.368	3.070	0.000	2963.629	-22.010	-0.000	2670.455	15.740	0.000
172.	5387.190	2.800	0.000	2942.892	-21.810	-0.000	2683.734	15.960	0.000
173.	5391.545	2.500	0.000	2922.546	-21.530	-0.000	2697.274	16.130	0.000
174.	5395.480	2.190	0.000	2902.680	-21.150	-0.000	2711.071	16.300	0.000
175.	5398.768	1.860	0.000	2883.369	-20.690	-0.000	2725.086	16.540	0.000
176.	5401.502	1.510	0.000	2864.694	-20.130	-0.000	2739.311	16.670	0.000
177.	5403.695	1.150	0.000	2846.733	-19.460	-0.000	2753.719	16.760	0.000
178.	5405.287	.760	0.000	2829.559	-18.740	-0.000	2768.291	16.670	0.000
179.	5406.255	.400	0.000	2813.246	-17.900	-0.000	2783.004	16.430	0.000
180.	5406.562	0.000	-0.000	2797.862	-16.970	-0.000	2797.850	16.570	0.000

Z-PLANE (XY-PLANE) GERMANIUM

BULK

	LMVEL	LPM112	LPM113	FSRWEL	FSPM112	FSPM113	SSRWEL	SSPM112	SSPM113
0.	4924.230	0.000	0.000	3548.000	0.000	0.000	3548.000	0.000	0.000
1.	4925.114	1.170	0.000	3547.584	-2.250	0.000	3546.600	0.000	0.000
2.	4927.731	2.310	0.000	3543.949	-4.470	0.000	3546.600	-0.000	0.000
3.	4932.045	3.420	0.000	3537.937	-6.630	0.000	3548.000	0.000	0.000
4.	4938.000	4.460	0.000	3529.615	-8.720	0.000	3548.000	0.000	0.000
5.	4945.524	5.470	0.000	3519.076	-10.710	0.000	3548.000	0.000	0.000
6.	4954.499	6.360	0.000	3506.430	-12.580	0.000	3548.000	0.000	0.000
7.	4964.010	7.200	0.000	3491.603	-14.330	0.000	3548.000	0.000	0.000
8.	4976.360	7.940	0.000	3475.334	-15.950	0.000	3548.000	-0.000	0.000
9.	4988.994	8.580	0.000	3457.172	-17.440	0.000	3548.000	0.000	0.000
10.	4982.591	9.130	0.000	3437.469	-18.600	0.000	3548.000	-0.000	0.000
11.	5017.817	9.590	0.000	3416.379	-20.020	0.000	3548.000	0.000	0.000
12.	5032.145	9.970	0.000	3394.057	-21.120	0.000	3548.000	0.000	0.000
13.	5047.048	10.260	0.000	3370.656	-22.100	0.000	3548.000	0.000	0.000
14.	5064.006	10.480	0.000	3346.331	-22.960	0.000	3548.000	0.000	0.000
15.	5080.510	10.630	0.000	3321.223	-23.700	0.000	3548.000	0.000	0.000
16.	5097.269	10.710	0.000	3295.476	-24.340	0.000	3548.000	0.000	0.000
17.	5114.124	10.730	0.000	3269.227	-24.870	0.000	3548.000	0.000	0.000
18.	5131.042	10.690	0.000	3242.609	-25.310	0.000	3548.000	0.000	0.000
19.	5147.916	10.610	0.000	3215.750	-25.640	0.000	3548.000	0.000	0.000
20.	5164.671	10.480	0.000	3188.774	-25.860	0.000	3548.000	0.000	0.000
21.	5181.228	10.300	0.000	3161.600	-26.020	0.000	3548.000	0.000	0.000
22.	5197.522	10.050	0.000	3134.944	-26.060	0.000	3548.000	0.000	0.000
23.	5213.490	9.640	0.000	3108.315	-26.020	0.000	3548.000	0.000	0.000
24.	5229.076	9.160	0.000	3082.023	-25.870	0.000	3548.000	0.000	0.000
25.	5244.227	8.260	0.000	3056.172	-25.640	0.000	3548.000	0.000	0.000
26.	5258.096	6.920	0.000	3030.862	-25.300	0.000	3548.000	0.000	0.000
27.	5273.037	6.570	0.000	3006.191	-24.670	0.000	3548.000	0.000	0.000
28.	5286.612	6.190	0.000	2982.254	-24.330	0.000	3548.000	-0.000	0.000
29.	5299.584	7.790	0.000	2959.141	-23.700	0.000	3548.000	0.000	0.000
30.	5311.919	7.380	0.000	2936.941	-22.960	0.000	3548.000	-0.000	0.000
31.	5323.506	6.950	0.000	2915.739	-22.110	0.000	3548.000	0.000	0.000
32.	5334.559	6.510	0.000	2895.614	-21.160	0.000	3548.000	0.000	0.000
33.	5344.012	6.050	0.000	2876.645	-20.090	0.000	3548.000	-0.000	0.000
34.	5354.323	5.580	0.000	2858.904	-18.920	0.000	3548.000	0.000	0.000
35.	5363.071	5.100	0.000	2842.459	-17.640	0.000	3548.000	0.000	0.000
36.	5371.030	4.620	0.000	2827.376	-16.250	0.000	3548.000	0.000	0.000
37.	5378.208	4.120	0.000	2813.714	-14.750	0.000	3548.000	0.000	0.000
38.	5384.566	3.620	0.000	2801.526	-13.160	0.000	3548.000	0.000	0.000
39.	5390.102	3.120	0.000	2790.862	-11.470	0.000	3548.000	0.000	0.000
40.	5394.803	2.600	0.000	2781.764	-9.700	0.000	3548.000	0.000	0.000
41.	5398.661	2.040	0.000	2774.269	-7.860	0.000	3548.000	0.000	0.000
42.	5401.669	1.570	0.000	2768.407	-5.950	0.000	3548.000	0.000	0.000
43.	5403.821	1.050	0.000	2764.203	-3.990	0.000	3548.000	0.000	0.000
44.	5405.114	.520	0.000	2761.674	-2.010	0.000	3548.000	0.000	0.000
45.	5405.546	0.000	0.000	2760.830	0.000	0.000	3548.000	0.000	0.000
46.	5405.114	-0.520	0.000	2761.674	2.010	0.000	3548.000	0.000	0.000
47.	5403.821	-1.050	0.000	2764.203	3.990	0.000	3548.000	0.000	0.000
48.	5401.669	-1.570	0.000	2768.407	5.950	0.000	3548.000	0.000	0.000
49.	5398.661	-2.050	0.000	2774.269	7.860	0.000	3548.000	0.000	0.000

Z-PLANE (XY-PLANE) GERMANIUM

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SRVEL	SSPH12	SSPH13
50.	5394.803	-2.600	0.000	2781.764	9.700	0.000	3548.800	0.000	0.000
51.	5398.182	-3.128	0.000	2790.862	11.470	0.000	3548.800	0.000	0.000
52.	5384.566	-6.620	0.000	2681.526	13.160	0.000	3548.800	0.000	0.000
53.	5378.200	-6.120	0.000	2613.714	14.750	0.000	3548.800	0.000	0.000
54.	5371.830	-6.620	0.000	2627.376	16.250	0.000	3548.800	0.000	0.000
55.	5365.871	-5.100	0.000	2682.459	17.840	0.000	3548.800	0.000	0.000
56.	5354.323	-5.500	0.000	2656.904	18.920	0.000	3548.800	0.000	0.000
57.	5344.812	-6.050	0.000	2676.645	20.040	0.000	3548.800	0.000	0.000
58.	5334.559	-6.510	0.000	2695.614	21.160	0.000	3548.800	0.000	0.000
59.	5323.586	-6.950	0.000	2915.739	22.110	0.000	3548.800	0.000	0.000
60.	5311.919	-7.360	0.000	2936.941	22.960	0.000	3548.800	0.000	0.000
61.	5299.584	-7.790	0.000	2959.141	23.700	0.000	3548.800	0.000	0.000
62.	5286.612	-8.190	0.000	2982.254	24.330	0.000	3548.800	0.000	0.000
63.	5273.037	-8.570	0.000	3006.191	24.870	0.000	3548.800	0.000	0.000
64.	5258.896	-8.920	0.000	3030.862	25.300	0.000	3548.800	0.000	0.000
65.	5244.227	-9.260	0.000	3056.172	25.640	0.000	3548.800	0.000	0.000
66.	5228.076	-9.560	0.000	3082.823	25.870	0.000	3548.800	0.000	0.000
67.	5213.498	-9.840	0.000	3108.315	26.020	0.000	3548.800	0.000	0.000
68.	5197.522	-10.090	0.000	3134.944	26.060	0.000	3548.800	0.000	0.000
69.	5181.228	-10.300	0.000	3161.800	26.020	0.000	3548.800	0.000	0.000
70.	5164.671	-10.460	0.000	3188.774	25.880	0.000	3548.800	0.000	0.000
71.	5147.916	-10.610	0.000	3215.750	25.640	0.000	3548.800	0.000	0.000
72.	5131.062	-10.690	0.000	3242.609	25.310	0.000	3548.800	0.000	0.000
73.	5114.124	-10.730	0.000	3269.227	24.870	0.000	3548.800	0.000	0.000
74.	5097.249	-10.710	0.000	3295.476	24.340	0.000	3548.800	0.000	0.000
75.	5080.510	-10.630	0.000	3321.223	23.700	0.000	3548.800	0.000	0.000
76.	5064.008	-10.460	0.000	3346.331	22.960	0.000	3548.800	0.000	0.000
77.	5047.848	-10.260	0.000	3370.654	22.100	0.000	3548.800	0.000	0.000
78.	5031.145	-9.970	0.000	3394.057	21.120	0.000	3548.800	0.000	0.000
79.	5017.817	-9.590	0.000	3416.379	20.020	0.000	3548.800	0.000	0.000
80.	5002.591	-9.130	0.000	3437.469	16.000	0.000	3548.800	0.000	0.000
81.	4988.994	-8.560	0.000	3457.172	17.440	0.000	3548.800	0.000	0.000
82.	4976.360	-7.940	0.000	3475.334	15.950	0.000	3548.800	0.000	0.000
83.	4964.818	-7.200	0.000	3491.833	14.330	0.000	3548.800	0.000	0.000
84.	4954.459	-6.350	0.000	3506.430	12.560	0.000	3548.800	0.000	0.000
85.	4945.524	-5.478	0.000	3519.876	10.710	0.000	3548.800	0.000	0.000
86.	4938.088	-4.460	0.000	3529.615	6.720	0.000	3548.800	0.000	0.000
87.	4932.849	-3.420	0.000	3537.937	6.630	0.000	3548.800	0.000	0.000
88.	4927.731	-2.310	0.000	3543.949	4.470	0.000	3548.800	0.000	0.000
89.	4923.114	-1.170	0.000	3547.564	2.250	0.000	3548.800	0.000	0.000
90.	4922.238	0.000	0.000	3548.800	-0.000	0.000	3548.800	0.000	0.000
91.	4923.114	1.170	0.000	3547.564	-2.250	0.000	3548.800	0.000	0.000
92.	4927.731	2.310	0.000	3543.949	-4.470	0.000	3548.800	0.000	0.000
93.	4932.849	3.420	0.000	3537.937	-6.630	0.000	3548.800	0.000	0.000
94.	4938.088	4.460	0.000	3529.615	-8.720	0.000	3548.800	0.000	0.000
95.	4945.524	5.478	0.000	3519.876	-10.710	0.000	3548.800	0.000	0.000
96.	4954.459	6.350	0.000	3506.430	-12.560	0.000	3548.800	0.000	0.000
97.	4964.818	7.200	0.000	3491.833	-14.330	0.000	3548.800	0.000	0.000
98.	4976.360	7.940	0.000	3475.334	-15.950	0.000	3548.800	0.000	0.000
99.	4988.994	8.560	0.000	3457.172	-17.440	0.000	3548.800	0.000	0.000

BULK

Z-PLANE (XY-PLANE) GERMANIUM

	LPHI12	LPHI13	FSRWEL	FSPH12	FSPH13	SSRWEL	SSPH12	SSPH13
100.	9.130	0.000	3437.469	-16.800	0.000	3546.800	0.000	0.000
101.	9.590	0.000	3416.379	-20.020	0.000	3546.800	-0.000	0.000
102.	9.970	0.000	3394.057	-21.120	0.000	3546.800	0.000	0.000
103.	10.260	0.000	3370.658	-22.100	0.000	3546.800	0.000	0.000
104.	10.480	0.000	3346.331	-22.960	0.000	3546.800	0.000	0.000
105.	10.630	0.000	3321.223	-23.700	0.000	3546.800	0.000	0.000
106.	10.710	0.000	3295.476	-24.340	0.000	3546.800	0.000	0.000
107.	10.730	0.000	3269.227	-24.870	0.000	3546.800	0.000	0.000
108.	10.650	0.000	3242.605	-25.310	0.000	3546.800	0.000	0.000
109.	10.610	0.000	3215.750	-25.640	0.000	3546.800	0.000	0.000
110.	10.460	0.000	3188.774	-25.860	0.000	3546.800	0.000	0.000
111.	10.300	0.000	3161.800	-26.020	0.000	3546.800	-0.600	0.000
112.	10.090	0.000	3134.944	-26.060	0.000	3546.800	0.000	0.000
113.	9.840	0.000	3108.315	-26.020	0.000	3546.800	0.000	0.000
114.	9.560	0.000	3082.023	-25.870	0.000	3546.800	0.000	0.000
115.	9.260	0.000	3056.172	-25.640	0.000	3546.800	0.000	0.000
116.	8.920	0.000	3030.862	-25.300	0.000	3546.800	0.000	0.000
117.	8.570	0.000	3006.191	-24.870	0.000	3546.800	0.600	0.000
118.	8.190	0.000	2982.294	-24.330	0.000	3546.800	0.000	0.000
119.	7.790	0.000	2959.141	-23.700	0.000	3546.800	-0.000	0.000
120.	7.360	0.000	2936.941	-22.960	0.000	3546.800	0.000	0.000
121.	6.950	0.000	2915.739	-22.110	0.000	3546.800	0.000	0.000
122.	6.510	0.000	2895.614	-21.160	0.000	3546.800	0.000	0.000
123.	6.050	0.000	2876.645	-20.030	0.000	3546.800	0.000	0.000
124.	5.580	0.000	2858.984	-18.520	0.000	3546.800	0.000	0.000
125.	5.100	0.000	2842.459	-17.640	0.000	3546.800	0.000	0.000
126.	4.620	0.000	2827.376	-16.250	0.000	3546.800	0.000	0.000
127.	4.120	0.000	2813.714	-14.750	0.000	3546.800	0.000	0.000
128.	3.620	0.000	2801.526	-13.160	0.000	3546.800	-0.600	0.000
129.	3.120	0.000	2790.862	-11.470	0.000	3546.800	0.000	0.000
130.	2.600	0.000	2781.764	-9.700	0.000	3546.800	0.000	0.000
131.	2.090	0.000	2774.265	-7.860	0.000	3546.800	0.000	0.000
132.	1.570	0.000	2768.407	-5.950	0.000	3546.800	0.000	0.000
133.	1.050	0.000	2764.203	-3.990	0.000	3546.800	0.000	0.000
134.	0.520	0.000	2761.674	-2.010	0.000	3546.800	0.000	0.000
135.	-0.000	0.000	2760.830	0.000	0.000	3546.800	0.000	0.000
136.	-0.520	0.000	2761.674	2.010	0.000	3546.800	0.000	0.000
137.	-1.050	0.000	2764.203	3.990	0.000	3546.800	0.000	0.000
138.	-1.570	0.000	2768.407	5.950	0.000	3546.800	0.000	0.000
139.	-2.090	0.000	2774.269	7.860	0.000	3546.800	0.000	0.000
140.	-2.600	0.000	2781.764	9.700	0.000	3546.800	0.000	0.000
141.	-3.120	0.000	2790.862	11.470	0.000	3546.800	0.000	0.000
142.	-3.620	0.000	2801.526	13.160	0.000	3546.800	-0.000	0.000
143.	-4.120	0.000	2813.714	14.750	0.000	3546.800	0.000	0.000
144.	-4.620	0.000	2827.376	16.250	0.000	3546.800	0.000	0.000
145.	-5.100	0.000	2842.459	17.640	0.000	3546.800	-0.000	0.000
146.	-5.580	0.000	2858.984	18.920	0.000	3546.800	0.000	0.000
147.	-6.050	0.000	2876.645	20.090	0.000	3546.800	0.000	0.000
148.	-6.510	0.000	2895.614	21.160	0.000	3546.800	0.000	0.000
149.	-6.950	0.000	2915.739	22.110	0.000	3546.800	0.000	0.000

Z-PLANE (XY-PLANE) GERMANIUM									
	LMGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
150.	531.919	-7.360	0.000	2336.941	22.960	0.000	3548.800	0.000	0.000
151.	529.564	-7.790	0.000	2959.141	23.700	0.000	3548.800	0.000	0.000
152.	528.612	-8.190	0.000	2982.254	24.330	0.000	3548.800	0.000	0.000
153.	5273.037	-8.570	0.000	3006.191	24.870	0.000	3548.800	0.000	0.000
154.	5250.896	-8.920	0.000	3030.862	25.300	0.000	3548.800	0.000	0.000
155.	5244.227	-9.260	0.000	3056.172	25.640	0.000	3548.800	0.000	0.000
156.	5229.876	-9.560	0.000	3082.023	25.870	0.000	3548.800	0.000	0.000
157.	5213.490	-9.840	0.000	3108.515	26.020	0.000	3548.800	0.000	0.000
158.	5197.522	-10.090	0.000	3134.944	26.060	0.000	3548.800	0.000	0.000
159.	5181.228	-10.300	0.000	3161.800	26.020	0.000	3548.800	0.000	0.000
160.	5164.671	-10.460	0.000	3188.774	25.800	0.000	3548.800	0.000	0.000
161.	5147.916	-10.610	0.000	3215.750	25.640	0.000	3548.800	0.000	0.000
162.	5131.042	-10.690	0.000	3242.609	25.310	0.000	3548.800	0.000	0.000
163.	5114.124	-10.730	0.000	3269.227	24.870	0.000	3548.800	0.000	0.000
164.	5097.249	-10.710	0.000	3295.476	24.340	0.000	3548.800	0.000	0.000
165.	5080.510	-10.630	0.000	3321.223	23.700	0.000	3548.800	0.000	0.000
166.	5064.086	-10.480	0.000	3346.331	22.960	0.000	3548.800	0.000	0.000
167.	5047.846	-10.260	0.000	3370.650	22.100	0.000	3548.800	0.000	0.000
168.	5032.145	-9.970	0.000	3394.057	21.120	0.000	3548.800	0.000	0.000
169.	5017.017	-9.550	0.000	3416.379	20.020	0.000	3548.800	0.000	0.000
170.	5002.591	-9.130	0.000	3437.469	18.800	0.000	3548.800	0.000	0.000
171.	4988.994	-8.580	0.000	3457.172	17.440	0.000	3548.800	0.000	0.000
172.	4976.360	-7.940	0.000	3475.334	15.950	0.000	3548.800	0.000	0.000
173.	4964.816	-7.200	0.000	3491.603	14.330	0.000	3548.800	0.000	0.000
174.	4954.499	-6.360	0.000	3506.430	12.580	0.000	3548.800	0.000	0.000
175.	4945.524	-5.470	0.000	3519.876	10.716	0.000	3548.800	0.000	0.000
176.	4938.004	-4.460	0.000	3529.615	8.720	0.000	3548.800	0.000	0.000
177.	4932.849	-3.420	0.000	3537.937	6.630	0.000	3548.800	0.000	0.000
178.	4927.731	-2.310	0.000	3543.949	4.478	0.000	3548.800	0.000	0.000
179.	4925.114	-1.170	0.000	3547.584	2.250	0.000	3548.800	0.000	0.000
180.	4924.238	0.000	0.000	3548.000	-0.000	0.000	3548.800	0.000	0.000

BULK

111-PLANE GERMANIUM

	LNGVEL	LPMI2	LPMI3	FSRVEL	FSPMI2	FSPMI3	SSRVEL	SSPMI2	SSPMI3
0.	5405.546	-8.000	0.000	3540.000	-0.000	0.000	2760.030	0.000	-0.000
1.	5405.617	.090	.430	3540.331	-0.870	-0.610	2761.294	1.100	-0.640
2.	5405.828	.170	.860	3546.926	-1.730	-1.230	2762.684	2.200	-1.260
3.	5406.178	.250	1.290	3544.591	-2.590	-1.830	2764.995	3.260	-1.810
4.	5406.563	.330	1.720	3541.337	-3.430	-2.440	2768.216	4.330	-2.530
5.	5407.275	.410	2.120	3537.179	-4.270	-3.030	2772.333	5.360	-3.140
6.	5408.009	.480	2.530	3532.136	-5.080	-3.620	2777.328	6.390	-3.740
7.	5408.855	.550	2.930	3526.231	-5.870	-4.190	2783.178	7.350	-4.320
8.	5409.803	.600	3.320	3519.493	-6.630	-4.760	2789.855	8.260	-4.890
9.	5410.843	.660	3.690	3511.953	-7.370	-5.310	2797.330	9.150	-5.430
10.	5411.962	.700	4.060	3503.649	-8.070	-5.840	2805.566	9.970	-5.960
11.	5413.148	.740	4.410	3494.622	-8.740	-6.360	2814.523	10.70	-6.460
12.	5414.386	.760	4.740	3484.919	-9.360	-6.860	2824.155	11.420	-6.940
13.	5415.664	.760	5.060	3474.592	-9.930	-7.350	2834.411	12.040	-7.390
14.	5416.966	.790	5.370	3463.700	-10.450	-7.810	2845.234	12.580	-7.810
15.	5418.278	.800	5.650	3452.307	-10.910	-8.260	2856.559	13.040	-8.260
16.	5419.566	.790	5.920	3440.487	-11.310	-8.690	2868.314	13.420	-8.570
17.	5420.876	.770	6.180	3428.321	-11.620	-9.050	2880.518	13.690	-8.890
18.	5422.134	.750	6.410	3415.903	-11.850	-9.360	2892.778	13.660	-9.200
19.	5423.345	.720	6.630	3403.339	-12.020	-9.640	2905.209	13.980	-9.470
20.	5424.498	.660	6.830	3390.751	-12.150	-9.890	2917.828	13.800	-9.710
21.	5425.581	.630	7.010	3378.279	-12.240	-10.100	2930.255	13.560	-9.920
22.	5426.581	.560	7.170	3366.090	-12.300	-10.280	2942.405	13.100	-10.050
23.	5427.489	.520	7.310	3354.373	-12.330	-10.430	2954.087	12.440	-10.230
24.	5428.296	.460	7.430	3343.352	-12.320	-10.560	2965.079	11.540	-10.350
25.	5428.993	.390	7.540	3333.280	-12.280	-10.660	2975.126	10.350	-10.430
26.	5429.573	.310	7.620	3324.036	-12.130	-10.730	2983.948	8.650	-10.500
27.	5430.030	.240	7.690	3317.127	-11.870	-10.780	2991.244	7.030	-10.540
28.	5430.360	.160	7.730	3311.639	-11.600	-10.800	2996.720	4.690	-10.560
29.	5430.560	.080	7.750	3306.228	-11.320	-10.780	3001.280	2.520	-10.570
30.	5430.626	.000	7.770	3307.871	-11.040	-10.730	3005.124	0.000	-10.570
31.	5430.559	-.080	7.760	3306.228	-10.760	-10.660	3008.124	-2.520	-10.560
32.	5430.360	-.160	7.730	3311.639	-10.440	-10.560	2996.720	-4.890	-10.500
33.	5430.030	-.240	7.690	3317.127	-10.080	-10.430	2983.948	-7.020	-10.540
34.	5429.573	-.310	7.620	3324.036	-9.690	-10.280	2975.126	-8.650	-10.500
35.	5429.030	-.390	7.540	3333.280	-9.280	-10.100	2965.079	-10.350	-10.430
36.	5428.498	-.460	7.430	3343.352	-8.850	-9.890	2954.087	-12.440	-10.230
37.	5427.966	-.520	7.310	3354.373	-8.400	-9.640	2942.405	-13.100	-10.050
38.	5427.489	-.560	7.170	3366.090	-7.930	-9.360	2930.255	-13.540	-9.920
39.	5426.966	-.600	6.990	3378.279	-7.450	-9.050	2917.828	-13.600	-9.710
40.	5426.498	-.620	6.830	3390.751	-7.000	-8.740	2892.778	-13.500	-9.470
41.	5426.030	-.630	6.630	3403.339	-6.600	-8.400	2880.518	-13.660	-9.200
42.	5425.581	-.630	6.410	3415.903	-6.250	-8.050	2868.314	-13.420	-8.890
43.	5425.134	-.620	6.180	3428.321	-5.980	-7.700	2856.559	-13.050	-8.570
44.	5424.698	-.600	5.920	3440.487	-5.700	-7.350	2845.234	-12.580	-8.260
45.	5424.278	-.570	5.650	3452.307	-5.410	-7.000	2834.411	-12.040	-7.810
46.	5423.843	-.520	5.370	3463.700	-5.110	-6.660	2824.155	-11.420	-7.350
47.	5423.418	-.460	5.060	3474.592	-4.800	-6.300	2814.523	-10.700	-6.860
48.	5423.006	-.400	4.740	3484.919	-4.480	-5.930	2805.566	-9.970	-6.390
49.	5422.606	-.340	4.410	3494.622	-4.150	-5.560	2814.523	-9.150	-5.960

111-PLANE GERMANIUM

	LMGVEL	LPM112	LPM113	FSRWEL	FSPM12	FSPM13	SSRWEL	SSPM12	SSPM13
50.	5411.962	-1.780	4.060	3503.649	8.070	-5.640	2805.566	-9.970	-2.960
51.	5418.843	-0.660	3.690	3511.953	7.370	-5.310	2797.330	-9.150	-5.430
52.	5409.803	-0.600	3.320	3519.493	6.630	-4.760	2783.055	-8.280	-0.830
53.	5408.055	-0.550	2.930	3526.231	5.870	-4.190	2768.178	-7.350	-0.320
54.	5408.009	-0.480	2.530	3532.136	5.080	-3.620	2777.328	-6.390	-3.740
55.	5407.275	-0.410	2.120	3537.179	4.270	-3.030	2772.334	-5.300	-3.140
56.	5406.662	-0.330	1.710	3541.337	3.430	-2.440	2768.217	-4.350	-2.630
57.	5406.176	-0.250	1.290	3544.591	2.590	-1.830	2764.995	-3.280	-1.210
58.	5405.828	-0.170	0.860	3546.926	1.730	-1.230	2762.684	-2.280	-1.280
59.	5405.617	0.000	0.430	3548.331	0.870	-0.610	2761.294	-1.180	-0.640
60.	5405.546	0.000	0.000	3548.800	-0.000	0.000	2760.830	-0.000	-0.000
61.	5405.617	0.050	-0.430	3548.331	-0.870	0.610	2761.294	1.100	-0.640
62.	5405.828	0.170	-0.860	3546.926	-1.730	1.230	2762.684	2.200	1.200
63.	5406.176	0.250	-1.290	3544.591	-2.590	1.830	2764.995	3.280	1.910
64.	5406.663	0.330	-1.710	3541.337	-3.430	2.440	2768.216	4.350	2.530
65.	5407.275	0.410	-2.120	3537.179	-4.270	3.030	2772.333	5.300	3.140
66.	5408.009	0.480	-2.530	3532.136	-5.080	3.620	2777.328	6.390	3.740
67.	5408.055	0.550	-2.930	3526.231	-5.870	4.190	2783.178	7.350	4.320
68.	5409.803	0.600	-3.320	3519.493	-6.630	4.760	2789.655	8.280	4.850
69.	5410.843	0.660	-3.690	3511.953	-7.370	5.310	2797.330	9.150	5.430
70.	5411.962	0.700	-4.060	3503.649	-8.070	5.640	2805.566	9.970	5.960
71.	5413.148	0.740	-4.410	3494.622	-8.740	6.360	2814.523	10.720	6.460
72.	5414.386	0.760	-4.740	3484.919	-9.360	6.660	2824.155	11.420	6.940
73.	5415.664	0.760	-5.060	3474.592	-9.930	7.350	2834.431	12.040	7.370
74.	5416.966	0.740	-5.370	3463.700	-10.450	7.610	2845.234	12.560	7.620
75.	5418.278	0.600	-5.650	3452.307	-10.910	6.250	2856.599	13.050	6.200
76.	5419.587	0.750	-5.920	3440.486	-11.310	6.630	2868.314	13.420	6.570
77.	5420.876	0.770	-6.180	3428.321	-11.620	9.050	2880.418	13.690	6.900
78.	5422.134	0.750	-6.410	3415.903	-11.850	9.440	2892.778	13.660	6.240
79.	5423.345	0.720	-6.630	3403.339	-11.970	9.400	2905.288	13.500	6.410
80.	5424.496	0.660	-6.830	3390.750	-11.960	10.160	2917.828	13.800	9.710
81.	5425.581	0.630	-7.010	3378.279	-11.840	10.580	2930.235	13.940	9.820
82.	5426.581	0.580	-7.170	3366.090	-11.530	10.600	2942.405	13.100	10.050
83.	5427.485	0.520	-7.310	3354.373	-11.030	11.070	2954.087	12.440	10.230
84.	5428.296	0.460	-7.430	3343.352	-10.290	11.320	2965.074	11.540	10.350
85.	5428.993	0.390	-7.540	3333.279	-9.280	11.540	2975.156	10.350	10.430
86.	5429.573	0.310	-7.620	3324.436	-8.190	11.730	2983.948	9.650	10.500
87.	5430.830	0.240	-7.690	3317.126	-6.950	11.860	2991.948	7.050	10.540
88.	5430.368	0.160	-7.730	3311.639	-5.440	12.000	2996.728	4.650	10.580
89.	5430.559	0.080	-7.768	3308.228	-4.440	12.070	3000.124	2.520	10.570
90.	5430.626	-0.000	-7.770	3307.071	0.000	12.100	3003.124	0.000	10.570
91.	5430.559	-0.060	-7.760	3306.224	2.290	12.070	3005.124	-2.520	10.570
92.	5430.368	-0.160	-7.730	3311.639	4.440	12.000	2999.728	-4.650	10.580
93.	5430.830	-0.240	-7.690	3317.126	6.950	11.860	2991.948	-7.050	10.540
94.	5429.573	-0.310	-7.620	3324.436	9.280	11.730	2983.948	-9.650	10.500
95.	5428.993	-0.390	-7.548	3333.279	11.540	11.540	2975.156	-10.350	10.430
96.	5428.296	-0.460	-7.430	3343.352	12.290	11.320	2965.074	-11.540	10.350
97.	5427.485	-0.520	-7.310	3354.373	11.030	11.070	2954.087	-12.440	10.230
98.	5426.581	-0.580	-7.170	3366.090	11.530	10.600	2942.405	-13.420	10.050
99.	5425.581	-0.630	-7.010	3378.279	11.840	10.580	2930.235	-13.940	9.920

111-PLANE GERMANIUM

BULK

	LMGVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
100.	5424.496	-.660	-0.830	3390.750	11.970	10.160	2517.028	-13.600	5.710
101.	5423.345	-.720	-0.630	3403.339	11.970	9.840	2905.288	-13.900	9.470
102.	5422.134	-.750	-0.410	3415.983	11.850	9.460	2692.778	-13.660	9.240
103.	5420.876	-.770	-0.180	3428.321	11.620	9.090	2480.418	-13.690	0.900
104.	5419.587	-.790	-0.920	3440.406	11.310	8.690	2268.314	-13.420	0.570
105.	5418.276	-.800	-5.650	3452.307	10.910	8.260	2056.559	-13.650	0.200
106.	5416.966	-.790	-5.370	3465.700	10.450	7.810	2049.234	-12.560	7.610
107.	5415.664	-.780	-0.060	3474.592	9.930	7.350	2834.411	-12.040	7.330
108.	5414.386	-.760	-4.740	3484.919	9.360	6.860	2624.155	-11.420	0.340
109.	5413.146	-.740	-4.410	3494.622	8.740	6.360	2614.523	-10.720	0.460
110.	5411.962	-.700	-4.060	3503.649	8.070	5.840	2605.566	-9.570	5.460
111.	5410.843	-.660	-3.690	3511.953	7.370	5.310	2797.330	-9.150	5.830
112.	5409.803	-.680	-3.320	3519.493	6.630	4.760	2789.855	-8.280	4.890
113.	5408.855	-.550	-2.930	3526.231	5.870	4.150	2783.178	-7.350	4.820
114.	5408.009	-.460	-2.530	3532.136	5.060	3.620	2777.328	-6.390	3.740
115.	5407.275	-.410	-2.120	3537.179	4.270	3.030	2772.333	-5.380	3.440
116.	5406.663	-.330	-1.710	3541.337	3.430	2.440	2768.216	-4.350	2.530
117.	5406.176	-.250	-1.298	3544.591	2.590	1.830	2764.995	-3.280	1.910
118.	5405.828	-.170	-.868	3546.926	1.730	1.230	2762.684	-2.200	1.260
119.	5405.617	-.090	-.430	3548.331	.870	.610	2761.294	-1.100	.640
120.	5405.546	-0.000	0.000	3548.800	0.000	0.000	2760.830	0.000	-0.600
121.	5405.617	.090	.430	3548.331	-.070	-.610	2761.294	1.100	-0.640
122.	5405.828	.170	.868	3546.926	-1.730	-1.230	2762.684	2.200	-1.260
123.	5406.176	.250	1.290	3544.591	-2.590	-1.830	2764.995	3.280	-1.910
124.	5406.662	.330	1.710	3541.337	-3.430	-2.440	2766.217	4.350	-2.530
125.	5407.275	.410	2.120	3537.179	-4.270	-3.030	2772.334	5.380	-3.140
126.	5408.009	.480	2.530	3532.136	-5.060	-3.620	2777.328	6.390	-3.740
127.	5408.855	.550	2.930	3526.231	-5.870	-4.150	2783.178	7.350	-4.320
128.	5409.803	.600	3.320	3519.493	-6.630	-4.760	2789.855	8.280	-4.890
129.	5410.843	.660	3.690	3511.953	-7.370	-5.310	2797.330	9.150	-5.430
130.	5411.962	.700	4.060	3503.649	-8.070	-5.840	2805.566	9.970	-5.830
131.	5413.148	.740	4.410	3494.622	-8.740	-6.360	2814.523	10.720	-6.460
132.	5414.386	.760	4.740	3484.919	-9.360	-6.860	2824.155	11.420	-6.940
133.	5415.664	.780	5.060	3474.592	-9.930	-7.350	2834.411	12.040	-7.390
134.	5416.966	.790	5.370	3463.700	-10.450	-7.810	2844.411	12.580	-7.610
135.	5418.276	.800	5.650	3452.307	-10.910	-8.260	2856.554	13.050	-7.800
136.	5419.586	.790	5.920	3440.487	-11.310	-8.690	2868.314	13.420	-7.970
137.	5420.876	.770	6.180	3428.321	-11.620	-9.090	2880.416	13.690	-8.090
138.	5422.134	.750	6.410	3415.983	-11.850	-9.460	2892.778	13.900	-8.200
139.	5423.345	.720	6.630	3403.339	-11.970	-9.840	2905.289	14.050	-8.240
140.	5424.496	.680	6.830	3390.751	-11.990	-10.160	2917.828	14.100	-8.200
141.	5425.581	.630	7.010	3378.279	-11.840	-10.500	2930.255	14.000	-8.090
142.	5426.581	.580	7.170	3366.050	-11.530	-10.800	2942.405	13.800	-7.920
143.	5427.489	.520	7.310	3354.375	-11.030	-11.070	2954.087	12.440	-7.610
144.	5428.296	.460	7.430	3343.360	-10.290	-11.320	2965.079	11.540	-7.200
145.	5428.993	.390	7.540	3333.260	-9.260	-11.540	2975.126	10.350	-6.650
146.	5429.573	.310	7.620	3324.438	-7.970	-11.730	2983.946	8.850	-5.900
147.	5430.030	.240	7.690	3317.127	-6.350	-11.880	2991.244	7.020	-5.040
148.	5430.360	.160	7.730	3311.639	-4.440	-12.000	2996.720	4.890	-4.060
149.	5430.559	.060	7.760	3308.226	-2.230	-12.070	3000.124	2.520	-3.000

BULK

111-PLANE GERMANIUM

	LMGWEL	LPN112	LPN113	FSRWEL	FSPH112	FSPH113	SSRWEL	SSPH112	SSPH113
150.	5438.626	0.000	7.770	3307.071	-0.000	-12.100	3081.280	-0.000	-10.570
151.	5438.559	-0.060	7.768	3388.228	2.290	-12.070	3080.124	-2.520	-10.570
152.	5438.360	-0.160	7.730	3311.639	4.440	-12.000	2996.720	-4.690	-10.560
153.	5430.830	-0.240	7.690	3317.127	6.350	-11.680	2991.244	-7.830	-10.540
154.	5429.573	-0.310	7.620	3324.438	7.970	-11.730	2863.946	-6.650	-10.500
155.	5428.993	-0.390	7.540	3333.260	9.280	-11.540	2975.126	-10.350	-10.430
156.	5428.296	-0.460	7.430	3343.352	10.290	-11.320	2965.079	-11.540	-10.350
157.	5427.489	-0.520	7.310	3354.373	11.030	-11.070	2954.087	-12.440	-10.230
158.	5426.581	-0.560	7.170	3366.030	11.530	-10.800	2422.505	-13.100	-10.090
159.	5425.561	-0.630	7.010	3378.279	11.840	-10.500	2938.255	-13.540	-9.920
160.	5424.498	-0.680	6.830	3390.751	11.980	-10.180	2917.828	-13.600	-9.710
161.	5423.345	-0.720	6.630	3403.339	11.970	-9.640	2905.289	-13.500	-9.470
162.	5422.134	-0.750	6.410	3415.903	11.850	-9.480	2692.778	-13.660	-9.200
163.	5420.876	-0.778	6.180	3428.321	11.620	-9.090	2880.416	-13.690	-8.900
164.	5419.586	-0.790	5.920	3440.487	11.310	-8.690	2868.314	-13.420	-8.570
165.	5418.278	-0.800	5.650	3452.387	10.910	-8.260	2856.559	-13.050	-8.200
166.	5416.966	-0.790	5.370	3463.780	10.450	-7.810	2845.234	-12.500	-7.810
167.	5415.664	-0.760	5.060	3474.592	9.930	-7.350	2834.411	-12.040	-7.350
168.	5414.386	-0.740	4.740	3484.919	9.360	-6.860	2824.155	-11.420	-6.940
169.	5413.148	-0.740	4.410	3494.622	8.740	-6.360	2814.523	-10.720	-6.460
170.	5411.962	-0.700	4.060	3503.664	8.070	-5.840	2805.566	-9.970	-5.960
171.	5410.843	-0.660	3.690	3511.953	7.370	-5.310	2797.330	-9.150	-5.430
172.	5409.803	-0.600	3.320	3519.493	6.630	-4.760	2789.855	-8.260	-4.890
173.	5408.855	-0.550	2.930	3526.231	5.870	-4.190	2783.178	-7.350	-4.320
174.	5408.009	-0.480	2.530	3532.136	5.086	-3.620	2777.328	-6.390	-3.740
175.	5407.275	-0.410	2.120	3537.179	4.270	-3.030	2772.333	-5.360	-3.140
176.	5406.663	-0.330	1.710	3541.337	3.430	-2.440	2768.216	-4.350	-2.530
177.	5406.178	-0.250	1.290	3544.521	2.590	-1.830	2764.995	-3.260	-1.910
178.	5405.828	-0.170	0.860	3546.926	1.730	-1.230	2762.684	-2.200	-1.260
179.	5405.617	-0.090	0.430	3548.331	0.870	-0.610	2761.294	-1.100	-0.640
180.	5405.546	0.000	-0.000	3548.000	-0.000	0.000	2760.830	0.000	0.000

110-PLANE GERMANIUM

	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
0.	0.000	0.000	3046.224	14.180	0.000	3046.214	-14.170	0.000
1.	-0.370	-0.000	3059.692	14.210	0.000	3033.253	-13.290	0.000
2.	-1.740	-0.000	3073.260	14.230	0.000	3021.235	-12.330	0.000
3.	-1.130	-0.000	3086.898	14.240	0.000	3010.222	-11.300	0.000
4.	-1.520	-0.000	3100.591	14.220	0.000	3000.261	-10.200	0.000
5.	-1.910	-0.000	3114.320	14.190	0.000	2991.398	-9.030	0.000
6.	-2.320	-0.000	3128.068	14.140	0.000	2983.672	-7.610	0.000
7.	-2.720	-0.000	3141.819	14.070	0.000	2977.121	-6.540	0.000
8.	-3.130	-0.000	3155.556	13.990	0.000	2971.777	-5.210	0.000
9.	-3.540	0.000	3169.262	13.900	0.000	2967.665	-3.650	0.000
10.	-3.950	0.000	3182.922	13.790	0.000	2964.809	-2.460	0.000
11.	-4.370	-0.000	3196.518	13.660	0.000	2963.227	-1.840	0.000
12.	-4.760	-0.000	3210.037	13.520	0.000	2962.929	.390	0.000
13.	-5.190	-0.000	3223.461	13.370	0.000	2963.925	1.820	0.000
14.	-5.600	-0.000	3236.777	13.210	0.000	2966.216	3.250	0.000
15.	-6.010	-0.000	3249.969	13.030	0.000	2969.799	4.660	0.000
16.	-6.410	-0.000	3263.023	12.840	0.000	2974.664	6.050	0.000
17.	-6.810	-0.000	3275.924	12.640	0.000	2980.600	7.410	0.000
18.	-7.210	-0.000	3288.660	12.430	0.000	2988.167	8.730	0.000
19.	-7.550	0.000	3301.215	12.200	0.000	2996.800	9.990	0.000
20.	-7.970	0.000	3313.578	11.970	0.000	3006.611	11.210	0.000
21.	-8.340	0.000	3325.736	11.730	0.000	3017.586	12.360	0.000
22.	-8.700	0.000	3337.675	11.480	0.000	3029.685	13.450	0.000
23.	-9.050	-0.000	3349.384	11.210	0.000	3042.865	14.470	0.000
24.	-9.350	-0.000	3360.851	10.940	0.000	3057.078	15.420	0.000
25.	-9.710	-0.000	3372.065	10.660	0.000	3072.270	16.260	0.000
26.	-10.020	-0.000	3383.014	10.380	0.000	3088.385	17.070	0.000
27.	-10.300	0.000	3393.667	10.080	0.000	3105.399	17.780	0.000
28.	-10.570	0.000	3404.076	9.780	0.000	3123.128	18.410	0.000
29.	-10.820	0.000	3414.168	9.470	0.000	3141.621	18.950	0.000
30.	-11.040	0.000	3423.955	9.160	0.000	3160.763	19.410	0.000
31.	-11.240	0.000	3433.428	8.830	0.000	3180.475	19.790	0.000
32.	-11.410	0.000	3442.578	8.500	0.000	3200.674	20.070	0.000
33.	-11.540	-0.000	3451.395	8.170	0.000	3221.273	20.270	0.000
34.	-11.640	0.000	3459.873	7.830	0.000	3242.161	20.390	0.000
35.	-11.700	-0.000	3468.002	7.490	0.000	3263.300	20.410	0.000
36.	-11.720	0.000	3475.776	7.140	0.000	3284.530	20.340	0.000
37.	-11.690	0.000	3483.188	6.780	0.000	3305.767	20.180	0.000
38.	-11.610	0.000	3490.231	6.420	0.000	3326.899	19.920	0.000
39.	-11.480	-0.000	3496.898	6.060	0.000	3347.812	19.560	0.000
40.	-11.290	0.000	3503.184	5.690	0.000	3368.387	19.110	0.000
41.	-11.830	0.000	3509.083	5.320	0.000	3388.499	16.540	0.000
42.	-10.700	0.000	3514.590	4.950	0.000	3408.020	17.670	0.000
43.	-10.310	0.000	3519.700	4.570	0.000	3426.816	17.090	0.000
44.	-9.830	0.000	3524.408	4.190	0.000	3444.758	16.200	0.000
45.	-9.270	0.000	3528.711	3.810	0.000	3461.703	15.190	0.000
46.	-8.630	0.000	3532.605	3.420	0.000	3477.515	14.060	0.000
47.	-7.910	0.000	3536.085	3.040	0.000	3492.057	12.610	0.000
48.	-7.100	0.000	3539.150	2.650	0.000	3505.197	11.450	0.000
49.	-6.220	0.000	3541.796	2.260	0.000	3516.807	9.900	0.000

BULK

110-PLANE GERMANIUM

BULK

	LPMI12	LPMI13	FSPVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
50.	4943.470	0.000	3544.022	1.470	0.000	3526.769	0.000	0.000
51.	4936.310	0.000	3545.425	1.470	0.000	3534.976	0.000	0.000
52.	4930.756	0.000	3547.284	1.080	0.000	3541.339	0.000	0.000
53.	4926.874	0.000	3548.156	.690	0.000	3545.783	0.000	0.000
54.	4924.713	0.000	3548.685	.290	0.000	3548.257	0.000	0.000
55.	4924.299	0.000	3548.786	-1.100	0.000	3546.731	0.000	0.000
56.	4925.638	0.000	3548.460	-5.000	0.000	3547.194	0.000	0.000
57.	4928.712	0.000	3547.707	-8.900	0.000	3543.679	0.000	0.000
58.	4933.484	0.000	3546.529	-1.290	0.000	3538.214	0.000	0.000
59.	4939.895	0.000	3544.926	-1.660	0.000	3538.687	0.000	0.000
60.	4947.872	0.000	3542.899	-2.070	0.000	3521.721	0.000	0.000
61.	4957.323	0.000	3540.451	-2.460	0.000	3518.875	0.000	0.000
62.	4968.148	0.000	3537.594	-2.850	0.000	3498.442	0.000	0.000
63.	4980.237	0.000	3534.294	-3.240	0.000	3484.545	0.000	0.000
64.	4993.476	0.000	3530.600	-3.630	0.000	3469.316	0.000	0.000
65.	5007.746	0.000	3526.430	-4.016	0.000	3452.889	0.000	0.000
66.	5022.929	0.000	3521.973	-4.390	0.000	3435.401	0.000	0.000
67.	5038.910	0.000	3517.052	-4.778	0.000	3416.931	0.000	0.000
68.	5055.573	0.000	3511.732	-5.140	0.000	3397.794	0.000	0.000
69.	5072.812	0.000	3506.017	-5.520	0.000	3377.945	0.000	0.000
70.	5090.521	0.000	3499.913	-5.890	0.000	3357.573	0.000	0.000
71.	5108.601	0.000	3493.425	-6.250	0.000	3336.804	0.000	0.000
72.	5126.961	0.000	3486.555	-6.610	0.000	3315.761	0.000	0.000
73.	5145.512	0.000	3479.320	-6.976	0.000	3294.560	0.000	0.000
74.	5164.174	0.000	3471.716	-7.320	0.000	3273.313	0.000	0.000
75.	5182.872	0.000	3463.754	-7.670	0.000	3252.128	0.000	0.000
76.	5201.535	0.000	3455.439	-8.010	0.000	3231.109	0.000	0.000
77.	5220.090	0.000	3446.741	-8.350	0.000	3210.353	0.000	0.000
78.	5238.502	0.000	3437.768	-8.680	0.000	3189.953	0.000	0.000
79.	5256.691	0.000	3428.466	-9.000	0.000	3170.001	0.000	0.000
80.	5274.615	0.000	3418.826	-9.320	0.000	3150.500	0.000	0.000
81.	5292.226	0.000	3408.877	-9.640	0.000	3131.771	0.000	0.000
82.	5309.482	0.000	3398.627	-9.940	0.000	3113.652	0.000	0.000
83.	5326.343	0.000	3388.087	-10.240	0.000	3096.294	0.000	0.000
84.	5342.772	0.000	3377.266	-10.530	0.000	3079.765	0.000	0.000
85.	5358.736	0.000	3366.176	-10.810	0.000	3064.130	0.000	0.000
86.	5374.206	0.000	3354.827	-11.090	0.000	3049.448	0.000	0.000
87.	5389.153	0.000	3343.231	-11.350	0.000	3035.774	0.000	0.000
88.	5403.553	0.000	3331.399	-11.610	0.000	3023.159	0.000	0.000
89.	5417.382	0.000	3319.343	-11.860	0.000	3011.648	0.000	0.000
90.	5430.621	0.000	3307.076	-12.100	0.000	3001.203	0.000	0.000
91.	5443.250	0.000	3294.609	-12.320	0.000	2992.121	0.000	0.000
92.	5455.255	0.000	3281.937	-12.540	0.000	2984.132	0.000	0.000
93.	5466.620	0.000	3269.132	-12.750	0.000	2977.403	0.000	0.000
94.	5477.334	0.000	3256.148	-12.940	0.000	2971.936	0.000	0.000
95.	5487.305	0.000	3243.020	-13.120	0.000	2967.745	0.000	0.000
96.	5496.765	0.000	3229.761	-13.290	0.000	2964.845	0.000	0.000
97.	5505.468	0.000	3216.386	-13.450	0.000	2963.238	0.000	0.000
98.	5513.486	0.000	3202.910	-13.600	0.000	2962.924	0.000	0.000
99.	5520.810	0.000	3189.348	-13.730	0.000	2963.903	0.000	0.000

110-PLANE GERMANIUM

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
100.	5527.460	3.730	0.000	3175.716	-13.050	0.000	2966.159	3.200	-0.000
101.	5533.412	3.320	0.000	3162.030	-13.950	0.000	2969.681	4.570	-0.000
102.	5538.676	2.910	0.000	3148.306	-14.040	0.000	2974.447	5.920	-0.000
103.	5543.253	2.510	0.000	3134.560	-14.110	0.000	2980.432	7.220	-0.000
104.	5547.148	2.100	0.000	3120.808	-14.170	0.000	2987.697	8.460	-0.000
105.	5550.367	1.700	-0.000	3107.068	-14.210	0.000	2995.938	9.660	0.000
106.	5552.918	1.310	0.000	3093.356	-14.230	0.000	3005.366	10.790	0.000
107.	5554.809	0.920	0.000	3079.689	-14.240	0.000	3015.908	11.650	-0.000
108.	5556.051	0.540	0.000	3066.086	-14.230	0.000	3027.459	12.640	-0.000
109.	5556.656	0.170	0.000	3052.553	-14.200	0.000	3039.947	13.770	0.000
110.	5556.648	-0.190	0.000	3039.139	-14.150	-0.000	3053.438	14.610	0.000
111.	5556.016	-0.540	0.000	3025.830	-14.080	-0.000	3067.756	15.360	0.000
112.	5554.804	-0.990	0.000	3012.655	-13.990	-0.000	3082.681	16.000	0.000
113.	5553.022	-1.220	0.000	2999.632	-13.860	-0.000	3098.749	16.690	0.000
114.	5550.692	-1.540	0.000	2986.778	-13.760	-0.000	3115.294	17.230	0.000
115.	5547.837	-1.840	0.000	2974.113	-13.610	0.000	3132.650	17.690	0.000
116.	5544.483	-2.130	0.000	2961.652	-13.440	-0.000	3150.146	18.070	0.000
117.	5540.655	-2.400	-0.000	2949.415	-13.250	0.000	3168.309	18.360	0.000
118.	5536.384	-2.660	0.000	2937.620	-13.040	0.000	3186.665	18.610	0.000
119.	5531.700	-2.890	0.000	2925.603	-12.800	0.000	3205.739	18.760	0.000
120.	5526.637	-3.110	0.000	2914.223	-12.540	-0.000	3224.653	18.840	-0.000
121.	5521.230	-3.310	0.000	2903.056	-12.260	0.000	3244.126	18.850	-0.000
122.	5515.517	-3.460	0.000	2892.201	-11.960	0.000	3263.485	18.760	0.000
123.	5509.537	-3.630	0.000	2881.673	-11.640	-0.000	3282.843	18.640	0.000
124.	5503.330	-3.760	0.000	2871.469	-11.290	-0.000	3302.120	18.430	0.000
125.	5496.942	-3.850	0.000	2861.665	-10.920	0.000	3321.233	18.150	-0.000
126.	5490.417	-3.930	0.000	2852.217	-10.530	0.000	3340.100	17.800	0.000
127.	5483.802	-3.970	0.000	2843.151	-10.120	0.000	3358.536	17.360	-0.000
128.	5477.146	-3.990	0.000	2834.511	-9.680	0.000	3376.759	16.860	0.000
129.	5470.500	-3.970	0.000	2826.282	-9.230	0.000	3394.366	16.320	0.000
130.	5463.913	-3.920	0.000	2818.466	-8.750	0.000	3411.434	15.700	0.000
131.	5457.436	-3.840	0.000	2811.139	-8.260	0.000	3427.621	15.000	0.000
132.	5451.128	-3.730	0.000	2804.251	-7.740	-0.000	3443.468	14.240	0.000
133.	5445.035	-3.590	0.000	2797.634	-7.210	0.000	3458.295	13.410	0.000
134.	5439.211	-3.420	0.000	2791.991	-6.660	0.000	3472.227	12.520	0.000
135.	5433.706	-3.220	0.000	2786.461	-6.090	-0.000	3485.190	11.570	0.000
136.	5428.573	-2.960	0.000	2781.523	-5.510	0.000	3497.115	10.560	0.000
137.	5423.856	-2.720	0.000	2777.097	-4.910	0.000	3507.935	9.500	0.000
138.	5419.600	-2.430	0.000	2773.190	-4.310	0.000	3517.591	8.390	0.000
139.	5415.846	-2.110	0.000	2769.809	-3.660	0.000	3526.026	7.230	0.000
140.	5412.631	-1.760	0.000	2766.961	-3.060	0.000	3533.192	6.030	0.000
141.	5409.967	-1.430	0.000	2764.650	-2.420	0.000	3539.045	4.800	0.000
142.	5407.941	-1.060	0.000	2762.861	-1.760	-0.000	3543.551	3.540	0.000
143.	5406.514	-0.660	0.000	2761.656	-1.130	-0.000	3546.682	2.250	0.000
144.	5405.720	-0.290	0.000	2760.978	-0.460	0.000	3548.419	0.960	0.000
145.	5405.560	0.100	0.000	2760.844	0.170	0.000	3548.751	-0.340	-0.000
146.	5406.060	0.490	0.000	2761.268	0.820	0.000	3547.677	-1.640	-0.000
147.	5407.169	0.880	0.000	2762.234	1.470	0.000	3545.202	-2.930	0.000
148.	5408.945	1.250	0.000	2763.747	2.120	0.000	3541.342	-4.210	-0.000
149.	5411.310	1.610	0.000	2765.803	2.760	0.000	3536.120	-5.450	-0.000

110-PLANE GERMANIUM

BULK

	LMGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
150.	5414.859	1.960	0.000	2768.398	3.390	0.000	3529.569	-6.670	0.000
151.	5417.763	2.260	0.000	2771.526	4.020	0.000	3521.726	-7.650	-0.000
152.	5421.787	2.560	0.000	2775.188	4.630	0.000	3512.641	-8.580	-0.000
153.	5426.292	2.860	0.000	2779.370	5.230	0.000	3502.363	-10.070	-0.000
154.	5431.235	3.110	0.000	2784.067	5.820	0.000	3490.952	-11.100	-0.000
155.	5436.571	3.330	0.000	2789.271	6.390	0.000	3478.470	-12.080	-0.000
156.	5442.250	3.510	0.000	2794.973	6.950	0.000	3464.987	-13.000	-0.000
157.	5448.222	3.670	0.000	2801.163	7.490	-0.000	3450.573	-13.860	0.000
158.	5454.436	3.800	0.000	2807.829	8.020	0.000	3435.304	-14.650	-0.000
159.	5460.940	3.990	0.000	2814.962	8.520	0.000	3419.256	-15.360	-0.000
160.	5467.760	3.950	0.000	2822.547	9.010	0.000	3402.510	-16.040	-0.000
161.	5474.805	3.960	0.000	2830.574	9.470	0.060	3385.146	-16.630	-0.000
162.	5480.663	3.960	0.000	2839.027	9.920	0.000	3367.247	-17.130	0.000
163.	5487.303	3.950	0.000	2847.893	10.340	0.000	3348.895	-17.610	0.000
164.	5493.877	3.990	0.000	2857.158	10.740	0.000	3330.174	-17.990	0.000
165.	5500.335	3.610	0.000	2866.806	11.120	0.000	3311.167	-18.310	0.000
166.	5506.633	3.690	0.000	2876.822	11.480	0.000	3291.957	-18.570	0.000
167.	5512.725	3.550	0.000	2887.190	11.810	0.000	3272.627	-18.730	0.000
168.	5518.570	3.390	0.000	2897.893	12.120	0.000	3253.260	-18.830	0.000
169.	5524.126	3.210	0.000	2908.915	12.410	0.000	3233.935	-18.860	0.000
170.	5529.356	3.000	0.000	2920.236	12.660	0.000	3214.735	-18.810	0.000
171.	5534.223	2.770	0.000	2931.847	12.930	0.000	3195.738	-18.670	0.000
172.	5538.693	2.520	-0.000	2943.722	13.150	-0.000	3177.023	-18.500	0.000
173.	5542.733	2.260	-0.000	2955.848	13.350	0.000	3158.665	-18.230	0.000
174.	5546.315	1.960	-0.000	2968.205	13.530	0.000	3140.740	-17.860	-0.000
175.	5549.409	1.680	0.000	2980.776	13.690	-0.000	3123.320	-17.460	0.000
176.	5551.969	1.370	0.000	2993.543	13.830	0.000	3106.478	-16.960	-0.000
177.	5554.033	1.040	0.000	3006.466	13.940	0.000	3090.282	-16.380	0.000
178.	5555.516	.710	-0.000	3019.594	14.040	-0.000	3074.798	-15.720	-0.000
179.	5556.420	.360	0.000	3032.841	14.120	-0.000	3060.092	-14.940	-0.000
180.	5556.725	0.000	-0.000	3046.214	14.170	-0.000	3046.224	-14.160	-0.000

7-PLANE (XY-PLANE) INDIUM ANTIMONIDE

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSKVEL	SSPH12	SSPH13
0.	3412.645	0.300	0.000	2287.781	0.000	0.000	2287.787	0.000	0.000
1.	3413.338	1.250	0.000	2287.789	0.000	0.000	2286.814	-2.770	0.000
2.	3415.275	2.470	0.000	2287.793	0.000	0.000	2283.925	-5.150	0.000
3.	3416.472	3.660	0.000	2287.802	0.000	0.000	2279.137	-6.150	0.000
4.	3422.867	4.750	0.000	2287.813	0.000	0.000	2272.502	-10.760	0.000
5.	3428.459	5.850	0.000	2287.828	0.000	0.000	2264.087	-13.210	0.000
6.	3435.118	6.920	0.000	2287.845	0.000	0.000	2253.372	-15.530	0.000
7.	3442.772	7.710	0.000	2287.866	0.000	0.000	2242.252	-17.100	0.000
8.	3451.355	8.500	0.000	2287.885	0.000	0.000	2229.027	-19.110	0.000
9.	3460.753	9.150	0.000	2287.916	0.000	0.000	2214.808	-21.570	0.000
10.	3470.876	9.750	0.000	2287.945	0.000	0.000	2199.507	-23.270	0.000
11.	3481.627	10.250	0.000	2287.976	0.000	0.000	2183.142	-24.220	0.000
12.	3492.913	10.700	0.000	2288.010	0.000	0.000	2165.725	-26.220	0.000
13.	3504.837	11.020	0.000	2288.046	0.000	0.000	2147.295	-27.490	0.000
14.	3516.708	11.250	0.000	2288.084	0.000	0.000	2127.826	-28.620	0.000
15.	3528.047	11.420	0.000	2288.124	0.000	0.000	2107.363	-29.620	0.000
16.	3541.573	11.520	0.000	2288.166	0.000	0.000	2085.910	-30.550	0.000
17.	3554.210	11.540	0.000	2288.205	0.000	0.000	2063.470	-31.270	0.000
18.	3566.886	11.510	0.000	2288.253	0.000	0.000	2039.053	-31.820	0.000
19.	3579.531	11.420	0.000	2288.294	0.000	0.000	2016.760	-32.140	0.000
20.	3592.105	11.280	0.000	2288.344	0.000	0.000	1994.521	-32.510	0.000
21.	3604.531	11.100	0.000	2288.391	0.000	0.000	1971.443	-33.240	0.000
22.	3616.745	10.870	0.000	2288.438	0.000	0.000	1949.212	-33.470	0.000
23.	3628.759	10.610	0.000	2288.485	0.000	0.000	1926.752	-33.550	0.000
24.	3640.469	10.310	0.000	2288.532	0.000	0.000	1904.173	-33.600	0.000
25.	3651.856	9.950	0.000	2288.575	0.000	0.000	1882.047	-33.500	0.000
26.	3662.854	9.520	0.000	2288.625	0.000	0.000	1861.101	-33.290	0.000
27.	3673.518	9.240	0.000	2288.670	0.000	0.000	1840.322	-32.950	0.000
28.	3683.729	8.850	0.000	2288.714	0.000	0.000	1819.734	-32.450	0.000
29.	3693.467	8.400	0.000	2288.757	0.000	0.000	1799.303	-31.850	0.000
30.	3702.766	7.950	0.000	2288.795	0.000	0.000	1779.029	-31.160	0.000
31.	3711.540	7.500	0.000	2288.839	0.000	0.000	1758.913	-30.270	0.000
32.	3719.807	7.020	0.000	2288.877	0.000	0.000	1738.950	-29.220	0.000
33.	3727.524	6.530	0.000	2288.913	0.000	0.000	1719.144	-28.020	0.000
34.	3734.637	6.020	0.000	2288.947	0.000	0.000	1700.461	-26.640	0.000
35.	3741.209	5.510	0.000	2288.976	0.000	0.000	1682.834	-25.080	0.000
36.	3747.288	4.980	0.000	2289.007	0.000	0.000	1666.256	-23.320	0.000
37.	3752.866	4.450	0.000	2289.033	0.000	0.000	1650.697	-21.360	0.000
38.	3757.944	3.910	0.000	2289.057	0.000	0.000	1636.131	-19.250	0.000
39.	3761.622	3.340	0.000	2289.078	0.000	0.000	1622.550	-16.920	0.000
40.	3765.162	2.810	0.000	2289.095	0.000	0.000	1609.975	-14.420	0.000
41.	3768.066	2.250	0.000	2289.110	0.000	0.000	1598.407	-11.760	0.000
42.	3770.333	1.650	0.000	2289.121	0.000	0.000	1587.845	-8.950	0.000
43.	3771.954	1.130	0.000	2289.129	0.000	0.000	1578.286	-6.040	0.000
44.	3772.926	.570	0.000	2289.134	0.000	0.000	1569.728	-3.040	0.000
45.	3773.253	0.000	0.000	2289.136	0.000	0.000	1562.170	0.000	0.000
46.	3772.926	-.510	0.000	2289.134	0.000	0.000	1555.612	3.040	0.000
47.	3771.954	-1.130	0.000	2289.129	0.000	0.000	1550.054	6.040	0.000
48.	3770.333	-1.650	0.000	2289.121	0.000	0.000	1545.496	8.950	0.000
49.	3768.066	-2.250	0.000	2289.110	0.000	0.000	1541.938	11.760	0.000

Z-PLANE (XY-PLANE) INDIUM ANTIMONIDE

	LNGVEL	LPMI12	LPMI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
50.	3765.462	-2.810	0.000	2289.095	-0.020	0.000	1644.375	14.420	0.000
51.	3761.622	-3.360	0.000	2289.076	-0.030	0.000	1652.458	16.520	0.000
52.	3757.454	-3.910	0.000	2289.057	-0.030	0.000	1661.913	19.250	0.000
53.	3752.666	-4.450	0.000	2289.033	-0.040	0.000	1672.697	21.360	0.000
54.	3747.264	-4.960	0.000	2289.007	-0.040	0.000	1684.756	23.320	0.000
55.	3741.269	-5.510	0.000	2288.976	-0.040	0.000	1698.034	25.000	0.000
56.	3734.683	-6.020	0.000	2288.947	-0.050	0.000	1712.471	26.640	0.000
57.	3727.524	-6.530	0.000	2288.913	-0.050	0.000	1727.999	28.020	0.000
58.	3719.807	-7.020	0.000	2288.877	-0.050	0.000	1744.550	29.230	0.000
59.	3711.540	-7.500	0.000	2288.839	-0.060	0.000	1762.052	30.270	0.000
60.	3702.766	-7.960	0.000	2288.799	-0.060	0.000	1780.429	31.160	0.000
61.	3693.487	-8.400	0.000	2288.757	-0.060	0.000	1799.603	31.890	0.000
62.	3683.729	-8.830	0.000	2288.714	-0.060	0.000	1819.494	32.490	0.000
63.	3673.516	-9.240	0.000	2288.670	-0.060	0.000	1840.022	32.950	0.000
64.	3662.884	-9.620	0.000	2288.625	-0.070	0.000	1861.101	33.290	0.000
65.	3651.856	-9.960	0.000	2288.579	-0.070	0.000	1882.647	33.500	0.000
66.	3640.469	-10.310	0.000	2288.532	-0.070	0.000	1904.773	33.600	0.000
67.	3628.759	-10.610	0.000	2288.485	-0.070	0.000	1928.792	33.590	0.000
68.	3616.765	-10.870	0.000	2288.438	-0.070	0.000	1949.212	33.470	0.000
69.	3604.531	-11.100	0.000	2288.391	-0.070	0.000	1971.743	33.240	0.000
70.	3592.105	-11.260	0.000	2288.344	-0.070	0.000	1994.291	32.910	0.000
71.	3579.538	-11.420	0.000	2288.296	-0.070	0.000	2016.760	32.470	0.000
72.	3566.886	-11.510	0.000	2288.253	-0.060	0.000	2039.053	31.920	0.000
73.	3554.210	-11.540	0.000	2288.209	-0.060	0.000	2061.070	31.270	0.000
74.	3541.573	-11.520	0.000	2288.166	-0.060	0.000	2082.709	30.500	0.000
75.	3529.047	-11.420	0.000	2288.124	-0.060	0.000	2103.663	29.620	0.000
76.	3516.706	-11.260	0.000	2288.064	-0.060	0.000	2124.426	20.620	0.000
77.	3504.633	-11.020	0.000	2288.046	-0.050	0.000	2144.285	27.490	0.000
78.	3492.910	-10.760	0.000	2288.010	-0.050	0.000	2163.329	26.220	0.000
79.	3481.627	-10.590	0.000	2287.976	-0.050	0.000	2181.442	24.620	0.000
80.	3470.876	-9.750	0.000	2287.945	-0.040	0.000	2196.507	23.270	0.000
81.	3460.753	-9.150	0.000	2287.916	-0.040	0.000	2214.406	21.570	0.000
82.	3451.355	-8.500	0.000	2287.889	-0.040	0.000	2229.027	19.710	0.000
83.	3442.776	-7.710	0.000	2287.866	-0.030	0.000	2242.252	17.700	0.000
84.	3435.116	-6.820	0.000	2287.845	-0.030	0.000	2253.972	15.530	0.000
85.	3428.459	-5.850	0.000	2287.826	-0.020	0.000	2264.067	13.210	0.000
86.	3422.687	-4.750	0.000	2287.813	-0.020	0.000	2272.502	10.760	0.000
87.	3418.472	-3.660	0.000	2287.802	-0.010	0.000	2279.137	8.190	0.000
88.	3415.275	-2.460	0.000	2287.793	-0.010	0.000	2283.925	5.510	0.000
89.	3413.338	-1.250	0.000	2287.789	-0.000	0.000	2286.814	2.770	0.000
90.	3412.689	0.000	0.000	2287.787	-0.000	0.000	2287.787	0.000	0.000
91.	3413.358	1.250	0.000	2287.789	0.000	0.000	2286.819	-2.770	0.000
92.	3415.275	2.470	0.000	2287.793	0.000	0.000	2283.925	-5.510	0.000
93.	3418.472	3.660	0.000	2287.802	0.010	0.000	2279.137	-8.190	0.000
94.	3422.687	4.750	0.000	2287.813	0.020	0.000	2272.502	-10.760	0.000
95.	3428.459	5.850	0.000	2287.826	0.020	0.000	2264.067	-13.210	0.000
96.	3435.116	6.820	0.000	2287.845	0.030	0.000	2253.972	-15.530	0.000
97.	3442.776	7.710	0.000	2287.866	0.030	0.000	2242.252	-17.700	0.000
98.	3451.355	8.500	0.000	2287.889	0.030	0.000	2229.027	-19.710	0.000
99.	3460.753	9.150	0.000	2287.916	0.040	0.000	2214.406	-21.570	0.000

Z-PLANE (XY-PLANE) INDIUM ANTIMONIDE									
	LNGVEL	LPHI12	LPHI13	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13	BULK
100.	3470.876	9.750	0.000	2247.945	0.046	2190.507	0.000	0.000	0.000
101.	3481.827	10.290	0.000	2287.976	.050	2181.442	0.000	0.000	0.000
102.	3492.910	10.700	0.000	2288.010	.050	2163.325	0.000	0.000	0.000
103.	3504.633	11.020	0.000	2288.046	.050	2144.285	0.000	0.000	0.000
104.	3516.706	11.260	0.000	2288.084	.060	2124.426	0.000	0.000	0.000
105.	3529.947	11.520	0.000	2288.124	.060	2103.863	0.000	0.000	0.000
106.	3541.573	11.520	0.000	2288.166	.060	2082.709	0.000	0.000	0.000
107.	3554.210	11.540	0.000	2288.209	.060	2061.070	0.000	0.000	0.000
108.	3568.886	11.510	0.000	2288.253	.066	2039.053	0.000	0.000	0.000
109.	3579.536	11.420	0.000	2288.296	.070	2016.760	0.000	0.000	0.000
110.	3592.105	11.280	0.000	2288.344	.070	1994.291	0.000	0.000	0.000
111.	3604.531	11.100	0.000	2288.391	.070	1971.743	0.000	0.000	0.000
112.	3616.765	10.870	0.000	2288.438	.070	1949.212	0.000	0.000	0.000
113.	3628.769	10.610	0.000	2288.485	.070	1926.742	0.000	0.000	0.000
114.	3640.469	10.310	0.000	2288.532	.070	1904.573	0.000	0.000	0.000
115.	3651.856	9.980	0.000	2288.579	.070	1882.647	0.000	0.000	0.000
116.	3662.884	9.620	0.000	2288.625	.070	1861.101	0.000	0.000	0.000
117.	3673.516	9.240	0.000	2288.670	.066	1840.022	0.000	0.000	0.000
118.	3683.725	8.830	0.000	2288.714	.060	1819.494	0.000	0.000	0.000
119.	3693.487	8.400	0.000	2288.757	.060	1799.603	0.000	0.000	0.000
120.	3702.766	7.960	0.000	2288.799	.060	1780.425	0.000	0.000	0.000
121.	3711.546	7.500	0.000	2288.839	.060	1762.052	0.000	0.000	0.000
122.	3719.807	7.020	0.000	2288.877	.056	1744.550	0.000	0.000	0.000
123.	3727.524	6.530	0.000	2288.913	.050	1727.999	0.000	0.000	0.000
124.	3734.683	6.020	0.000	2288.947	.050	1712.471	0.000	0.000	0.000
125.	3741.285	5.510	0.000	2288.976	.040	1696.934	0.000	0.000	0.000
126.	3747.268	4.960	0.000	2289.007	.040	1684.756	0.000	0.000	0.000
127.	3752.666	4.450	0.000	2289.033	.040	1672.697	0.000	0.000	0.000
128.	3757.454	3.910	0.000	2289.057	.030	1661.913	0.000	0.000	0.000
129.	3761.622	3.360	0.000	2289.078	.030	1652.456	0.000	0.000	0.000
130.	3765.162	2.810	0.000	2289.095	.020	1644.375	0.000	0.000	0.000
131.	3768.066	2.250	0.000	2289.110	.020	1637.707	0.000	0.000	0.000
132.	3770.333	1.690	0.000	2289.121	.010	1632.485	0.000	0.000	0.000
133.	3771.954	1.130	0.000	2289.129	.010	1626.736	0.000	0.000	0.000
134.	3772.926	.570	0.000	2289.134	0.000	1626.478	0.000	0.000	0.000
135.	3773.253	0.000	0.000	2289.136	-0.000	1625.725	0.000	0.000	0.000
136.	3772.928	-0.570	0.000	2289.134	-0.000	1626.478	0.000	0.000	0.000
137.	3771.954	-1.130	0.000	2289.129	-0.010	1632.485	0.000	0.000	0.000
138.	3770.333	-1.690	0.000	2289.121	-0.010	1637.707	0.000	0.000	0.000
139.	3768.066	-2.250	0.000	2289.110	-0.020	1644.375	0.000	0.000	0.000
140.	3765.162	-2.810	0.000	2289.095	-0.026	1652.456	0.000	0.000	0.000
141.	3761.622	-3.360	0.000	2289.078	-0.030	1661.913	0.000	0.000	0.000
142.	3757.454	-3.910	0.000	2289.057	-0.030	1672.697	0.000	0.000	0.000
143.	3752.666	-4.450	0.000	2289.033	-0.040	1684.756	0.000	0.000	0.000
144.	3747.268	-4.960	0.000	2289.007	-0.040	1696.934	0.000	0.000	0.000
145.	3741.285	-5.510	0.000	2288.976	-0.040	1709.034	0.000	0.000	0.000
146.	3734.683	-6.020	0.000	2288.947	-0.050	1722.471	0.000	0.000	0.000
147.	3727.524	-6.530	0.000	2288.913	-0.050	1737.999	0.000	0.000	0.000
148.	3719.807	-7.020	0.000	2288.877	-0.056	1754.550	0.000	0.000	0.000
149.	3711.546	-7.500	0.000	2288.839	-0.060	1762.052	0.000	0.000	0.000

Z-PLANE (XY-PLANE) IODIUM ANTIMONIDE

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
150.	3702.766	-7.960	0.000	2286.795	-.060	0.000	1780.429	31.160	0.000
151.	3693.487	-6.400	0.000	2288.757	-.060	0.000	1799.603	31.690	0.000
152.	3663.729	-8.830	0.000	2288.714	-.060	0.000	1813.494	32.490	0.000
153.	3673.516	-9.240	0.000	2288.670	-.060	0.000	1840.022	32.950	0.000
154.	3662.884	-9.620	0.000	2288.625	-.070	0.000	1861.101	33.250	0.000
155.	3651.856	-9.960	0.000	2288.579	-.070	0.000	1882.647	33.500	0.000
156.	3640.469	-10.310	0.000	2288.532	-.070	0.000	1904.573	33.600	0.000
157.	3628.759	-10.610	0.000	2288.485	-.070	0.000	1926.792	33.590	0.000
158.	3616.765	-10.870	0.000	2288.438	-.070	0.000	1949.212	33.470	0.000
159.	3604.531	-11.100	0.000	2288.391	-.070	0.000	1971.743	33.240	0.000
160.	3592.105	-11.260	0.000	2288.344	-.070	0.000	1994.291	32.510	0.000
161.	3579.536	-11.420	0.000	2288.298	-.070	0.000	2016.760	32.470	0.000
162.	3566.866	-11.510	0.000	2288.253	-.060	0.000	2039.053	31.520	0.000
163.	3554.210	-11.540	0.000	2288.209	-.060	0.000	2061.070	31.270	0.000
164.	3541.573	-11.520	0.000	2288.166	-.060	0.000	2082.709	30.500	0.000
165.	3529.047	-11.420	0.000	2288.124	-.060	0.000	2103.663	29.620	0.000
166.	3516.708	-11.260	0.000	2288.084	-.050	0.000	2124.426	28.620	0.000
167.	3504.653	-11.020	0.000	2288.046	-.050	0.000	2144.285	27.490	0.000
168.	3492.910	-10.700	0.000	2288.010	-.050	0.000	2163.329	26.220	0.000
169.	3481.627	-10.290	0.000	2287.976	-.050	0.000	2181.442	24.620	0.000
170.	3470.876	-9.790	0.000	2287.945	-.040	0.000	2198.507	23.270	0.000
171.	3460.753	-9.190	0.000	2287.916	-.040	0.000	2214.408	21.570	0.000
172.	3451.355	-8.500	0.000	2287.889	-.040	0.000	2229.027	19.710	0.000
173.	3442.778	-7.710	0.000	2287.866	-.030	0.000	2242.252	17.700	0.000
174.	3435.116	-6.820	0.000	2287.845	-.030	0.000	2253.972	15.530	0.000
175.	3428.459	-5.850	0.000	2287.828	-.020	0.000	2264.487	13.210	0.000
176.	3422.867	-4.790	0.000	2287.813	-.020	0.000	2272.502	10.760	0.000
177.	3418.472	-3.660	0.000	2287.802	-.010	0.000	2279.137	8.190	0.000
178.	3415.275	-2.470	0.000	2287.793	0.000	0.000	2283.925	5.510	0.000
179.	3413.336	-1.250	0.000	2287.789	-0.000	0.000	2286.819	2.770	0.000
180.	3412.609	0.000	0.000	2287.787	-0.000	0.000	2287.787	0.000	0.000

111-PLANE INDIUM ANTIMONIDE

BULK

	LPM12	LPM13	F SRVEL	FSPM12	FSPM13	SSRVEL	SSPM12	SSPM13
0.	3773.293	0.000	2209.136	0.000	0.000	1625.725	0.000	0.000
1.	3773.306	.460	2208.755	-1.090	-7.770	1620.136	0.600	-0.600
2.	3773.464	.180	2287.615	-2.180	-1.540	1627.375	3.320	-1.540
3.	3773.726	.270	2285.720	-3.260	-2.560	1629.830	6.550	-2.560
4.	3774.066	.360	2283.076	-4.320	-3.050	1632.293	9.540	-3.050
5.	3774.545	.440	2279.701	-5.370	-3.600	1635.949	12.270	-3.600
6.	3775.094	.510	2275.603	-6.400	-4.540	1640.382	15.460	-4.540
7.	3775.727	.580	2270.804	-7.390	-5.270	1645.564	18.730	-5.270
8.	3776.436	.650	2265.323	-8.360	-5.560	1651.464	22.270	-5.560
9.	3777.214	.700	2259.187	-9.300	-6.670	1658.098	26.130	-6.670
10.	3778.051	.750	2252.424	-10.190	-7.350	1665.376	30.270	-7.350
11.	3778.938	.790	2245.067	-11.040	-8.020	1673.279	34.640	-8.020
12.	3779.864	.820	2237.151	-11.830	-8.660	1681.766	39.190	-8.660
13.	3780.820	.840	2228.715	-12.570	-9.260	1690.789	43.960	-9.260
14.	3781.795	.850	2219.816	-13.260	-9.660	1700.295	48.890	-9.660
15.	3782.777	.850	2210.493	-13.890	-10.460	1710.227	53.990	-10.460
16.	3783.756	.850	2200.810	-14.370	-11.020	1720.519	59.270	-11.020
17.	3784.722	.830	2190.831	-14.600	-11.520	1731.099	64.730	-11.520
18.	3785.663	.800	2180.631	-15.126	-12.460	1741.885	70.360	-12.460
19.	3786.570	.770	2170.297	-15.310	-12.550	1752.785	76.150	-12.550
20.	3787.434	.730	2159.928	-15.360	-13.000	1763.894	82.090	-13.000
21.	3788.244	.680	2149.639	-15.220	-13.430	1774.991	88.190	-13.430
22.	3789.093	.620	2139.567	-14.871	-13.630	1785.933	94.540	-13.630
23.	3789.874	.560	2129.805	-14.200	-14.210	1795.157	101.140	-14.210
24.	3790.278	.490	2120.732	-13.360	-14.540	1804.675	108.000	-14.540
25.	3790.600	.410	2112.366	-12.100	-14.650	1813.300	115.130	-14.650
26.	3791.234	.340	2105.812	-10.430	-15.110	1820.997	122.540	-15.110
27.	3791.577	.260	2098.926	-8.350	-15.320	1827.804	130.230	-15.320
28.	3791.824	.170	2094.342	-5.850	-15.480	1832.037	138.190	-15.480
29.	3791.973	.090	2091.695	-3.020	-15.610	1835.976	146.420	-15.610
30.	3792.023	.000	2090.526	0.000	-15.610	1839.474	154.910	-15.610
31.	3791.973	-.090	2091.695	3.020	-15.560	1842.474	163.640	-15.560
32.	3791.824	-.170	2094.342	5.850	-15.460	1844.974	172.710	-15.460
33.	3791.577	-.260	2098.926	8.350	-15.320	1846.974	182.110	-15.320
34.	3791.234	-.340	2105.812	10.430	-15.110	1848.474	191.830	-15.110
35.	3790.800	-.410	2112.366	12.100	-14.850	1849.474	201.960	-14.850
36.	3790.278	-.490	2120.732	13.360	-14.540	1849.974	212.490	-14.540
37.	3789.674	-.560	2129.805	14.200	-14.210	1849.974	223.410	-14.210
38.	3788.993	-.620	2139.567	14.670	-13.630	1849.474	234.710	-13.630
39.	3788.244	-.680	2149.639	15.220	-13.430	1848.474	246.380	-13.430
40.	3787.434	-.730	2159.928	15.310	-13.000	1846.974	258.410	-13.000
41.	3786.570	-.770	2170.297	15.360	-12.550	1845.564	270.790	-12.550
42.	3785.663	-.800	2180.631	15.126	-12.060	1844.382	283.510	-12.060
43.	3784.722	-.820	2190.831	14.600	-11.550	1843.300	296.560	-11.550
44.	3783.756	-.830	2200.810	14.370	-11.020	1842.300	309.930	-11.020
45.	3782.777	-.840	2210.493	13.890	-10.460	1841.300	323.610	-10.460
46.	3781.795	-.840	2219.816	13.260	-9.880	1840.295	337.610	-9.880
47.	3780.820	-.840	2228.715	12.570	-9.260	1839.279	351.930	-9.260
48.	3779.864	-.820	2237.151	11.830	-8.660	1838.227	366.560	-8.660
49.	3778.938	-.790	2245.067	11.040	-8.020	1837.136	381.490	-8.020

111-PLANE INDIUM ANTIMONIDE

	LNGVEL	LPMI12	LPMI13	FSPVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
50.	3778.051	-75.0	4.370	2252.424	10.190	-7.350	1662.376	-14.640	-8.890
51.	3777.214	-70.0	3.960	2259.187	9.300	-6.670	1658.094	-13.500	-8.130
52.	3776.436	-65.0	3.560	2265.323	8.360	-5.960	1651.405	-12.270	-7.340
53.	3775.727	-60.0	3.160	2270.804	7.390	-5.270	1645.565	-10.950	-6.510
54.	3775.094	-55.0	2.730	2275.603	6.400	-4.540	1640.382	-9.540	-5.650
55.	3774.545	-50.0	2.290	2279.701	5.370	-3.800	1635.349	-8.070	-4.750
56.	3774.087	-45.0	1.840	2283.076	4.320	-3.050	1632.293	-6.530	-3.800
57.	3773.726	-40.0	1.390	2285.720	3.260	-2.300	1629.430	-4.950	-2.900
58.	3773.464	-35.0	0.930	2287.615	2.160	-1.540	1627.375	-3.320	-1.940
59.	3773.306	-30.0	0.460	2288.755	1.090	-0.770	1626.138	-1.670	-0.900
60.	3773.253	0.000	0.000	2289.136	0.000	0.000	1625.725	-0.000	-0.000
61.	3773.306	0.050	-0.460	2288.755	-1.050	0.770	1626.136	1.670	0.900
62.	3773.464	0.160	-0.930	2287.615	-2.160	1.540	1627.375	3.320	1.940
63.	3773.726	0.270	-1.390	2285.720	-3.260	2.300	1629.430	4.950	2.900
64.	3774.087	0.360	-1.840	2283.076	-4.320	3.050	1632.293	6.530	3.800
65.	3774.546	0.440	-2.290	2279.701	-5.370	3.600	1635.349	8.070	4.750
66.	3775.094	0.510	-2.730	2275.603	-6.400	4.250	1640.382	9.540	5.650
67.	3775.727	0.580	-3.160	2270.804	-7.390	4.860	1645.565	10.950	6.510
68.	3776.436	0.650	-3.560	2265.323	-8.360	5.490	1651.405	12.270	7.340
69.	3777.214	0.700	-3.960	2259.187	-9.300	6.070	1658.094	13.500	8.130
70.	3778.051	0.750	-4.370	2252.424	-10.190	6.600	1665.376	14.640	8.890
71.	3778.936	0.790	-4.750	2245.067	-11.040	7.120	1673.274	15.640	9.600
72.	3779.864	0.820	-5.110	2237.151	-11.830	7.620	1681.766	16.620	10.260
73.	3780.820	0.840	-5.460	2228.715	-12.570	8.090	1690.769	17.450	10.890
74.	3781.755	0.850	-5.780	2219.816	-13.250	8.540	1700.295	18.150	11.490
75.	3782.777	0.850	-6.090	2210.493	-13.850	8.970	1710.227	18.730	12.060
76.	3783.756	0.850	-6.390	2200.810	-14.370	9.380	1720.519	19.190	12.600
77.	3784.722	0.850	-6.680	2190.831	-14.800	9.760	1731.054	19.560	13.110
78.	3785.663	0.850	-6.910	2180.631	-15.120	10.120	1741.685	19.860	13.600
79.	3786.570	0.850	-7.140	2170.297	-15.310	10.460	1752.705	19.650	13.600
80.	3787.434	0.850	-7.360	2159.926	-15.350	10.780	1763.694	19.460	13.300
81.	3788.244	0.850	-7.550	2149.639	-15.220	11.080	1774.490	19.150	12.800
82.	3788.994	0.850	-7.720	2139.567	-14.970	11.360	1785.033	18.740	12.200
83.	3789.674	0.850	-7.880	2129.695	-14.620	11.620	1795.157	18.240	11.500
84.	3790.276	0.850	-8.030	2120.031	-14.160	11.860	1804.675	17.660	10.700
85.	3790.800	0.850	-8.120	2112.366	-13.560	12.080	1813.366	16.930	9.800
86.	3791.234	0.850	-8.210	2105.011	-12.830	12.280	1820.997	16.070	8.800
87.	3791.577	0.850	-8.290	2098.920	-12.000	12.450	1828.304	15.100	7.700
88.	3791.824	0.850	-8.340	2094.342	-11.080	12.600	1834.975	14.050	6.500
89.	3791.973	0.850	-8.370	2091.695	-10.080	12.730	1841.504	12.840	5.200
90.	3792.023	0.850	-8.380	2090.528	9.000	12.840	1847.575	11.500	3.800
91.	3791.973	-0.050	-8.370	2091.495	0.000	12.930	1852.837	10.000	2.300
92.	3791.824	-0.170	-8.340	2094.342	5.050	13.000	1857.304	8.400	0.700
93.	3791.577	-0.260	-8.290	2098.920	6.350	13.050	1861.000	6.600	-0.900
94.	3791.234	-0.340	-8.210	2105.011	10.430	13.100	1863.975	4.600	-2.400
95.	3790.800	-0.410	-8.120	2112.366	12.400	13.130	1866.150	2.400	-3.900
96.	3790.276	-0.450	-8.010	2120.731	13.360	13.140	1867.575	0.000	-5.400
97.	3789.674	-0.560	-7.880	2129.669	14.260	13.130	1868.157	-2.400	-6.900
98.	3788.994	-0.620	-7.720	2139.567	14.970	13.080	1867.900	-4.800	-8.400
99.	3788.244	-0.680	-7.550	2149.639	15.520	13.000	1866.800	-7.200	-9.900

111-PLANE INDIUM ANTIMONIDE

BULK

	LMGVL	LPM12	LPM13	FSRVEL	FSPM12	FSPM13	SSRVEL	SSPM12	SSPM13
100.	3787.434	-0.730	-7.360	2159.924	15.350	13.000	1763.694	-14.460	13.900
101.	3786.570	-0.770	-7.140	2170.297	15.310	12.550	1752.785	-14.650	13.610
102.	3785.663	-0.600	-6.910	2180.631	15.120	12.660	1741.085	-13.600	13.260
103.	3784.722	-0.830	-6.680	2190.831	14.800	11.550	1731.999	-14.500	12.960
104.	3783.756	-0.650	-6.390	2200.810	14.370	11.020	1720.519	-14.190	12.470
105.	3782.777	-0.650	-6.090	2210.493	13.850	10.460	1710.227	-16.730	11.990
106.	3781.795	-0.850	-5.760	2219.816	13.250	9.660	1700.295	-16.190	11.460
107.	3780.820	-0.840	-5.460	2228.719	12.570	9.280	1690.789	-17.450	10.890
108.	3779.864	-0.820	-5.110	2237.151	11.830	8.660	1681.766	-16.620	10.260
109.	3778.936	-0.790	-4.750	2245.067	11.040	8.020	1673.279	-15.690	9.600
110.	3778.051	-0.750	-4.370	2252.424	10.190	7.350	1665.376	-14.640	8.930
111.	3777.214	-0.760	-3.960	2259.187	9.300	6.670	1656.090	-13.500	8.130
112.	3776.436	-0.650	-3.580	2265.323	8.360	5.960	1651.484	-12.270	7.340
113.	3775.727	-0.560	-3.160	2270.804	7.390	5.270	1645.569	-10.950	6.510
114.	3775.054	-0.510	-2.730	2275.603	6.400	4.540	1640.382	-9.540	5.650
115.	3774.546	-0.440	-2.290	2279.701	5.370	3.820	1635.945	-8.070	4.770
116.	3774.086	-0.360	-1.840	2283.078	4.320	3.050	1626.136	-6.530	3.840
117.	3773.726	-0.270	-1.390	2285.720	3.260	2.300	1622.293	-4.950	2.900
118.	3773.464	-0.180	-0.930	2287.615	2.160	1.540	1627.375	-3.320	1.940
119.	3773.306	-0.090	-0.460	2288.755	1.090	0.770	1626.136	-1.670	0.970
120.	3773.253	-0.000	0.000	2289.136	0.000	0.000	1625.725	0.000	-0.000
121.	3773.306	0.090	0.660	2288.755	-1.090	-0.770	1626.136	1.670	-0.970
122.	3773.464	0.180	1.230	2287.615	-2.160	-1.540	1627.375	3.320	-1.940
123.	3773.726	0.270	1.780	2285.720	-3.260	-2.300	1622.293	4.950	-2.900
124.	3774.086	0.360	2.330	2283.078	-4.320	-3.050	1622.293	6.530	-3.840
125.	3774.546	0.440	2.890	2279.701	-5.370	-3.800	1635.945	8.070	-4.750
126.	3775.054	0.510	3.460	2275.603	-6.400	-4.540	1640.382	9.540	-5.650
127.	3775.727	0.560	4.030	2270.804	-7.390	-5.270	1645.569	10.950	-6.510
128.	3776.436	0.650	4.600	2265.323	-8.360	-6.000	1651.485	12.270	-7.340
129.	3777.214	0.700	5.170	2259.187	-9.300	-6.670	1656.090	13.500	-8.130
130.	3778.051	0.750	5.740	2252.424	-10.190	-7.350	1665.376	14.640	-8.930
131.	3778.936	0.750	6.310	2245.067	-11.040	-8.020	1673.279	15.690	-9.600
132.	3779.864	0.820	6.880	2237.151	-11.830	-8.660	1681.766	16.620	-10.270
133.	3780.820	0.840	7.450	2228.719	-12.570	-9.280	1690.789	17.450	-10.890
134.	3781.795	0.850	8.020	2220.715	-13.250	-9.860	1700.295	18.150	-11.460
135.	3782.777	0.810	8.590	2212.894	-13.850	-10.460	1710.227	18.730	-11.990
136.	3783.756	0.650	8.160	2205.010	-14.370	-11.020	1720.519	19.190	-12.470
137.	3784.722	0.600	7.730	2197.831	-14.800	-11.550	1731.999	19.500	-12.960
138.	3785.663	0.600	7.300	2190.810	-15.120	-12.060	1741.085	19.660	-13.260
139.	3786.570	0.770	6.870	2183.797	-15.310	-12.550	1752.785	19.650	-13.610
140.	3787.434	0.730	6.440	2176.816	-15.350	-13.000	1763.694	19.460	-13.900
141.	3788.244	0.660	6.010	2169.839	-15.220	-13.430	1774.991	19.050	-14.140
142.	3788.993	0.620	5.580	2162.867	-14.870	-13.830	1785.033	18.400	-14.340
143.	3789.674	0.560	5.150	2155.869	-14.260	-14.210	1795.157	17.460	-14.500
144.	3790.278	0.490	4.720	2148.832	-13.560	-14.540	1804.675	16.190	-14.610
145.	3790.800	0.410	4.290	2141.766	-12.810	-14.850	1813.366	14.530	-14.700
146.	3791.234	0.340	3.860	2134.681	-12.040	-15.110	1821.997	12.440	-14.770
147.	3791.577	0.260	3.430	2127.586	-11.260	-15.320	1827.304	9.690	-14.790
148.	3791.824	0.170	3.000	2094.342	-10.430	-15.450	1832.037	6.900	-14.790
149.	3791.973	0.090	2.570	2091.495	-9.600	-15.500	1834.174	3.950	-14.600

111-PLANE INDIUM ANTIMONIDE

BULK

	LNGLVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
150.	3792.023	0.000	8.380	2090.526	-0.066	-15.610	1035.976	-0.000	-14.600
151.	3791.973	-0.050	8.370	2091.495	3.020	-15.560	1834.979	-3.550	-14.600
152.	3791.824	-1.170	8.340	2094.342	5.650	-15.460	1632.037	-6.900	-14.750
153.	3791.577	-2.260	8.290	2098.920	8.350	-15.320	1027.304	-9.650	-14.700
154.	3791.234	-3.540	8.210	2105.012	10.430	-15.110	1020.997	-12.440	-14.700
155.	3790.800	-4.910	8.120	2112.366	12.100	-14.850	1013.366	-14.530	-14.700
156.	3790.278	-6.490	8.010	2120.732	13.360	-14.540	1004.617	-16.190	-14.500
157.	3789.674	-8.260	7.880	2129.065	14.260	-14.210	1795.157	-17.460	-14.500
158.	3788.993	-10.200	7.720	2139.567	14.670	-13.830	1765.033	-18.400	-14.300
159.	3788.244	-12.300	7.550	2149.639	15.220	-13.430	1774.491	-19.050	-14.100
160.	3787.434	-14.500	7.360	2154.928	15.350	-13.000	1763.694	-19.460	-13.900
161.	3786.576	-16.800	7.140	2170.297	15.310	-12.560	1752.765	-19.650	-13.610
162.	3785.663	-19.200	6.910	2180.631	15.120	-12.000	1741.005	-19.600	-13.200
163.	3784.722	-21.700	6.660	2190.631	14.800	-11.510	1731.039	-19.500	-12.700
164.	3783.756	-24.300	6.390	2200.610	14.370	-11.020	1720.519	-19.300	-12.200
165.	3782.777	-27.000	6.090	2210.493	13.650	-10.440	1710.227	-18.900	-11.700
166.	3781.795	-29.800	5.760	2215.016	13.250	-9.860	1700.245	-18.300	-11.200
167.	3780.820	-32.700	5.460	2220.719	12.570	-9.280	1690.769	-17.600	-10.700
168.	3779.864	-35.700	5.110	2237.151	11.630	-8.660	1681.766	-16.800	-10.200
169.	3778.936	-38.800	4.750	2245.067	11.040	-8.020	1673.279	-15.900	-9.700
170.	3778.051	-42.000	4.370	2252.424	10.150	-7.350	1665.376	-14.900	-9.200
171.	3777.214	-45.300	3.980	2259.187	9.300	-6.670	1658.090	-13.900	-8.700
172.	3776.436	-48.700	3.580	2265.323	8.360	-5.910	1651.464	-12.900	-8.200
173.	3775.727	-52.200	3.180	2270.604	7.390	-5.270	1645.569	-11.900	-7.700
174.	3775.094	-55.800	2.730	2275.603	6.400	-4.540	1640.362	-10.900	-7.200
175.	3774.545	-59.500	2.290	2279.701	5.370	-3.800	1635.893	-9.900	-6.700
176.	3774.066	-63.300	1.840	2283.076	4.320	-3.050	1632.293	-8.900	-6.200
177.	3773.728	-67.200	1.390	2285.720	3.260	-2.300	1629.430	-7.900	-5.700
178.	3773.464	-71.100	.930	2287.615	2.180	-1.540	1627.375	-6.900	-5.200
179.	3773.306	-75.000	.460	2289.755	1.090	-0.770	1625.130	-5.900	-4.700
180.	3773.253	-78.900	-0.000	2289.136	-0.000	0.000	1625.725	-4.900	-4.200

110-PLANE INDIUM ANTIMONIDE

BULK

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRWEL	SSPHI12	SSPHI13
0.	3867.072	0.000	-0.000	1872.600	-19.200	0.000	1872.599	19.200	0.000
1.	3886.838	-4.400	-0.000	1861.808	-18.060	-0.000	1884.016	19.190	0.000
2.	3886.130	-8.000	-0.000	1851.409	-16.840	-0.000	1895.489	19.160	0.000
3.	3884.936	-1.220	-0.000	1842.059	-15.490	-0.000	1907.004	19.110	0.000
4.	3883.246	-1.640	-0.000	1833.603	-14.030	-0.000	1916.545	19.030	0.000
5.	3881.060	-2.060	-0.000	1826.084	-12.450	-0.000	1930.094	18.930	0.000
6.	3878.364	-2.500	-0.000	1819.537	-10.760	-0.000	1941.651	18.810	0.000
7.	3875.155	-2.930	-0.000	1813.996	-9.020	-0.000	1953.166	18.660	0.000
8.	3871.431	-3.370	-0.000	1809.495	-7.170	-0.000	1964.693	18.520	0.000
9.	3867.185	-3.820	-0.000	1806.055	-5.260	-0.000	1976.157	18.350	0.000
10.	3862.426	-4.260	-0.000	1803.697	-3.290	-0.000	1987.565	18.160	0.000
11.	3857.144	-4.710	-0.000	1802.437	-1.250	-0.000	1998.904	17.950	0.000
12.	3851.343	-5.150	-0.000	1802.286	.740	-0.000	2010.162	17.720	0.000
13.	3845.026	-5.600	-0.000	1803.249	2.770	-0.000	2021.326	17.490	0.000
14.	3838.196	-6.040	-0.000	1805.326	4.760	-0.000	2032.365	17.230	-0.000
15.	3830.858	-6.440	-0.000	1808.516	6.760	-0.000	2043.326	16.960	0.000
16.	3823.016	-6.910	-0.000	1812.804	8.650	-0.000	2054.140	16.680	0.000
17.	3814.684	-7.340	-0.000	1818.176	10.524	-0.000	2064.813	16.390	0.000
18.	3805.864	-7.770	0.000	1824.618	12.340	-0.000	2075.337	16.090	0.000
19.	3796.566	-8.160	-0.000	1832.097	14.030	-0.000	2085.699	15.770	0.000
20.	3786.810	-8.550	-0.000	1840.586	15.630	-0.000	2095.691	15.440	0.000
21.	3776.600	-8.930	-0.000	1850.056	17.120	-0.000	2105.502	15.100	0.000
22.	3765.956	-9.360	-0.000	1860.462	18.490	-0.000	2115.123	14.750	0.000
23.	3754.892	-9.760	-0.000	1871.764	19.760	-0.000	2125.344	14.390	0.000
24.	3743.427	-10.120	-0.000	1883.915	20.910	-0.000	2134.757	14.020	0.000
25.	3731.582	-10.460	-0.000	1896.866	21.940	-0.000	2143.953	13.650	0.000
26.	3719.379	-10.750	0.000	1910.561	22.850	-0.000	2152.923	13.260	0.000
27.	3706.842	-11.100	0.000	1924.945	23.640	-0.000	2161.660	12.870	0.000
28.	3693.996	-11.350	0.000	1939.957	24.320	-0.000	2170.155	12.460	0.000
29.	3680.875	-11.650	-0.000	1955.532	24.890	-0.000	2178.402	12.060	0.000
30.	3667.506	-11.850	0.000	1971.605	25.340	-0.000	2186.393	11.640	0.000
31.	3653.925	-12.100	0.000	1988.107	25.690	-0.000	2194.120	11.220	0.000
32.	3640.169	-12.280	0.000	2004.964	25.920	-0.000	2201.579	10.790	0.000
33.	3626.275	-12.420	-0.000	2022.102	26.050	-0.000	2208.762	10.350	0.000
34.	3612.299	-12.530	-0.000	2039.442	26.070	-0.000	2215.663	9.910	0.000
35.	3598.276	-12.550	-0.000	2056.904	25.960	-0.000	2222.276	9.470	0.000
36.	3584.262	-12.610	0.000	2074.405	25.790	-0.000	2228.597	9.020	0.000
37.	3570.312	-12.670	0.000	2091.856	25.460	-0.000	2234.619	8.560	0.000
38.	3556.486	-12.450	0.000	2109.170	25.080	-0.000	2240.339	8.100	0.000
39.	3542.846	-12.340	0.000	2126.253	24.530	-0.000	2245.751	7.640	0.000
40.	3529.460	-12.130	0.000	2143.009	23.880	-0.000	2250.850	7.170	0.000
41.	3516.402	-11.840	0.000	2159.341	23.110	-0.000	2255.634	6.700	0.000
42.	3503.745	-11.440	0.000	2175.148	22.220	-0.000	2260.090	6.220	0.000
43.	3491.571	-11.050	0.000	2190.326	21.200	-0.000	2264.236	5.750	0.000
44.	3479.961	-10.540	0.000	2204.775	20.050	-0.000	2268.051	5.270	0.000
45.	3469.001	-9.940	0.000	2218.386	18.770	-0.000	2271.535	4.760	0.000
46.	3458.777	-9.240	0.000	2231.055	17.350	-0.000	2274.687	4.300	0.000
47.	3449.375	-8.460	0.000	2242.680	15.790	-0.000	2277.503	3.610	0.000
48.	3440.681	-7.600	0.000	2253.162	14.100	-0.000	2279.983	3.320	0.000
49.	3433.375	-6.650	0.000	2262.405	12.280	-0.000	2282.123	2.630	0.000

110-PLANE INDIUM ANTIMONIDE

BULK

	LMVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
50.	3426.935	-5.620	0.000	2270.322	10.340	-0.000	2283.523	2.340	0.000
51.	3421.626	-4.520	0.000	2276.036	6.290	-0.000	2285.381	1.650	0.000
52.	3417.514	-3.360	0.000	2281.079	6.150	-0.000	2286.496	1.350	0.000
53.	3414.640	-2.150	0.000	2285.399	3.900	-0.000	2287.267	.860	0.000
54.	3413.041	-.920	0.000	2287.357	1.660	-0.000	2287.693	.360	0.000
55.	3412.734	.330	0.000	2287.775	-.130	-0.000	2287.732	-.600	0.000
56.	3413.725	1.570	0.000	2286.515	-2.860	0.000	2287.511	-.630	-0.000
57.	3416.001	2.790	0.000	2283.733	-5.110	0.000	2286.903	-1.120	-0.000
58.	3419.534	3.900	0.000	2279.403	-7.250	0.000	2285.950	-1.610	-0.000
59.	3424.245	5.110	0.000	2273.576	-9.300	0.000	2284.654	-2.110	-0.000
60.	3430.198	6.170	0.000	2266.312	-11.360	0.000	2283.016	-2.600	-0.000
61.	3437.210	7.160	0.000	2257.684	-13.260	0.000	2281.036	-3.090	-0.000
62.	3445.248	8.070	0.000	2247.776	-15.010	0.000	2278.716	-3.580	-0.000
63.	3455.232	8.850	0.000	2236.679	-16.630	0.000	2276.056	-4.070	-0.000
64.	3464.076	9.620	0.000	2224.489	-18.120	0.000	2273.064	-4.560	-0.000
65.	3474.702	10.270	0.000	2211.310	-19.460	0.000	2269.737	-5.040	-0.000
66.	3486.015	10.820	0.000	2197.245	-20.680	0.000	2266.079	-5.520	-0.000
67.	3497.934	11.290	0.000	2182.396	-21.760	0.000	2262.092	-6.000	-0.000
68.	3510.373	11.690	0.000	2166.074	-22.710	0.000	2257.701	-6.480	-0.000
69.	3523.251	12.000	0.000	2150.777	-23.540	0.000	2253.150	-6.950	-0.000
70.	3536.492	12.250	0.000	2134.208	-24.240	0.000	2248.157	-7.420	-0.000
71.	3550.020	12.420	0.000	2117.267	-24.830	0.000	2242.332	-7.880	-0.000
72.	3563.767	12.540	0.000	2100.051	-25.300	0.000	2237.377	-8.350	-0.000
73.	3577.666	12.600	0.000	2082.653	-25.650	0.000	2231.477	-8.800	-0.000
74.	3591.657	12.600	0.000	2065.165	-25.900	0.000	2225.297	-9.260	-0.000
75.	3605.683	12.560	0.000	2047.674	-26.040	0.000	2218.821	-9.700	-0.000
76.	3619.689	12.460	0.000	2030.266	-26.070	0.000	2212.055	-10.150	-0.000
77.	3633.627	12.350	0.000	2013.022	-26.000	0.000	2205.004	-10.560	-0.000
78.	3647.452	12.150	0.000	1996.023	-25.610	0.000	2197.675	-11.020	-0.000
79.	3661.120	12.000	0.000	1979.345	-25.520	0.000	2190.073	-11.440	-0.000
80.	3674.594	11.770	0.000	1963.061	-25.120	0.000	2182.206	-11.860	-0.000
81.	3687.037	11.520	0.000	1947.242	-24.600	0.000	2174.079	-12.270	-0.000
82.	3700.816	11.240	0.000	1931.986	-23.960	0.000	2165.700	-12.660	-0.000
83.	3713.582	10.940	0.000	1917.288	-23.240	0.000	2157.076	-13.080	-0.000
84.	3725.866	10.620	0.000	1903.241	-22.360	0.000	2148.215	-13.460	-0.000
85.	3737.883	10.260	0.000	1889.931	-21.410	0.000	2139.125	-13.850	-0.000
86.	3749.525	9.930	0.000	1877.396	-20.310	0.000	2129.814	-14.220	-0.000
87.	3760.785	9.560	0.000	1865.667	-19.110	0.000	2120.290	-14.580	-0.000
88.	3771.629	9.180	0.000	1854.453	-17.790	0.000	2110.562	-14.940	-0.000
89.	3782.066	8.780	0.000	1844.937	-16.340	0.000	2100.639	-15.280	-0.000
90.	3792.019	8.360	0.000	1835.981	-14.800	0.000	2090.532	-15.610	-0.000
91.	3801.595	7.960	0.000	1828.020	-13.150	0.000	2080.246	-15.940	-0.000
92.	3810.981	7.540	0.000	1821.066	-11.400	0.000	2069.800	-16.250	-0.000
93.	3819.145	7.120	0.000	1815.207	-9.500	0.000	2059.136	-16.550	-0.000
94.	3827.219	6.680	0.000	1810.464	-7.600	0.000	2048.447	-16.830	-0.000
95.	3834.725	6.250	0.000	1806.585	-5.720	0.000	2037.584	-17.110	-0.000
96.	3841.866	5.800	0.000	1804.082	-3.720	0.000	2026.559	-17.370	-0.000
97.	3848.426	5.360	0.000	1802.612	-1.720	0.000	2015.443	-17.610	-0.000
98.	3854.471	4.920	0.000	1802.227	.330	0.000	2004.228	-17.840	-0.000
99.	3859.998	4.470	0.000	1802.965	2.350	0.000	1992.926	-18.060	-0.000

110-PLANE INDIUM ANTIMONIDE

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
100.	3865.006	4.030	0.000	1804.806	4.340	0.000	1491.544	-10.260	0.000
101.	3869.492	3.580	-0.000	1807.738	6.280	0.000	1978.110	-16.440	-0.000
102.	3873.462	3.140	-0.000	1811.742	8.160	0.000	1950.622	-16.610	-0.000
103.	3876.913	2.700	0.000	1816.795	9.960	0.000	1947.036	-16.750	-0.000
104.	3879.851	2.270	0.000	1822.870	11.660	0.000	1935.552	-16.860	-0.000
105.	3882.276	1.840	0.000	1829.935	13.300	0.000	1923.998	-16.990	-0.000
106.	3884.201	1.410	0.000	1837.954	14.810	0.000	1912.469	-17.070	-0.000
107.	3885.627	1.000	-0.000	1846.867	16.220	0.000	1900.920	-17.140	-0.000
108.	3886.564	.590	-0.000	1856.691	17.510	0.000	1889.425	-17.160	-0.000
109.	3887.020	.190	0.000	1867.315	18.690	0.000	1877.980	-17.200	-0.000
110.	3887.008	-.210	0.000	1878.722	19.750	0.000	1866.599	-17.260	-0.000
111.	3886.536	-.590	-0.000	1890.846	20.650	0.000	1855.247	-17.170	-0.000
112.	3885.624	-1.000	0.000	1903.641	21.530	0.000	1844.030	-17.120	-0.000
113.	3884.280	-1.310	0.000	1917.046	22.290	0.000	1832.993	-17.030	-0.000
114.	3882.523	-1.650	0.000	1931.002	22.870	0.000	1822.021	-16.920	-0.000
115.	3880.371	-1.960	-0.000	1945.451	23.370	0.000	1811.192	-16.790	-0.000
116.	3877.842	-2.250	-0.000	1960.330	23.780	0.000	1800.520	-16.620	0.000
117.	3874.956	-2.520	-0.000	1975.576	24.060	0.000	1790.022	-16.420	0.000
118.	3871.736	-2.840	-0.000	1991.125	24.240	0.000	1779.713	-16.190	0.000
119.	3868.206	-3.120	-0.000	2006.912	24.390	0.000	1769.609	-17.930	0.000
120.	3864.390	-3.350	0.000	2022.871	24.410	0.000	1759.727	-17.640	-0.000
121.	3860.315	-3.560	-0.000	2038.935	24.340	0.000	1750.081	-17.310	0.000
122.	3856.010	-3.750	0.000	2055.036	24.170	0.000	1740.669	-16.950	0.000
123.	3851.503	-3.910	0.000	2071.112	23.930	0.000	1731.566	-16.560	0.000
124.	3846.820	-4.050	-0.000	2087.090	23.540	0.000	1722.727	-16.120	0.000
125.	3842.015	-4.150	-0.000	2102.904	23.170	0.000	1714.167	-15.680	0.000
126.	3837.101	-4.230	-0.000	2118.467	22.670	0.000	1705.962	-15.150	-0.000
127.	3832.115	-4.280	-0.000	2133.772	22.090	0.000	1698.065	-14.610	-0.000
128.	3827.106	-4.290	-0.000	2148.691	21.420	0.000	1690.512	-14.040	0.000
129.	3822.103	-4.260	-0.000	2163.176	20.660	0.000	1683.316	-13.420	0.000
130.	3817.145	-4.230	-0.000	2177.169	19.850	0.000	1676.491	-12.760	0.000
131.	3812.273	-4.140	-0.000	2190.594	18.990	0.000	1670.050	-12.090	0.000
132.	3807.525	-4.020	-0.000	2203.396	17.970	0.000	1664.004	-11.360	-0.000
133.	3802.941	-3.870	-0.000	2215.514	16.910	0.000	1658.366	-10.630	0.000
134.	3798.560	-3.680	-0.000	2226.885	15.770	0.000	1653.146	-9.840	0.000
135.	3794.421	-3.460	-0.000	2237.452	14.570	0.000	1648.356	-9.030	0.000
136.	3790.560	-3.210	-0.000	2247.162	13.290	0.000	1644.004	-8.190	0.000
137.	3787.013	-2.930	0.000	2255.965	11.950	0.000	1640.100	-7.320	-0.000
138.	3783.814	-2.610	0.000	2263.813	10.550	0.000	1636.691	-6.430	0.000
139.	3780.992	-2.260	-0.000	2270.664	9.090	0.000	1633.665	-5.510	0.000
140.	3778.576	-1.920	0.000	2276.480	7.580	0.000	1631.148	-4.580	-0.000
141.	3776.590	-1.530	-0.000	2281.226	6.030	0.000	1629.105	-3.630	0.000
142.	3775.052	-1.140	-0.000	2284.861	4.440	0.000	1627.539	-2.670	0.000
143.	3773.980	-.730	-0.000	2287.419	2.830	0.000	1626.456	-1.700	0.000
144.	3773.384	-.310	0.000	2288.827	1.200	0.000	1625.856	-.720	0.000
145.	3773.269	.110	0.000	2289.096	-.430	0.000	1625.742	.260	0.000
146.	3773.639	.520	0.000	2288.225	-2.060	-0.000	1626.112	1.240	0.000
147.	3774.487	.940	0.000	2286.215	-3.650	-0.000	1626.968	2.210	0.000
148.	3775.807	1.350	0.000	2283.090	-5.280	-0.000	1628.306	3.160	0.000
149.	3777.584	1.740	0.000	2278.856	-6.850	-0.000	1630.124	4.140	0.000

110-PLANE INDIUM ANTIMONIDE

BULK

	LINGVEL	LPMI12	LPMI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
150.	3779.800	2.110	0.000	2273.540	-6.300	0.000	1632.416	5.000	0.000
151.	3782.433	2.460	0.000	2267.173	-9.860	-0.000	1635.134	6.000	0.000
152.	3785.850	2.760	0.000	2259.791	-11.290	-0.000	1638.415	6.500	0.000
153.	3788.845	3.060	0.000	2251.433	-12.670	-0.000	1642.105	7.780	0.000
154.	3792.562	3.350	0.000	2242.145	-13.970	-0.000	1646.217	6.640	0.000
155.	3796.574	3.560	0.000	2231.976	-15.210	-0.000	1650.631	9.460	0.000
156.	3800.845	3.780	0.000	2220.976	-16.360	-0.000	1655.049	10.260	0.000
157.	3805.336	3.950	0.000	2209.206	-17.470	-0.000	1661.231	11.630	0.000
158.	3810.014	4.090	0.000	2196.720	-18.490	0.000	1667.136	11.760	0.000
159.	3814.832	4.260	0.000	2183.579	-19.430	-0.000	1673.402	12.480	0.000
160.	3819.755	4.260	0.000	2169.647	-20.300	-0.000	1680.048	13.120	0.000
161.	3824.742	4.290	0.000	2155.987	-21.060	0.000	1687.070	13.750	0.000
162.	3829.755	4.290	0.000	2140.863	-21.760	-0.000	1694.427	14.350	0.000
163.	3834.756	4.260	0.000	2125.743	-22.410	-0.000	1702.133	14.900	0.000
164.	3839.706	4.190	0.000	2110.293	-22.950	-0.000	1710.265	15.420	0.000
165.	3844.571	4.100	0.000	2094.579	-23.400	-0.000	1718.658	15.910	0.000
166.	3849.316	3.960	0.000	2078.670	-23.760	0.000	1727.326	16.350	0.000
167.	3853.906	3.830	0.000	2062.633	-24.070	-0.000	1736.349	16.770	0.000
168.	3858.310	3.650	0.000	2046.535	-24.270	-0.000	1745.616	17.150	0.000
169.	3862.447	3.450	0.000	2030.444	-24.390	-0.000	1755.144	17.470	0.000
170.	3866.439	3.230	0.000	2014.427	-24.410	0.000	1764.916	17.640	0.000
171.	3870.107	2.950	0.000	1998.551	-24.350	0.000	1774.917	18.680	0.000
172.	3873.477	2.720	0.000	1982.862	-24.190	0.000	1785.131	19.320	0.000
173.	3876.523	2.430	0.000	1967.465	-23.930	0.000	1795.542	19.530	0.000
174.	3879.223	2.130	0.000	1952.424	-23.560	0.000	1806.134	19.710	0.000
175.	3881.556	1.810	0.000	1937.765	-23.120	0.000	1816.891	18.860	0.000
176.	3883.501	1.480	0.000	1923.566	-22.560	-0.000	1827.746	16.950	0.000
177.	3885.042	1.130	0.000	1909.895	-21.690	-0.000	1838.637	19.000	0.000
178.	3886.161	0.760	0.000	1896.806	-21.110	-0.000	1849.494	19.150	0.000
179.	3886.842	0.350	0.000	1884.359	-20.210	-0.000	1861.233	19.150	0.000
180.	3887.072	0.000	-0.000	1872.608	-19.200	-0.000	1874.599	19.200	0.000

Z-PLANE (XY-PLANE) INDIUM ARSENIDE

	LANGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSKVEL	SSPHI12	SSPHI13
0.	3822.601	0.000	0.000	2635.453	0.000	0.000	2635.453	0.000	0.000
1.	3823.446	1.450	0.000	2634.227	-3.050	0.000	2635.454	0.000	0.000
2.	3825.968	2.670	0.000	2630.564	-6.050	0.000	2635.456	0.000	0.000
3.	3830.125	4.240	0.000	2624.507	-8.970	0.000	2635.459	0.000	0.000
4.	3835.653	5.630	0.000	2616.126	-11.770	0.000	2635.463	-0.000	0.000
5.	3843.067	6.740	0.000	2605.520	-14.410	0.000	2635.469	0.000	0.000
6.	3851.661	7.630	0.000	2592.798	-16.890	0.000	2635.476	0.000	0.000
7.	3861.520	8.810	0.000	2576.091	-19.160	0.000	2635.484	0.000	0.000
8.	3872.515	9.660	0.000	2561.541	-21.290	0.000	2635.493	0.000	0.000
9.	3884.527	10.420	0.000	2543.294	-23.220	0.000	2635.504	0.000	0.000
10.	3897.413	11.050	0.000	2523.503	-24.970	0.000	2635.515	0.000	0.000
11.	3911.047	11.560	0.000	2502.320	-26.560	0.000	2635.527	0.000	0.000
12.	3925.304	11.970	0.000	2479.696	-27.980	0.000	2635.540	0.000	0.000
13.	3940.063	12.260	0.000	2456.660	-29.250	0.000	2635.554	0.000	0.000
14.	3955.210	12.500	0.000	2431.915	-30.390	0.000	2635.569	0.000	0.000
15.	3970.636	12.630	0.000	2406.643	-31.390	0.000	2635.585	0.000	0.000
16.	3986.247	12.650	0.000	2380.699	-32.270	0.000	2635.601	0.000	0.000
17.	4001.947	12.660	0.000	2354.212	-33.030	0.000	2635.616	0.000	0.000
18.	4017.651	12.660	0.000	2327.311	-33.660	0.000	2635.635	0.000	0.000
19.	4033.262	12.640	0.000	2300.115	-34.220	0.000	2635.653	0.000	0.000
20.	4048.767	12.620	0.000	2272.747	-34.690	0.000	2635.671	0.000	0.000
21.	4064.043	12.060	0.000	2245.317	-34.960	0.000	2635.689	0.000	0.000
22.	4079.046	11.720	0.000	2217.940	-35.210	0.000	2635.717	0.000	0.000
23.	4093.725	11.470	0.000	2190.725	-35.330	0.000	2635.720	0.000	0.000
24.	4108.036	11.130	0.000	2163.778	-35.340	0.000	2635.744	0.000	0.000
25.	4121.923	10.750	0.000	2137.205	-35.240	0.000	2635.762	0.000	0.000
26.	4135.349	10.350	0.000	2111.110	-35.020	0.000	2635.780	0.000	0.000
27.	4148.276	9.920	0.000	2085.593	-34.690	0.000	2635.798	0.000	0.000
28.	4160.671	9.470	0.000	2060.755	-34.220	0.000	2635.815	0.000	0.000
29.	4172.592	9.000	0.000	2036.654	-33.630	0.000	2635.832	0.000	0.000
30.	4183.741	8.520	0.000	2013.507	-32.860	0.000	2635.840	0.000	0.000
31.	4194.361	8.010	0.000	1991.208	-31.960	0.000	2635.864	0.000	0.000
32.	4204.341	7.450	0.000	1970.130	-30.920	0.000	2635.879	0.000	0.000
33.	4213.659	6.960	0.000	1950.121	-29.690	0.000	2635.893	0.000	0.000
34.	4222.266	6.420	0.000	1931.350	-28.270	0.000	2635.906	0.000	0.000
35.	4230.235	5.670	0.000	1913.699	-26.690	0.000	2635.918	0.000	0.000
36.	4237.461	5.300	0.000	1897.846	-24.930	0.000	2635.930	0.000	0.000
37.	4243.961	4.770	0.000	1883.267	-22.800	0.000	2635.940	0.000	0.000
38.	4249.722	4.160	0.000	1870.225	-20.560	0.000	2635.949	0.000	0.000
39.	4254.736	3.570	0.000	1858.795	-18.110	0.000	2635.957	0.000	0.000
40.	4258.992	2.960	0.000	1849.021	-15.460	0.000	2635.964	0.000	0.000
41.	4262.465	2.350	0.000	1840.955	-12.630	0.000	2635.970	0.000	0.000
42.	4265.207	1.800	0.000	1834.639	-9.620	0.000	2635.974	0.000	0.000
43.	4267.195	1.200	0.000	1830.104	-6.490	0.000	2635.977	0.000	0.000
44.	4268.325	0.600	0.000	1827.374	-3.270	0.000	2635.979	0.000	0.000
45.	4268.715	0.000	0.000	1826.462	0.000	0.000	2635.980	0.000	0.000
46.	4268.325	-0.600	0.000	1827.374	3.270	0.000	2635.979	-0.000	0.000
47.	4267.195	-1.200	0.000	1830.104	6.490	0.000	2635.977	-0.000	0.000
48.	4265.207	-1.800	0.000	1834.639	9.620	0.000	2635.974	-0.000	0.000
49.	4262.465	-2.350	0.000	1840.955	12.630	0.000	2635.970	-0.000	0.000

Z-PLANE (XY-PLANE) INDIUM ARSENIDE

	LPMI12	LPMI13	FSRVEL	FSPMI12	FSPMI13	SSKVEL	SSPMI12	SSPMI13
50.	4258.992	0.000	1849.021	15.460	0.000	2835.964	-0.010	0.000
51.	4254.736	-3.570	1858.795	16.110	0.000	2835.957	-0.010	0.000
52.	4249.722	-4.160	1870.229	20.560	0.000	2835.949	-0.010	0.000
53.	4243.961	-4.730	1883.267	22.800	0.000	2835.940	-0.010	0.000
54.	4237.461	-5.300	1897.846	24.830	0.000	2835.930	-0.010	0.000
55.	4230.235	-5.870	1913.899	26.650	0.000	2835.918	-0.020	0.000
56.	4222.296	-6.420	1931.350	29.690	0.000	2835.906	-0.020	0.000
57.	4213.659	-6.960	1950.121	29.690	0.000	2835.893	-0.020	0.000
58.	4204.341	-7.490	1970.130	30.921	0.000	2835.875	-0.020	0.000
59.	4194.361	-8.010	1991.268	31.980	0.000	2835.864	-0.020	0.000
60.	4183.741	-8.520	2013.507	32.860	0.000	2835.848	-0.020	0.000
61.	4172.502	-9.000	2036.894	33.630	0.000	2835.832	-0.020	0.000
62.	4160.671	-9.470	2060.755	34.220	0.000	2835.815	-0.020	0.000
63.	4148.276	-9.920	2085.593	34.690	0.000	2835.798	-0.020	0.000
64.	4135.349	-10.350	2111.110	35.020	0.000	2835.780	-0.020	0.000
65.	4121.923	-10.750	2137.205	35.240	0.000	2835.762	-0.020	0.000
66.	4108.036	-11.130	2163.778	35.340	0.000	2835.744	-0.020	0.000
67.	4093.729	-11.470	2190.725	35.330	0.000	2835.726	-0.020	0.000
68.	4079.046	-11.780	2217.940	35.210	0.000	2835.707	-0.020	0.000
69.	4064.043	-12.060	2245.317	34.980	0.000	2835.689	-0.020	0.000
70.	4048.767	-12.250	2272.747	34.650	0.000	2835.671	-0.020	0.000
71.	4033.282	-12.470	2300.116	34.220	0.000	2835.653	-0.020	0.000
72.	4017.651	-12.600	2327.311	33.680	0.000	2835.635	-0.020	0.000
73.	4001.947	-12.680	2354.212	33.030	0.000	2835.618	-0.020	0.000
74.	3986.247	-12.690	2380.699	32.270	0.000	2835.601	-0.020	0.000
75.	3970.636	-12.630	2406.643	31.390	0.000	2835.585	-0.020	0.000
76.	3955.210	-12.500	2431.915	30.350	0.000	2835.569	-0.020	0.000
77.	3940.063	-12.280	2456.380	29.250	0.000	2835.554	-0.020	0.000
78.	3925.304	-11.970	2479.896	27.900	0.000	2835.540	-0.020	0.000
79.	3911.047	-11.560	2502.320	26.260	0.000	2835.527	-0.020	0.000
80.	3897.413	-11.050	2523.503	24.970	0.000	2835.515	-0.010	0.000
81.	3884.527	-10.420	2543.294	23.220	0.000	2835.504	-0.010	0.000
82.	3872.515	-9.660	2561.941	21.290	0.000	2835.493	-0.010	0.000
83.	3861.520	-8.610	2578.891	19.160	0.000	2835.484	-0.010	0.000
84.	3851.661	-7.630	2592.796	16.890	0.000	2835.476	-0.010	0.000
85.	3843.067	-6.740	2605.520	14.410	0.000	2835.469	-0.010	0.000
86.	3835.853	-5.530	2616.128	11.770	0.000	2835.463	0.000	0.000
87.	3830.125	-4.240	2624.507	8.870	0.000	2835.454	0.000	0.000
88.	3825.960	-2.870	2630.964	6.850	0.000	2835.456	-0.000	0.000
89.	3823.446	-1.450	2634.227	3.050	0.000	2835.454	0.000	0.000
90.	3822.601	0.000	2635.453	-0.000	0.000	2835.453	0.000	0.000
91.	3823.446	1.450	2634.227	-3.050	0.000	2835.454	0.000	0.000
92.	3825.968	2.670	2630.964	-6.050	0.000	2835.456	0.000	0.000
93.	3830.125	4.240	2624.507	-8.970	0.000	2835.459	0.000	0.000
94.	3835.853	5.530	2616.128	-11.770	0.000	2835.463	-0.000	0.000
95.	3843.067	6.740	2605.520	-14.410	0.000	2835.469	-0.010	0.000
96.	3851.661	7.830	2592.796	-16.690	0.000	2835.476	-0.010	0.000
97.	3861.520	8.610	2578.891	-19.160	0.000	2835.484	-0.010	0.000
98.	3872.515	9.660	2561.941	-21.290	0.000	2835.493	-0.010	0.000
99.	3884.527	10.420	2543.294	-23.220	0.000	2835.504	-0.010	0.000

BULK

Z-PLANE (XY-PLANE) INDIUM ARSENIDE

BULK

	LNGLVL	LPMI12	LPMI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
100.	3897.413	11.050	0.000	2523.503	-24.970	0.000	2635.515	.010	0.000
101.	3911.047	11.560	0.000	2502.320	-26.560	0.000	2635.527	.020	0.000
102.	3925.304	11.970	0.000	2479.886	-27.960	0.000	2635.540	.020	0.000
103.	3940.063	12.260	0.000	2456.380	-29.250	0.000	2635.554	.020	0.000
104.	3955.210	12.540	0.000	2431.915	-30.390	0.000	2635.569	.020	0.000
105.	3970.636	12.630	0.000	2406.643	-31.390	0.000	2635.584	.020	0.000
106.	3986.247	12.650	0.000	2380.695	-32.270	0.000	2635.601	.020	0.000
107.	4001.947	12.680	0.000	2354.212	-33.030	0.000	2635.618	.020	0.000
108.	4017.651	12.600	0.000	2327.311	-33.660	0.000	2635.635	.020	0.000
109.	4033.282	12.470	0.000	2300.116	-34.220	0.000	2635.653	.020	0.000
110.	4048.767	12.250	0.000	2272.747	-34.650	0.000	2635.671	.020	0.000
111.	4064.043	12.060	0.000	2245.317	-34.950	0.000	2635.689	.020	0.000
112.	4079.046	11.780	0.000	2217.940	-35.210	0.000	2635.707	.020	0.000
113.	4093.729	11.470	0.000	2190.725	-35.330	0.000	2635.726	.020	0.000
114.	4108.036	11.130	0.000	2163.776	-35.340	0.000	2635.744	.020	0.000
115.	4121.923	10.750	0.000	2137.205	-35.240	0.000	2635.762	.020	0.000
116.	4135.349	10.350	0.000	2111.110	-35.020	0.000	2635.780	.020	0.000
117.	4148.276	9.920	0.000	2085.593	-34.690	0.000	2635.798	.020	0.000
118.	4160.671	9.470	0.000	2060.755	-34.220	0.000	2635.815	.020	0.000
119.	4172.502	9.000	0.000	2036.654	-33.630	0.000	2635.832	.020	0.000
120.	4183.741	8.520	0.000	2013.507	-32.860	0.000	2635.848	.020	0.000
121.	4194.361	8.010	0.000	1991.288	-31.960	0.000	2635.864	.020	0.000
122.	4204.341	7.490	0.000	1970.130	-30.920	0.000	2635.879	.020	0.000
123.	4213.659	6.960	0.000	1950.121	-29.850	0.000	2635.893	.020	0.000
124.	4222.296	6.420	0.000	1931.350	-28.750	0.000	2635.906	.020	0.000
125.	4230.235	5.870	0.000	1913.659	-26.560	0.000	2635.916	.010	0.000
126.	4237.461	5.310	0.000	1897.846	-24.650	0.000	2635.930	.010	0.000
127.	4243.961	4.750	0.000	1883.267	-22.800	0.000	2635.940	.010	0.000
128.	4249.722	4.160	0.000	1870.225	-20.560	0.000	2635.949	.010	0.000
129.	4254.736	3.570	0.000	1858.795	-18.110	0.000	2635.957	.010	0.000
130.	4258.992	2.940	0.000	1849.021	-15.460	0.000	2635.964	.010	0.000
131.	4262.465	2.390	0.000	1840.955	-12.630	0.000	2635.970	.010	0.000
132.	4265.207	1.860	0.000	1834.635	-9.620	0.000	2635.974	0.000	0.000
133.	4267.155	1.200	0.000	1830.104	-6.490	0.000	2635.977	0.000	0.000
134.	4268.325	.600	0.000	1827.374	-3.270	0.000	2635.979	0.000	0.000
135.	4268.715	-0.000	0.000	1826.462	0.000	0.000	2635.980	0.000	0.000
136.	4268.325	-6.000	0.000	1827.374	3.270	0.000	2635.979	0.000	0.000
137.	4267.155	-12.000	0.000	1830.104	6.490	0.000	2635.977	0.000	0.000
138.	4265.207	-18.000	0.000	1834.635	9.620	0.000	2635.974	0.000	0.000
139.	4262.465	-23.900	0.000	1840.955	12.630	0.000	2635.970	0.000	0.000
140.	4258.992	-29.600	0.000	1849.021	15.460	0.000	2635.964	0.000	0.000
141.	4254.736	-35.700	0.000	1858.795	18.110	0.000	2635.957	0.000	0.000
142.	4249.722	-41.600	0.000	1870.229	20.560	0.000	2635.949	0.000	0.000
143.	4243.961	-47.300	0.000	1883.267	22.800	0.000	2635.940	0.000	0.000
144.	4237.461	-53.000	0.000	1897.846	24.650	0.000	2635.930	0.000	0.000
145.	4230.235	-58.700	0.000	1913.659	26.560	0.000	2635.916	0.000	0.000
146.	4222.296	-64.400	0.000	1931.350	28.270	0.000	2635.906	0.000	0.000
147.	4213.659	-69.960	0.000	1950.121	29.690	0.000	2635.893	0.000	0.000
148.	4204.341	-74.900	0.000	1970.130	30.920	0.000	2635.879	0.000	0.000
149.	4194.361	-80.010	0.000	1991.288	31.960	0.000	2635.864	0.000	0.000

	Z-PLANE (XY-PLANE) INDIUM ARSENIDE				BULK			
	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
150.	4103.741	-8.920	0.000	2013.507	32.860	2635.046	-0.020	0.000
151.	4172.502	-9.000	0.000	2036.694	33.630	2635.832	-0.020	0.000
152.	4160.671	-9.870	0.000	2060.755	34.220	2635.815	-0.020	0.000
153.	4148.276	-9.920	0.000	2085.593	34.690	2635.796	-0.020	0.000
154.	4135.345	-10.350	0.000	2111.110	35.020	2635.780	-0.020	0.000
155.	4121.923	-10.750	0.000	2137.205	35.240	2635.762	-0.020	0.000
156.	4108.036	-11.130	0.000	2163.778	35.330	2635.744	-0.020	0.000
157.	4093.729	-11.470	0.000	2190.725	35.210	2635.707	-0.020	0.000
158.	4079.046	-12.060	0.000	2217.940	34.560	2635.609	-0.020	0.000
159.	4064.043	-12.250	0.000	2245.317	34.650	2635.671	-0.020	0.000
160.	4048.767	-12.470	0.000	2272.747	34.220	2635.653	-0.020	0.000
161.	4033.262	-12.600	0.000	2300.116	33.460	2635.635	-0.020	0.000
162.	4017.651	-12.600	0.000	2327.311	33.030	2635.616	-0.020	0.000
163.	4001.947	-12.660	0.000	2354.212	32.270	2635.601	-0.020	0.000
164.	3986.247	-12.650	0.000	2380.695	31.390	2635.585	-0.020	0.000
165.	3970.638	-12.630	0.000	2406.843	30.390	2635.569	-0.020	0.000
166.	3955.219	-12.500	0.000	2431.915	29.250	2635.554	-0.020	0.000
167.	3940.063	-12.260	0.000	2456.366	27.300	2635.540	-0.020	0.000
168.	3925.304	-11.970	0.000	2479.896	26.560	2635.527	-0.020	0.000
169.	3911.047	-11.560	0.000	2502.320	24.970	2635.515	-0.010	0.000
170.	3897.413	-11.050	0.000	2523.503	23.220	2635.504	-0.010	0.000
171.	3884.527	-10.420	0.000	2543.294	21.290	2635.493	-0.010	0.000
172.	3872.519	-9.660	0.000	2561.541	19.180	2635.484	-0.010	0.000
173.	3861.520	-8.810	0.000	2578.091	16.690	2635.476	-0.010	0.000
174.	3851.661	-7.830	0.000	2592.796	14.410	2635.469	-0.010	0.000
175.	3843.067	-6.740	0.000	2605.520	11.770	2635.463	0.000	0.000
176.	3835.653	-5.530	0.000	2616.126	8.970	2635.459	0.000	0.000
177.	3830.125	-4.240	0.000	2624.507	6.050	2635.456	0.000	0.000
178.	3825.968	-2.870	0.000	2630.564	3.050	2635.454	0.000	0.000
179.	3823.446	-1.450	0.000	2634.227	-0.000	2635.453	0.000	0.000
180.	3822.601	0.000	0.000	2635.453	-0.000	2635.453	0.000	0.000

111-PLANE INDIUM ARSENIIDE

BULK

	LPHI12	LPHI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
0.	4268.715	-0.000	0.000	0.000	0.000	1826.462	0.000	0.000
1.	4268.785	.110	.500	-1.150	-1.620	1626.967	1.610	-1.000
2.	4268.994	.210	1.000	-2.300	-3.440	1626.967	3.610	-2.000
3.	4269.330	.310	1.490	-3.440	-4.560	1633.988	5.370	-3.000
4.	4269.815	.420	1.980	-4.560	-5.660	1834.484	7.090	-4.000
5.	4270.418	.510	2.460	-5.660	-6.740	1636.345	8.750	-5.000
6.	4271.140	.600	2.930	-6.740	-7.800	1644.360	10.340	-6.000
7.	4271.972	.680	3.390	-7.800	-8.840	1654.689	11.850	-7.000
8.	4272.905	.750	3.840	-8.840	-9.860	1657.905	13.270	-7.990
9.	4273.927	.820	4.280	-9.860	-10.860	1665.969	14.580	-8.820
10.	4275.027	.870	4.690	-10.860	-11.840	1674.040	15.800	-9.510
11.	4276.192	.920	5.100	-11.840	-12.800	1684.489	16.850	-10.150
12.	4277.409	.950	5.480	-12.800	-13.740	1694.603	17.670	-10.850
13.	4278.663	.970	5.850	-13.740	-14.660	1935.703	18.730	-11.490
14.	4279.941	.990	6.200	-14.660	-15.560	1947.345	19.470	-12.090
15.	4281.226	.990	6.520	-15.560	-16.440	1971.345	20.000	-12.630
16.	4282.510	.960	6.830	-16.440	-17.300	1971.345	20.520	-13.120
17.	4283.774	.960	7.120	-17.300	-18.140	1954.753	20.820	-13.580
18.	4285.006	.930	7.390	-18.140	-18.960	1967.631	20.970	-13.940
19.	4286.192	.890	7.630	-18.960	-19.760	1961.035	20.930	-14.200
20.	4287.321	.840	7.860	-19.760	-20.540	1994.235	20.700	-14.500
21.	4288.380	.760	8.060	-20.540	-21.300	2007.284	20.240	-14.820
22.	4289.358	.720	8.240	-21.300	-22.040	2026.024	19.520	-15.150
23.	4290.246	.640	8.400	-22.040	-22.760	2032.214	18.500	-15.500
24.	4291.035	.560	8.540	-22.760	-23.460	2043.670	17.140	-15.850
25.	4291.716	.480	8.660	-23.460	-24.140	2054.117	15.360	-16.200
26.	4292.283	.390	8.760	-24.140	-24.800	2063.269	13.140	-16.550
27.	4292.725	.290	8.830	-24.800	-25.440	2070.024	10.430	-16.900
28.	4293.051	.200	8.890	-25.440	-26.060	2076.486	7.270	-17.300
29.	4293.246	.100	8.920	-26.060	-26.660	2300.001	3.740	-17.750
30.	4293.311	-0.000	8.930	-26.660	-27.240	2081.193	0.000	-18.200
31.	4293.246	-0.100	8.920	-27.240	-27.800	2080.001	-3.740	-18.650
32.	4293.051	-0.200	8.890	-27.800	-28.340	2076.486	-7.270	-19.100
33.	4292.725	-0.250	8.830	-28.340	-28.860	2070.024	-10.430	-19.550
34.	4292.283	-0.350	8.760	-28.860	-29.360	2063.269	-13.140	-20.000
35.	4291.716	-0.400	8.660	-29.360	-29.840	2054.117	-15.360	-20.450
36.	4291.035	-0.560	8.540	-29.840	-30.300	2043.670	-17.140	-20.900
37.	4289.246	-0.640	8.400	-30.300	-30.740	2032.214	-18.500	-21.350
38.	4288.380	-0.720	8.240	-30.740	-31.160	2026.024	-19.520	-21.800
39.	4287.321	-0.760	8.060	-31.160	-31.560	2020.001	-20.240	-22.250
40.	4286.192	-0.850	7.860	-31.560	-31.940	1994.235	-20.700	-22.700
41.	4285.006	-0.900	7.630	-31.940	-32.300	1967.631	-20.930	-23.150
42.	4283.774	-0.930	7.390	-32.300	-32.640	1967.631	-20.970	-23.600
43.	4282.510	-0.960	7.120	-32.640	-32.960	1954.753	-20.820	-24.050
44.	4281.226	-0.980	6.830	-32.960	-33.260	1947.345	-20.520	-24.500
45.	4279.941	-0.990	6.520	-33.260	-33.540	1935.703	-20.000	-24.950
46.	4278.663	-0.970	6.200	-33.540	-33.800	1929.415	-19.470	-25.400
47.	4277.409	-0.950	5.850	-33.800	-34.040	1929.415	-19.470	-25.850
48.	4276.192	-0.950	5.480	-34.040	-34.260	1894.603	-18.730	-26.300
49.	4275.027	-0.920	5.100	-34.260	-34.460	1884.463	-18.090	-26.750

111-PLANE INDIUM ARSENIIDE

BULK

	LNWEL	LPHI12	LPHI13	FSRWEL	FSRPHI12	FSRPHI13	SRWEL	SRPHI12	SRPHI13
50.	4275.027	-0.670	4.690	2591.409	10.730	-7.770	1074.660	-15.600	SSPHI13
51.	4273.927	-0.620	4.260	2599.613	9.750	-7.060	1067.969	-14.500	-3.410
52.	4272.905	-0.750	3.840	2607.059	8.810	-6.320	1057.905	-13.270	-0.620
53.	4271.972	-0.680	3.390	2613.711	7.600	-5.570	1050.689	-11.650	-1.790
54.	4271.140	-0.600	2.930	2619.539	6.700	-4.600	1044.300	-10.300	-6.910
55.	4270.416	-0.510	2.460	2624.516	5.660	-4.020	1036.949	-8.750	-0.000
56.	4269.815	-0.420	1.980	2628.616	4.560	-3.230	1034.484	-7.090	-4.906
57.	4269.338	-0.310	1.490	2631.828	3.440	-2.430	1030.988	-5.370	-3.000
58.	4268.994	-0.210	1.000	2634.131	2.300	-1.620	1026.470	-3.610	-2.000
59.	4268.765	-0.110	0.500	2635.517	1.150	-0.810	1024.967	-1.810	-1.030
60.	4268.715	0.000	0.000	2635.900	-0.000	0.000	1024.462	-0.000	-0.600
61.	4268.765	0.110	-0.500	2635.517	1.150	0.810	1024.967	1.810	1.030
62.	4268.994	0.210	-1.000	2634.131	2.300	1.620	1026.470	3.610	2.000
63.	4269.338	0.310	-1.490	2631.828	3.440	2.430	1030.988	5.370	3.000
64.	4269.815	0.420	-1.980	2628.616	4.560	3.230	1034.484	7.090	4.000
65.	4270.416	0.510	-2.460	2624.516	5.660	4.020	1036.949	8.750	5.000
66.	4271.140	0.600	-2.930	2619.539	6.700	4.600	1044.300	10.300	6.000
67.	4271.972	0.680	-3.390	2613.711	7.600	5.570	1050.689	11.650	6.910
68.	4272.905	0.750	-3.840	2607.059	8.810	6.320	1057.905	13.270	7.790
69.	4273.928	0.820	-4.260	2599.613	9.750	7.060	1067.969	14.500	8.620
70.	4275.026	0.670	-4.690	2591.409	10.730	7.770	1074.660	15.600	9.410
71.	4276.192	0.920	-5.100	2582.487	11.620	8.470	1084.464	16.690	10.110
72.	4277.409	0.920	-5.480	2572.693	12.450	9.150	1094.003	17.670	10.800
73.	4278.663	0.970	-5.850	2562.678	13.220	9.800	1103.703	18.750	11.490
74.	4279.941	0.990	-6.200	2551.898	13.920	10.440	1113.345	19.820	12.090
75.	4281.228	0.990	-6.520	2540.616	14.550	11.050	1123.415	20.060	12.630
76.	4282.510	0.960	-6.830	2528.904	15.090	11.630	1134.144	20.520	13.120
77.	4283.774	0.960	-7.120	2516.864	15.530	12.180	1145.453	20.820	13.500
78.	4285.006	0.930	-7.390	2504.526	15.890	12.730	1157.031	20.970	13.900
79.	4286.192	0.890	-7.630	2492.056	16.040	13.240	1168.035	20.990	14.260
80.	4287.321	0.840	-7.860	2479.554	16.060	13.720	1178.235	20.700	14.560
81.	4288.360	0.720	-8.060	2467.163	15.920	14.160	1187.264	20.260	14.800
82.	4289.355	0.720	-8.240	2455.046	15.540	14.610	1195.034	19.520	14.990
83.	4290.247	0.640	-8.400	2443.394	14.900	15.060	1202.034	18.500	15.140
84.	4291.035	0.560	-8.540	2432.430	13.940	15.360	1208.3670	17.100	15.200
85.	4291.716	0.480	-8.660	2422.406	12.610	15.660	1214.117	15.360	15.320
86.	4292.263	0.390	-8.760	2413.610	10.670	15.960	1219.269	13.140	15.360
87.	4292.729	0.290	-8.830	2406.335	8.660	16.190	1223.824	10.430	15.360
88.	4293.052	0.200	-8.890	2400.674	6.680	16.360	1227.866	7.270	15.300
89.	4293.246	0.100	-8.920	2397.462	4.710	16.470	1231.001	3.740	15.300
90.	4293.311	-0.000	-8.930	2396.330	0.000	16.510	1233.133	0.000	15.300
91.	4293.246	-0.100	-8.920	2397.462	3.130	16.470	1234.001	-3.740	15.300
92.	4293.052	-0.200	-8.890	2400.674	6.680	16.360	1234.824	-7.270	15.300
93.	4292.729	-0.290	-8.830	2406.335	8.660	16.190	1235.624	-10.430	15.360
94.	4292.263	-0.390	-8.760	2413.610	10.670	15.960	1236.269	-13.140	15.360
95.	4291.716	-0.480	-8.660	2422.406	12.610	15.660	1236.717	-15.360	15.320
96.	4291.035	-0.560	-8.540	2432.430	14.900	15.360	1237.034	-17.100	15.200
97.	4290.247	-0.640	-8.400	2443.394	17.940	15.060	1237.214	-18.500	15.140
98.	4289.355	-0.720	-8.240	2455.046	19.900	14.610	1237.264	-19.520	15.000
99.	4288.360	-0.780	-8.060	2467.163	21.920	14.160	1237.034	-20.260	14.800

111-PLANE INDIUM ARSENIIDE

BULK

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SRVEL	SSPHI12	SSPHI13
100.	4287.321	-840	-7.660	2479.554	16.060	13.720	194.235	-20.700	1.560
101.	4286.192	-850	-7.630	2492.056	16.040	13.240	194.035	-20.930	1.420
102.	4285.006	-930	-7.390	2504.526	15.850	12.730	197.631	-20.970	13.540
103.	4283.774	-960	-7.120	2516.844	15.530	12.200	194.733	-20.820	13.500
104.	4282.510	-990	-6.830	2528.984	15.090	11.630	191.414	-20.520	13.120
105.	4281.226	-990	-6.520	2540.616	14.550	11.050	1929.415	-20.060	12.850
106.	4279.941	-990	-6.200	2551.836	13.920	10.440	1917.345	-19.470	12.090
107.	4278.663	-970	-5.850	2562.678	13.220	9.800	1905.763	-18.730	11.440
108.	4277.409	-950	-5.480	2572.893	12.450	9.150	1894.803	-17.670	10.600
109.	4276.192	-920	-5.100	2582.447	11.620	8.470	1884.469	-16.890	10.110
110.	4275.028	-870	-4.690	2591.409	10.730	7.770	1874.646	-16.890	9.410
111.	4273.926	-820	-4.260	2599.633	9.790	7.060	1865.369	-16.560	8.620
112.	4272.905	-750	-3.840	2607.059	8.810	6.320	1857.905	-13.270	7.730
113.	4271.972	-660	-3.390	2613.711	7.800	5.570	1850.669	-11.650	6.710
114.	4271.140	-600	-2.930	2619.539	6.740	4.800	1844.360	-10.340	5.600
115.	4270.416	-510	-2.460	2624.516	5.660	4.020	1838.349	-8.750	4.050
116.	4269.815	-420	-1.980	2628.616	4.560	3.230	1832.634	-7.650	2.600
117.	4269.338	-310	-1.490	2631.828	3.440	2.300	1827.286	-5.370	1.000
118.	4268.984	-210	-1.000	2634.131	2.300	1.620	1822.278	-3.610	0.000
119.	4268.785	-110	-0.500	2635.517	1.150	0.810	1817.467	-1.610	0.000
120.	4268.715	-0.000	0.000	2635.980	0.000	0.000	1812.862	0.000	0.000
121.	4268.785	110	0.500	2635.517	-1.150	-0.810	1808.469	1.610	1.000
122.	4268.984	210	1.000	2634.131	-2.300	-1.620	1804.360	3.610	2.600
123.	4269.338	310	1.490	2631.828	-3.440	-2.300	1800.469	5.370	4.050
124.	4269.815	420	1.980	2628.616	-4.560	-3.230	1834.464	7.090	5.600
125.	4270.416	510	2.460	2624.516	-5.660	-4.020	1838.349	8.750	7.090
126.	4271.140	600	2.930	2619.539	-6.740	-4.800	1844.360	10.340	8.050
127.	4271.972	660	3.390	2613.711	-7.800	-5.570	1850.669	11.650	8.710
128.	4272.905	750	3.840	2607.059	-8.810	-6.320	1857.905	13.270	9.410
129.	4273.926	820	4.260	2599.633	-9.790	-7.060	1865.369	14.560	10.110
130.	4275.028	870	4.690	2591.409	-10.730	-7.770	1874.646	15.660	10.600
131.	4276.192	920	5.100	2582.447	-11.620	-8.470	1884.469	16.890	11.440
132.	4277.409	950	5.480	2572.893	-12.450	-9.150	1894.803	17.670	12.090
133.	4278.663	970	5.850	2562.678	-13.220	-9.800	1905.763	18.730	12.850
134.	4279.941	990	6.200	2551.836	-13.920	-10.440	1917.345	19.470	13.540
135.	4281.228	990	6.520	2540.616	-14.550	-11.050	1929.415	20.060	14.090
136.	4282.510	980	6.830	2528.984	-15.090	-11.630	1941.414	20.520	14.560
137.	4283.774	960	7.120	2516.844	-15.530	-12.200	1954.733	20.820	14.850
138.	4285.006	930	7.390	2504.526	-15.850	-12.730	1967.631	20.970	15.120
139.	4286.192	890	7.630	2492.056	-16.040	-13.240	1981.035	20.930	15.440
140.	4287.409	840	7.860	2479.555	-16.040	-13.720	1994.235	20.700	15.720
141.	4288.380	780	8.060	2467.163	-15.920	-14.180	2007.264	20.240	16.000
142.	4289.356	720	8.240	2455.046	-15.540	-14.610	2020.010	20.240	16.330
143.	4290.286	640	8.400	2443.394	-14.900	-15.000	2032.214	19.520	16.600
144.	4291.035	560	8.540	2432.430	-14.900	-15.000	2042.214	18.500	16.850
145.	4291.716	480	8.660	2422.408	-14.610	-15.360	2054.117	17.140	17.120
146.	4292.283	390	8.760	2413.610	-12.610	-15.660	2063.269	15.360	17.380
147.	4292.739	290	8.830	2406.335	-8.660	-16.150	2070.824	10.430	17.600
148.	4293.051	200	8.890	2400.875	-0.000	-16.360	2076.466	7.270	17.750
149.	4293.246	100	8.920	2397.462	-3.130	-16.470	2080.001	3.740	17.800

111-PLANE INDIUM ARSENIIDE

BULK

	LNWVEL	LPM112	LPM113	FSRWEL	FSPM12	FSPM13	SSRWEL	SSPM12	SSPM13
150.	4293.311	0.000	8.930	2396.330	-0.000	-16.510	2081.193	-0.000	-10.830
151.	4293.246	-1.100	8.920	2397.462	3.130	-16.470	2080.001	-3.740	-10.830
152.	4293.051	-2.200	8.890	2400.875	6.060	-16.360	2076.406	-7.270	-10.830
153.	4292.729	-3.290	8.830	2406.335	8.660	-16.150	2070.024	-10.430	-10.830
154.	4292.283	-4.350	8.760	2413.610	10.870	-15.960	2063.269	-13.140	-10.830
155.	4291.716	-5.460	8.660	2422.401	12.610	-15.660	2054.117	-15.360	-10.830
156.	4291.035	-6.560	8.540	2432.430	13.940	-15.360	2043.670	-17.140	-10.830
157.	4290.246	-7.640	8.400	2443.394	14.900	-15.000	2032.214	-18.500	-10.830
158.	4289.356	-8.720	8.240	2455.046	15.740	-14.610	2020.010	-19.520	-10.830
159.	4288.360	-9.780	8.060	2467.163	16.460	-14.180	2007.264	-20.240	-10.830
160.	4287.321	-10.840	7.860	2479.555	17.060	-13.720	1994.235	-20.700	-10.830
161.	4286.192	-11.890	7.630	2492.056	17.540	-13.240	1981.035	-20.530	-10.830
162.	4285.006	-12.930	7.390	2504.526	18.000	-12.730	1967.831	-20.970	-10.830
163.	4283.774	-13.960	7.120	2516.844	18.450	-12.200	1954.753	-20.620	-10.830
164.	4282.510	-14.980	6.830	2528.905	18.890	-11.630	1941.915	-20.520	-10.830
165.	4281.222	-15.990	6.520	2540.616	19.320	-11.050	1929.415	-20.060	-10.830
166.	4279.941	-16.990	6.200	2551.896	19.740	-10.440	1917.345	-19.470	-10.830
167.	4278.663	-17.970	5.850	2562.678	20.150	-9.800	1905.783	-18.730	-10.830
168.	4277.405	-18.920	5.480	2572.893	20.550	-9.150	1894.803	-17.870	-10.830
169.	4276.192	-19.870	5.100	2582.407	20.940	-8.470	1884.469	-16.890	-10.830
170.	4275.027	-20.800	4.700	2591.409	21.320	-7.770	1874.840	-15.800	-10.830
171.	4273.827	-21.720	4.280	2599.613	21.690	-7.060	1865.969	-14.580	-10.830
172.	4272.905	-22.630	3.840	2607.059	22.050	-6.320	1857.905	-13.270	-10.830
173.	4271.872	-23.530	3.390	2613.711	22.400	-5.570	1850.609	-11.850	-10.830
174.	4271.440	-24.420	2.930	2619.539	22.740	-4.800	1844.360	-10.340	-10.830
175.	4270.816	-25.300	2.460	2624.516	23.070	-4.020	1838.949	-8.750	-10.830
176.	4269.815	-26.170	1.980	2628.616	23.400	-3.230	1834.404	-7.090	-10.830
177.	4269.336	-27.040	1.490	2631.826	23.720	-2.430	1830.908	-5.370	-10.830
178.	4268.994	-27.900	1.000	2634.151	24.040	-1.620	1828.476	-3.610	-10.830
179.	4268.785	-28.750	.500	2635.517	24.350	-0.810	1826.967	-1.810	-10.830
180.	4268.715	0.000	-0.000	2635.980	-0.000	-0.000	1826.462	0.000	-10.830

110-PLANE INDIUM ARSENIDE

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	JSRVEL	SSPHI12	SSPHI13
0.	4407.817	0.000	-0.000	2130.541	-20.550	0.000	2130.530	20.550	0.000
1.	4407.535	-8.820	-0.000	2117.057	-19.810	-0.000	2144.507	20.520	0.000
2.	4406.662	-8.650	-0.000	2104.520	-16.140	-0.000	2158.546	20.470	0.000
3.	4405.244	-1.250	-0.000	2093.010	-16.750	-0.000	2172.630	20.400	0.000
4.	4403.214	-1.740	-0.000	2082.559	-15.240	-0.000	2186.740	20.300	0.000
5.	4400.580	-2.150	-0.000	2073.227	-13.600	-0.000	2200.058	20.160	0.000
6.	4397.336	-2.660	-0.000	2065.054	-11.860	-0.000	2214.769	20.040	0.000
7.	4393.477	-3.110	-0.000	2058.059	-10.020	-0.000	2229.054	19.860	0.000
8.	4388.936	-3.560	-0.000	2052.384	-8.060	-0.000	2243.036	19.700	0.000
9.	4383.692	-4.010	-0.000	2047.944	-6.060	-0.000	2257.064	19.500	0.000
10.	4378.162	-4.520	-0.000	2044.008	-3.970	-0.000	2270.756	19.250	0.000
11.	4371.806	-5.000	-0.000	2042.935	-1.840	-0.000	2284.019	19.050	0.000
12.	4364.824	-5.470	-0.000	2042.520	3.320	-0.000	2298.537	18.810	0.000
13.	4357.215	-5.940	-0.000	2043.393	2.880	-0.000	2312.137	18.540	0.000
14.	4348.995	-6.410	-0.000	2045.615	4.640	-0.000	2325.604	18.260	0.000
15.	4340.155	-6.860	0.000	2049.182	6.760	-0.000	2338.923	17.970	0.000
16.	4330.707	-7.350	0.000	2054.085	8.830	-0.000	2352.061	17.660	0.000
17.	4320.659	-7.810	-0.000	2060.308	10.620	-0.000	2365.062	17.350	0.000
18.	4310.020	-8.270	-0.000	2067.826	12.740	-0.000	2377.063	17.010	0.000
19.	4298.800	-8.720	-0.000	2076.617	14.560	-0.000	2388.061	16.670	0.000
20.	4287.013	-9.160	-0.000	2086.642	16.270	-0.000	2402.848	16.320	0.000
21.	4274.673	-9.590	-0.000	2097.863	17.670	-0.000	2415.012	15.950	0.000
22.	4261.796	-10.020	-0.000	2110.236	19.350	-0.000	2426.741	15.560	0.000
23.	4248.400	-10.420	-0.000	2123.711	20.700	-0.000	2438.024	15.150	0.000
24.	4234.506	-10.830	-0.000	2138.235	21.930	-0.000	2449.051	14.800	0.000
25.	4220.135	-11.210	0.006	2153.746	23.040	-0.000	2461.213	14.390	-0.000
26.	4205.312	-11.560	-0.000	2170.167	24.020	-0.000	2472.037	13.960	0.000
27.	4190.065	-11.930	-0.000	2187.487	24.860	-0.000	2482.696	13.560	0.000
28.	4174.422	-12.260	-0.000	2205.575	25.620	-0.000	2493.000	13.140	0.000
29.	4158.410	-12.560	-0.000	2224.378	26.240	-0.000	2503.000	12.700	0.000
30.	4142.086	-12.840	-0.000	2243.016	26.740	-0.000	2512.680	12.260	0.000
31.	4125.467	-13.090	-0.000	2263.512	27.130	-0.000	2522.055	11.810	0.000
32.	4108.604	-13.310	0.000	2284.877	27.400	-0.000	2531.054	11.360	0.000
33.	4091.562	-13.560	0.000	2305.122	27.570	-0.000	2539.797	10.900	0.000
34.	4074.333	-13.650	0.000	2326.257	27.620	-0.000	2548.156	10.430	0.000
35.	4057.033	-13.750	-0.000	2347.565	27.570	-0.000	2556.160	9.960	0.000
36.	4039.701	-13.810	0.000	2369.006	27.400	-0.000	2563.623	9.480	0.000
37.	4022.404	-13.810	-0.000	2390.617	27.120	-0.000	2571.116	9.000	0.000
38.	4005.213	-13.760	0.000	2411.710	26.730	-0.000	2578.041	8.520	0.000
39.	3988.206	-13.660	0.000	2432.772	26.220	-0.000	2584.592	8.030	0.000
40.	3971.465	-13.450	0.000	2453.486	25.560	-0.000	2590.765	7.540	0.000
41.	3955.081	-13.190	0.000	2473.732	24.820	-0.000	2596.555	7.040	0.000
42.	3939.145	-12.840	0.000	2493.383	23.930	-0.000	2601.956	6.540	0.000
43.	3923.771	-12.410	0.000	2512.310	22.500	-0.000	2606.966	6.040	0.000
44.	3908.056	-11.870	0.000	2530.376	21.720	-0.000	2611.561	5.530	0.000
45.	3895.115	-11.240	0.000	2547.452	20.400	-0.000	2615.796	5.020	0.000
46.	3882.064	-10.510	0.000	2563.395	18.910	-0.000	2619.608	4.510	0.000
47.	3870.022	-9.660	0.000	2578.067	17.270	-0.000	2623.015	4.000	0.000
48.	3859.105	-8.710	0.000	2591.335	15.470	-0.000	2626.015	3.490	0.000
49.	3849.429	-7.650	0.000	2603.067	13.520	-0.000	2628.004	2.970	0.000

BULK

110-PLANE INDIUM ARSENIIDE

BULK

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
50.	3641.102	-6.480	0.000	2613.162	11.410	-0.000	2630.791	2.460	0.000
51.	3634.224	-5.230	0.000	2621.449	9.170	-0.000	2632.544	1.940	-0.000
52.	3626.061	-3.900	0.000	2627.092	6.820	0.000	2633.692	1.420	0.000
53.	3625.142	-2.500	0.000	2632.395	4.370	0.000	2634.625	.900	0.000
54.	3623.059	-1.070	0.000	2634.902	1.870	0.000	2635.380	.360	0.000
55.	3622.660	.360	0.000	2635.439	-.140	-0.000	2635.382	-.670	0.000
56.	3623.951	1.830	0.000	2633.029	-3.200	-0.000	2635.120	-.660	-0.000
57.	3626.913	3.240	0.000	2630.263	-5.660	0.000	2634.364	-1.180	-0.000
58.	3631.506	4.610	0.000	2624.727	-8.080	0.000	2633.232	-1.700	-0.000
59.	3637.670	5.900	0.000	2617.259	-10.370	0.000	2631.665	-2.210	0.000
60.	3645.324	7.110	0.000	2608.036	-12.540	-0.000	2629.663	-2.730	0.000
61.	3654.376	8.220	0.000	2597.071	-14.570	-0.000	2627.268	-3.250	0.000
62.	3664.722	9.220	0.000	2584.513	-16.440	-0.000	2624.482	-3.760	0.000
63.	3676.247	10.120	0.000	2570.467	-18.160	-0.000	2621.267	-4.270	0.000
64.	3688.037	10.910	0.000	2555.127	-19.720	-0.000	2617.645	-4.760	0.000
65.	3902.372	11.590	0.000	2538.570	-21.120	-0.000	2613.620	-5.230	0.000
66.	3916.736	12.170	0.000	2522.933	-22.360	-0.000	2609.194	-5.680	0.000
67.	3931.815	12.650	0.000	2508.415	-23.460	-0.000	2604.370	-6.100	0.000
68.	3947.456	13.030	0.000	2493.009	-24.420	-0.000	2599.152	-6.490	0.000
69.	3963.682	13.340	0.000	2463.108	-25.240	-0.000	2593.546	-6.840	0.000
70.	3980.266	13.560	0.000	2442.599	-25.930	-0.000	2587.553	-7.160	0.000
71.	3997.154	13.710	0.000	2421.687	-26.500	-0.000	2581.190	-7.450	0.000
72.	4014.272	13.790	0.000	2400.489	-26.950	-0.000	2574.431	-7.700	0.000
73.	4031.529	13.810	0.000	2379.128	-27.260	-0.000	2567.311	-7.920	0.000
74.	4048.852	13.760	0.000	2357.690	-27.500	-0.000	2559.826	-8.100	0.000
75.	4066.175	13.700	0.000	2336.306	-27.610	-0.000	2551.983	-8.240	0.000
76.	4083.435	13.570	0.000	2315.067	-27.610	-0.000	2543.786	-8.340	0.000
77.	4100.572	13.410	0.000	2294.074	-27.500	-0.000	2535.244	-8.400	0.000
78.	4117.556	13.200	-0.000	2273.416	-27.270	-0.000	2526.363	-8.420	0.000
79.	4134.275	12.970	0.000	2253.191	-26.940	-0.000	2517.150	-8.390	0.000
80.	4150.740	12.700	0.000	2233.479	-26.490	-0.000	2507.612	-8.310	0.000
81.	4166.911	12.410	0.000	2214.366	-25.920	-0.000	2497.758	-8.180	0.000
82.	4182.729	12.090	0.000	2195.931	-25.240	-0.000	2487.597	-8.000	0.000
83.	4198.167	11.750	0.000	2178.250	-24.440	-0.000	2477.136	-7.770	0.000
84.	4213.193	11.390	0.000	2161.396	-23.520	-0.000	2466.385	-7.500	0.000
85.	4227.781	11.010	0.000	2145.437	-22.470	-0.000	2455.353	-7.190	0.000
86.	4241.903	10.620	0.000	2130.439	-21.300	-0.000	2444.050	-6.840	0.000
87.	4255.537	10.210	0.000	2116.462	-20.000	-0.000	2432.486	-6.460	0.000
88.	4268.661	9.800	0.000	2103.562	-18.580	-0.000	2420.672	-6.000	0.000
89.	4281.257	9.370	0.000	2091.732	-17.060	-0.000	2408.618	-5.560	0.000
90.	4293.307	8.930	-0.000	2081.197	-15.360	-0.000	2396.335	-5.100	0.000
91.	4304.796	8.480	-0.000	2071.820	-13.610	-0.000	2383.835	-4.650	0.000
92.	4315.710	8.030	0.000	2063.637	-11.740	-0.000	2371.130	-4.190	0.000
93.	4326.039	7.570	-0.000	2056.659	-9.760	-0.000	2358.232	-3.720	0.000
94.	4335.771	7.100	0.000	2051.331	-7.740	-0.000	2345.154	-3.240	0.000
95.	4344.899	6.640	0.000	2047.431	-5.640	-0.000	2331.904	-2.750	0.000
96.	4353.414	6.170	0.000	2044.273	-3.500	-0.000	2318.511	-2.250	0.000
97.	4361.312	5.650	-0.000	2042.784	-1.340	-0.000	2304.972	-1.740	0.000
98.	4368.589	5.220	-0.000	2042.603	.620	-0.000	2291.306	-1.210	0.000
99.	4375.240	4.750	0.000	2043.746	2.970	-0.000	2277.532	-.740	0.000

110-PLANE INDIUM ARSENIIDE

	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
100.	4381.266	0.000	2046.300	5.060	-0.000	2263.660	-19.400	0.000
101.	4386.665	3.600	2050.127	7.130	-0.000	2289.787	-19.610	0.000
102.	4391.439	3.330	2055.244	9.110	-0.000	2235.669	-19.600	0.000
103.	4395.592	2.670	2061.621	11.000	-0.000	2221.621	-19.970	0.000
104.	4399.125	2.410	2064.224	12.600	-0.000	2207.621	-20.120	0.000
105.	4402.046	1.950	2076.012	14.460	-0.000	2193.604	-20.250	0.000
106.	4404.360	1.500	2087.941	16.056	-0.000	2179.627	-20.350	0.000
107.	4406.077	1.060	2098.962	17.500	-0.000	2165.609	-20.440	0.000
108.	4407.204	.620	2111.021	18.830	-0.000	2151.627	-20.500	0.000
109.	4407.754	.200	2124.062	20.030	-0.000	2137.610	-20.540	0.000
110.	4407.735	-.220	2138.024	21.100	-0.000	2123.622	-20.550	0.000
111.	4407.172	-.620	2152.844	22.060	-0.000	2109.606	-20.540	0.000
112.	4406.070	-1.020	2168.456	22.890	-0.000	2095.600	-20.500	0.000
113.	4404.450	-1.400	2184.792	23.650	-0.000	2081.592	-20.430	0.000
114.	4402.329	-1.760	2201.780	24.230	-0.000	2066.532	-20.330	0.000
115.	4399.730	-2.110	2219.365	24.720	-0.000	2050.520	-20.210	0.000
116.	4396.674	-2.450	2237.425	25.110	-0.000	2042.435	-20.050	0.000
117.	4393.164	-2.760	2255.932	25.460	-0.000	2029.236	-19.650	0.000
118.	4389.266	-3.060	2274.744	25.500	-0.000	2016.564	-19.630	0.000
119.	4385.013	-3.330	2293.933	25.660	-0.000	2004.336	-19.370	0.000
120.	4380.387	-3.580	2313.272	25.660	-0.000	1991.979	-19.070	0.000
121.	4375.444	-3.810	2332.731	25.560	-0.000	1980.105	-18.740	0.000
122.	4370.216	-4.020	2352.232	25.400	-0.000	1966.536	-18.370	0.000
123.	4364.740	-4.200	2371.693	25.130	-0.000	1957.246	-17.960	0.000
124.	4359.051	-4.350	2391.036	24.770	-0.000	1946.400	-17.510	0.000
125.	4353.190	-4.470	2410.179	24.330	-0.000	1935.867	-17.020	0.000
126.	4347.150	-4.550	2428.042	23.800	-0.000	1925.716	-16.490	0.000
127.	4341.116	-4.610	2447.545	23.150	-0.000	1915.970	-15.920	0.000
128.	4334.995	-4.630	2465.608	22.450	-0.000	1906.642	-15.310	0.000
129.	4328.873	-4.620	2483.152	21.710	-0.000	1897.752	-14.660	0.000
130.	4322.801	-4.570	2500.097	20.950	-0.000	1889.316	-13.970	0.000
131.	4316.826	-4.490	2516.366	19.910	-0.000	1881.351	-13.240	0.000
132.	4310.997	-4.360	2531.863	18.660	-0.000	1873.873	-12.460	0.000
133.	4305.364	-4.200	2546.573	17.760	-0.000	1866.897	-11.650	0.000
134.	4299.974	-4.000	2560.364	16.600	-0.000	1860.437	-10.810	0.000
135.	4294.876	-3.770	2573.166	15.330	-0.000	1854.506	-9.920	0.000
136.	4290.116	-3.500	2584.973	14.000	-0.000	1849.117	-9.010	0.000
137.	4285.736	-3.190	2595.661	12.590	-0.000	1844.260	-8.060	0.000
138.	4281.766	-2.850	2605.195	11.120	-0.000	1840.007	-7.080	0.000
139.	4278.298	-2.490	2613.519	9.580	-0.000	1836.307	-6.080	0.000
140.	4275.309	-2.090	2620.569	8.000	-0.000	1833.166	-5.050	0.000
141.	4272.849	-1.660	2626.362	6.360	-0.000	1830.633	-4.010	0.000
142.	4270.945	-1.240	2630.805	4.650	-0.000	1828.713	-2.950	0.000
143.	4269.617	-.790	2633.892	2.990	-0.000	1827.365	-1.870	0.000
144.	4268.878	-.340	2635.604	1.270	-0.000	1826.625	-.000	0.000
145.	4268.736	.120	2635.931	-.460	-0.000	1826.483	.290	0.000
146.	4269.194	.560	2634.872	-2.160	-0.000	1826.843	1.370	-0.000
147.	4270.245	1.030	2632.432	-3.890	-0.000	1828.004	2.440	-0.000
148.	4271.860	1.460	2628.626	-5.560	-0.000	1829.663	3.510	-0.000
149.	4274.080	1.900	2623.477	-7.220	-0.000	1831.917	4.560	-0.000

110-PLANE INDIUM ARSENIDE

BULK

	LMGVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SRVEL	SSPH12	SSPH13
150.	4276.823	2.310	0.000	2617.015	-8.840	0.000	1634.761	5.590	0.000
151.	4280.860	2.660	0.000	2609.278	-10.400	0.000	1838.489	6.613	0.000
152.	4283.818	3.040	0.000	2600.309	-11.910	0.000	1842.193	7.680	-0.030
153.	4287.999	3.360	0.000	2590.158	-13.340	0.000	1846.764	8.560	0.000
154.	4292.584	3.640	0.000	2578.882	-14.710	0.000	1851.894	9.490	-0.000
155.	4297.526	3.960	0.000	2566.541	-16.010	0.000	1857.711	10.300	-0.000
156.	4302.787	4.110	0.000	2553.199	-17.230	0.000	1863.763	11.260	0.000
157.	4308.311	4.290	0.000	2538.925	-18.370	0.000	1870.517	12.090	-0.000
158.	4314.054	4.430	0.000	2523.765	-19.430	0.000	1877.760	12.860	-0.000
159.	4319.966	4.530	0.000	2507.865	-20.420	0.000	1885.437	13.630	-0.000
160.	4325.996	4.600	0.000	2491.224	-21.320	0.000	1893.713	14.340	-0.000
161.	4332.102	4.630	0.000	2473.956	-22.130	0.000	1902.531	15.010	-0.000
162.	4338.231	4.620	0.000	2456.131	-22.870	0.000	1911.214	15.640	-0.000
163.	4344.337	4.580	0.000	2437.825	-23.520	0.000	1921.066	16.230	-0.000
164.	4350.376	4.510	0.000	2419.122	-24.090	0.000	1931.028	16.780	-0.000
165.	4356.304	4.410	0.000	2400.101	-24.570	0.000	1941.382	17.260	-0.000
166.	4362.079	4.270	0.000	2380.843	-24.970	0.000	1952.109	17.750	-0.000
167.	4367.660	4.110	0.000	2361.427	-25.280	0.000	1963.190	18.160	-0.000
168.	4373.010	3.910	0.000	2341.935	-25.510	0.000	1974.606	18.570	-0.000
169.	4378.092	3.700	0.000	2322.447	-25.650	0.000	1986.338	18.920	-0.000
170.	4382.871	3.450	0.000	2303.041	-25.690	0.000	1998.364	19.230	-0.000
171.	4387.316	3.150	0.000	2283.796	-25.640	0.000	2010.667	19.510	-0.000
172.	4391.394	2.900	0.000	2264.795	-25.500	0.000	2023.225	19.750	-0.000
173.	4395.079	2.600	0.000	2246.111	-25.260	0.000	2036.020	19.960	-0.000
174.	4398.343	2.270	0.000	2227.822	-24.920	0.000	2049.030	20.130	0.000
175.	4401.161	1.930	0.000	2210.005	-24.470	-0.000	2062.236	20.260	0.000
176.	4403.510	1.570	0.000	2192.733	-23.920	-0.000	2075.620	20.390	0.000
177.	4405.369	1.200	0.000	2176.001	-23.250	0.000	2089.160	20.470	0.000
178.	4406.718	.810	0.000	2160.118	-22.470	-0.000	2102.838	20.520	-0.000
179.	4407.539	.410	0.000	2144.916	-21.570	0.000	2116.834	20.550	-0.000
180.	4407.817	0.000	0.000	2130.541	-20.550	-0.000	2130.330	20.550	-0.000

X-PLANE (YZ-PLANE) LEAD MOLYBDATE

	LPMI12	LPMI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
0.	-0.000	-15.090	2123.012	0.000	43.640	1960.032	-0.600	-0.000
1.	-1.10	-15.080	2123.381	1.130	43.740	1959.500	-1.760	1.000
2.	-2.30	-15.070	2124.466	2.210	43.470	1957.923	-3.490	1.000
3.	-3.40	-15.040	2126.225	3.190	43.620	1955.351	-5.100	1.000
4.	-4.50	-15.000	2128.577	4.030	42.450	1951.861	-6.560	2.330
5.	-5.70	-14.950	2131.434	4.730	41.760	1947.548	-7.860	3.410
6.	-6.80	-14.890	2134.700	5.270	41.010	1942.511	-8.950	4.540
7.	-7.90	-14.820	2138.281	5.670	40.210	1936.852	-9.960	5.670
8.	-9.10	-14.730	2142.086	5.940	39.390	1930.666	-10.790	6.800
9.	-1.020	-14.640	2146.041	6.100	38.560	1924.040	-11.460	7.930
10.	-1.130	-14.540	2150.068	6.150	37.740	1917.056	-12.050	9.060
11.	-1.250	-14.420	2154.110	6.120	36.920	1909.782	-12.510	10.190
12.	-1.360	-14.300	2158.112	6.010	36.120	1902.204	-12.860	11.320
13.	-1.480	-14.160	2162.030	5.840	35.340	1894.616	-13.160	12.450
14.	-1.590	-14.020	2165.825	5.620	34.560	1886.635	-13.370	13.580
15.	-1.710	-13.870	2169.665	5.360	33.840	1878.981	-13.500	14.710
16.	-1.820	-13.700	2172.922	5.060	33.120	1871.097	-13.570	15.840
17.	-1.940	-13.530	2176.172	4.720	32.410	1863.223	-13.580	16.970
18.	-2.060	-13.350	2179.194	4.370	31.720	1855.394	-13.530	18.100
19.	-2.170	-13.160	2181.973	3.960	31.050	1847.644	-13.430	19.230
20.	-2.290	-12.960	2184.493	3.580	30.390	1840.003	-13.270	20.360
21.	-2.410	-12.750	2186.743	3.170	29.740	1832.500	-13.070	21.490
22.	-2.520	-12.540	2188.712	2.740	29.100	1825.164	-12.810	22.620
23.	-2.640	-12.320	2190.393	2.300	28.460	1818.021	-12.510	23.750
24.	-2.760	-12.090	2191.775	1.850	27.860	1811.095	-12.160	24.880
25.	-2.880	-11.850	2192.864	1.400	27.250	1804.410	-11.760	26.010
26.	-3.000	-11.610	2193.646	1.000	26.650	1797.940	-11.320	27.140
27.	-3.120	-11.360	2194.122	.480	26.050	1791.654	-10.840	28.270
28.	-3.230	-11.110	2194.290	.020	25.460	1785.623	-10.310	29.400
29.	-3.350	-10.850	2194.151	-4.40	24.860	1780.016	-9.750	30.530
30.	-3.470	-10.590	2193.704	-9.00	24.300	1775.352	-9.140	31.660
31.	-3.590	-10.320	2192.953	-1.350	23.720	1770.946	-8.510	32.790
32.	-3.710	-10.050	2191.899	-1.800	23.150	1766.114	-7.860	33.920
33.	-3.830	-9.770	2190.547	-2.250	22.590	1762.070	-7.190	35.050
34.	-3.940	-9.490	2188.900	-2.690	22.030	1758.426	-6.530	36.180
35.	-4.060	-9.210	2186.963	-3.120	21.470	1755.195	-5.860	37.310
36.	-4.180	-8.930	2184.742	-3.540	20.920	1752.387	-5.200	38.440
37.	-4.250	-8.640	2182.244	-3.960	20.370	1750.009	-4.550	39.570
38.	-4.410	-8.360	2179.476	-4.360	19.830	1748.066	-3.920	40.700
39.	-4.520	-8.070	2176.446	-4.750	19.290	1746.572	-3.290	41.830
40.	-4.630	-7.780	2173.161	-5.140	18.750	1745.522	-2.690	42.960
41.	-4.740	-7.490	2169.632	-5.510	18.220	1744.923	-2.000	44.090
42.	-4.850	-7.200	2165.867	-5.860	17.700	1744.774	-1.340	45.220
43.	-4.950	-6.920	2161.877	-6.200	17.160	1745.076	-0.690	46.350
44.	-5.050	-6.630	2157.671	-6.530	16.660	1745.824	0.000	47.480
45.	-5.150	-6.350	2153.262	-6.840	16.150	1747.017	0.650	48.610
46.	-5.250	-6.070	2148.660	-7.130	15.640	1748.664	1.300	49.740
47.	-5.340	-5.790	2143.877	-7.410	15.140	1750.707	1.950	50.870
48.	-5.430	-5.510	2138.927	-7.660	14.650	1753.189	2.600	52.000
49.	-5.510	-5.240	2133.820	-7.920	14.160	1756.082	3.250	53.130

BULK

X-PLANE (YZ-PLANE) LEAD HOLYBDATE

	LPHI12	LPHI13	FSRVEL	FSPH112	FSPH113	SSKVEL	SSPH112	SSPH113
50.	3035.102	-5.590	-4.970	-8.140	13.600	1759.375	6.480	3.260
51.	3026.515	-5.660	2123.192	-8.350	13.200	1763.053	7.160	2.740
52.	3021.657	-5.730	2117.637	-8.540	12.740	1767.101	7.610	2.240
53.	3015.136	-5.750	2112.100	-8.700	12.270	1771.504	8.420	1.750
54.	3008.359	-5.840	2106.415	-8.850	11.820	1776.243	8.980	1.290
55.	3001.534	-5.890	2100.656	-9.080	11.370	1781.300	9.510	0.840
56.	3794.672	-5.930	2094.837	-9.080	10.930	1786.653	9.990	0.410
57.	3787.781	-5.940	2089.974	-9.160	10.450	1792.262	10.430	0.100
58.	3780.873	-5.940	2085.081	-9.220	10.070	1798.164	10.820	-0.370
59.	3773.956	-5.990	2077.172	-9.260	9.650	1804.275	11.170	-0.730
60.	3767.044	-6.000	2071.255	-9.280	9.240	1810.591	11.470	-1.060
61.	3760.148	-5.950	2065.366	-9.270	8.830	1817.086	11.710	-1.360
62.	3753.280	-5.970	2059.502	-9.240	8.440	1823.733	11.910	-1.640
63.	3746.453	-5.940	2053.680	-9.180	8.050	1830.506	12.060	-1.890
64.	3739.680	-5.900	2047.917	-9.110	7.670	1837.378	12.160	-2.110
65.	3732.977	-5.840	2042.227	-9.010	7.300	1844.319	12.210	-2.310
66.	3726.356	-5.770	2036.624	-8.890	6.930	1851.301	12.210	-2.470
67.	3719.834	-5.650	2031.124	-8.730	6.560	1858.425	12.160	-2.610
68.	3713.425	-5.590	2025.739	-8.560	6.230	1865.673	12.070	-2.730
69.	3707.145	-5.460	2020.484	-8.370	5.860	1873.204	11.920	-2.810
70.	3701.010	-5.360	2015.373	-8.150	5.510	1881.059	11.730	-2.860
71.	3695.036	-5.220	2010.418	-7.900	5.220	1889.269	11.490	-2.910
72.	3689.240	-5.060	2005.632	-7.640	4.960	1897.825	11.200	-2.920
73.	3683.637	-4.850	2001.028	-7.360	4.590	1896.876	10.870	-2.810
74.	3678.245	-4.700	1996.616	-7.050	4.260	1906.440	10.490	-2.670
75.	3673.079	-4.500	1992.413	-6.720	3.960	1916.579	10.070	-2.610
76.	3668.157	-4.260	1988.424	-6.370	3.660	1927.303	9.610	-2.730
77.	3663.493	-4.050	1984.663	-6.010	3.400	1938.615	9.110	-2.620
78.	3659.103	-3.810	1981.138	-5.620	3.130	1950.503	8.570	-2.500
79.	3655.002	-3.540	1977.859	-5.220	2.850	1963.035	7.990	-2.360
80.	3651.204	-3.270	1974.835	-4.800	2.560	1976.186	7.500	-2.220
81.	3647.724	-2.980	1972.074	-4.360	2.290	1990.032	6.940	-2.050
82.	3644.573	-2.660	1969.583	-3.920	2.030	1945.201	6.070	-1.640
83.	3641.763	-2.370	1967.365	-3.460	1.760	1948.608	5.370	-1.640
84.	3639.306	-2.050	1965.435	-2.990	1.510	1951.594	4.650	-1.440
85.	3637.210	-1.730	1963.796	-2.500	1.250	1954.146	3.910	-1.210
86.	3635.483	-1.390	1962.446	-2.010	1.000	1956.251	3.150	-0.910
87.	3634.133	-1.050	1961.392	-1.510	0.750	1957.939	2.370	-0.740
88.	3633.165	-0.700	1960.637	-1.010	0.500	1959.062	1.590	-0.840
89.	3632.583	-0.350	1960.184	-0.510	0.250	1959.795	0.800	-0.900
90.	3632.388	0.000	1960.032	0.000	0.000	1960.032	-0.000	-0.900
91.	3632.583	0.000	1960.184	0.510	-0.250	1959.795	-0.800	-0.840
92.	3633.165	0.000	1960.637	1.010	-0.500	1959.062	-1.590	-0.740
93.	3634.133	1.050	1961.392	1.510	-0.750	1957.939	-2.370	-0.910
94.	3635.483	1.390	1962.446	2.010	-1.000	1956.251	-3.150	-0.910
95.	3637.210	1.730	1963.796	2.500	-1.250	1954.146	-3.910	-1.210
96.	3639.306	2.050	1965.435	2.980	-1.510	1951.594	-4.650	-1.440
97.	3641.763	2.370	1967.369	3.460	-1.760	1948.608	-5.370	-1.640
98.	3644.573	2.660	1969.583	3.920	-2.030	1945.201	-6.070	-1.640
99.	3647.724	2.960	1972.074	4.360	-2.290	1941.332	-6.740	-2.030

	X-PLANE (YZ-PLANE) LEAD MOLYBDATE									
	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13	
100.	3651.204	3.270	.130	1974.835	4.800	-2.560	1937.196	-7.300	2.200	
101.	3655.002	3.540	.170	1977.859	5.220	-2.830	1932.635	-7.990	2.360	
102.	3659.103	3.810	.220	1981.136	5.620	-3.110	1927.730	-8.570	2.500	
103.	3663.493	4.050	.270	1984.563	6.010	-3.400	1922.503	-9.110	2.620	
104.	3668.157	4.280	.340	1988.824	6.370	-3.680	1916.379	-9.610	2.730	
105.	3673.079	4.500	.410	1992.413	6.720	-3.960	1911.182	-10.070	2.810	
106.	3678.245	4.700	.490	1996.616	7.050	-4.220	1905.140	-10.450	2.870	
107.	3683.637	4.890	.560	2001.028	7.360	-4.500	1898.876	-10.700	2.910	
108.	3689.240	5.060	.680	2005.632	7.640	-4.780	1892.425	-11.000	2.920	
109.	3695.036	5.220	.790	2010.416	7.910	-5.020	1885.804	-11.450	2.910	
110.	3701.010	5.360	.910	2015.373	8.150	-5.250	1879.059	-11.730	2.860	
111.	3707.145	5.480	1.040	2020.404	8.370	-5.460	1872.204	-11.920	2.610	
112.	3713.425	5.590	1.170	2025.735	8.560	-5.630	1865.273	-12.070	2.730	
113.	3719.834	5.690	1.320	2031.124	8.730	-5.780	1858.295	-12.180	2.810	
114.	3726.356	5.770	1.470	2036.524	8.880	-5.930	1851.301	-12.210	2.470	
115.	3732.977	5.840	1.630	2042.227	9.010	-6.060	1844.319	-12.210	2.310	
116.	3739.660	5.900	1.800	2047.917	9.110	-6.170	1837.376	-12.160	2.110	
117.	3746.453	5.940	1.980	2053.680	9.160	-6.250	1830.506	-12.060	1.890	
118.	3753.260	5.970	2.170	2059.502	9.246	-6.440	1823.733	-11.910	1.690	
119.	3760.148	5.990	2.370	2065.368	9.270	-6.630	1817.066	-11.710	1.360	
120.	3767.044	6.000	2.570	2071.263	9.260	-6.820	1810.591	-11.470	1.000	
121.	3773.956	6.000	2.780	2077.172	9.260	-7.000	1804.275	-11.170	.730	
122.	3780.873	5.960	3.000	2083.051	9.220	-7.180	1798.064	-10.820	.570	
123.	3787.761	5.960	3.230	2088.974	9.160	-7.360	1791.900	-10.430	.410	
124.	3794.672	5.930	3.460	2094.837	9.080	-7.540	1785.653	-9.990	.240	
125.	3801.534	5.890	3.700	2100.656	8.960	-7.720	1779.300	-9.510	.070	
126.	3808.359	5.840	3.940	2106.415	8.850	-7.900	1772.924	-8.980	.000	
127.	3815.136	5.790	4.190	2112.100	8.700	-8.080	1766.507	-8.420	.000	
128.	3821.857	5.730	4.450	2117.657	8.540	-8.260	1760.101	-7.810	.000	
129.	3828.515	5.660	4.710	2123.192	8.350	-8.440	1753.653	-7.160	.000	
130.	3835.102	5.590	4.970	2128.571	8.140	-8.620	1747.177	-6.460	.000	
131.	3841.610	5.510	5.240	2133.820	7.920	-8.800	1740.682	-5.700	.000	
132.	3848.034	5.430	5.510	2138.927	7.680	-8.980	1734.189	-4.900	.000	
133.	3854.366	5.340	5.790	2143.877	7.410	-9.160	1727.607	-4.050	.000	
134.	3860.605	5.250	6.070	2148.560	7.130	-9.340	1720.923	-3.160	.000	
135.	3866.741	5.150	6.350	2153.262	6.840	-9.520	1714.177	-2.240	.000	
136.	3872.771	5.050	6.630	2157.671	6.530	-9.700	1707.375	-1.300	.000	
137.	3878.691	4.950	6.920	2161.877	6.200	-9.880	1700.522	-.350	.000	
138.	3884.496	4.850	7.200	2165.867	5.860	-10.060	1693.626	0.600	.000	
139.	3890.184	4.740	7.490	2169.637	5.500	-10.240	1686.684	1.550	.000	
140.	3895.751	4.630	7.780	2173.161	5.140	-10.420	1679.697	2.500	.000	
141.	3901.195	4.520	8.070	2176.446	4.750	-10.600	1672.674	3.450	.000	
142.	3906.512	4.410	8.360	2179.476	4.360	-10.780	1665.616	4.400	.000	
143.	3911.701	4.290	8.640	2182.244	3.960	-10.960	1658.522	5.350	.000	
144.	3916.759	4.160	8.930	2184.742	3.540	-11.140	1651.393	6.300	.000	
145.	3921.685	4.060	9.210	2186.963	3.120	-11.320	1644.226	7.250	.000	
146.	3926.477	3.940	9.490	2188.900	2.690	-11.500	1637.022	8.200	.000	
147.	3931.134	3.830	9.770	2190.547	2.250	-11.680	1629.784	9.150	.000	
148.	3935.654	3.710	10.050	2191.899	1.800	-11.860	1622.512	10.100	.000	
149.	3940.036	3.590	10.320	2192.953	1.350	-12.040	1615.206	11.050	.000	

X-PLANE (YZ-PLANE) LEAD MOLYBDATE

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
150.	3944.283	3.470	10.590	2193.704	.500	-24.300	1775.352	9.443	-13.120
151.	3948.390	3.350	10.650	2194.151	.440	-24.860	1780.516	9.750	-13.400
152.	3952.357	3.230	11.110	2194.290	-.020	-25.460	1786.023	10.310	-13.650
153.	3956.185	3.120	11.360	2194.122	-.460	-26.050	1791.654	10.840	-13.900
154.	3959.873	3.000	11.610	2193.646	-.940	-26.650	1797.990	11.320	-14.150
155.	3963.521	2.860	11.850	2192.864	-1.400	-27.250	1804.410	11.760	-14.400
156.	3966.829	2.760	12.090	2191.779	-1.850	-27.860	1811.035	12.160	-14.650
157.	3970.096	2.640	12.320	2190.393	-2.300	-28.480	1816.021	12.510	-14.900
158.	3973.223	2.520	12.540	2188.712	-2.740	-29.100	1820.164	12.810	-15.150
159.	3976.210	2.410	12.750	2186.743	-3.170	-29.740	1823.500	13.070	-15.400
160.	3979.056	2.250	12.960	2184.493	-3.580	-30.390	1840.003	13.270	-15.650
161.	3981.763	2.170	13.160	2181.973	-3.950	-31.050	1847.644	13.430	-15.900
162.	3984.329	2.060	13.350	2179.154	-4.370	-31.720	1855.344	13.530	-16.150
163.	3986.755	1.940	13.530	2176.172	-4.720	-32.410	1863.233	13.590	-16.400
164.	3989.042	1.820	13.700	2172.922	-5.060	-33.120	1871.057	13.570	-16.650
165.	3991.189	1.710	13.870	2169.465	-5.360	-33.840	1878.981	13.560	-16.900
166.	3993.196	1.590	14.020	2165.825	-5.620	-34.560	1886.635	13.370	-17.150
167.	3995.065	1.460	14.160	2162.030	-5.840	-35.340	1894.610	13.160	-17.400
168.	3996.794	1.360	14.300	2158.112	-6.010	-36.120	1902.284	12.890	-17.650
169.	3998.364	1.250	14.420	2154.110	-6.120	-36.920	1909.782	12.510	-17.900
170.	3999.836	1.130	14.540	2150.068	-6.150	-37.740	1917.056	12.000	-18.150
171.	4001.146	1.020	14.640	2146.041	-6.100	-38.560	1924.040	11.460	-18.400
172.	4002.323	.910	14.730	2142.066	-5.940	-39.350	1930.666	10.790	-18.650
173.	4003.359	.790	14.820	2138.261	-5.670	-40.210	1936.852	9.960	-18.900
174.	4004.256	.680	14.890	2134.700	-5.270	-41.010	1942.511	8.990	-19.150
175.	4005.015	.570	14.950	2131.434	-4.730	-41.760	1947.549	7.860	-19.400
176.	4005.636	.450	15.000	2128.577	-4.030	-42.450	1951.961	6.560	-19.650
177.	4006.120	.340	15.040	2126.221	-3.190	-43.020	1955.731	5.100	-19.900
178.	4006.464	.230	15.070	2124.468	-2.210	-43.470	1957.923	3.490	-20.150
179.	4006.671	.110	15.080	2123.381	-1.130	-43.740	1959.500	1.760	-20.400
180.	4006.740	-0.000	15.090	2123.012	0.000	-43.840	1960.032	-0.600	-20.650

Z-PLANE (XY-PLANE) LEAD MOLYBDATE

	LWCVEL	LQYI12	LQYI13	FSRWEL	FSQI12	FSQI13	SSRWEL	SSQI12	SSQI13
0.	4006.740	15.090	0.010	2123.012	-43.840	0.000	1960.032	0.000	0.000
1.	4025.607	15.030	0.000	2087.018	-44.970	0.000	1960.032	0.000	0.000
2.	4044.473	14.900	0.010	2050.296	-45.900	0.000	1960.032	0.000	0.000
3.	4063.329	14.700	0.000	2012.992	-46.900	0.000	1960.032	0.000	0.000
4.	4081.511	14.450	0.010	1975.266	-47.720	0.000	1960.032	0.000	0.000
5.	4099.807	14.140	0.000	1937.198	-48.450	0.000	1960.032	0.000	0.000
6.	4117.667	13.790	0.000	1898.983	-49.000	0.000	1960.032	0.000	0.000
7.	4135.070	13.400	0.010	1860.718	-49.540	0.000	1960.032	0.000	0.000
8.	4152.021	12.800	0.010	1822.501	-50.100	0.000	1960.032	0.000	0.000
9.	4168.449	12.520	0.000	1784.707	-50.450	0.000	1960.032	0.000	0.000
10.	4184.310	12.000	0.000	1747.199	-50.710	0.000	1960.032	0.000	0.000
11.	4199.551	11.520	0.010	1710.217	-50.850	0.000	1960.032	0.000	0.000
12.	4214.185	10.980	0.000	1673.098	-50.880	0.000	1960.032	0.000	0.000
13.	4228.068	10.420	0.010	1636.420	-50.770	0.000	1960.032	0.000	0.000
14.	4241.301	9.850	0.010	1600.307	-50.510	0.000	1960.032	0.000	0.000
15.	4253.775	9.250	0.010	1565.226	-50.080	0.000	1960.032	0.000	0.000
16.	4265.485	8.550	0.010	1531.478	-49.450	0.000	1960.032	0.000	0.000
17.	4276.409	7.800	0.000	1507.807	-48.600	0.000	1960.032	0.000	0.000
18.	4286.526	7.000	0.000	1484.798	-47.470	0.000	1960.032	0.000	0.000
19.	4295.820	6.150	0.010	1451.570	-46.040	0.000	1960.032	0.000	0.000
20.	4304.273	5.100	0.010	1426.719	-44.220	0.000	1960.032	0.000	0.000
21.	4311.877	4.440	0.010	1403.178	-41.970	0.000	1960.032	0.000	0.000
22.	4318.504	4.770	0.010	1382.319	-39.190	0.000	1960.032	0.000	0.000
23.	4324.459	4.100	0.010	1363.493	-35.790	0.000	1960.032	0.000	0.000
24.	4329.427	3.420	0.010	1346.079	-31.600	0.000	1960.032	0.000	0.000
25.	4333.501	2.740	0.000	1330.885	-26.800	0.000	1960.032	0.000	0.000
26.	4336.575	2.060	0.010	1324.539	-21.090	0.000	1960.032	0.000	0.000
27.	4338.643	1.370	0.000	1317.049	-14.540	0.000	1960.032	0.000	0.000
28.	4340.703	0.580	0.010	1312.501	-7.440	0.000	1960.032	0.000	0.000
29.	4340.752	-0.000	0.010	1311.114	0.050	0.000	1960.032	0.000	0.000
30.	4340.290	-0.590	0.000	1312.543	7.540	0.000	1960.032	0.000	0.000
31.	4338.918	-1.300	0.000	1317.172	14.670	0.000	1960.032	0.000	0.000
32.	4336.637	-2.070	0.010	1324.653	21.160	0.000	1960.032	0.000	0.000
33.	4333.451	-2.750	0.000	1335.049	26.870	0.000	1960.032	0.000	0.000
34.	4329.364	-3.430	0.000	1348.241	31.750	0.000	1960.032	0.000	0.000
35.	4324.384	-4.110	0.000	1364.132	35.840	0.000	1960.032	0.000	0.000
36.	4318.517	-4.780	0.010	1382.593	39.230	0.000	1960.032	0.000	0.000
37.	4311.772	-5.450	0.000	1403.485	42.000	0.000	1960.032	0.000	0.000
38.	4304.162	-6.110	0.000	1426.655	44.250	0.000	1960.032	0.000	0.000
39.	4295.695	-6.740	0.000	1451.945	46.060	0.000	1960.032	0.000	0.000
40.	4286.391	-7.400	0.000	1478.149	47.490	0.000	1960.032	0.000	0.000
41.	4276.262	-8.030	0.000	1508.222	48.510	0.000	1960.032	0.000	0.000
42.	4265.327	-8.650	0.010	1538.875	49.160	0.000	1960.032	0.000	0.000
43.	4253.605	-9.260	0.000	1570.947	50.000	0.000	1960.032	0.000	0.000
44.	4241.122	-9.850	0.000	1604.379	50.520	0.000	1960.032	0.000	0.000
45.	4227.900	-10.430	0.000	1638.907	50.770	0.000	1960.032	0.000	0.000
46.	4213.965	-10.990	0.000	1674.807	50.880	0.000	1960.032	0.000	0.000
47.	4199.353	-11.520	0.000	1710.726	50.850	0.000	1960.032	0.000	0.000
48.	4184.093	-12.040	0.010	1747.717	50.710	0.000	1960.032	0.000	0.000
49.	4168.225	-12.520	0.000	1785.232	50.450	0.000	1960.032	0.000	0.000

Z-PLANE (XY-PLANE) LEAD MOLYBDATE

	LMOVEL	LMOV12	LMOV13	FSPVFL	FSPV12	FSPV13	SSPVFL	SSPV12	SSPV13
50.	4151.789	-12.980	0.000	1823.129	50.090	0.000	1850.032	0.000	0.000
51.	4138.931	-13.810	0.000	1861.269	49.630	0.000	1860.032	-0.000	0.000
52.	4117.402	-13.800	0.000	1899.515	49.080	0.000	1860.032	0.000	0.000
53.	4099.556	-14.151	0.000	1937.720	48.440	0.000	1850.032	0.000	0.000
54.	4081.356	-14.850	0.000	1975.773	47.710	0.000	1850.032	0.000	0.000
55.	4062.870	-14.700	0.000	2013.514	46.890	0.000	1850.032	0.000	0.000
56.	4044.172	-14.000	0.000	2050.811	45.970	0.000	1850.032	0.000	0.000
57.	4025.164	-15.330	0.000	2087.523	44.950	0.000	1850.032	0.000	0.000
58.	4006.679	-15.091	0.000	2123.507	43.820	0.000	1850.032	0.000	0.000
59.	3987.674	-15.071	0.000	2158.513	42.580	0.000	1850.032	-0.000	0.000
60.	3969.040	-14.950	0.000	2192.586	41.200	0.000	1850.032	0.000	0.000
61.	3950.636	-14.750	0.000	2225.557	39.680	0.000	1850.032	0.000	0.000
62.	3932.472	-14.870	0.000	2257.090	38.010	0.000	1850.032	-0.000	0.000
63.	3915.409	-14.000	0.000	2287.079	36.150	0.000	1850.032	0.000	0.000
64.	3898.753	-13.820	0.000	2315.357	34.100	0.000	1850.032	0.000	0.000
65.	3882.966	-12.720	0.000	2341.716	31.830	0.000	1850.032	0.000	0.000
66.	3868.211	-11.850	0.000	2366.023	29.310	0.000	1850.032	0.000	0.000
67.	3854.658	-10.950	0.000	2388.945	26.540	0.000	1850.032	0.000	0.000
68.	3842.477	-9.580	0.000	2407.596	23.480	0.000	1850.032	0.000	0.000
69.	3831.833	-8.360	0.000	2424.501	20.150	0.000	1850.032	0.000	0.000
70.	3822.801	-5.491	0.000	2440.592	16.530	0.000	1850.032	0.000	0.000
71.	3815.847	-5.290	0.000	2449.717	12.550	0.000	1850.032	0.000	0.000
72.	3810.531	-3.580	0.000	2457.753	8.560	0.000	1850.032	0.000	0.000
73.	3807.457	-1.800	0.000	2462.574	4.310	0.000	1850.032	0.000	0.000
74.	3805.416	0.010	0.000	2464.213	-0.030	0.000	1850.032	-0.000	0.000
75.	3802.486	1.830	0.000	2462.559	-4.370	0.000	1850.032	0.000	0.000
76.	3819.589	3.510	0.000	2457.669	-8.520	0.000	1850.032	0.000	0.000
77.	3815.847	5.310	0.000	2449.594	-12.710	0.000	1850.032	0.000	0.000
78.	3822.994	5.910	0.000	2438.416	-15.580	0.000	1850.032	0.000	0.000
79.	3831.970	8.180	0.000	2424.215	-20.200	0.000	1850.032	-0.000	0.000
80.	3842.635	9.700	0.000	2407.342	-23.530	0.000	1850.032	0.000	0.000
81.	3856.838	10.870	0.000	2387.756	-26.580	0.000	1850.032	0.000	0.000
82.	3869.408	11.880	0.000	2365.707	-29.350	0.000	1850.032	0.000	0.000
83.	3881.178	12.730	0.000	2341.514	-31.860	0.000	1850.032	-0.000	0.000
84.	3893.979	13.640	0.000	2314.976	-34.130	0.000	1850.032	0.000	0.000
85.	3915.645	14.000	0.000	2286.674	-35.180	0.000	1850.032	-0.000	0.000
86.	3933.018	14.640	0.000	2256.662	-38.030	0.000	1850.032	0.000	0.000
87.	3950.949	14.760	0.000	2225.120	-39.710	0.000	1850.032	0.000	0.000
88.	3969.297	14.960	0.000	2192.221	-41.220	0.000	1850.032	0.000	0.000
89.	3987.934	15.070	0.000	2158.131	-42.560	0.000	1850.032	-0.000	0.000
90.	4006.740	15.090	0.000	2123.012	-43.640	0.000	1850.032	0.000	0.000
91.	4025.607	15.030	0.000	2087.019	-44.970	0.000	1850.032	0.000	0.000
92.	4044.433	14.990	0.000	2050.296	-45.990	0.000	1850.032	0.000	0.000
93.	4063.129	14.700	0.000	2012.992	-46.900	0.000	1850.032	0.000	0.000
94.	4081.611	14.850	0.000	1975.246	-47.720	0.000	1850.032	-0.000	0.000
95.	4099.807	14.140	0.000	1937.199	-48.450	0.000	1850.032	0.000	0.000
96.	4117.687	13.790	0.000	1898.983	-49.090	0.000	1850.032	0.000	0.000
97.	4135.070	13.400	0.000	1860.738	-49.640	0.000	1850.032	0.000	0.000
98.	4152.021	12.980	0.000	1822.601	-50.100	0.000	1850.032	0.000	0.000
99.	4168.449	12.520	0.000	1784.707	-50.450	0.000	1850.032	-0.000	0.000

Z-PLANE (XY-PLANE) LEAD MOLYBDATE

	LNGVEL	LPHI12	LPHI13	FSRVFL	FSPHI12	FSPHI13	SSPWFL	SSPHI12	SSPHI13
100.	4184.310	12.030	0.000	1747.199	-59.710	0.000	1060.032	0.000	0.000
101.	4199.561	11.524	0.000	1710.217	-50.850	0.000	1060.032	0.000	0.000
102.	4214.155	10.984	0.000	1673.904	-50.889	0.000	1060.032	0.000	0.000
103.	4228.088	10.420	0.000	1638.420	-50.770	0.000	1060.032	0.000	0.000
104.	4241.301	9.850	0.000	1603.907	-50.510	0.000	1060.032	0.000	0.000
105.	4254.774	9.250	0.000	1570.526	-50.080	0.000	1060.032	0.000	0.000
106.	4268.485	8.650	0.000	1538.434	-49.450	0.000	1060.032	0.000	0.000
107.	4282.409	8.030	0.000	1507.407	-48.600	0.000	1060.032	0.000	0.000
108.	4296.525	7.390	0.000	1477.474	-47.470	0.000	1060.032	0.000	0.000
109.	4295.420	6.750	0.000	1451.590	-46.040	0.000	1060.032	0.000	0.000
110.	4304.273	6.100	0.000	1426.714	-44.220	0.000	1060.032	0.000	0.000
111.	4311.872	5.460	0.000	1403.174	-41.970	0.000	1060.032	0.000	0.000
112.	4318.504	4.770	0.000	1382.319	-39.190	0.000	1060.032	0.000	0.000
113.	4324.459	4.100	0.000	1363.493	-35.790	0.000	1060.032	0.000	0.000
114.	4329.427	3.420	0.000	1346.439	-31.690	0.000	1060.032	0.000	0.000
115.	4333.501	2.740	0.000	1334.885	-26.400	0.000	1060.032	0.000	0.000
116.	4336.675	2.060	0.000	1324.539	-21.080	0.000	1060.032	0.000	0.000
117.	4338.943	1.370	0.000	1317.089	-14.540	0.000	1060.032	0.000	0.000
118.	4340.307	0.680	0.000	1312.601	-7.440	0.000	1060.032	0.000	0.000
119.	4340.752	-0.000	0.000	1311.114	0.000	0.000	1060.032	0.000	0.000
120.	4340.290	-0.690	0.000	1312.643	7.450	0.000	1060.032	0.000	0.000
121.	4338.914	-1.380	0.000	1317.172	14.570	0.000	1060.032	0.000	0.000
122.	4336.537	-2.070	0.000	1324.663	21.160	0.000	1060.032	0.000	0.000
123.	4333.161	-2.750	0.000	1335.049	26.870	0.000	1060.032	0.000	0.000
124.	4328.784	-3.420	0.000	1348.261	31.760	0.000	1060.032	0.000	0.000
125.	4323.508	-4.110	0.000	1364.132	35.840	0.000	1060.032	0.000	0.000
126.	4318.317	-4.780	0.000	1382.593	39.230	0.000	1060.032	0.000	0.000
127.	4313.212	-5.450	0.000	1403.445	42.000	0.000	1060.032	0.000	0.000
128.	4308.182	-6.110	0.000	1426.655	44.250	0.000	1060.032	0.000	0.000
129.	4295.696	-6.760	0.000	1451.945	45.060	0.000	1060.032	0.000	0.000
130.	4285.391	-7.400	0.000	1479.149	47.430	0.000	1060.032	0.000	0.000
131.	4276.242	-8.030	0.000	1508.222	48.510	0.000	1060.032	0.000	0.000
132.	4258.327	-8.650	0.000	1538.875	49.460	0.000	1060.032	0.000	0.000
133.	4253.606	-9.260	0.000	1570.992	50.090	0.000	1060.032	0.000	0.000
134.	4241.122	-9.850	0.000	1604.379	50.520	0.000	1060.032	0.000	0.000
135.	4227.900	-10.430	0.000	1638.907	50.770	0.000	1060.032	0.000	0.000
136.	4214.956	-10.990	0.000	1674.407	50.880	0.000	1060.032	0.000	0.000
137.	4199.353	-11.520	0.000	1710.726	50.950	0.000	1060.032	0.000	0.000
138.	4184.087	-12.040	0.000	1747.717	50.710	0.000	1060.032	0.000	0.000
139.	4168.225	-12.520	0.000	1785.232	50.450	0.000	1060.032	0.000	0.000
140.	4151.782	-12.980	0.000	1823.129	50.090	0.000	1060.032	0.000	0.000
141.	4134.831	-13.410	0.000	1861.269	49.630	0.000	1060.032	0.000	0.000
142.	4117.402	-13.800	0.000	1899.515	49.080	0.000	1060.032	0.000	0.000
143.	4099.556	-14.150	0.000	1937.774	48.440	0.000	1060.032	0.000	0.000
144.	4081.356	-14.450	0.000	1975.777	47.710	0.000	1060.032	0.000	0.000
145.	4062.870	-14.700	0.000	2013.514	46.890	0.000	1060.032	0.000	0.000
146.	4044.172	-14.900	0.000	2050.811	45.970	0.000	1060.032	0.000	0.000
147.	4025.344	-15.030	0.000	2087.593	44.950	0.000	1060.032	0.000	0.000
148.	4006.479	-15.090	0.000	2123.507	43.820	0.000	1060.032	0.000	0.000
149.	3987.674	-15.070	0.000	2158.613	42.580	0.000	1060.032	0.000	0.000

Z-PLANE (YY-PLANE) LEAD MOLYBDATE

	LNGVEL	LPHI12	LPHI13	FSPJFL	FSPM12	FSPM13	SSPJFL	SSPM12	SSPM13
150.	1969.800	-14.960	0.000	2192.686	43.200	0.000	1969.800	0.000	0.000
151.	1990.596	-14.750	0.000	2225.567	38.500	0.000	1990.596	0.000	0.000
152.	1932.772	-14.430	0.000	2257.090	36.010	0.000	1932.772	0.000	0.000
153.	1915.808	-14.000	0.000	2287.079	35.150	0.000	1915.808	0.000	0.000
154.	1998.753	-13.430	0.000	2315.357	34.100	0.000	1998.753	0.000	0.000
155.	1982.966	-12.720	0.000	2341.736	31.830	0.000	1982.966	0.000	0.000
156.	1959.211	-11.960	0.000	2366.029	29.310	0.000	1959.211	0.000	0.000
157.	1954.558	-10.950	0.000	2388.045	26.540	0.000	1954.558	0.000	0.000
158.	1982.877	-9.580	0.000	2407.596	23.600	0.000	1982.877	-0.000	0.000
159.	1931.833	-8.360	0.000	2424.501	20.150	0.000	1931.833	0.000	0.000
160.	1922.841	-6.890	0.000	2438.502	16.530	0.000	1922.841	0.000	0.000
161.	1915.762	-5.200	0.000	2449.717	12.660	0.000	1915.762	0.000	0.000
162.	1910.591	-3.580	0.000	2457.753	8.560	0.000	1910.591	0.000	0.000
163.	1907.457	-1.900	0.000	2462.604	4.310	0.000	1907.457	0.000	0.000
164.	1906.416	0.000	0.000	2464.213	-0.000	0.000	1906.416	0.000	0.000
165.	1907.886	1.830	0.000	2462.559	-4.370	0.000	1907.886	-0.000	0.000
166.	1810.649	4.630	0.000	2457.563	-8.650	0.000	1810.649	0.000	0.000
167.	1915.847	5.310	0.000	2449.546	-12.710	0.000	1915.847	0.000	0.000
168.	1922.994	6.910	0.000	2438.416	-16.580	0.000	1922.994	0.000	0.000
169.	1931.970	8.380	0.000	2424.296	-20.200	0.000	1931.970	0.000	0.000
170.	1942.676	9.700	0.000	2407.342	-23.590	0.000	1942.676	0.000	0.000
171.	1954.838	10.870	0.000	2387.756	-26.540	0.000	1954.838	0.000	0.000
172.	1969.409	11.840	0.000	2365.307	-29.350	0.000	1969.409	0.000	0.000
173.	1983.178	12.730	0.000	2341.346	-31.860	0.000	1983.178	0.000	0.000
174.	1993.979	13.440	0.000	2314.976	-34.130	0.000	1993.979	0.000	0.000
175.	1915.645	14.000	0.000	2286.674	-36.180	0.000	1915.645	0.000	0.000
176.	1933.018	14.540	0.000	2256.662	-38.030	0.000	1933.018	0.000	0.000
177.	1950.949	14.760	0.000	2225.120	-39.710	0.000	1950.949	0.000	0.000
178.	1969.297	14.960	0.000	2192.221	-41.220	0.000	1969.297	0.000	0.000
179.	1987.934	15.070	0.000	2158.131	-42.500	0.000	1987.934	0.000	0.000
180.	4006.740	15.040	0.000	2123.012	-43.840	0.000	4006.740	0.000	0.000

Z-PLANE (XY-PLANE) LEAD SULPHIDE

	LMGWEL	LPHI12	LPHI13	FSRWEL	FSPH12	FSPH13	SSRWEL	SSPH12	SSPH13
0.	4066.120	0.000	0.000	1751.190	0.000	0.000	1751.190	0.000	0.000
1.	4065.771	-0.560	0.000	1752.001	3.030	0.000	1751.190	-0.000	0.000
2.	4064.724	-1.130	0.000	1754.429	6.030	0.000	1751.190	0.000	0.000
3.	4062.980	-1.650	0.000	1756.463	8.940	0.000	1751.190	0.000	0.000
4.	4060.544	-2.250	0.000	1758.081	11.750	0.000	1751.190	0.000	0.000
5.	4057.420	-2.600	0.000	1771.256	14.410	0.000	1751.190	0.000	0.000
6.	4053.613	-3.350	0.000	1779.951	16.910	0.000	1751.190	0.000	0.000
7.	4049.130	-3.900	0.000	1790.124	19.230	0.000	1751.190	0.000	0.000
8.	4043.982	-4.440	0.000	1801.725	21.360	0.000	1751.190	0.000	0.000
9.	4038.176	-4.970	0.000	1814.694	23.300	0.000	1751.190	0.000	0.000
10.	4031.726	-5.450	0.000	1828.984	25.050	0.000	1751.190	0.000	0.000
11.	4024.645	-6.010	0.000	1844.515	26.610	0.000	1751.190	0.000	0.000
12.	4016.947	-6.510	0.000	1861.220	27.990	0.000	1751.190	0.000	0.000
13.	4008.649	-7.060	0.000	1879.025	29.200	0.000	1751.190	0.000	0.000
14.	3999.769	-7.460	0.000	1897.853	30.240	0.000	1751.190	0.000	0.000
15.	3990.329	-7.940	0.000	1917.622	31.130	0.000	1751.190	0.000	0.000
16.	3980.351	-8.380	0.000	1938.246	31.860	0.000	1751.190	0.000	0.000
17.	3969.860	-8.810	0.000	1959.645	32.460	0.000	1751.190	0.000	0.000
18.	3958.884	-9.210	0.000	1981.726	32.920	0.000	1751.190	0.000	0.000
19.	3947.453	-9.600	0.000	2004.395	33.250	0.000	1751.190	0.000	0.000
20.	3935.599	-9.950	0.000	2027.575	33.470	0.000	1751.190	0.000	0.000
21.	3923.360	-10.280	0.000	2051.158	33.570	0.000	1751.190	0.000	0.000
22.	3910.774	-10.580	0.000	2075.054	33.550	0.000	1751.190	0.000	0.000
23.	3897.884	-10.840	0.000	2099.166	33.430	0.000	1751.190	0.000	0.000
24.	3884.730	-11.060	0.000	2123.396	33.200	0.000	1751.190	0.000	0.000
25.	3871.366	-11.250	0.000	2147.643	32.870	0.000	1751.190	0.000	0.000
26.	3857.884	-11.360	0.000	2171.804	32.430	0.000	1751.190	0.000	0.000
27.	3844.291	-11.470	0.000	2195.774	31.860	0.000	1751.190	0.000	0.000
28.	3830.673	-11.500	0.000	2219.446	31.230	0.000	1751.190	0.000	0.000
29.	3817.101	-11.480	0.000	2242.704	30.660	0.000	1751.190	0.000	0.000
30.	3803.648	-11.380	0.000	2265.450	29.960	0.000	1751.190	0.000	0.000
31.	3790.396	-11.220	0.000	2287.552	29.070	0.000	1751.190	0.000	0.000
32.	3777.432	-10.940	0.000	2308.897	27.940	0.000	1751.190	0.000	0.000
33.	3764.846	-10.660	0.000	2329.364	26.480	0.000	1751.190	0.000	0.000
34.	3752.733	-10.250	0.000	2348.828	24.780	0.000	1751.190	0.000	0.000
35.	3741.194	-9.750	0.000	2367.195	23.230	0.000	1751.190	0.000	0.000
36.	3730.330	-9.110	0.000	2384.246	21.530	0.000	1751.190	0.000	0.000
37.	3720.245	-8.460	0.000	2399.953	19.670	0.000	1751.190	0.000	0.000
38.	3711.043	-7.670	0.000	2414.159	17.660	0.000	1751.190	0.000	0.000
39.	3702.823	-6.790	0.000	2426.747	15.500	0.000	1751.190	0.000	0.000
40.	3695.681	-5.820	0.000	2437.610	13.100	0.000	1751.190	0.000	0.000
41.	3689.704	-4.780	0.000	2446.647	10.730	0.000	1751.190	0.000	0.000
42.	3684.970	-3.640	0.000	2453.772	8.160	0.000	1751.190	0.000	0.000
43.	3681.541	-2.460	0.000	2458.914	5.500	0.000	1751.190	0.000	0.000
44.	3679.464	-1.240	0.000	2462.021	2.770	0.000	1751.190	0.000	0.000
45.	3678.766	0.000	0.000	2463.060	-0.000	0.000	1751.190	0.000	0.000
46.	3679.464	1.240	0.000	2462.021	-2.770	0.000	1751.190	0.000	0.000
47.	3681.541	2.460	0.000	2458.914	-5.500	0.000	1751.190	0.000	0.000
48.	3684.970	3.640	0.000	2453.772	-8.160	0.000	1751.190	0.000	0.000
49.	3689.704	4.760	0.000	2446.647	-10.730	0.000	1751.190	0.000	0.000

BULK

Z-PLANE (XY-PLANE) LEAD SULPHIDE

	LPHI12	LPHI13	FSRWEL	FSPHI12	FSPHI13	SSRWEL	SSPHI12	SSPHI13
50.	5.820	0.000	2437.610	-13.186	0.000	1751.190	-0.600	0.000
51.	6.790	0.000	2426.747	-15.506	0.000	1751.190	0.000	0.000
52.	7.670	0.000	2414.159	-17.660	0.000	1751.190	0.000	0.000
53.	8.460	0.000	2399.953	-19.670	0.000	1751.190	0.000	0.000
54.	9.150	0.000	2384.246	-21.530	0.000	1751.190	0.000	0.000
55.	9.750	0.000	2367.165	-23.230	0.000	1751.190	0.000	0.000
56.	10.250	0.000	2346.828	-24.780	0.000	1751.190	0.000	0.000
57.	10.680	0.000	2329.364	-26.180	0.000	1751.190	0.000	0.000
58.	10.950	0.000	2308.697	-27.440	0.000	1751.190	-0.000	0.000
59.	11.220	0.000	2287.552	-28.570	0.000	1751.190	0.000	0.000
60.	11.380	0.000	2265.450	-29.580	0.000	1751.190	0.000	0.000
61.	11.480	0.000	2242.705	-30.460	0.000	1751.190	0.000	0.000
62.	11.560	0.000	2219.446	-31.230	0.000	1751.190	0.000	0.000
63.	11.470	0.000	2195.774	-31.680	0.000	1751.190	0.000	0.000
64.	11.360	0.000	2171.804	-32.430	0.000	1751.190	0.000	0.000
65.	11.250	0.000	2147.643	-32.670	0.000	1751.190	0.000	0.000
66.	11.060	0.000	2123.396	-33.200	0.000	1751.190	0.000	0.000
67.	10.640	0.000	2099.166	-33.430	0.000	1751.190	0.000	0.000
68.	3910.774	0.000	2075.054	-33.550	0.000	1751.190	0.000	0.000
69.	3923.360	0.000	2051.158	-33.570	0.000	1751.190	0.000	0.000
70.	3935.599	0.000	2027.575	-33.470	0.000	1751.190	0.000	0.000
71.	3947.453	0.000	2004.399	-33.250	0.000	1751.190	0.000	0.000
72.	3958.884	0.000	1981.726	-32.520	0.000	1751.190	0.000	0.000
73.	3969.860	0.000	1959.645	-32.460	0.000	1751.190	0.000	0.000
74.	3980.351	0.000	1936.246	-31.860	0.000	1751.190	0.000	0.000
75.	3990.325	0.000	1917.622	-31.130	0.000	1751.190	0.000	0.000
76.	3999.769	0.000	1897.853	-30.240	0.000	1751.190	0.000	0.000
77.	4008.649	0.000	1879.825	-29.200	0.000	1751.190	0.000	0.000
78.	4016.947	0.000	1861.820	-27.990	0.000	1751.190	0.000	0.000
79.	4024.645	0.000	1844.515	-26.610	0.000	1751.190	0.000	0.000
80.	4031.726	0.000	1826.984	-25.050	0.000	1751.190	0.000	0.000
81.	4038.176	0.000	1814.699	-23.300	0.000	1751.190	0.000	0.000
82.	4043.982	0.000	1801.725	-21.380	0.000	1751.190	0.000	0.000
83.	4049.130	0.000	1790.124	-19.230	0.000	1751.190	0.000	0.000
84.	4053.613	0.000	1779.951	-16.910	0.000	1751.190	0.000	0.000
85.	4057.420	0.000	1771.256	-14.410	0.000	1751.190	0.000	0.000
86.	4060.544	0.000	1764.081	-11.750	0.000	1751.190	0.000	0.000
87.	4062.980	0.000	1758.463	-6.946	0.000	1751.190	0.000	0.000
88.	4064.724	0.000	1754.429	-6.030	0.000	1751.190	0.000	0.000
89.	4065.771	0.000	1752.001	0.000	0.000	1751.190	0.000	0.000
90.	4066.120	0.000	1751.190	0.000	0.000	1751.190	0.000	0.000
91.	4065.771	0.000	1752.001	3.030	0.000	1751.190	-0.600	0.000
92.	4064.724	0.000	1754.429	6.030	0.000	1751.190	0.000	0.000
93.	4062.980	0.000	1758.463	6.940	0.000	1751.190	0.000	0.000
94.	4060.544	0.000	1764.081	11.750	0.000	1751.190	0.000	0.000
95.	4057.420	0.000	1771.256	14.410	0.000	1751.190	0.000	0.000
96.	4053.613	0.000	1779.951	16.910	0.000	1751.190	0.000	0.000
97.	4049.130	0.000	1790.124	19.230	0.000	1751.190	-0.000	0.000
98.	4043.982	0.000	1801.725	21.360	0.000	1751.190	-0.000	0.000
99.	4038.176	0.000	1814.699	23.300	0.000	1751.190	0.000	0.000

BULK

Z-PLANE (XY-PLANE) LEAD SULPHIDE

BULK

	LANGVEL	LPHI12	LPHI13	FSRWEL	FSPMI12	FSPMI13	SSKVEL	SSPHI12	SSPHI13
100.	4031.726	-5.490	0.000	1828.984	25.050	0.000	1751.190	0.000	0.000
101.	4024.645	-6.010	0.000	1844.515	26.610	0.000	1751.190	-0.000	0.000
102.	4016.947	-6.510	0.000	1861.220	27.950	0.000	1751.190	0.000	0.000
103.	4008.649	-7.000	0.000	1879.025	29.200	0.000	1751.190	0.000	0.000
104.	3999.769	-7.480	0.000	1897.853	30.240	0.000	1751.190	-0.000	0.000
105.	3990.329	-7.940	0.000	1917.622	31.130	0.000	1751.190	0.000	0.000
106.	3980.351	-8.380	0.000	1938.246	31.860	0.000	1751.190	0.000	0.000
107.	3969.860	-8.810	0.000	1959.645	32.460	0.000	1751.190	0.000	0.000
108.	3958.884	-9.210	0.000	1981.726	32.920	0.000	1751.190	0.000	0.000
109.	3947.453	-9.640	0.000	2004.399	33.250	0.000	1751.190	0.000	0.000
110.	3935.595	-10.000	0.000	2027.575	33.470	0.000	1751.190	0.000	0.000
111.	3923.360	-10.260	0.000	2051.156	33.570	0.000	1751.190	0.000	0.000
112.	3910.774	-10.560	0.000	2075.054	33.550	0.000	1751.190	0.000	0.000
113.	3897.884	-10.840	0.000	2099.166	33.430	0.000	1751.190	0.000	0.000
114.	3884.736	-11.060	0.000	2123.396	33.200	0.000	1751.190	0.000	0.000
115.	3871.366	-11.250	0.000	2147.643	32.870	0.000	1751.190	0.000	0.000
116.	3857.884	-11.360	0.000	2171.804	32.430	0.000	1751.190	-0.000	0.000
117.	3844.291	-11.470	0.000	2195.774	31.880	0.000	1751.190	0.000	0.000
118.	3830.673	-11.500	0.000	2219.446	31.230	0.000	1751.190	0.000	0.000
119.	3817.101	-11.480	0.000	2242.709	30.460	0.000	1751.190	-0.000	0.000
120.	3803.648	-11.360	0.000	2265.450	29.560	0.000	1751.190	0.000	0.000
121.	3790.396	-11.220	0.000	2287.552	28.570	0.000	1751.190	-0.000	0.000
122.	3777.432	-10.980	0.000	2308.897	27.440	0.000	1751.190	0.000	0.000
123.	3764.846	-10.660	0.000	2329.364	26.160	0.000	1751.190	0.000	0.000
124.	3752.733	-10.250	0.000	2348.820	24.760	0.000	1751.190	-0.000	0.000
125.	3741.194	-9.750	0.000	2367.185	23.230	0.000	1751.190	0.000	0.000
126.	3730.330	-9.150	0.000	2384.248	21.530	0.000	1751.190	0.000	0.000
127.	3720.245	-8.460	0.000	2399.953	19.670	0.000	1751.190	0.000	0.000
128.	3711.043	-7.670	0.000	2414.159	17.660	0.000	1751.190	0.000	0.000
129.	3702.823	-6.750	0.000	2426.747	15.500	0.000	1751.190	0.000	0.000
130.	3695.681	-5.620	0.000	2437.610	13.180	0.000	1751.190	0.000	0.000
131.	3689.704	-4.760	0.000	2446.647	10.730	0.000	1751.190	0.000	0.000
132.	3684.970	-3.640	0.000	2453.772	8.160	0.000	1751.190	0.000	0.000
133.	3681.541	-2.460	0.000	2458.914	5.500	0.000	1751.190	0.000	0.000
134.	3679.464	-1.240	0.000	2462.021	2.770	0.000	1751.190	0.000	0.000
135.	3678.768	0.000	0.000	2463.060	-0.000	0.000	1751.190	0.000	0.000
136.	3679.464	1.240	0.000	2462.021	-2.770	0.000	1751.190	0.000	0.000
137.	3681.541	2.460	0.000	2458.914	-5.560	0.000	1751.190	0.000	0.000
138.	3684.970	3.640	0.000	2453.772	-8.160	0.000	1751.190	0.000	0.000
139.	3689.704	4.760	0.000	2446.647	-10.730	0.000	1751.190	-0.000	0.000
140.	3695.681	5.620	0.000	2437.610	-13.160	0.000	1751.190	0.000	0.000
141.	3702.823	6.750	0.000	2426.747	-15.500	0.000	1751.190	0.000	0.000
142.	3711.043	7.670	0.000	2414.159	-17.660	0.000	1751.190	0.000	0.000
143.	3720.245	8.460	0.000	2399.953	-19.670	0.000	1751.190	-0.000	0.000
144.	3730.330	9.150	0.000	2384.248	-21.530	0.000	1751.190	0.000	0.000
145.	3741.194	9.750	0.000	2367.185	-23.230	0.000	1751.190	0.000	0.000
146.	3752.733	10.250	0.000	2348.820	-24.760	0.000	1751.190	0.000	0.000
147.	3764.846	10.660	0.000	2329.364	-26.160	0.000	1751.190	0.000	0.000
148.	3777.432	10.980	0.000	2308.897	-27.440	0.000	1751.190	-0.000	0.000
149.	3790.396	11.220	0.000	2287.552	-28.570	0.000	1751.190	-0.000	0.000

Z-PLANE (XY-PLANE) LEAD SULPHIDE		BULK						
LNGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
150.	3803.646	11.360	2265.450	0.000	-29.560	1751.190	0.000	0.000
151.	3817.101	11.460	2242.709	0.000	-31.460	1751.190	0.000	0.000
152.	3830.673	11.500	2219.446	0.000	-31.230	1751.190	0.000	0.000
153.	3844.291	11.470	2195.774	0.000	-31.680	1751.190	0.000	0.000
154.	3857.884	11.300	2171.804	0.000	-32.430	1751.190	0.000	0.000
155.	3871.386	11.250	2147.643	0.000	-32.870	1751.190	0.000	0.000
156.	3884.738	11.060	2123.396	0.000	-33.200	1751.190	0.000	0.000
157.	3897.884	10.840	2099.166	0.000	-33.430	1751.190	0.000	0.000
158.	3910.774	10.560	2075.054	0.000	-33.590	1751.190	0.000	0.000
159.	3923.360	10.280	2051.158	0.000	-33.570	1751.190	0.000	0.000
160.	3935.999	9.990	2027.575	0.000	-33.470	1751.190	0.000	0.000
161.	3947.453	9.600	2004.399	0.000	-33.250	1751.190	0.000	0.000
162.	3958.884	9.210	1981.726	0.000	-32.920	1751.190	0.000	0.000
163.	3969.860	8.610	1959.645	0.000	-32.460	1751.190	0.000	0.000
164.	3980.351	8.360	1938.246	0.000	-31.860	1751.190	0.000	0.000
165.	3990.329	7.940	1917.622	0.000	-31.130	1751.190	0.000	0.000
166.	3999.769	7.480	1897.853	0.000	-30.240	1751.190	0.000	0.000
167.	4008.649	7.000	1879.025	0.000	-29.200	1751.190	0.000	0.000
168.	4016.947	6.510	1861.220	0.000	-27.990	1751.190	0.000	0.000
169.	4024.645	6.010	1844.515	0.000	-26.610	1751.190	0.000	0.000
170.	4031.726	5.490	1828.984	0.000	-25.050	1751.190	0.000	0.000
171.	4038.176	4.970	1814.699	0.000	-23.300	1751.190	0.000	0.000
172.	4043.982	4.440	1801.725	0.000	-21.360	1751.190	0.000	0.000
173.	4049.130	3.900	1790.124	0.000	-19.230	1751.190	0.000	0.000
174.	4053.613	3.350	1779.951	0.000	-16.910	1751.190	0.000	0.000
175.	4057.420	2.805	1771.256	0.000	-14.410	1751.190	0.000	0.000
176.	4060.544	2.250	1764.061	0.000	-11.750	1751.190	0.000	0.000
177.	4062.940	1.690	1758.463	0.000	-8.940	1751.190	0.000	0.000
178.	4064.724	1.130	1754.429	0.000	-6.030	1751.190	0.000	0.000
179.	4065.771	0.560	1752.001	0.000	-3.030	1751.190	0.000	0.000
180.	4066.120	-0.000	1751.190	0.000	0.000	1751.190	0.000	0.000

111-PLANE LEAD SULPHIDE

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRWEL	SSPHI12	SSPHI13
0.	3678.768	0.000	0.000	2863.060	-0.000	0.000	1751.190	-0.000	0.000
1.	3678.058	0.160	-1.760	2862.590	-1.250	1.070	1751.002	1.770	1.250
2.	3679.127	0.320	-1.930	2861.181	-2.500	2.140	1753.075	3.520	2.450
3.	3679.573	0.470	-2.280	2858.840	-3.740	3.200	1750.425	5.250	3.720
4.	3680.188	0.620	-3.020	2855.577	-4.500	4.250	1750.731	6.550	4.930
5.	3680.965	0.760	-3.750	2851.404	-5.160	5.280	1702.890	8.580	6.110
6.	3681.894	0.890	-4.460	2846.341	-7.340	6.250	1767.775	10.150	7.260
7.	3682.965	1.010	-5.150	2840.406	-8.450	7.220	1773.935	11.600	8.370
8.	3684.162	1.120	-5.820	2833.631	-9.610	8.240	1780.746	13.050	9.430
9.	3685.472	1.210	-6.470	2826.030	-10.650	9.170	1788.380	14.440	10.470
10.	3686.879	1.290	-7.090	2817.660	-11.730	10.070	1796.005	15.690	11.420
11.	3688.366	1.350	-7.660	2808.534	-12.720	10.940	1805.906	16.820	12.330
12.	3689.916	1.400	-8.240	2800.696	-13.660	11.770	1815.005	17.810	13.150
13.	3691.510	1.430	-8.770	2800.194	-14.550	12.570	1826.457	18.670	13.890
14.	3693.131	1.450	-9.270	2877.070	-15.390	13.330	1837.056	19.420	14.740
15.	3694.766	1.450	-9.740	2865.376	-16.160	14.050	1849.435	20.470	15.420
16.	3696.380	1.430	-10.180	2853.167	-16.860	14.730	1861.732	21.100	16.000
17.	3697.974	1.400	-10.560	2840.505	-17.460	15.360	1874.402	21.610	16.520
18.	3699.523	1.350	-10.960	2827.460	-18.020	15.990	1887.024	21.990	17.120
19.	3701.013	1.290	-11.300	2814.110	-18.450	16.560	1901.069	22.240	17.570
20.	3702.427	1.220	-11.610	2800.545	-18.750	17.100	1914.726	22.330	17.900
21.	3703.752	1.130	-11.890	2800.884	-18.910	17.600	1920.404	22.240	18.300
22.	3704.974	1.030	-12.140	2873.249	-18.600	18.160	1928.207	21.940	18.580
23.	3706.082	0.930	-12.360	2859.814	-18.590	18.450	1955.726	21.360	18.600
24.	3707.064	0.810	-12.550	2846.752	-17.960	18.680	1960.624	20.830	18.970
25.	3707.912	0.690	-12.710	2834.464	-18.520	19.230	1981.215	19.630	19.000
26.	3708.616	0.560	-12.840	2823.200	-18.260	19.550	1992.540	17.600	19.100
27.	3709.171	0.420	-12.940	2813.472	12.000	19.610	2002.313	14.160	19.130
28.	3709.571	0.260	-13.010	2805.853	-9.360	20.020	2009.906	10.320	19.150
29.	3709.812	0.140	-13.050	2800.946	-5.010	20.160	2014.091	5.450	19.150
30.	3709.893	0.000	-13.070	2899.246	-0.000	20.210	2016.590	-0.000	19.150
31.	3709.812	-0.140	-13.050	2800.946	5.010	20.160	2014.091	-5.450	19.150
32.	3709.571	-0.260	-13.010	2805.853	9.360	20.020	2009.906	-10.320	19.150
33.	3709.171	-0.420	-12.940	2813.472	12.000	19.610	2002.313	-14.160	19.150
34.	3708.616	-0.560	-12.840	2823.200	15.260	19.230	1992.540	-17.600	19.150
35.	3707.912	-0.690	-12.710	2834.464	16.920	18.680	1981.215	-19.030	19.090
36.	3707.064	-0.810	-12.550	2846.752	17.980	18.650	1960.624	-20.430	18.970
37.	3706.082	-0.930	-12.360	2859.814	18.590	18.450	1955.726	-21.360	18.600
38.	3704.974	-1.030	-12.140	2873.249	18.600	18.060	1942.207	-21.940	18.580
39.	3703.752	-1.130	-11.890	2886.884	16.910	17.600	1928.207	-22.240	18.300
40.	3702.427	-1.220	-11.610	2900.545	18.750	17.100	1914.726	-22.330	17.900
41.	3701.013	-1.290	-11.300	2914.110	18.450	16.560	1901.069	-22.240	17.570
42.	3699.523	-1.350	-10.960	2927.460	16.020	15.990	1905.906	-21.940	17.120
43.	3697.974	-1.400	-10.560	2939.814	17.460	15.360	1874.402	-21.610	16.520
44.	3696.380	-1.430	-10.180	2951.167	16.860	14.730	1861.732	-21.100	16.000
45.	3694.766	-1.450	-9.740	2965.376	16.160	14.050	1849.435	-20.470	15.420
46.	3693.131	-1.450	-9.270	2977.070	15.390	13.330	1837.056	-19.420	14.740
47.	3691.510	-1.430	-8.770	2988.194	14.550	12.570	1826.457	-18.670	14.000
48.	3689.916	-1.400	-8.240	2996.696	13.660	11.770	1815.005	-17.910	13.190
49.	3688.366	-1.350	-7.660	2900.696	12.720	10.940	1805.906	-16.820	12.330

BULK

111-PLANE LEAD SULPHIDE

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
50.	3606.079	-1.290	-7.090	2417.660	11.730	10.070	1796.805	-15.690	10.070
51.	3685.472	-1.210	-6.870	2426.036	10.690	9.170	1766.380	-14.440	9.170
52.	3684.162	-1.120	-5.620	2433.631	9.610	8.240	1780.746	-13.090	8.240
53.	3682.965	-1.010	-5.150	2440.408	8.490	7.280	1773.935	-11.660	7.280
54.	3681.894	-0.900	-4.460	2446.341	7.340	6.290	1767.975	-10.150	6.290
55.	3680.965	-0.760	-3.750	2451.404	6.160	5.260	1762.090	-8.500	5.260
56.	3680.168	-0.620	-3.020	2455.577	4.900	4.250	1756.701	-6.540	4.250
57.	3679.573	-0.470	-2.260	2458.840	3.740	3.200	1751.425	-5.250	3.200
58.	3679.127	-0.320	-1.530	2461.181	2.500	2.140	1746.701	-3.520	2.140
59.	3678.858	-0.160	-0.760	2462.590	1.250	1.070	1742.690	-1.770	1.070
60.	3678.766	-0.000	0.000	2463.060	0.000	0.000	1739.190	0.000	0.000
61.	3678.856	0.160	0.760	2462.590	-1.250	-1.070	1735.602	1.770	-1.070
62.	3679.127	0.320	1.530	2461.182	-2.500	-2.140	1733.075	3.520	-2.140
63.	3679.572	0.470	2.260	2458.840	-3.740	-3.200	1731.425	5.250	-3.200
64.	3680.168	0.620	3.020	2455.577	-4.960	-4.250	1730.701	6.540	-4.250
65.	3680.965	0.760	3.750	2451.404	-6.160	-5.260	1729.975	7.720	-5.260
66.	3681.894	0.890	4.460	2446.341	-7.340	-6.290	1729.190	8.900	-6.290
67.	3682.965	1.010	5.150	2440.408	-8.490	-7.280	1728.341	10.150	-7.280
68.	3684.162	1.120	5.620	2433.631	-9.610	-8.240	1727.460	11.660	-8.240
69.	3685.472	1.210	6.070	2426.036	-10.690	-9.170	1726.546	13.090	-9.170
70.	3686.875	1.290	7.090	2417.660	-11.730	-10.070	1725.590	14.440	-10.070
71.	3688.366	1.350	7.680	2408.534	-12.720	-10.940	1724.596	15.690	-10.940
72.	3689.916	1.400	8.240	2398.696	-13.660	-11.770	1723.566	16.850	-11.770
73.	3691.510	1.430	8.770	2388.195	-14.550	-12.570	1722.496	17.910	-12.570
74.	3693.131	1.450	9.270	2377.070	-15.390	-13.330	1721.386	18.870	-13.330
75.	3694.760	1.450	9.740	2365.376	-16.160	-14.050	1720.246	19.740	-14.050
76.	3696.360	1.430	10.180	2353.167	-16.880	-14.730	1719.076	20.470	-14.730
77.	3697.973	1.400	10.580	2340.505	-17.560	-15.360	1717.876	21.100	-15.360
78.	3699.523	1.350	10.960	2327.460	-18.200	-15.950	1716.646	21.610	-15.950
79.	3701.013	1.290	11.300	2314.111	-18.850	-16.560	1715.386	22.090	-16.560
80.	3702.427	1.220	11.610	2300.549	-19.450	-17.100	1714.106	22.540	-17.100
81.	3703.752	1.130	11.890	2286.884	-19.990	-17.600	1712.806	22.960	-17.600
82.	3704.974	1.030	12.140	2273.250	-20.500	-18.080	1711.486	23.330	-18.080
83.	3706.082	0.930	12.360	2259.614	-20.980	-18.540	1710.146	23.660	-18.540
84.	3707.064	0.810	12.550	2246.072	-21.430	-18.980	1708.786	23.960	-18.980
85.	3707.911	0.690	12.710	2234.664	-21.850	-19.400	1707.406	24.230	-19.400
86.	3708.616	0.560	12.840	2223.200	-22.240	-19.790	1706.006	24.470	-19.790
87.	3709.171	0.420	12.940	2213.673	-22.600	-20.160	1704.586	24.680	-20.160
88.	3709.571	0.260	13.010	2205.053	-22.930	-20.500	1703.146	24.860	-20.500
89.	3709.812	0.140	13.050	2200.948	-23.240	-20.810	1701.686	25.010	-20.810
90.	3709.893	0.000	13.070	2199.248	-23.520	-21.090	1700.206	25.130	-21.090
91.	3709.812	-0.140	13.050	2200.948	-23.800	-21.340	1698.706	25.220	-21.340
92.	3709.571	-0.280	13.010	2205.053	-24.050	-21.560	1697.186	25.280	-21.560
93.	3709.171	-0.420	12.940	2213.673	-24.280	-21.760	1695.646	25.310	-21.760
94.	3708.616	-0.560	12.840	2223.200	-24.490	-21.930	1694.086	25.320	-21.930
95.	3707.911	-0.690	12.710	2234.664	-24.680	-22.080	1692.506	25.330	-22.080
96.	3707.064	-0.810	12.550	2246.072	-24.840	-22.210	1690.906	25.330	-22.210
97.	3706.082	-0.930	12.360	2259.614	-24.980	-22.320	1689.286	25.320	-22.320
98.	3704.974	-1.030	12.140	2273.250	-25.100	-22.410	1687.646	25.290	-22.410
99.	3703.752	-1.130	11.890	2286.884	-25.200	-22.480	1685.986	25.240	-22.480

111-PLANE LEAD SULPHIDE

	LMGVEL	LPM112	LPM113	FSRVEL	FSPM112	FSPM113	SSRVEL	SSPM112	SSPM113
100.	3702.627	-1.220	11.610	2300.544	18.750	-17.100	1414.726	-22.330	-17.900
101.	3701.813	-1.250	11.300	2314.111	18.450	-16.500	1901.069	-22.240	-17.970
102.	3699.523	-1.350	10.960	2327.460	18.020	-15.990	1687.624	-21.590	-17.120
103.	3697.973	-1.400	10.560	2340.505	17.480	-15.360	1674.485	-21.610	-16.620
104.	3696.360	-1.430	10.160	2353.167	16.860	-14.730	1661.732	-21.100	-16.000
105.	3694.760	-1.450	9.740	2365.376	16.160	-14.050	1649.435	-20.470	-15.420
106.	3693.131	-1.450	9.270	2377.070	15.390	-13.330	1637.658	-19.720	-14.740
107.	3691.510	-1.430	8.770	2388.195	14.550	-12.570	1626.458	-18.870	-14.000
108.	3689.916	-1.400	8.240	2398.696	13.660	-11.770	1615.865	-17.910	-13.150
109.	3688.366	-1.350	7.680	2408.534	12.720	-10.940	1605.986	-16.850	-12.330
110.	3686.875	-1.290	7.090	2417.666	11.730	-10.070	1596.805	-15.690	-11.480
111.	3685.472	-1.210	6.470	2426.036	10.690	-9.170	1588.300	-14.440	-10.620
112.	3684.162	-1.120	5.820	2433.631	9.610	-8.240	1580.746	-13.090	-9.740
113.	3682.964	-1.010	5.150	2440.405	8.490	-7.260	1573.935	-11.660	-8.830
114.	3681.894	-0.890	4.460	2446.341	7.340	-6.290	1567.975	-10.150	-7.890
115.	3680.965	-0.760	3.750	2451.404	6.160	-5.260	1562.890	-8.560	-6.930
116.	3680.188	-0.620	3.020	2455.577	4.960	-4.250	1558.701	-6.930	-5.930
117.	3679.572	-0.470	2.280	2458.840	3.740	-3.200	1555.425	-5.250	-4.720
118.	3679.127	-0.320	1.530	2461.102	2.500	-2.140	1553.075	-3.520	-3.490
119.	3678.858	-0.160	0.760	2462.590	1.250	-1.070	1551.662	-1.770	-2.450
120.	3678.764	0.000	-0.000	2463.060	-0.000	0.000	1551.190	-0.000	-0.000
121.	3678.858	.160	-.760	2462.590	1.250	1.070	1551.662	1.770	1.250
122.	3679.127	.320	-1.530	2461.102	2.500	2.140	1553.075	3.520	2.450
123.	3679.572	.470	-2.280	2458.840	3.740	3.200	1555.425	5.250	3.490
124.	3680.188	.620	-3.020	2455.577	4.960	4.250	1558.701	6.930	4.720
125.	3680.965	.760	-3.750	2451.404	6.160	5.260	1562.890	8.560	5.930
126.	3681.894	.890	-4.460	2446.341	7.340	6.290	1567.975	10.150	7.890
127.	3682.964	1.010	-5.150	2440.405	8.490	7.260	1573.935	11.660	9.830
128.	3684.162	1.120	-5.820	2433.631	9.610	8.240	1580.746	13.090	11.930
129.	3685.472	1.210	-6.470	2426.036	10.690	9.170	1588.300	14.440	14.000
130.	3686.875	1.290	-7.090	2417.666	11.730	10.070	1596.805	15.690	16.020
131.	3688.366	1.350	-7.680	2408.534	12.720	10.940	1605.986	16.850	17.910
132.	3689.916	1.400	-8.240	2398.698	13.660	11.770	1615.865	17.910	19.740
133.	3691.510	1.430	-8.770	2388.194	14.550	12.570	1626.457	18.870	21.500
134.	3693.131	1.450	-9.270	2377.070	15.390	13.330	1637.658	19.720	23.190
135.	3694.760	1.450	-9.740	2365.376	16.160	14.050	1649.435	20.470	24.810
136.	3696.361	1.430	-10.160	2353.167	16.860	14.730	1661.732	21.100	26.360
137.	3697.974	1.400	-10.560	2340.505	17.480	15.360	1674.485	21.610	27.840
138.	3699.523	1.350	-10.960	2327.460	18.020	15.990	1687.624	21.990	29.250
139.	3701.013	1.290	-11.300	2314.110	18.450	16.540	1701.069	22.240	30.600
140.	3702.627	1.220	-11.610	2300.544	18.750	17.100	1714.726	22.330	31.900
141.	3703.752	1.130	-11.890	2286.684	18.310	17.660	1728.464	22.240	33.150
142.	3704.974	1.030	-12.140	2273.249	18.660	18.060	1742.207	21.940	34.360
143.	3706.082	.930	-12.360	2259.614	18.850	18.450	1755.726	21.360	35.530
144.	3707.064	.810	-12.550	2246.792	18.990	18.660	1768.824	20.430	36.660
145.	3707.912	.690	-12.710	2234.464	19.020	19.230	1781.219	19.030	37.750
146.	3708.616	.560	-12.840	2223.200	19.260	19.550	1792.540	17.000	38.800
147.	3709.171	.420	-12.940	2213.472	19.600	19.810	1802.313	14.150	39.810
148.	3709.571	.280	-13.010	2205.853	19.880	20.020	1810.966	10.320	40.780
149.	3709.612	.140	-13.050	2200.948	20.110	20.160	1818.000	5.490	41.710

111-PLANE LEAD SULPHIDE

	LNGVEL	LPH112	LPH113	FSRWEL	FSPH112	FSPH113	SSRWEL	SSPH112	SSPH113
150.	3709.893	-0.000	-13.070	2199.246	0.000	20.210	2016.598	0.000	19.100
151.	3709.812	-1.140	-13.050	2200.948	5.010	20.160	2014.091	-5.490	19.100
152.	3709.571	-2.260	-13.010	2205.653	9.310	20.020	2009.986	-10.320	19.100
153.	3709.171	-4.420	-12.940	2213.472	12.600	19.810	2002.313	-14.160	19.190
154.	3708.616	-6.560	-12.840	2223.200	15.260	19.560	1992.840	-17.600	19.800
155.	3707.912	-8.690	-12.710	2234.464	18.920	19.230	1981.219	-19.030	19.030
156.	3707.064	-10.810	-12.550	2246.792	17.500	18.660	1968.054	-20.430	18.970
157.	3706.082	-12.930	-12.360	2259.814	18.550	18.450	1955.726	-21.360	18.800
158.	3704.974	-15.030	-12.140	2273.249	18.880	18.060	1942.207	-21.940	18.580
159.	3703.752	-17.130	-11.890	2286.884	18.910	17.600	1928.404	-22.240	18.300
160.	3702.427	-19.220	-11.610	2300.549	18.750	17.100	1914.726	-22.330	17.900
161.	3701.013	-21.290	-11.300	2314.110	18.450	16.560	1901.069	-22.240	17.570
162.	3699.523	-23.350	-10.960	2327.460	18.020	15.950	1887.624	-21.990	17.120
163.	3697.974	-25.400	-10.580	2340.505	17.480	15.360	1874.495	-21.610	16.620
164.	3696.380	-27.430	-10.160	2353.167	16.860	14.730	1861.732	-21.100	16.050
165.	3694.760	-29.450	-9.740	2365.376	16.160	14.050	1849.435	-20.470	15.420
166.	3693.131	-31.450	-9.270	2377.070	15.390	13.330	1837.650	-19.720	14.740
167.	3691.510	-33.430	-8.770	2388.194	14.550	12.570	1826.457	-18.870	14.000
168.	3689.916	-35.390	-8.240	2398.696	13.660	11.770	1815.805	-17.910	13.150
169.	3688.366	-37.340	-7.680	2408.534	12.720	10.940	1805.696	-16.850	12.330
170.	3686.875	-39.280	-7.090	2417.660	11.730	10.070	1795.905	-15.690	11.420
171.	3685.472	-41.210	-6.470	2426.036	10.690	9.170	1786.380	-14.440	10.450
172.	3684.162	-43.120	-5.820	2433.631	9.610	8.250	1780.746	-13.090	9.430
173.	3682.965	-45.010	-5.150	2440.406	8.470	7.260	1773.935	-11.660	8.370
174.	3681.894	-46.890	-4.460	2446.341	7.340	6.260	1767.975	-10.150	7.220
175.	3680.965	-48.760	-3.750	2451.404	6.160	5.260	1762.890	-8.580	6.010
176.	3680.188	-50.620	-3.020	2455.577	4.960	4.250	1758.701	-6.940	4.930
177.	3679.573	-52.470	-2.280	2458.840	3.740	3.200	1755.425	-5.250	3.720
178.	3679.127	-54.320	-1.530	2461.181	2.500	2.140	1753.075	-3.520	2.450
179.	3678.856	-56.160	-0.760	2462.590	1.250	1.070	1751.662	-1.770	1.220
180.	3678.768	0.000	0.000	2463.060	-0.000	-0.000	1751.190	0.000	-0.000

110-PLANE LEAD SULPHIDE

BULK

	LNQVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
0.	3540.245	-0.000	0.000	2250.930	-15.600	0.000	2250.921	15.600	-0.000
1.	3540.685	.830	0.000	2239.872	-15.520	-0.000	2261.230	13.733	0.000
2.	3542.051	1.700	-0.000	2228.636	-16.230	-0.000	2270.182	11.773	0.000
3.	3544.368	2.600	-0.000	2217.233	-16.530	-0.000	2277.715	9.730	0.000
4.	3547.666	3.510	-0.000	2205.675	-16.810	0.000	2283.745	7.620	-0.000
5.	3551.966	4.430	0.000	2193.972	-17.090	-0.000	2288.376	5.460	-0.000
6.	3557.275	5.350	-0.000	2182.134	-17.350	-0.000	2291.447	3.300	0.000
7.	3563.584	6.240	-0.000	2170.186	-17.590	0.000	2292.996	1.130	0.000
8.	3570.878	7.110	0.000	2158.126	-17.820	0.000	2293.031	-1.030	0.000
9.	3575.130	7.950	-0.000	2145.973	-18.040	-0.000	2291.071	-3.120	0.000
10.	3580.303	8.730	-0.000	2133.734	-18.230	-0.000	2288.046	-5.210	0.000
11.	3598.352	9.460	0.000	2121.439	-18.420	-0.000	2288.299	-7.210	0.000
12.	3609.223	10.140	0.000	2109.087	-18.560	-0.000	2278.501	-9.120	0.000
13.	3620.855	10.740	0.000	2096.696	-18.730	-0.000	2271.550	-10.540	-0.000
14.	3633.184	11.290	-0.000	2084.281	-18.850	-0.000	2263.274	-12.660	0.000
15.	3646.142	11.760	-0.000	2071.857	-18.960	-0.000	2253.824	-14.280	-0.000
16.	3659.658	12.170	-0.000	2059.440	-19.050	0.000	2243.275	-15.790	0.000
17.	3673.655	12.510	-0.000	2047.043	-19.110	-0.000	2231.705	-17.190	-0.000
18.	3688.075	12.760	-0.000	2034.684	-19.150	0.000	2219.196	-18.490	0.000
19.	3702.834	12.990	-0.000	2022.378	-19.170	-0.000	2205.827	-19.660	-0.000
20.	3717.866	13.140	-0.000	2010.142	-19.170	-0.000	2191.662	-20.770	0.000
21.	3733.104	13.230	-0.000	1997.990	-19.140	-0.000	2176.041	-21.760	0.000
22.	3748.662	13.270	-0.000	1985.941	-19.080	-0.000	2161.305	-22.640	0.000
23.	3763.935	13.260	-0.000	1974.010	-19.000	-0.000	2145.394	-23.440	-0.000
24.	3779.415	13.200	-0.000	1962.214	-18.900	-0.000	2128.945	-24.140	0.000
25.	3794.852	13.090	-0.000	1950.571	-18.760	-0.000	2112.117	-24.750	0.000
26.	3810.195	12.940	-0.000	1939.097	-18.590	-0.000	2094.303	-25.270	0.000
27.	3825.403	12.760	-0.000	1927.810	-18.390	-0.000	2077.614	-25.700	0.000
28.	3840.420	12.540	-0.000	1916.727	-18.160	-0.000	2060.097	-26.060	0.000
29.	3855.202	12.280	-0.000	1905.865	-17.900	-0.000	2042.469	-26.310	0.000
30.	3869.711	12.000	-0.000	1895.241	-17.610	-0.000	2024.063	-26.490	0.000
31.	3883.905	11.650	-0.000	1884.872	-17.280	-0.000	2007.286	-26.560	0.000
32.	3897.750	11.350	-0.000	1874.775	-16.920	-0.000	1989.032	-26.580	0.000
33.	3911.212	10.990	-0.000	1864.967	-16.530	0.000	1972.599	-26.490	0.000
34.	3924.258	10.610	-0.000	1855.464	-16.100	-0.000	1955.535	-26.310	0.000
35.	3936.860	10.210	-0.000	1846.284	-15.630	-0.000	1938.023	-26.040	0.000
36.	3948.991	9.790	-0.000	1837.441	-15.130	-0.000	1922.464	-25.660	0.000
37.	3960.626	9.350	-0.000	1828.953	-14.590	-0.000	1906.579	-25.210	0.000
38.	3971.740	8.690	-0.000	1820.833	-14.010	-0.000	1891.167	-24.650	0.000
39.	3982.314	8.430	-0.000	1813.098	-13.400	-0.000	1876.304	-23.960	0.000
40.	3992.327	7.950	-0.000	1805.761	-12.750	-0.000	1862.047	-23.210	0.000
41.	4001.761	7.450	-0.000	1798.836	-12.070	-0.000	1848.450	-22.390	0.000
42.	4010.599	6.950	-0.000	1792.337	-11.350	-0.000	1835.563	-21.340	0.000
43.	4018.826	6.440	-0.000	1786.277	-10.610	-0.000	1823.437	-20.280	-0.000
44.	4026.426	5.920	-0.000	1780.666	-9.820	-0.000	1812.115	-19.020	0.000
45.	4033.392	5.390	-0.000	1775.517	-9.010	-0.000	1801.653	-17.690	0.000
46.	4039.709	4.850	-0.000	1770.839	-8.170	-0.000	1792.040	-16.240	0.000
47.	4045.366	4.310	-0.000	1766.642	-7.310	-0.000	1783.430	-14.700	0.000
48.	4050.357	3.770	-0.000	1762.935	-6.420	-0.000	1775.764	-13.040	-0.000
49.	4054.672	3.220	-0.000	1759.725	-5.500	-0.000	1769.067	-11.300	-0.000

110-PLANE LEAD SULPHIDE

	LNSVEL	LPHI12	LPHI13	FSPVEL	FSPHI12	FSPHI13	SSKVEL	SSPHI12	SSPHI13
50.	4050.306	2.660	-0.000	1757.019	-4.570	-0.000	1263.433	-9.460	0.000
51.	4061.252	2.100	-0.000	1754.823	-3.620	-0.000	1750.033	-7.560	0.000
52.	4063.507	1.540	-0.000	1753.141	-2.660	-0.000	1750.296	-5.560	0.000
53.	4065.066	.980	-0.000	1751.976	-1.700	-0.000	1752.047	-3.570	0.000
54.	4065.931	.420	-0.000	1751.331	-0.720	-0.000	1751.488	-1.520	0.000
55.	4066.096	-.150	-0.000	1751.228	-.260	0.000	1751.236	-.260	0.000
56.	4065.562	-0.710	-0.000	1751.607	1.240	0.000	1752.064	2.600	0.000
57.	4064.331	-1.260	-0.000	1752.826	2.210	0.000	1754.005	4.640	0.000
58.	4062.483	-1.840	-0.000	1753.965	3.170	0.000	1757.030	6.630	0.000
59.	4059.782	-2.400	-0.000	1755.919	4.130	-0.000	1761.131	8.570	0.000
60.	4056.472	-2.950	-0.000	1758.385	5.070	0.000	1766.290	10.440	0.000
61.	4052.470	-3.510	-0.000	1761.350	5.950	-0.000	1772.406	12.230	0.000
62.	4047.606	-4.060	-0.000	1764.831	6.840	0.000	1779.093	13.530	0.000
63.	4042.482	-4.600	-0.000	1768.798	7.700	-0.000	1787.883	15.530	0.000
64.	4036.455	-5.140	-0.000	1773.250	8.620	0.000	1797.320	17.020	0.000
65.	4029.795	-5.670	-0.000	1778.176	9.440	0.000	1807.070	18.400	0.000
66.	4022.492	-6.190	-0.000	1783.572	10.240	0.000	1817.592	19.670	0.000
67.	4014.554	-6.710	-0.000	1789.421	11.010	0.000	1825.742	20.830	0.000
68.	4006.007	-7.220	-0.000	1795.715	11.740	0.000	1842.276	21.870	0.000
69.	3996.853	-7.720	-0.000	1802.440	12.440	-0.000	1855.544	22.810	0.000
70.	3987.111	-8.200	-0.000	1809.594	13.100	-0.000	1869.596	23.630	0.000
71.	3976.800	-8.660	-0.000	1817.133	13.730	-0.000	1884.360	24.350	0.000
72.	3965.936	-9.110	-0.000	1825.073	14.320	-0.000	1899.840	24.960	0.000
73.	3954.546	-9.580	-0.000	1833.390	14.860	-0.000	1914.919	25.470	0.000
74.	3942.646	-10.010	-0.000	1842.067	15.400	0.000	1931.061	25.860	0.000
75.	3930.263	-10.420	-0.000	1851.090	15.860	0.000	1947.605	26.200	0.000
76.	3917.423	-10.810	-0.000	1860.442	16.330	-0.000	1964.489	26.420	0.000
77.	3904.154	-11.190	-0.000	1870.108	16.740	-0.000	1981.652	26.590	0.000
78.	3890.466	-11.530	-0.000	1880.071	17.120	0.000	1999.030	26.590	0.000
79.	3876.452	-11.860	-0.000	1890.314	17.460	-0.000	2016.557	26.540	0.000
80.	3862.087	-12.150	-0.000	1900.820	17.770	-0.000	2034.107	26.440	0.000
81.	3847.425	-12.420	0.000	1911.572	18.050	0.000	2051.793	26.190	0.000
82.	3832.517	-12.660	-0.000	1922.553	18.290	0.000	2069.364	25.660	0.000
83.	3817.356	-12.860	-0.000	1933.746	18.500	-0.000	2086.612	25.490	0.000
84.	3802.110	-13.030	-0.000	1945.133	18.680	-0.000	2104.063	25.010	0.000
85.	3786.705	-13.150	-0.000	1956.659	18.830	-0.000	2121.045	24.440	0.000
86.	3771.245	-13.230	-0.000	1968.424	18.960	-0.000	2137.602	23.700	0.000
87.	3755.772	-13.270	0.000	1980.293	19.050	-0.000	2153.099	23.030	0.000
88.	3740.349	-13.260	-0.000	1992.284	19.120	0.000	2169.618	22.190	0.000
89.	3725.037	-13.150	-0.000	2004.394	19.160	-0.000	2184.759	21.250	0.000
90.	3709.899	-13.070	0.000	2016.593	19.180	-0.000	2199.243	20.210	0.000
91.	3695.003	-12.850	0.000	2028.866	19.170	0.000	2212.988	19.070	0.000
92.	3680.416	-12.640	-0.000	2041.204	19.140	-0.000	2225.913	17.820	0.000
93.	3666.210	-12.330	0.000	2053.585	19.060	-0.000	2237.936	16.470	0.000
94.	3652.456	-11.960	-0.000	2065.994	19.000	-0.000	2248.977	15.010	0.000
95.	3639.226	-11.520	0.000	2078.417	18.910	0.000	2258.955	13.440	0.000
96.	3626.552	-11.010	-0.000	2090.836	18.790	-0.000	2267.935	11.770	0.000
97.	3614.622	-10.430	-0.000	2103.242	18.650	-0.000	2275.922	9.590	0.000
98.	3603.384	-9.750	0.000	2115.615	18.500	-0.000	2281.767	8.120	0.000
99.	3592.941	-9.060	0.000	2127.941	18.320	-0.000	2286.769	6.160	0.000

110-PLANE LEAD SULPHIDE

	LNGLVL	LPMI12	LPMI13	FSPMEL	FSPMI12	FSPMI13	SSRMEL	SSPMI12	SSPMI13
108.	3583.344	-8.20	0.000	2140.208	19.130	-0.000	2230.370	4.130	0.000
109.	3574.855	-7.310	0.000	2152.501	17.920	-0.000	2292.526	2.030	0.000
109.	3566.905	-6.660	0.000	2164.506	17.700	-0.000	2293.200	-1.110	0.000
109.	3560.129	-5.770	0.000	2176.511	17.460	-0.000	2292.368	-2.260	0.000
109.	3554.346	-4.660	0.000	2186.403	17.210	-0.000	2290.016	-4.450	0.000
108.	3545.572	-3.940	-0.000	2200.168	16.940	-0.000	2286.146	-6.610	0.000
108.	3545.402	-3.030	0.000	2211.796	16.660	-0.000	2284.771	-8.740	0.000
107.	3543.023	-2.120	0.000	2223.274	16.370	-0.000	2273.919	-10.810	0.000
108.	3541.215	-1.240	0.000	2234.590	16.070	-0.000	2265.829	-12.610	0.000
108.	3540.343	-0.350	0.000	2245.733	15.750	-0.000	2255.952	-14.730	0.000
110.	3540.365	.420	-0.000	2256.693	15.420	-0.000	2244.953	-16.540	-0.000
111.	3541.233	1.100	0.000	2267.455	15.000	0.000	2232.704	-18.250	-0.000
112.	3542.890	1.860	0.000	2278.020	14.730	0.000	2214.205	-19.640	-0.000
113.	3545.275	2.620	0.000	2286.366	14.370	0.000	2204.764	-21.310	-0.000
114.	3548.323	3.100	0.000	2290.466	14.010	-0.000	2189.297	-22.860	-0.000
115.	3551.969	3.620	0.000	2308.377	13.630	-0.000	2172.920	-23.690	-0.000
115.	3556.143	4.070	0.000	2318.024	13.240	-0.000	2152.755	-24.570	-0.000
117.	3560.779	4.460	0.000	2327.419	12.850	0.000	2137.905	-25.550	-0.000
118.	3565.810	4.760	0.000	2336.555	12.450	0.000	2119.476	-26.600	-0.000
119.	3571.170	5.050	0.000	2345.424	12.040	0.000	2101.572	-27.530	-0.000
120.	3576.795	5.260	0.000	2354.017	11.630	-0.000	2084.299	-28.133	-0.000
121.	3582.627	5.400	0.000	2362.328	11.200	-0.000	2067.761	-28.620	-0.000
122.	3588.606	5.500	-0.000	2370.344	10.760	-0.000	2042.062	-29.590	-0.000
123.	3594.679	5.550	0.000	2378.073	10.340	-0.000	2022.335	-29.230	-0.000
124.	3600.793	5.560	0.000	2385.445	9.900	0.000	2002.591	-29.360	-0.000
125.	3606.901	5.530	0.000	2392.607	9.460	0.000	1983.010	-29.360	-0.000
126.	3612.958	5.450	0.000	2399.405	9.010	-0.000	1963.696	-24.230	-0.000
127.	3618.921	5.340	0.000	2405.881	8.550	-0.000	1944.688	-26.590	-0.000
128.	3624.752	5.200	0.000	2412.032	8.050	-0.000	1926.120	-28.070	-0.000
129.	3630.416	5.020	0.000	2417.852	7.630	-0.000	1908.072	-27.400	0.000
130.	3635.879	4.820	0.000	2423.337	7.160	-0.000	1890.633	-27.400	0.000
131.	3641.111	4.590	0.000	2428.481	6.690	0.000	1873.889	-26.590	-0.000
132.	3646.084	4.310	0.000	2433.282	6.220	-0.000	1857.923	-25.820	-0.000
133.	3650.774	4.040	0.000	2437.734	5.740	-0.000	1842.815	-24.490	-0.000
134.	3655.158	3.790	0.000	2441.836	5.260	-0.000	1828.641	-23.210	-0.000
135.	3659.215	3.460	0.000	2445.502	4.760	-0.000	1815.473	-21.790	-0.000
136.	3662.927	3.160	-0.000	2448.972	4.250	-0.000	1803.378	-20.130	0.000
137.	3666.277	2.830	0.000	2452.001	3.610	0.000	1792.420	-18.340	-0.000
138.	3669.252	2.490	0.000	2454.667	3.320	-0.000	1782.656	-16.390	-0.000
139.	3671.840	2.140	0.000	2456.970	2.830	0.000	1774.136	-14.200	0.000
140.	3674.029	1.770	-0.000	2458.905	2.340	0.000	1766.106	-12.030	-0.000
141.	3675.811	1.410	0.000	2460.473	1.850	-0.000	1758.009	-9.640	-0.000
142.	3677.179	1.030	0.000	2461.672	1.350	-0.000	1756.472	-7.150	-0.000
143.	3678.127	.660	0.000	2462.501	.860	-0.000	1753.321	-4.500	-0.000
144.	3678.693	.280	0.000	2462.960	.360	-0.000	1751.573	-1.550	-0.000
145.	3678.793	-.100	0.000	2463.047	-.130	0.000	1751.239	.700	0.000
146.	3678.428	-.480	0.000	2462.764	-.620	0.000	1752.320	3.340	0.000
147.	3677.679	-.860	0.000	2462.110	-1.120	0.000	1754.810	5.950	0.000
148.	3676.506	-1.230	0.000	2461.089	-1.610	-0.000	1756.696	8.460	0.000
149.	3674.921	-1.600	0.000	2459.691	-2.110	-0.000	1763.956	10.920	0.000

110-PLANE LEAD SULPHIDE

	LMGVEL	LPMI12	LPMI13	FSPVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
150.	3622.923	-1.970	0.000	2457.929	-2.100	0.000	1770.291	13.231	0.000
151.	3670.523	-2.320	0.000	2855.800	-3.090	0.000	1778.776	15.441	0.000
152.	3667.729	-2.670	0.000	2853.305	-3.580	-0.000	1787.659	17.440	0.000
153.	3664.554	-3.013	0.000	2450.446	-4.060	-0.000	1796.061	19.310	0.000
154.	3651.011	-3.330	0.000	2447.227	-4.550	0.000	1805.627	21.111	0.000
155.	3657.114	-3.650	0.000	2443.649	-5.030	-0.000	1822.296	22.940	0.000
156.	3652.843	-3.940	0.000	2439.714	-5.510	0.000	1836.004	23.910	0.000
157.	3648.335	-4.220	0.000	2435.427	-5.950	0.000	1850.660	25.110	0.000
158.	3643.492	-4.480	0.000	2430.790	-6.470	0.000	1866.221	26.150	0.000
159.	3638.379	-4.720	0.000	2425.800	-6.940	0.000	1882.636	27.040	0.000
160.	3633.021	-4.930	0.000	2420.483	-7.410	0.000	1899.759	27.770	0.000
161.	3627.446	-5.120	0.000	2414.821	-7.870	-0.000	1917.531	28.360	0.000
162.	3621.692	-5.280	0.000	2408.820	-8.340	-0.000	1935.065	28.810	0.000
163.	3615.786	-5.400	0.000	2402.502	-8.790	0.000	1954.671	29.130	0.000
164.	3609.769	-5.490	0.000	2395.855	-9.250	0.000	1973.858	29.320	0.000
165.	3603.686	-5.550	0.000	2388.891	-9.690	0.000	1993.329	29.370	0.000
166.	3597.563	-5.560	0.000	2381.614	-10.130	0.000	2012.969	29.310	0.000
167.	3591.464	-5.530	0.000	2374.032	-10.570	0.000	2032.736	29.120	0.000
168.	3585.434	-5.460	0.000	2366.150	-11.000	0.000	2052.477	28.810	0.000
169.	3579.526	-5.330	0.000	2357.975	-11.430	0.000	2072.104	28.360	0.000
170.	3573.786	-5.150	0.000	2349.514	-11.850	0.000	2091.515	27.830	0.000
171.	3568.302	-4.910	0.000	2340.775	-12.260	0.000	2110.806	27.160	0.000
172.	3563.106	-4.620	-0.000	2331.764	-12.660	0.000	2129.272	26.360	0.000
173.	3558.278	-4.280	0.000	2322.490	-13.060	0.000	2147.409	25.450	0.000
174.	3553.877	-3.840	-0.000	2312.961	-13.450	0.000	2164.910	24.410	0.000
175.	3549.974	-3.360	-0.000	2303.166	-13.830	-0.000	2181.671	23.250	0.000
176.	3546.635	-2.810	-0.000	2293.172	-14.200	-0.000	2197.291	21.960	0.000
177.	3543.925	-2.150	0.000	2282.930	-14.570	-0.000	2212.570	20.540	0.000
178.	3541.920	-1.520	0.000	2272.470	-14.920	-0.000	2226.510	19.010	0.000
179.	3540.673	-0.750	-0.000	2261.799	-15.260	-0.000	2239.323	17.360	0.000
180.	3540.245	-0.000	-0.000	2250.930	-15.600	-0.000	2250.921	15.600	0.000

X-PLANE (YZ-PLANE) LITHIUM NIOBATE (SMITH AND WELSH)

BULK

	LNVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
0.	6883.076	9.360	0.000	4496.162	-12.090	-0.000	3962.377	6.660	-0.000
1.	6903.291	9.660	0.000	4478.837	-12.760	-0.000	3970.326	6.440	-0.000
2.	6924.136	9.910	0.000	4460.756	-13.360	-0.000	3978.029	6.230	-0.000
3.	6945.489	10.090	0.000	4441.693	-13.990	-0.000	3985.478	6.010	-0.000
4.	6967.227	10.200	0.000	4422.441	-14.370	-0.000	3992.666	5.780	-0.000
5.	6989.231	10.270	0.000	4402.530	-14.666	-0.000	3999.565	5.550	-0.000
6.	7011.387	10.260	0.000	4382.286	-14.910	-0.000	4006.429	5.310	-0.000
7.	7033.585	10.240	0.000	4361.632	-15.090	-0.000	4012.590	5.070	-0.000
8.	7055.721	10.160	0.000	4341.285	-15.160	-0.000	4018.662	4.830	-0.000
9.	7077.696	10.040	0.000	4320.785	-15.190	-0.000	4024.435	4.590	-0.000
10.	7099.416	9.670	0.000	4300.354	-15.140	-0.000	4029.916	4.330	-0.000
11.	7120.800	9.670	0.000	4280.187	-15.016	-0.000	4035.086	4.070	-0.000
12.	7141.759	9.440	0.000	4260.336	-14.810	-0.000	4039.945	3.820	-0.000
13.	7162.221	9.170	0.000	4240.901	-14.540	-0.000	4044.469	3.550	-0.000
14.	7182.115	8.860	0.000	4221.957	-14.220	-0.000	4048.712	3.250	-0.000
15.	7201.377	8.560	0.000	4203.502	-13.830	-0.000	4052.610	3.020	-0.000
16.	7219.948	8.220	0.000	4185.644	-13.400	-0.000	4056.180	2.750	-0.000
17.	7237.774	7.860	0.000	4168.404	-12.910	-0.000	4059.418	2.460	-0.000
18.	7254.806	7.480	0.000	4152.517	-12.370	-0.000	4062.321	2.210	-0.000
19.	7271.005	7.060	0.000	4137.029	-11.790	-0.000	4064.866	1.930	-0.000
20.	7286.329	6.670	0.000	4122.381	-11.180	-0.000	4067.111	1.660	-0.000
21.	7300.746	6.250	0.000	4108.604	-10.530	-0.000	4069.093	1.380	-0.000
22.	7314.227	5.820	0.000	4095.723	-9.860	-0.000	4070.931	1.100	-0.000
23.	7326.751	5.360	0.000	4083.754	-9.170	-0.000	4071.723	0.820	-0.000
24.	7338.290	4.930	0.000	4072.706	-8.470	-0.000	4072.568	0.540	-0.000
25.	7348.854	4.480	0.000	4062.587	-7.760	-0.000	4073.466	0.260	-0.000
26.	7358.411	4.030	0.000	4053.363	-7.050	0.000	4073.215	-0.020	0.000
27.	7366.965	3.580	0.000	4045.065	-6.350	0.000	4073.017	-0.300	0.000
28.	7374.516	3.140	0.000	4037.671	-5.660	0.000	4072.469	-0.500	0.000
29.	7381.070	2.690	0.000	4031.114	-4.990	0.000	4071.575	-0.660	0.000
30.	7386.635	2.250	0.000	4025.377	-4.350	0.000	4070.333	-1.140	0.000
31.	7391.226	1.830	0.000	4020.420	-3.730	0.000	4068.746	-1.420	0.000
32.	7394.863	1.410	0.000	4016.192	-3.170	0.000	4066.819	-1.700	0.000
33.	7397.569	1.000	0.000	4012.639	-2.650	0.000	4064.541	-1.970	0.000
34.	7399.372	0.600	0.000	4009.699	-2.170	0.000	4061.926	-2.250	0.000
35.	7400.304	0.230	0.000	4007.304	-1.760	0.000	4059.977	-2.520	0.000
36.	7400.402	-0.140	0.000	4005.383	-1.400	0.000	4057.692	-2.790	0.000
37.	7399.706	-0.460	0.000	4003.657	-1.110	0.000	4055.075	-3.060	0.000
38.	7398.263	-0.800	0.000	4002.645	-0.850	0.000	4052.030	-3.330	0.000
39.	7396.121	-1.100	0.000	4001.662	-0.740	0.000	4049.430	-3.590	0.000
40.	7393.333	-1.370	0.000	4000.618	-0.660	0.000	4046.541	-3.850	0.000
41.	7389.954	-1.620	0.000	4000.023	-0.660	0.000	4043.369	-4.110	0.000
42.	7386.045	-1.850	0.000	3999.184	-0.730	0.000	4039.953	-4.370	0.000
43.	7381.667	-2.040	0.000	3998.206	-0.800	0.000	4036.335	-4.620	0.000
44.	7376.886	-2.210	0.000	3997.000	-1.110	0.000	4032.610	-4.860	0.000
45.	7371.766	-2.340	0.000	3995.466	-1.420	0.000	4028.746	-5.110	0.000
46.	7366.377	-2.450	0.000	3993.521	-1.800	0.000	4024.702	-5.350	0.000
47.	7360.786	-2.530	0.000	3991.070	-2.240	0.000	4020.500	-5.580	0.000
48.	7355.063	-2.570	0.000	3988.032	-2.760	-0.000	4016.147	-5.810	0.000
49.	7349.277	-2.590	0.000	3984.327	-3.340	-0.000	4011.594	-6.040	0.000

X-PLANE (YZ-PLANE) LITHIUM NIOBATE (SMITH AND WELSH)

BULK

	LPHI12	LPHI13	FSRWEL	FSPHI12	FSPHI13	SSRWEL	SSPHI12	SSPHI13
50.	7343.494	0.000	3979.881	-3.980	0.000	3976.948	-6.260	0.000
51.	7337.781	0.000	3974.628	-4.660	0.000	3969.204	-9.470	0.000
52.	7332.199	0.000	3968.511	-5.420	0.000	3961.226	-8.660	0.000
53.	7326.811	0.000	3961.479	-6.190	0.000	3953.008	-8.040	0.000
54.	7321.670	0.000	3953.496	-7.000	0.000	3944.599	-7.090	0.000
55.	7316.828	0.000	3944.532	-7.820	0.000	3935.093	-7.280	0.000
56.	7312.331	0.000	3934.572	-8.660	0.000	3927.016	-7.460	0.000
57.	7308.220	0.000	3923.615	-9.500	0.000	3917.940	-7.640	0.000
58.	7304.526	0.000	3911.670	-10.320	0.000	3908.072	-7.810	0.000
59.	7301.282	0.000	3899.224	-11.120	0.000	3898.762	-7.980	0.000
60.	7298.503	0.000	3884.929	-11.890	0.000	3889.606	-8.130	0.000
61.	7296.205	0.000	3870.223	-12.620	0.000	3879.027	-8.280	0.000
62.	7294.395	0.000	3854.712	-13.250	0.000	3865.900	-8.420	0.000
63.	7293.071	0.000	3838.474	-13.890	0.000	3859.033	-8.550	0.000
64.	7292.220	0.000	3821.603	-14.420	0.000	3849.640	-8.680	0.000
65.	7291.851	0.000	3804.204	-14.970	0.000	3839.332	-8.790	0.000
66.	7291.923	0.000	3786.395	-15.210	0.000	3828.719	-8.900	0.000
67.	7292.415	0.000	3766.302	-15.460	0.000	3818.445	-9.000	0.000
68.	7293.308	0.000	3750.062	-15.590	0.000	3807.030	-9.080	0.000
69.	7294.559	0.000	3731.817	-15.610	0.000	3797.176	-9.160	0.000
70.	7296.134	0.000	3713.717	-15.500	0.000	3786.471	-9.220	0.000
71.	7297.993	0.000	3695.916	-15.280	0.000	3775.721	-9.280	0.000
72.	7300.095	0.000	3678.568	-14.890	0.000	3764.541	-9.330	0.000
73.	7302.395	0.000	3661.828	-14.360	0.000	3754.145	-9.360	0.000
74.	7304.850	0.000	3645.650	-13.730	0.000	3743.344	-9.380	0.000
75.	7307.414	0.000	3630.763	-12.940	0.000	3732.554	-9.400	0.000
76.	7310.045	0.000	3616.769	-12.020	0.000	3721.706	-9.400	0.000
77.	7312.696	0.000	3603.944	-10.970	0.000	3711.054	-9.390	0.000
78.	7315.332	0.000	3592.429	-9.790	0.000	3700.371	-9.370	0.000
79.	7317.907	0.000	3582.336	-8.500	0.000	3689.752	-9.330	0.000
80.	7320.385	0.000	3573.769	-7.110	0.000	3679.209	-9.290	0.000
81.	7322.732	0.000	3566.802	-5.630	0.000	3668.756	-9.230	0.000
82.	7324.916	0.000	3561.504	-4.090	0.000	3658.407	-9.160	0.000
83.	7326.907	0.000	3557.922	-2.500	0.000	3648.174	-9.070	0.000
84.	7328.682	0.000	3556.084	-.890	0.000	3638.074	-8.980	0.000
85.	7330.217	0.000	3556.002	.730	0.000	3628.117	-8.870	0.000
86.	7331.496	0.000	3557.666	2.330	0.000	3618.310	-8.750	0.000
87.	7332.503	0.000	3561.048	3.690	0.000	3608.690	-8.610	0.000
88.	7333.229	0.000	3566.103	5.330	0.000	3599.245	-8.460	0.000
89.	7333.667	0.000	3572.767	6.810	0.000	3589.996	-8.300	0.000
90.	7333.813	0.000	3580.960	8.130	0.000	3580.960	-8.130	0.000
91.	7333.668	0.000	3590.590	9.350	0.000	3572.145	-7.940	0.000
92.	7333.234	0.000	3601.549	10.440	0.000	3563.265	-7.740	0.000
93.	7332.519	0.000	3613.719	11.410	0.000	3554.232	-7.530	0.000
94.	7331.532	0.000	3626.974	12.260	0.000	3547.157	-7.310	0.000
95.	7330.283	0.000	3641.176	12.970	0.000	3539.354	-7.070	0.000
96.	7328.787	0.000	3656.193	13.540	0.000	3531.832	-6.820	0.000
97.	7327.859	0.000	3671.875	13.990	0.000	3524.604	-6.560	0.000
98.	7325.115	0.000	3688.082	14.310	0.000	3517.679	-6.290	0.000
99.	7322.973	0.000	3704.670	14.510	0.000	3511.066	-6.010	0.000

LNGVEL	X-PLANE (YZ-PLANE) LITHIUM NIOBATE (SMITH AND WELSH)				BULK			
	LPH112	LPH113	FSPVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
100.	-1.080	-0.000	3721.501	14.590	0.000	3504.781	-5.120	0.000
101.	-1.150	-0.000	3738.439	14.566	0.000	3490.827	-5.441	0.000
102.	-1.210	-0.000	3755.355	14.836	0.000	3493.215	-5.100	0.000
103.	-1.270	-0.000	3772.129	14.500	0.000	3487.953	-4.770	0.000
104.	-1.320	-0.000	3788.645	13.096	0.000	3483.051	-4.440	0.000
105.	-1.360	-0.000	3804.813	13.510	0.000	3478.514	-4.100	0.000
106.	-1.400	-0.000	3820.530	13.060	0.000	3474.351	-3.750	0.000
107.	-1.440	-0.000	3835.721	12.550	0.000	3470.567	-3.390	0.000
108.	-1.460	-0.000	3850.321	12.000	0.000	3467.169	-3.030	0.000
109.	-1.510	-0.000	3864.275	11.416	0.000	3464.161	-2.660	0.000
110.	-1.550	-0.000	3877.544	10.800	0.000	3461.549	-2.290	0.000
111.	-1.590	-0.000	3890.100	10.160	0.000	3459.336	-1.910	0.000
112.	-1.640	-0.000	3901.925	9.560	0.000	3457.526	-1.530	0.000
113.	-1.690	-0.000	3913.025	8.940	0.000	3456.122	-1.140	0.000
114.	-1.750	-0.000	3923.412	8.330	0.000	3455.126	-0.750	0.000
115.	-1.810	-0.000	3933.099	7.760	0.000	3454.539	-0.360	0.000
116.	-1.890	-0.000	3942.125	7.210	0.000	3454.363	0.030	0.000
117.	-1.960	-0.000	3950.532	6.710	0.000	3454.597	0.420	0.000
118.	-2.080	-0.000	3958.375	6.260	0.000	3455.242	0.810	0.000
119.	-2.190	-0.000	3965.713	5.860	0.000	3456.247	1.200	0.000
120.	-2.310	-0.000	3972.616	5.530	0.000	3457.759	1.580	0.000
121.	-2.450	-0.000	3979.159	5.260	0.000	3459.626	1.960	0.000
122.	-2.600	-0.000	3985.421	5.050	0.000	3461.696	2.340	0.000
123.	-2.770	-0.000	3991.486	4.920	0.000	3464.065	2.710	0.000
124.	-2.950	-0.000	3997.441	4.860	0.000	3467.629	3.080	0.000
125.	-3.140	-0.000	4003.373	4.870	0.000	3471.002	3.440	0.000
126.	-3.340	-0.000	4009.371	4.950	0.000	3474.920	3.800	0.000
127.	-3.550	-0.000	4015.524	5.100	0.000	3479.137	4.150	0.000
128.	-3.780	-0.000	4021.917	5.320	0.000	3483.726	4.490	0.000
129.	-4.010	-0.000	4028.634	5.610	0.000	3488.660	4.820	0.000
130.	-4.250	-0.000	4035.754	5.960	0.000	3493.992	5.140	0.000
131.	-4.490	-0.000	4043.354	6.360	0.000	3499.653	5.460	0.000
132.	-4.740	-0.000	4051.502	6.810	0.000	3505.655	5.780	0.000
133.	-5.000	-0.000	4060.263	7.310	0.000	3511.969	6.050	0.000
134.	-5.250	-0.000	4069.692	7.840	0.000	3518.646	6.330	0.000
135.	-5.510	-0.000	4079.836	8.400	0.000	3525.614	6.600	0.000
136.	-5.760	-0.000	4090.742	8.990	0.000	3532.885	6.860	0.000
137.	-6.010	-0.000	4102.436	9.590	0.000	3540.440	7.110	0.000
138.	-6.250	-0.000	4114.942	10.200	0.000	3548.290	7.340	0.000
139.	-6.460	-0.000	4128.274	10.800	0.000	3556.402	7.560	0.000
140.	-6.700	-0.000	4142.433	11.400	0.000	3564.771	7.770	0.000
141.	-6.910	-0.000	4157.414	11.970	0.000	3573.366	7.970	0.000
142.	-7.100	-0.000	4173.195	12.520	0.000	3582.233	8.160	0.000
143.	-7.280	-0.000	4189.760	13.040	0.000	3591.302	8.330	0.000
144.	-7.430	-0.000	4207.059	13.520	0.000	3600.578	8.490	0.000
145.	-7.560	-0.000	4225.048	13.950	0.000	3610.049	8.630	0.000
146.	-7.660	-0.000	4243.667	14.320	0.000	3619.703	8.760	0.000
147.	-7.730	-0.000	4262.845	14.640	0.000	3629.525	8.880	0.000
148.	-7.770	-0.000	4282.514	14.850	0.000	3639.504	8.990	0.000
149.	-7.770	-0.000	4302.573	15.070	0.000	3649.624	9.090	0.000

X-PLANE (YZ-PLANE) LITHIUM NIOBATE (SMITH AND WELSH)

	LMPH12	LPH13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
150.	-7.740	-0.000	4322.928	15.180	0.000	3659.073	9.170	0.000
151.	-7.660	-0.000	4343.472	15.200	0.000	3670.236	9.240	0.000
152.	-7.540	-0.000	4364.091	15.140	0.000	3689.704	9.290	0.000
153.	-7.370	-0.000	4384.659	15.000	0.000	3711.254	9.340	0.000
154.	-7.150	-0.000	4405.049	14.760	0.000	3731.666	9.370	0.000
155.	-6.870	-0.000	4425.122	14.430	0.000	3751.954	9.390	0.000
156.	-6.540	-0.000	4444.736	14.000	0.000	3772.110	9.400	0.000
157.	-6.150	-0.000	4463.751	13.470	0.000	3792.069	9.400	0.000
158.	-5.710	-0.000	4482.013	12.850	0.000	3811.681	9.380	0.000
159.	-5.200	-0.000	4499.377	12.120	0.000	3830.822	9.360	0.000
160.	-4.640	-0.000	4515.696	11.300	0.000	3849.407	9.320	0.000
161.	-4.020	-0.000	4530.826	10.360	0.000	3867.453	9.270	0.000
162.	-3.350	-0.000	4544.629	9.380	0.000	3884.968	9.210	0.000
163.	-2.630	-0.000	4556.976	8.260	0.000	3901.941	9.150	0.000
164.	-1.860	-0.000	4567.752	7.110	0.000	3918.341	9.070	0.000
165.	-1.060	-0.000	4576.846	5.860	0.000	3934.115	8.960	0.000
166.	-0.230	-0.000	4584.171	4.560	0.000	3949.407	8.820	0.000
167.	0.620	-0.000	4589.655	3.260	0.000	3964.266	8.670	0.000
168.	1.490	-0.000	4593.244	1.860	0.000	3978.655	8.500	0.000
169.	2.350	-0.000	4594.905	.450	0.000	3991.524	8.330	0.000
170.	3.200	-0.000	4594.627	-0.990	0.000	3999.821	8.160	0.000
171.	4.030	-0.000	4592.418	-2.260	0.000	4002.595	8.010	0.000
172.	4.820	-0.000	4588.310	-3.600	0.000	4000.800	7.870	0.000
173.	5.590	-0.000	4582.350	-4.910	0.000	3998.463	7.740	0.000
174.	6.390	-0.000	4574.607	-6.150	0.000	3995.524	7.620	0.000
175.	6.970	-0.000	4565.163	-7.340	0.000	3992.029	7.500	0.000
176.	7.570	-0.000	4554.115	-8.450	0.000	3987.934	7.440	0.000
177.	8.120	-0.000	4541.572	-9.450	0.000	3983.219	7.250	0.000
178.	8.610	-0.000	4527.651	-10.450	0.000	3977.875	7.060	0.000
179.	9.030	-0.000	4512.470	-11.310	0.000	3971.890	6.860	0.000
180.	9.380	-0.000	4496.182	-12.090	0.000	3965.277	6.660	0.000

Y-PLANE (XZ-PLANE) LITHIUM NIOBATE (SMITH AND WELSH)

BULK

	LNGVEL	LPM12	LPM13	FSRVEL	FSPM12	FSPM13	SSRVEL	SSPM12	SSPM13
0.	6614.376	0.000	0.000	4002.076	0.000	0.000	4050.767	0.000	0.000
1.	6615.293	0.910	0.660	4001.055	-1.400	-1.770	4050.759	-1.340	0.300
2.	6616.025	1.800	1.320	4790.796	-2.780	-1.540	4058.136	-1.670	0.590
3.	6622.544	2.670	1.966	4793.735	-4.130	-2.290	4057.099	-1.610	0.090
4.	6628.797	3.510	2.590	4786.727	-5.440	-3.010	4095.053	-1.340	1.100
5.	6636.716	4.310	3.170	4777.045	-6.700	-3.700	4093.080	-1.660	1.440
6.	6646.215	5.050	3.740	4767.181	-7.860	-4.350	4051.007	-1.500	1.760
7.	6657.194	5.740	4.260	4754.838	-9.000	-4.900	4040.931	-2.300	2.040
8.	6669.545	6.370	4.760	4740.933	-10.040	-5.510	4045.070	-2.610	2.320
9.	6683.150	6.940	5.210	4725.592	-10.990	-6.010	4042.664	-2.510	2.000
10.	6697.007	7.440	5.620	4708.945	-11.860	-6.460	4036.695	-3.200	2.000
11.	6713.629	7.870	5.990	4691.125	-12.640	-6.850	4034.376	-3.490	3.140
12.	6730.251	8.240	6.320	4672.267	-13.340	-7.150	4030.120	-3.700	3.430
13.	6747.626	8.550	6.620	4652.505	-13.950	-7.470	4023.345	-4.010	3.600
14.	6765.636	8.800	6.870	4631.968	-14.480	-7.690	4020.267	-4.260	3.510
15.	6784.161	8.990	7.090	4610.784	-14.940	-7.860	4014.906	-4.480	4.100
16.	6803.004	9.130	7.270	4589.073	-15.320	-7.970	4009.203	-4.690	4.400
17.	6822.298	9.220	7.420	4566.946	-15.630	-8.040	4003.421	-4.890	4.600
18.	6841.700	9.260	7.530	4544.516	-15.870	-8.050	3997.344	-5.060	4.000
19.	6861.195	9.250	7.620	4521.684	-16.050	-8.010	3991.076	-5.210	5.110
20.	6880.691	9.210	7.680	4499.138	-16.170	-7.930	3984.646	-5.340	5.340
21.	6900.104	9.130	7.710	4476.365	-16.240	-7.810	3976.079	-5.450	5.570
22.	6919.357	9.010	7.720	4453.644	-16.260	-7.640	3971.405	-5.540	5.000
23.	6938.378	8.860	7.710	4431.046	-16.230	-7.450	3964.000	-5.600	6.030
24.	6957.100	8.690	7.680	4408.635	-16.160	-7.220	3957.044	-5.640	6.270
25.	6975.466	8.490	7.620	4386.469	-16.050	-6.960	3951.012	-5.660	6.510
26.	6993.419	8.270	7.550	4364.600	-15.900	-6.670	3944.182	-5.660	6.700
27.	7010.912	8.020	7.460	4343.075	-15.720	-6.370	3937.375	-5.640	7.016
28.	7027.901	7.760	7.360	4321.935	-15.510	-6.050	3930.613	-5.610	7.280
29.	7044.349	7.490	7.240	4301.221	-15.270	-5.720	3923.912	-5.560	7.560
30.	7060.222	7.200	7.110	4280.966	-14.990	-5.350	3917.204	-5.500	7.060
31.	7075.451	6.910	6.970	4261.209	-14.690	-5.050	3910.737	-5.450	6.110
32.	7090.134	6.600	6.810	4241.977	-14.360	-4.710	3904.271	-5.390	6.250
33.	7104.131	6.250	6.650	4223.304	-14.000	-4.380	3897.879	-5.340	6.060
34.	7117.468	5.960	6.470	4205.222	-13.610	-4.070	3891.549	-5.300	5.230
35.	7130.134	5.660	6.290	4187.764	-13.190	-3.770	3885.256	-5.290	5.630
36.	7142.123	5.340	6.100	4170.964	-12.740	-3.450	3878.977	-5.310	5.040
37.	7153.434	5.020	5.900	4154.857	-12.250	-3.230	3872.668	-5.360	4.480
38.	7164.068	4.710	5.690	4139.479	-11.730	-2.990	3866.286	-5.450	4.040
39.	7174.031	4.400	5.480	4124.864	-11.170	-2.770	3859.779	-5.500	3.410
40.	7183.333	4.090	5.270	4111.045	-10.590	-2.560	3853.094	-5.570	2.890
41.	7191.986	3.800	5.050	4098.050	-9.970	-2.420	3846.173	-5.600	2.380
42.	7200.008	3.510	4.830	4085.901	-9.330	-2.270	3838.362	-5.620	1.870
43.	7207.417	3.240	4.600	4074.606	-8.690	-2.130	3831.413	-5.600	1.330
44.	7214.237	2.970	4.370	4064.167	-8.040	-2.010	3823.464	-5.540	0.820
45.	7220.494	2.720	4.150	4054.559	-7.410	-1.900	3815.450	-5.450	0.270
46.	7226.216	2.460	3.920	4045.747	-6.810	-1.790	3806.395	-5.340	0.000
47.	7231.435	2.260	3.690	4037.675	-6.260	-1.690	3797.222	-5.200	0.000
48.	7236.103	2.050	3.470	4030.271	-5.760	-1.600	3787.649	-5.000	0.000
49.	7240.495	1.860	3.240	4023.448	-5.340	-1.510	3777.704	-4.720	0.000

Y-PLANE (XZ-PLANE) LITHIUM NIOBATE (SMITH AND WELSH)

BULK

	LMGWEL	LPHI12	LPHI13	FSRWEL	FSPH12	FSPH13	SSRWEL	SSPH12	SSPH13
50.	7244.489	1.690	3.020	4017.106	-5.000	-1.440	3767.428	-9.010	16.110
51.	7247.961	1.530	2.810	4011.141	-4.750	-1.370	3756.070	-9.250	16.300
52.	7251.192	1.400	2.590	4005.441	-4.560	-1.330	3746.083	-9.450	16.620
53.	7254.140	1.260	2.390	3999.895	-4.510	-1.300	3735.121	-9.600	16.800
54.	7256.845	1.170	2.190	3994.394	-4.600	-1.330	3724.043	-9.710	17.020
55.	7259.346	1.090	1.990	3988.834	-4.620	-1.310	3712.902	-9.770	17.100
56.	7261.681	1.020	1.810	3983.115	-4.750	-1.360	3701.751	-9.700	17.310
57.	7263.886	.970	1.630	3977.145	-5.040	-1.430	3690.643	-9.750	17.410
58.	7265.999	.940	1.460	3970.842	-5.300	-1.540	3679.624	-9.600	17.400
59.	7268.051	.920	1.300	3964.132	-5.730	-1.670	3668.740	-9.510	17.530
60.	7270.074	.910	1.150	3956.949	-6.150	-1.830	3658.035	-9.450	17.540
61.	7272.095	.920	1.010	3949.241	-6.610	-2.010	3647.550	-9.250	17.620
62.	7274.139	.930	.880	3940.962	-7.110	-2.220	3637.323	-9.030	17.610
63.	7276.228	.950	.760	3932.079	-7.630	-2.450	3627.391	-8.770	17.380
64.	7278.370	.990	.650	3922.570	-8.170	-2.700	3617.769	-8.490	17.200
65.	7280.603	1.020	.550	3912.423	-8.720	-2.960	3608.353	-8.170	17.100
66.	7282.913	1.060	.460	3901.637	-9.260	-3.240	3599.176	-7.820	16.950
67.	7285.313	1.100	.380	3890.220	-9.800	-3.520	3590.310	-7.440	16.650
68.	7287.803	1.140	.300	3878.193	-10.320	-3.800	3581.866	-7.020	16.360
69.	7290.382	1.160	.240	3865.544	-10.810	-4.080	3573.816	-6.570	16.030
70.	7293.042	1.120	.190	3852.433	-11.260	-4.350	3566.091	-6.100	15.650
71.	7295.773	1.240	.140	3838.766	-11.700	-4.610	3558.620	-5.550	15.220
72.	7298.562	1.260	.100	3824.698	-12.080	-4.840	3551.334	-5.050	14.740
73.	7301.392	1.260	.070	3810.233	-12.410	-5.050	3544.262	-4.460	14.210
74.	7304.243	1.240	.040	3795.466	-12.680	-5.230	3537.412	-3.860	13.630
75.	7307.095	1.200	.020	3780.446	-12.900	-5.360	3530.774	-3.250	13.010
76.	7309.924	1.260	.010	3765.281	-13.040	-5.450	3524.340	-2.600	12.330
77.	7312.706	1.230	-0.000	3750.038	-13.120	-5.490	3518.109	-1.910	11.610
78.	7315.415	1.200	-0.010	3734.803	-13.130	-5.480	3512.086	-1.210	10.840
79.	7318.026	1.158	-0.020	3719.659	-13.070	-5.408	3506.268	-.460	10.030
80.	7320.512	1.080	-0.020	3704.691	-12.940	-5.260	3500.649	.280	9.100
81.	7322.850	1.010	-0.020	3689.980	-12.730	-5.050	3495.224	1.020	8.060
82.	7325.014	.930	-0.020	3675.604	-12.460	-4.760	3490.091	1.630	7.330
83.	7326.982	.830	-0.010	3661.651	-12.120	-4.410	3485.242	2.160	6.440
84.	7328.734	.730	-0.010	3648.181	-11.710	-3.960	3480.673	2.630	5.210
85.	7330.250	.620	-0.010	3635.266	-11.250	-3.480	3476.361	3.040	3.560
86.	7331.514	.510	-0.010	3622.967	-10.720	-2.910	3472.260	3.390	2.610
87.	7332.511	.390	-0.000	3611.342	-10.140	-2.270	3468.333	3.640	2.670
88.	7333.232	.260	-0.000	3600.436	-9.510	-1.570	3464.593	3.790	1.700
89.	7333.667	.130	-0.000	3590.299	-8.840	-.810	3461.000	3.860	.860
90.	7333.813	-0.000	-0.000	3580.960	-8.130	0.000	3457.616	3.830	0.000
91.	7333.667	-1.130	-0.000	3572.451	-7.390	.660	3454.499	3.640	-0.010
92.	7333.232	-2.260	-0.000	3564.793	-6.620	1.750	3451.630	3.250	-1.500
93.	7332.511	-3.390	-0.000	3558.003	-5.840	3.610	3448.942	2.670	-2.270
94.	7331.514	-4.510	-0.010	3552.091	-5.040	6.160	3446.460	1.910	-2.910
95.	7330.250	-5.620	-0.010	3547.061	-4.240	9.560	3444.266	1.020	-3.460
96.	7328.734	-6.730	-0.010	3542.913	-3.430	13.810	3442.313	0.000	-3.900
97.	7326.982	-7.830	-0.010	3539.642	-2.630	18.830	3440.651	-1.210	-4.100
98.	7325.014	-8.930	-0.020	3537.235	-1.830	24.630	3439.268	-2.460	-4.100
99.	7322.850	-1.010	-0.020	3535.690	-1.050	31.180	3438.100	-3.730	-3.000

Y-PLANE (XZ-PLANE) LITHIUM NIOBATE (SMITH AND WELSH)

BULK

	LMVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
100.	7320.512	-1.060	-0.020	3534.979	-0.260	9.160	3704.691	12.540	-2.260
101.	7316.026	-1.150	-0.020	3535.086	0.460	10.030	3714.659	13.070	-2.400
102.	7315.415	-1.260	-0.010	3535.996	1.210	10.840	3718.003	13.130	-2.400
103.	7312.706	-1.230	-0.000	3537.679	1.910	11.620	3750.358	13.120	-2.450
104.	7309.924	-1.260	0.010	3540.114	2.600	12.330	3765.281	13.040	-2.450
105.	7307.095	-1.260	0.020	3543.274	3.250	13.010	3780.448	12.890	-2.430
106.	7304.243	-1.280	0.040	3547.132	3.860	13.630	3795.458	12.600	-2.420
107.	7301.392	-1.260	0.070	3551.662	4.480	14.210	3810.233	12.410	-2.400
108.	7298.562	-1.260	1.00	3556.834	5.050	14.740	3824.698	12.080	-2.400
109.	7295.773	-1.240	1.40	3562.620	5.550	15.220	3838.766	11.700	-2.400
110.	7293.042	-1.210	1.90	3568.991	6.100	15.650	3852.433	11.260	-2.400
111.	7290.382	-1.180	2.40	3575.916	6.570	16.030	3865.594	10.810	-2.400
112.	7287.803	-1.140	3.00	3583.366	7.020	16.360	3878.193	10.320	-2.400
113.	7285.313	-1.100	3.60	3591.310	7.440	16.650	3890.220	9.800	-2.400
114.	7282.913	-1.060	4.60	3599.716	7.820	16.890	3901.637	9.260	-2.400
115.	7280.603	-1.020	5.50	3608.553	8.170	17.100	3912.423	8.720	-2.400
116.	7278.378	-0.990	6.50	3617.859	8.470	17.280	3922.570	8.170	-2.400
117.	7276.228	-0.950	7.60	3627.391	8.770	17.360	3932.079	7.630	-2.400
118.	7274.139	-0.930	8.60	3637.323	9.030	17.470	3941.962	7.110	-2.220
119.	7272.095	-0.920	1.010	3647.550	9.250	17.520	3949.241	6.610	-2.010
120.	7270.074	-0.910	1.150	3658.035	9.430	17.540	3956.949	6.150	-1.830
121.	7268.051	-0.920	1.300	3668.740	9.570	17.530	3964.132	5.730	-1.670
122.	7265.995	-0.940	1.460	3678.624	9.680	17.480	3970.842	5.350	-1.550
123.	7263.886	-0.970	1.630	3690.643	9.750	17.410	3977.145	5.000	-1.450
124.	7261.681	-1.020	1.810	3701.751	9.760	17.310	3983.115	4.790	-1.360
125.	7259.346	-1.090	1.990	3712.982	9.770	17.160	3988.634	4.620	-1.310
126.	7256.845	-1.170	2.190	3724.043	9.710	17.020	3994.394	4.600	-1.330
127.	7254.140	-1.260	2.390	3735.121	9.600	16.840	3999.845	4.510	-1.300
128.	7251.192	-1.400	2.590	3746.083	9.450	16.620	4005.441	4.560	-1.330
129.	7247.961	-1.530	2.810	3756.870	9.250	16.360	4011.141	4.750	-1.370
130.	7244.489	-1.650	3.020	3767.426	9.010	16.110	4017.106	5.000	-1.440
131.	7240.495	-1.860	3.240	3777.704	8.720	15.850	4023.448	5.340	-1.510
132.	7236.183	-2.050	3.470	3787.649	8.400	15.600	4030.271	5.760	-1.500
133.	7231.435	-2.260	3.690	3797.222	8.050	15.400	4037.675	6.260	-1.600
134.	7226.216	-2.440	3.920	3806.395	7.690	14.700	4045.747	6.810	-1.790
135.	7220.494	-2.720	4.150	3815.150	7.310	14.270	4054.599	7.410	-1.900
136.	7214.237	-2.970	4.370	3823.484	6.940	13.820	4064.167	8.040	-2.010
137.	7207.417	-3.240	4.600	3831.413	6.600	13.350	4074.608	8.690	-2.130
138.	7200.808	-3.510	4.830	3838.962	6.260	12.870	4085.901	9.330	-2.270
139.	7193.966	-3.600	5.050	3846.173	6.000	12.360	4098.050	9.970	-2.420
140.	7183.333	-4.090	5.270	3853.094	5.770	11.890	4111.045	10.590	-2.500
141.	7174.031	-4.600	5.480	3859.779	5.560	11.410	4124.864	11.170	-2.770
142.	7164.060	-4.710	5.690	3866.266	5.450	10.940	4139.479	11.730	-2.930
143.	7153.434	-5.020	5.900	3872.666	5.360	10.460	4154.857	12.250	-3.230
144.	7142.123	-5.340	6.100	3878.977	5.310	10.040	4170.964	12.740	-3.450
145.	7130.134	-5.660	6.290	3885.256	5.250	9.630	4187.704	13.190	-3.770
146.	7117.466	-5.980	6.470	3891.549	5.300	9.230	4205.222	13.610	-4.070
147.	7104.131	-6.290	6.658	3897.879	5.340	8.860	4223.304	14.000	-4.360
148.	7090.134	-6.600	6.810	3904.271	5.390	8.510	4241.977	14.360	-4.710
149.	7075.691	-6.910	6.970	3910.737	5.450	8.170	4261.209	14.690	-5.000

	Y-PLANE (XZ-PLANE) LITHIUM NIOBATE (SMITH AND WELSH)										BULK									
	LPM12	LPM13	FSRVEL	FSPM12	FSPM13	SSRVEL	SSPM12	SSPM13												
150.	7060.222	7.110	3917.204	5.500	7.060	4200.968	14.990	-5.390												
151.	7046.349	7.240	3923.912	5.560	7.560	4301.221	15.270	-6.070												
152.	7027.901	7.360	3930.613	5.610	7.260	4321.335	15.510	-6.050												
153.	7010.912	7.060	3937.375	5.640	7.010	4343.075	15.720	-6.370												
154.	6993.419	7.590	3944.162	5.660	6.750	4364.600	15.900	-6.660												
155.	6975.466	7.620	3951.012	5.660	6.510	4386.469	16.050	-6.950												
156.	6957.100	7.660	3957.844	5.640	6.270	4400.635	16.160	-7.220												
157.	6938.378	7.710	3964.650	5.600	6.030	4413.046	16.230	-7.440												
158.	6919.357	7.720	3971.405	5.540	5.600	4423.644	16.260	-7.640												
159.	6900.104	7.710	3978.079	5.450	5.570	4431.365	16.240	-7.810												
160.	6880.691	7.660	3984.646	5.340	5.340	4439.136	16.170	-7.930												
161.	6861.195	7.620	3991.076	5.210	5.110	4447.064	16.050	-8.010												
162.	6841.700	7.530	3997.341	5.060	4.860	4454.218	15.870	-8.050												
163.	6822.256	7.420	4003.421	4.890	4.640	4460.948	15.630	-8.040												
164.	6803.084	7.370	4009.283	4.690	4.400	4469.073	15.320	-7.970												
165.	6784.161	7.090	4014.906	4.460	4.160	4478.704	14.940	-7.860												
166.	6765.638	6.870	4020.267	4.260	3.910	4488.960	14.460	-7.690												
167.	6747.628	6.620	4025.345	4.010	3.660	4499.850	13.950	-7.470												
168.	6730.251	6.320	4030.120	3.760	3.400	4512.267	13.340	-7.190												
169.	6713.629	5.990	4034.576	3.490	3.140	4526.125	12.640	-6.850												
170.	6697.887	5.620	4038.695	3.200	2.870	4540.345	11.860	-6.460												
171.	6683.150	5.210	4042.464	2.910	2.600	4725.542	10.990	-6.010												
172.	6669.545	4.760	4045.870	2.610	2.320	4740.933	10.140	-5.510												
173.	6657.194	4.260	4048.901	2.300	2.040	4754.636	9.000	-4.950												
174.	6646.215	3.740	4051.547	1.960	1.760	4777.045	7.600	-4.350												
175.	6636.716	3.170	4053.800	1.660	1.470	4797.045	6.700	-3.700												
176.	6628.797	2.500	4055.653	1.340	1.180	4798.735	5.440	-3.010												
177.	6622.544	1.960	4057.099	1.010	.890	4798.735	4.130	-2.250												
178.	6618.025	1.320	4058.136	.670	.590	4798.735	2.760	-1.540												
179.	6615.293	.660	4058.759	.340	.300	4801.655	1.400	-0.770												
180.	6614.376	0.000	4058.967	-0.000	-0.000	4802.678	-0.000	0.000												

Z-PLANE (XY-PLANE) LITHIUM NIOBATE (SMITH AND WELSH)

BULK

	LMGWEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
0.	6814.370	0.000	0.000	4802.878	0.000	0.000	4058.967	0.000	0.000
1.	6815.256	.870	-.660	4801.810	-1.460	1.770	4058.799	-.270	-.350
2.	6817.875	1.720	-1.320	4798.628	-2.690	1.540	4058.594	-.590	-.890
3.	6822.187	2.540	-1.960	4793.390	-4.260	2.300	4057.450	-.820	-1.190
4.	6828.115	3.320	-2.590	4786.193	-5.560	3.040	4056.266	-1.100	-1.490
5.	6835.556	4.030	-3.190	4777.168	-6.760	3.770	4054.739	-1.380	-1.790
6.	6844.384	4.670	-3.770	4766.475	-7.850	4.460	4052.866	-1.660	-2.100
7.	6854.455	5.230	-4.310	4754.229	-8.800	5.140	4051.644	-1.940	-2.400
8.	6865.612	5.720	-4.830	4740.842	-9.620	5.780	4048.973	-2.230	-2.700
9.	6877.685	6.110	-5.310	4726.322	-10.290	6.390	4045.151	-2.510	-2.990
10.	6890.504	6.420	-5.760	4710.966	-10.810	6.970	4041.081	-2.790	-3.280
11.	6903.893	6.640	-6.180	4695.003	-11.160	7.520	4036.268	-3.070	-3.570
12.	6917.680	6.780	-6.570	4678.658	-11.400	8.040	4034.325	-3.340	-3.830
13.	6931.696	6.830	-6.920	4662.154	-11.470	8.520	4033.067	-3.590	-4.080
14.	6945.778	6.810	-7.240	4645.702	-11.410	8.960	4032.516	-3.820	-4.220
15.	6959.772	6.720	-7.530	4629.499	-11.210	9.400	4032.705	-4.020	-4.350
16.	6973.530	6.560	-7.800	4613.729	-10.990	9.780	4033.074	-4.180	-4.470
17.	6986.917	6.340	-8.040	4598.556	-10.470	10.140	4033.473	-4.300	-4.580
18.	6999.805	6.060	-8.260	4584.122	-9.940	10.460	4033.822	-4.370	-4.670
19.	6812.076	5.730	-8.450	4570.553	-9.330	10.750	3999.811	-4.360	-4.590
20.	6823.629	5.350	-8.620	4557.952	-8.640	11.000	3999.495	-4.320	-4.500
21.	6834.362	4.930	-8.780	4546.401	-7.890	11.220	3989.309	-4.190	-4.390
22.	6844.190	4.480	-8.910	4535.967	-7.100	11.420	3984.333	-4.060	-4.260
23.	6853.039	3.990	-9.020	4526.696	-6.270	11.590	3979.604	-3.900	-4.120
24.	6860.839	3.470	-9.120	4518.627	-5.410	11.730	3975.392	-3.730	-3.970
25.	6867.536	2.930	-9.200	4511.779	-4.520	11.850	3971.605	-2.900	-3.430
26.	6873.079	2.360	-9.270	4506.168	-3.630	11.940	3968.385	-2.420	-3.020
27.	6877.431	1.750	-9.320	4501.800	-2.730	12.010	3965.802	-1.860	-2.590
28.	6880.561	1.200	-9.360	4498.679	-1.820	12.060	3963.914	-1.260	-2.060
29.	6882.446	.600	-9.380	4496.807	-.910	12.080	3962.763	-.640	-1.600
30.	6883.078	0.000	-9.380	4496.182	0.000	12.090	3962.377	0.000	-1.100
31.	6882.446	-.600	-9.360	4496.807	.910	12.080	3962.763	.640	-.600
32.	6880.561	-1.200	-9.360	4498.679	1.820	12.050	3963.914	1.260	-.600
33.	6877.431	-1.790	-9.320	4501.800	2.730	12.010	3965.802	1.860	-.550
34.	6873.079	-2.360	-9.270	4506.168	3.630	11.940	3968.385	2.420	-.520
35.	6867.536	-2.930	-9.200	4511.779	4.520	11.850	3971.605	2.900	-6.430
36.	6860.839	-3.470	-9.120	4518.627	5.410	11.730	3975.392	3.340	-6.320
37.	6853.039	-3.990	-9.020	4526.696	6.270	11.590	3979.604	3.700	-6.200
38.	6844.190	-4.480	-8.910	4535.967	7.100	11.420	3984.333	3.980	-6.060
39.	6834.362	-4.930	-8.780	4546.401	7.850	11.230	3989.309	4.190	-5.890
40.	6823.629	-5.350	-8.620	4557.952	8.640	11.000	3994.499	4.320	-5.700
41.	6812.076	-5.730	-8.450	4570.553	9.330	10.750	3999.611	4.360	-5.590
42.	6799.805	-6.060	-8.260	4584.122	9.940	10.460	4004.739	4.370	-5.470
43.	6786.917	-6.340	-8.040	4598.556	10.470	10.140	4010.074	4.300	-5.330
44.	6773.530	-6.560	-7.800	4613.729	10.890	9.780	4015.674	4.160	-5.170
45.	6759.772	-6.720	-7.530	4629.499	11.210	9.400	4020.705	4.020	-5.000
46.	6745.778	-6.810	-7.240	4645.702	11.410	8.960	4025.516	3.820	-4.820
47.	6731.696	-6.830	-6.920	4662.154	11.470	8.520	4030.067	3.590	-4.620
48.	6717.680	-6.780	-6.570	4678.658	11.400	8.040	4034.325	3.340	-4.390
49.	6703.893	-6.640	-6.180	4695.003	11.160	7.520	4038.269	3.070	-4.120

Z-PLANE (XY-PLANE) LITHIUM NIOBATE (SMITH AND WELSH)

BULK

	LMPH12	LMPH13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
50.	6690.504	-5.760	4710.966	10.810	6.970	4041.081	2.790	-3.420
51.	6677.685	-6.110	4726.322	10.290	6.350	4045.151	2.510	-2.710
52.	6665.612	-4.830	4740.842	9.626	5.760	4048.073	2.230	-2.400
53.	6654.455	-4.310	4754.298	8.800	5.140	4050.644	1.940	-2.100
54.	6644.384	-3.770	4766.475	7.850	4.460	4052.866	1.660	-1.790
55.	6635.356	-3.190	4777.168	6.760	3.770	4054.739	1.360	-1.490
56.	6628.115	-2.590	4786.193	5.560	3.040	4056.266	1.100	-1.190
57.	6622.187	-1.960	4793.390	4.260	2.300	4057.450	.820	-.890
58.	6617.875	-1.320	4798.628	2.890	1.540	4058.294	.520	-.590
59.	6615.256	-.660	4801.810	1.460	.770	4058.749	.270	-.360
60.	6614.378	0.000	4802.878	0.000	0.000	4058.967	0.000	0.000
61.	6615.256	.660	4801.810	-1.460	-.770	4058.749	-.270	-.360
62.	6617.875	1.320	4798.628	-2.890	-1.540	4058.294	-.520	-.590
63.	6622.187	2.540	4793.390	-4.260	-2.300	4057.450	-.820	-.890
64.	6628.115	3.320	4786.193	-5.560	-3.040	4056.266	-1.100	-1.190
65.	6635.356	4.030	4777.168	-6.760	-3.770	4054.739	-1.360	-1.490
66.	6644.384	4.670	4766.475	-7.850	-4.460	4052.866	-1.660	-1.790
67.	6654.455	5.230	4754.298	-8.800	-5.140	4050.644	-1.940	-2.100
68.	6665.612	5.720	4740.842	-9.626	-5.760	4048.073	-2.230	-2.400
69.	6677.685	6.110	4726.322	-10.290	-6.390	4045.151	-2.510	-2.710
70.	6690.504	6.420	4710.966	-10.810	-6.970	4041.081	-2.790	-3.020
71.	6703.893	6.540	4695.003	-11.160	-7.520	4036.269	-3.070	-3.320
72.	6717.680	6.570	4678.858	-11.400	-8.040	4030.325	-3.340	-3.630
73.	6731.696	6.520	4662.154	-11.470	-8.520	4025.067	-3.590	-3.920
74.	6745.778	6.410	4645.702	-11.410	-8.960	4020.705	-3.820	-4.220
75.	6759.772	6.220	4629.499	-11.210	-9.400	4015.674	-4.020	-4.500
76.	6773.530	6.060	4613.724	-10.890	-9.760	4010.705	-4.180	-4.770
77.	6786.917	6.340	4598.556	-10.470	-10.140	4010.705	-4.300	-5.030
78.	6799.805	6.060	4584.122	-9.940	-10.460	4005.162	-4.370	-5.270
79.	6812.078	5.730	4570.553	-9.330	-10.750	3999.611	-4.360	-5.500
80.	6823.629	5.350	4557.952	-8.640	-11.000	3994.499	-4.320	-5.710
81.	6834.362	4.930	4546.401	-7.890	-11.230	3989.305	-4.190	-5.890
82.	6844.190	4.480	4535.967	-7.100	-11.420	3984.333	-3.980	-6.060
83.	6853.039	3.950	4526.698	-6.270	-11.590	3979.664	-3.700	-6.200
84.	6860.839	3.470	4518.627	-5.410	-11.730	3975.392	-3.540	-6.320
85.	6867.536	2.930	4511.779	-4.520	-11.850	3971.605	-2.920	-6.440
86.	6873.079	2.360	4506.166	-3.630	-11.940	3968.385	-2.440	-6.560
87.	6877.431	1.790	4501.800	-2.730	-12.010	3965.802	-1.860	-6.620
88.	6880.561	1.200	4498.679	-1.820	-12.050	3963.914	-1.260	-6.680
89.	6882.448	.600	4496.807	-.910	-12.060	3962.763	-.640	-6.730
90.	6883.078	-0.000	4496.182	0.000	-12.050	3962.377	0.000	-6.760
91.	6882.448	-.600	4496.807	.910	-12.060	3962.763	.640	-6.760
92.	6880.561	-1.200	4498.679	1.820	-12.050	3963.914	1.260	-6.820
93.	6877.431	-1.790	4501.800	2.730	-12.010	3965.802	1.860	-6.920
94.	6873.079	-2.360	4506.166	3.630	-11.940	3968.385	2.420	-6.920
95.	6867.536	-2.930	4511.779	4.520	-11.850	3971.605	2.920	-6.940
96.	6860.839	-3.470	4518.627	5.410	-11.730	3975.392	3.540	-6.920
97.	6853.039	-3.950	4526.698	6.270	-11.590	3979.664	3.700	-6.800
98.	6844.190	-4.480	4535.967	7.100	-11.420	3984.333	3.980	-6.600
99.	6834.362	-4.930	4546.401	7.890	-11.230	3989.309	4.190	-6.390

Z-PLANE (XY-PLANE) LITHIUM NIOBATE (SMITH AND WELSH)

BULK

	LNQVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
108.	6823.629	-5.350	8.620	4557.952	8.640	-11.000	3994.494	4.320	5.700
101.	6812.076	-5.730	8.450	4570.553	9.330	-10.750	3959.511	4.360	5.500
102.	6799.805	-6.060	8.260	4584.122	9.940	-10.460	4005.162	4.370	5.270
103.	6786.917	-6.340	8.040	4598.596	10.470	-10.140	4030.473	4.300	5.030
104.	6773.530	-6.560	7.800	4613.729	10.890	-9.760	4030.705	4.100	4.770
105.	6759.772	-6.720	7.530	4629.495	11.210	-9.400	4020.705	4.020	4.500
106.	6745.778	-6.810	7.240	4645.702	11.410	-9.000	4025.216	3.820	4.220
107.	6731.696	-6.830	6.920	4662.154	11.470	-8.520	4030.067	3.520	3.920
108.	6717.680	-6.760	6.570	4678.658	11.400	-8.040	4034.325	3.340	3.650
109.	6703.893	-6.640	6.160	4695.003	11.160	-7.520	4038.269	3.070	3.320
110.	6690.504	-6.420	5.760	4710.966	10.810	-6.970	4041.681	2.790	3.020
111.	6677.605	-6.110	5.310	4726.332	10.290	-6.390	4045.151	2.510	2.710
112.	6665.612	-5.720	4.830	4740.842	9.620	-5.760	4048.073	2.230	2.400
113.	6654.455	-5.230	4.310	4754.256	8.800	-5.140	4050.644	1.940	2.100
114.	6644.384	-4.670	3.770	4766.475	7.850	-4.460	4052.666	1.660	1.700
115.	6635.556	-4.030	3.190	4777.166	6.760	-3.770	4054.735	1.360	1.400
116.	6628.115	-3.320	2.590	4786.193	5.560	-3.040	4056.266	1.100	1.190
117.	6622.107	-2.540	1.960	4793.390	4.260	-2.300	4057.450	0.820	0.900
118.	6617.875	-1.720	1.320	4798.626	2.890	-1.540	4058.294	0.550	0.500
119.	6615.256	-0.970	0.660	4801.810	1.460	-0.770	4058.799	0.270	0.300
120.	6614.378	0.000	0.000	4802.876	-0.000	0.000	4058.967	0.000	0.000
121.	6615.256	0.870	-0.660	4801.810	-1.460	0.770	4058.799	-0.270	-0.300
122.	6617.875	1.720	-1.320	4798.626	-2.890	1.540	4058.294	-0.550	-0.500
123.	6622.107	2.540	-1.960	4793.390	-4.260	2.300	4057.450	-0.820	-0.900
124.	6628.115	3.320	-2.590	4786.193	-5.560	3.040	4056.266	-1.100	-1.190
125.	6635.556	4.030	-3.190	4777.168	-6.760	3.770	4054.735	-1.360	-1.400
126.	6644.384	4.670	-3.770	4766.475	-7.850	4.460	4052.666	-1.660	-1.700
127.	6654.455	5.230	-4.310	4754.256	-8.800	5.140	4050.644	-1.940	-2.100
128.	6665.612	5.720	-4.830	4740.842	-9.620	5.760	4048.073	-2.230	-2.400
129.	6677.685	6.110	-5.310	4726.332	-10.290	6.350	4045.151	-2.510	-2.710
130.	6690.504	6.420	-5.760	4710.966	-10.810	6.970	4041.681	-2.790	-3.020
131.	6703.893	6.640	-6.160	4695.003	-11.160	7.520	4038.269	-3.070	-3.320
132.	6717.680	6.760	-6.570	4678.658	-11.400	8.040	4034.325	-3.340	-3.650
133.	6731.696	6.830	-6.920	4662.154	-11.470	8.520	4030.067	-3.520	-3.920
134.	6745.778	6.810	-7.240	4645.702	-11.410	8.980	4025.216	-3.620	-4.220
135.	6759.772	6.720	-7.530	4629.495	-11.210	9.400	4020.705	-3.650	-4.500
136.	6773.530	6.560	-7.800	4613.729	-10.990	9.760	4015.674	-3.600	-4.770
137.	6786.917	6.340	-8.040	4598.596	-10.470	10.140	4010.473	-3.400	-4.430
138.	6799.805	6.060	-8.260	4584.122	-9.940	10.460	4005.162	-3.270	-4.270
139.	6812.076	5.730	-8.450	4570.553	-9.330	10.750	3999.611	-3.100	-4.100
140.	6823.629	5.350	-8.620	4557.952	-8.640	11.000	3994.494	-2.900	-3.900
141.	6834.362	4.930	-8.740	4546.401	-7.890	11.230	3989.509	-2.650	-3.650
142.	6844.190	4.480	-8.910	4535.967	-7.100	11.420	3984.333	-2.380	-3.380
143.	6853.039	3.990	-9.020	4526.698	-6.270	11.550	3979.664	-2.100	-3.100
144.	6861.839	3.470	-9.120	4518.627	-5.410	11.730	3975.892	-1.820	-2.820
145.	6867.556	2.930	-9.200	4511.775	-4.520	11.850	3971.605	-1.590	-2.590
146.	6873.079	2.360	-9.270	4506.168	-3.630	11.940	3968.385	-1.420	-2.420
147.	6877.431	1.790	-9.320	4501.800	-2.730	12.010	3965.802	-1.600	-2.500
148.	6880.561	1.200	-9.360	4498.679	-1.820	12.050	3963.914	-1.260	-2.060
149.	6882.448	0.600	-9.380	4496.807	-0.910	12.060	3962.763	-1.640	-2.060

Z-PLANE (XY-PLANE) LITHIUM NIOBATE (SMITH AND WELSH)

BULK

	LPHI12	LPHI13	FSPVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
150.	0.000	-9.380	4496.182	0.000	12.090	3962.377	0.000	-0.000
151.	-0.000	-9.380	4496.807	.910	12.080	3962.763	.840	-0.000
152.	-1.200	-9.360	4498.679	1.820	12.050	3963.914	1.260	-0.000
153.	-1.790	-9.320	4501.800	2.730	12.010	3965.002	1.660	-0.000
154.	-2.380	-9.270	4506.168	3.630	11.940	3966.085	2.420	-0.000
155.	-2.930	-9.200	4511.779	4.520	11.850	3971.605	2.900	-0.000
156.	-3.470	-9.120	4518.627	5.410	11.730	3975.392	3.340	-0.000
157.	-3.990	-9.020	4526.696	6.270	11.590	3977.684	3.700	-0.000
158.	-4.480	-8.910	4535.967	7.100	11.420	3981.333	3.980	-0.000
159.	-4.930	-8.780	4546.401	7.890	11.230	3989.309	4.190	-0.000
160.	-5.350	-8.620	4557.952	8.640	11.000	3994.499	4.320	-0.000
161.	-5.730	-8.450	4570.553	9.330	10.750	3999.011	4.360	-0.000
162.	-6.080	-8.260	4584.122	9.940	10.460	4002.162	4.370	-0.000
163.	-6.340	-8.040	4598.556	10.470	10.140	4003.873	4.300	-0.000
164.	-6.560	-7.800	4613.729	10.890	9.780	4005.264	4.180	-0.000
165.	-6.720	-7.530	4629.499	11.210	9.400	4020.705	4.020	-0.000
166.	-6.810	-7.240	4645.702	11.440	8.960	4025.516	3.820	-0.000
167.	-6.830	-6.920	4662.154	11.470	8.520	4030.067	3.590	-0.000
168.	-6.780	-6.570	4678.650	11.400	8.040	4034.325	3.340	-0.000
169.	-6.640	-6.190	4695.003	11.180	7.520	4038.269	3.070	-0.000
170.	-6.420	-5.760	4710.966	10.810	6.970	4041.001	2.790	-0.000
171.	-6.110	-5.310	4726.322	10.290	6.350	4043.511	2.510	-0.000
172.	-5.720	-4.830	4740.842	9.620	5.760	4045.073	2.230	-0.000
173.	-5.230	-4.310	4754.298	8.800	5.140	4045.644	1.940	-0.000
174.	-4.670	-3.770	4766.475	7.850	4.460	4052.066	1.660	-0.000
175.	-4.030	-3.190	4777.168	6.760	3.770	4054.734	1.360	-0.000
176.	-3.320	-2.590	4786.193	5.560	3.040	4056.266	1.100	-0.000
177.	-2.540	-1.960	4793.390	4.260	2.300	4057.490	.820	-0.000
178.	-1.720	-1.320	4798.626	2.890	1.540	4058.294	.590	-0.000
179.	-0.870	-0.660	4801.810	1.460	.770	4058.799	.270	-0.000
180.	0.000	-0.000	4802.876	-0.000	-0.000	4058.967	-0.000	-0.000

	LANGVEL	LPMI12	LPMI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
0.	6854.190	9.210	0.000	4459.129	-11.930	-0.000	3994.672	6.640	-0.000
1.	6873.916	9.460	0.000	4442.251	-12.570	-0.000	4002.917	6.610	-0.000
2.	6894.209	9.660	0.000	4424.603	-13.110	-0.000	4010.977	6.360	-0.000
3.	6914.944	9.830	0.000	4406.314	-13.570	-0.000	4018.565	6.140	-0.000
4.	6936.004	9.930	0.000	4387.511	-13.950	-0.000	4025.908	5.900	-0.000
5.	6957.274	9.970	0.000	4368.320	-14.240	-0.000	4033.076	5.650	-0.000
6.	6978.645	9.960	0.000	4348.862	-14.450	-0.000	4039.909	5.390	-0.000
7.	7000.011	9.900	0.000	4329.255	-14.570	-0.000	4046.394	5.140	-0.000
8.	7021.373	9.800	0.000	4309.610	-14.620	-0.000	4052.505	4.890	-0.000
9.	7042.735	9.670	0.000	4290.037	-14.600	-0.000	4058.406	4.640	-0.000
10.	7063.110	9.490	0.000	4270.637	-14.540	-0.000	4064.024	4.390	-0.000
11.	7083.513	9.260	0.000	4251.506	-14.440	-0.000	4069.377	4.140	-0.000
12.	7103.967	9.030	0.000	4232.733	-14.310	-0.000	4074.467	3.890	-0.000
13.	7124.401	8.760	0.000	4214.403	-13.810	-0.000	4079.302	3.640	-0.000
14.	7144.747	8.460	0.000	4196.593	-13.460	-0.000	4083.896	3.390	-0.000
15.	7165.046	8.130	0.000	4179.371	-13.050	-0.000	4088.254	3.140	-0.000
16.	7185.242	7.790	0.000	4162.803	-12.600	-0.000	4092.380	2.890	-0.000
17.	7194.185	7.420	0.000	4146.943	-12.000	-0.000	4096.287	2.640	-0.000
18.	7210.130	7.040	0.000	4131.840	-11.530	-0.000	4100.000	2.390	-0.000
19.	7225.236	6.640	0.000	4117.537	-11.040	-0.000	4103.530	2.140	-0.000
20.	7238.475	6.230	0.000	4104.067	-10.320	-0.000	4106.896	1.890	-0.000
21.	7250.812	5.810	0.000	4091.456	-9.670	-0.000	4110.101	1.640	-0.000
22.	7262.225	5.380	0.000	4078.724	-9.010	-0.000	4113.144	1.390	-0.000
23.	7276.694	4.950	0.000	4066.863	-8.330	-0.000	4116.027	1.140	-0.000
24.	7287.206	4.510	0.000	4058.935	-7.640	-0.000	4118.754	0.890	-0.000
25.	7296.750	4.070	0.000	4049.876	-6.950	-0.000	4121.327	0.640	-0.000
26.	7305.322	3.630	0.000	4041.699	-6.270	-0.000	4123.750	0.390	-0.000
27.	7312.923	3.190	0.000	4034.360	-5.590	-0.000	4126.027	0.140	-0.000
28.	7319.557	2.760	0.000	4027.896	-4.940	-0.000	4128.156	0.000	-0.000
29.	7325.235	2.330	0.000	4022.211	-4.320	-0.000	4130.134	0.000	-0.000
30.	7329.970	1.910	0.000	4017.287	-3.720	-0.000	4131.961	0.000	-0.000
31.	7333.783	1.500	0.000	4013.075	-3.160	-0.000	4133.636	0.000	-0.000
32.	7336.696	1.110	0.000	4009.523	-2.650	-0.000	4135.161	0.000	-0.000
33.	7338.736	.720	0.000	4006.571	-2.190	-0.000	4136.536	0.000	-0.000
34.	7339.942	.360	0.000	4004.152	-1.760	-0.000	4137.761	0.000	-0.000
35.	7340.344	.010	0.000	4002.196	-1.350	-0.000	4138.836	0.000	-0.000
36.	7339.987	-.320	0.000	4000.626	-0.930	-0.000	4139.761	0.000	-0.000
37.	7338.916	-.630	0.000	3999.361	-0.760	-0.000	4140.536	0.000	-0.000
38.	7337.161	-.920	0.000	3998.326	-0.710	-0.000	4141.161	0.000	-0.000
39.	7334.834	-1.160	0.000	3997.425	-0.760	-0.000	4141.636	0.000	-0.000
40.	7331.931	-1.410	0.000	3996.659	-0.760	-0.000	4142.061	0.000	-0.000
41.	7328.534	-1.620	0.000	3995.969	-0.760	-0.000	4142.436	0.000	-0.000
42.	7324.703	-1.800	0.000	3995.4631	-0.760	-0.000	4142.761	0.000	-0.000
43.	7320.503	-1.960	0.000	3995.199	-0.760	-0.000	4143.036	0.000	-0.000
44.	7316.001	-2.080	0.000	3994.977	-0.760	-0.000	4143.261	0.000	-0.000
45.	7311.264	-2.170	0.000	3994.777	-0.760	-0.000	4143.436	0.000	-0.000
46.	7306.361	-2.230	0.000	3994.597	-0.760	-0.000	4143.561	0.000	-0.000
47.	7301.359	-2.260	0.000	3994.420	-0.760	-0.000	4143.636	0.000	-0.000
48.	7296.327	-2.260	0.000	3994.260	-0.760	-0.000	4143.661	0.000	-0.000
49.	7291.331	-2.230	0.000	3994.101	-0.760	-0.000	4143.636	0.000	-0.000

X-PLANE (YZ-PLANE) LITHIUM NIOBATE (WARNER ET AL)

	LNGVEL	LPMI12	LPMI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
50.	7286.435	-2.170	0.000	3970.737	-4.690	-0.000	3996.299	-6.600	0.000
51.	7281.701	-2.050	0.000	3964.619	-5.420	-0.000	3987.694	-7.620	0.000
52.	7277.167	-1.960	0.000	3957.596	-6.190	-0.000	3979.194	-7.240	0.000
53.	7272.947	-1.840	0.000	3949.636	-6.960	-0.000	3970.210	-7.450	0.000
54.	7269.030	-1.690	-0.000	3940.706	-7.600	-0.000	3961.030	-7.660	0.000
55.	7265.460	-1.510	-0.000	3930.792	-8.630	-0.000	3951.623	-7.860	0.000
56.	7262.335	-1.330	-0.000	3919.090	-9.450	-0.000	3942.033	-8.050	0.000
57.	7259.626	-1.120	-0.000	3908.011	-10.270	-0.000	3932.175	-8.230	0.000
58.	7257.376	-0.910	-0.000	3895.176	-11.070	-0.000	3922.151	-8.410	0.000
59.	7255.610	-0.690	-0.000	3881.423	-11.840	-0.000	3911.943	-8.560	0.000
60.	7254.332	-0.470	-0.000	3866.801	-12.560	-0.000	3901.261	-8.740	0.000
61.	7253.548	-0.240	-0.000	3851.375	-13.230	-0.000	3891.016	-8.890	0.000
62.	7253.256	-0.020	-0.000	3835.219	-13.840	-0.000	3880.321	-9.030	0.000
63.	7253.447	0.150	-0.000	3818.424	-14.360	-0.000	3869.467	-9.170	0.000
64.	7254.104	0.400	-0.000	3801.090	-14.830	-0.000	3858.526	-9.290	0.000
65.	7255.207	0.600	-0.000	3783.324	-15.200	-0.000	3847.450	-9.410	0.000
66.	7256.729	0.780	-0.000	3765.283	-15.460	-0.000	3836.272	-9.520	0.000
67.	7258.638	0.950	-0.000	3747.023	-15.620	-0.000	3825.005	-9.610	0.000
68.	7260.900	1.100	-0.000	3728.745	-15.660	-0.000	3813.662	-9.700	0.000
69.	7263.476	1.230	-0.000	3710.574	-15.590	-0.000	3802.255	-9.780	0.000
70.	7266.323	1.340	-0.000	3692.655	-15.390	-0.000	3790.795	-9.840	0.000
71.	7269.396	1.430	-0.000	3675.139	-15.060	-0.000	3779.317	-9.880	0.000
72.	7272.656	1.500	-0.000	3658.175	-14.610	-0.000	3767.793	-9.930	0.000
73.	7276.050	1.560	-0.000	3641.912	-14.010	-0.000	3756.270	-9.970	0.000
74.	7279.535	1.560	-0.000	3626.494	-13.290	-0.000	3744.753	-9.990	0.000
75.	7283.065	1.590	-0.000	3612.061	-12.430	-0.000	3733.255	-9.990	0.000
76.	7286.594	1.560	-0.000	3598.744	-11.450	-0.000	3721.791	-9.950	0.000
77.	7290.075	1.250	-0.000	3586.667	-10.340	-0.000	3710.376	-9.870	0.000
78.	7293.470	1.500	-0.000	3575.940	-9.320	-0.000	3699.023	-9.740	0.000
79.	7296.751	1.440	-0.000	3566.684	-7.790	-0.000	3687.748	-9.500	0.000
80.	7299.862	1.360	-0.000	3558.924	-6.260	-0.000	3676.564	-9.240	0.000
81.	7302.776	1.260	-0.000	3552.789	-4.900	-0.000	3665.487	-8.970	0.000
82.	7305.463	1.150	-0.000	3548.314	-3.360	-0.000	3654.530	-8.690	0.000
83.	7307.894	1.030	-0.000	3545.534	-1.780	-0.000	3643.709	-8.390	0.000
84.	7310.046	0.908	-0.000	3544.469	0.190	-0.000	3633.037	-8.060	0.000
85.	7311.696	0.768	-0.000	3545.120	1.350	-0.000	3622.529	-7.700	0.000
86.	7313.433	0.620	-0.000	3547.470	2.950	-0.000	3612.200	-7.220	0.000
87.	7314.639	0.470	-0.000	3551.846	4.460	-0.000	3602.063	-6.670	0.000
88.	7315.505	0.310	-0.000	3557.117	5.900	-0.000	3592.133	-6.050	0.000
89.	7316.026	0.160	-0.000	3564.296	7.260	-0.000	3582.424	-5.370	0.000
90.	7316.200	-0.000	-0.000	3572.948	8.530	-0.000	3572.948	-4.630	0.000
91.	7316.027	-0.150	-0.000	3582.973	9.690	-0.000	3563.720	-3.820	-0.000
92.	7315.512	-0.310	-0.000	3594.268	10.730	-0.000	3554.753	-3.000	-0.000
93.	7314.663	-0.460	-0.000	3606.718	11.660	-0.000	3546.060	-2.180	-0.000
94.	7313.486	-0.600	-0.000	3620.199	12.450	-0.000	3537.653	-1.360	-0.000
95.	7312.001	-0.740	-0.000	3634.584	13.120	-0.000	3529.544	-0.540	-0.000
96.	7310.215	-0.870	-0.000	3649.736	13.670	-0.000	3521.747	0.280	0.000
97.	7308.147	-0.990	-0.000	3665.522	14.090	-0.000	3514.271	1.000	0.000
98.	7305.615	-1.100	-0.000	3681.833	14.500	-0.000	3507.530	1.660	0.000
99.	7303.237	-1.210	-0.000	3698.443	14.570	-0.000	3500.332	2.190	0.000

X-PLANE (YZ-PLANE) LITHIUM NIOBATE (WARNER ET AL)									
	LNGVEL	LPHI12	LPHI13	FSPVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
100.	7300.431	-1.310	-0.000	3715.311	14.640	0.000	3493.889	-5.864	0.000
101.	7297.417	-1.400	-0.000	3732.276	14.610	0.000	3487.610	-5.930	0.000
102.	7294.213	-1.460	-0.000	3749.221	14.470	0.000	3482.106	-5.150	0.000
103.	7290.837	-1.560	-0.000	3766.025	14.250	0.000	3476.783	-4.630	0.000
104.	7287.306	-1.620	-0.000	3782.582	13.950	0.000	3471.852	-4.470	0.000
105.	7283.634	-1.680	-0.000	3798.796	13.580	0.000	3467.319	-4.090	0.000
106.	7279.835	-1.740	-0.000	3814.575	13.140	0.000	3463.131	-3.710	0.000
107.	7275.920	-1.750	-0.000	3829.856	12.650	0.000	3459.476	-3.320	0.000
108.	7271.855	-1.540	-0.000	3844.561	12.110	0.000	3456.179	-2.930	0.000
109.	7267.767	-1.890	-0.000	3858.642	11.540	0.000	3453.304	-2.530	0.000
110.	7263.537	-1.930	-0.000	3872.059	10.950	0.000	3450.856	-2.120	0.000
111.	7259.205	-1.960	-0.000	3884.783	10.340	0.000	3448.843	-1.710	0.000
112.	7254.767	-2.030	-0.000	3896.800	9.730	0.000	3447.263	-1.300	0.000
113.	7250.215	-2.050	-0.000	3908.106	9.120	0.000	3446.120	-0.880	0.000
114.	7245.539	-2.150	-0.000	3918.708	8.530	0.000	3445.417	-0.460	0.000
115.	7240.725	-2.210	-0.000	3928.626	7.960	0.000	3445.154	-0.040	0.000
116.	7235.756	-2.290	-0.000	3937.840	7.420	0.000	3445.331	0.360	0.000
117.	7230.619	-2.370	-0.000	3946.535	6.920	0.000	3445.949	0.800	0.000
118.	7225.288	-2.470	-0.000	3954.622	6.460	0.000	3447.027	1.220	0.000
119.	7219.741	-2.570	-0.000	3962.195	6.060	0.000	3448.502	1.630	0.000
120.	7213.956	-2.650	-0.000	3969.324	5.710	0.000	3450.432	2.040	0.000
121.	7207.907	-2.820	-0.000	3976.079	5.430	0.000	3452.795	2.450	0.000
122.	7201.560	-2.960	0.000	3982.532	5.190	0.000	3455.587	2.850	0.000
123.	7194.915	-3.110	0.000	3988.766	5.050	0.000	3458.802	3.250	0.000
124.	7187.922	-3.270	0.000	3994.863	4.960	0.000	3462.437	3.640	0.000
125.	7180.564	-3.450	0.000	4000.906	4.950	0.000	3466.484	4.020	0.000
126.	7172.817	-3.630	0.000	4006.982	5.000	0.000	3470.939	4.390	0.000
127.	7164.659	-3.830	0.000	4013.173	5.120	0.000	3475.794	4.760	0.000
128.	7156.070	-4.040	0.000	4019.565	5.310	0.000	3481.041	5.120	0.000
129.	7147.033	-4.250	0.000	4026.238	5.560	0.000	3486.672	5.480	0.000
130.	7137.530	-4.470	0.000	4033.289	5.870	0.000	3492.670	5.800	0.000
131.	7127.551	-4.700	0.000	4040.733	6.230	0.000	3499.051	6.120	0.000
132.	7117.084	-4.930	0.000	4048.696	6.650	0.000	3505.761	6.440	0.000
133.	7106.125	-5.160	0.000	4057.222	7.110	0.000	3512.856	6.740	0.000
134.	7094.671	-5.400	0.000	4066.367	7.600	0.000	3520.288	7.030	0.000
135.	7082.722	-5.630	0.000	4076.174	8.130	0.000	3528.003	7.310	0.000
136.	7070.286	-5.870	0.000	4086.696	8.660	0.000	3536.022	7.570	0.000
137.	7057.372	-6.090	0.000	4097.953	9.240	0.000	3544.402	7.820	0.000
138.	7043.994	-6.310	0.000	4109.971	9.810	0.000	3553.041	8.060	0.000
139.	7030.171	-6.530	0.000	4122.765	10.360	0.000	3561.956	8.280	0.000
140.	7015.927	-6.730	0.000	4136.337	10.940	0.000	3571.134	8.490	0.000
141.	7001.292	-6.920	0.000	4150.681	11.450	0.000	3580.562	8.690	0.000
142.	6986.299	-7.090	0.000	4165.782	12.010	0.000	3590.226	8.840	0.000
143.	6970.987	-7.240	0.000	4181.613	12.590	0.000	3600.116	9.040	0.000
144.	6955.403	-7.370	0.000	4198.137	12.950	0.000	3610.214	9.190	0.000
145.	6939.595	-7.480	0.000	4215.306	13.360	0.000	3620.507	9.330	0.000
146.	6923.620	-7.560	-0.000	4233.063	13.710	0.000	3631.001	9.460	0.000
147.	6907.540	-7.610	-0.000	4251.342	14.010	0.000	3641.622	9.570	0.000
148.	6891.423	-7.630	-0.000	4270.064	14.240	0.000	3652.415	9.670	0.000
149.	6875.342	-7.610	-0.000	4289.142	14.400	0.000	3663.347	9.760	0.000

X-PLANE (YZ-PLANE) LITHIUM NIOBATE (WARNER ET AL)

BULK

	LPM12	LPM13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
150.	6859.376	-0.000	4304.442	14.490	0.000	3674.432	9.030	0.000
151.	6843.610	-0.000	4327.917	14.530	0.000	3695.566	9.890	0.000
152.	6826.135	-0.000	4347.515	14.430	0.000	3696.625	9.990	-0.000
153.	6813.045	-0.000	4366.975	14.270	0.000	3706.163	9.970	0.000
154.	6798.442	-0.000	4386.230	14.020	0.000	3713.566	9.990	0.000
155.	6784.426	-0.000	4405.146	13.670	0.000	3731.023	9.990	0.000
156.	6771.113	-0.000	4423.590	13.230	0.000	3742.515	9.990	0.000
157.	6758.605	-0.000	4441.416	12.700	0.000	3754.030	9.970	0.000
158.	6747.015	-0.000	4458.465	12.070	0.000	3765.573	9.940	0.000
159.	6736.455	-0.000	4474.653	11.350	0.000	3777.070	9.900	0.000
160.	6727.032	-0.000	4489.781	10.530	0.000	3788.567	9.850	0.000
161.	6718.853	-0.000	4503.732	9.620	0.000	3798.032	9.790	0.000
162.	6712.015	-0.000	4516.377	8.620	0.000	3811.449	9.720	0.000
163.	6706.611	-0.000	4527.595	7.550	0.000	3822.005	9.630	0.000
164.	6702.721	-0.000	4537.277	6.400	0.000	3834.086	9.540	0.000
165.	6700.415	-0.000	4545.325	5.190	0.000	3845.284	9.430	0.000
166.	6699.748	-0.000	4551.660	3.930	0.000	3856.361	9.320	0.000
167.	6700.760	-0.000	4556.215	2.630	0.000	3867.365	9.190	0.000
168.	6703.473	-0.000	4558.955	1.310	0.000	3878.225	9.060	0.000
169.	6707.092	-0.000	4559.846	-0.030	0.000	3888.948	8.920	0.000
170.	6714.004	-0.000	4558.885	-1.360	0.000	3893.523	8.770	0.000
171.	6721.778	-0.000	4556.066	-2.690	0.000	3903.337	8.610	0.000
172.	6731.167	-0.000	4551.469	-3.990	0.000	3912.100	8.440	0.000
173.	6742.106	-0.000	4545.141	-5.190	0.000	3920.541	8.270	0.000
174.	6754.517	-0.000	4537.113	-6.370	0.000	3928.108	8.060	0.000
175.	6768.310	-0.000	4527.400	-7.490	0.000	3935.770	7.890	0.000
176.	6783.382	-0.000	4516.364	-8.540	0.000	3943.215	7.700	0.000
177.	6799.624	-0.000	4503.848	-9.510	0.000	3950.444	7.490	0.000
178.	6816.920	-0.000	4490.052	-10.410	0.000	3957.434	7.280	0.000
179.	6835.150	-0.000	4475.106	-11.210	0.000	3964.182	7.070	0.000
180.	6854.190	-0.000	4459.129	-11.930	0.000	3970.677	6.840	0.000

Y-PLANE (XZ-PLANE) LITHIUM NIOBATE (WARNER ET AL)

BULK

	LNQVEL	LPH12	LPH13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
0.	6572.023	0.000	0.000	4794.767	0.000	0.000	4073.205	0.000	0.000
1.	6572.907	0.880	1.660	4793.794	-1.330	-1.740	4078.972	-1.380	-1.280
2.	6575.547	1.750	1.310	4790.083	-2.650	-1.460	4076.271	-1.750	-1.250
3.	6579.915	2.600	1.950	4786.067	-3.940	-2.200	4077.105	-1.120	-1.630
4.	6585.960	3.420	2.570	4779.397	-5.190	-2.850	4075.476	-1.490	-1.490
5.	6593.617	4.150	3.160	4770.942	-6.430	-3.540	4073.396	-1.860	-1.370
6.	6602.803	4.920	3.720	4760.789	-7.520	-4.160	4070.866	-2.220	-1.630
7.	6613.424	5.550	4.250	4749.036	-8.590	-4.730	4067.696	-2.570	-1.800
8.	6625.375	6.210	4.740	4735.793	-9.580	-5.260	4064.497	-2.910	-2.110
9.	6638.544	6.760	5.190	4721.176	-10.490	-5.720	4060.601	-3.250	-2.410
10.	6652.813	7.250	5.600	4705.313	-11.330	-6.140	4056.463	-3.570	-2.690
11.	6668.062	7.660	5.970	4688.324	-12.000	-6.490	4051.650	-3.880	-2.930
12.	6684.166	8.050	6.300	4670.339	-12.750	-6.790	4046.683	-4.170	-3.130
13.	6701.013	8.350	6.590	4651.401	-13.340	-7.030	4041.200	-4.450	-3.300
14.	6718.476	8.600	6.840	4631.072	-13.860	-7.210	4035.910	-4.710	-3.590
15.	6736.448	8.750	7.050	4611.631	-14.300	-7.340	4029.956	-4.950	-3.810
16.	6754.815	8.930	7.230	4590.866	-14.680	-7.410	4023.724	-5.180	-4.020
17.	6773.472	9.020	7.370	4569.691	-14.990	-7.430	4017.241	-5.360	-4.200
18.	6792.322	9.060	7.460	4548.157	-15.240	-7.400	4010.536	-5.500	-4.400
19.	6811.270	9.070	7.560	4526.479	-15.430	-7.320	4003.641	-5.710	-4.600
20.	6830.230	9.030	7.610	4504.622	-15.570	-7.190	3996.505	-5.830	-4.800
21.	6849.120	8.950	7.640	4482.703	-15.660	-7.030	3989.402	-5.930	-5.000
22.	6867.866	8.840	7.640	4460.792	-15.700	-6.820	3982.123	-6.010	-5.200
23.	6886.355	8.710	7.620	4438.954	-15.700	-6.580	3974.783	-6.060	-5.400
24.	6904.656	8.540	7.580	4417.245	-15.670	-6.320	3967.412	-6.080	-5.700
25.	6922.575	8.350	7.520	4395.716	-15.600	-6.020	3960.041	-6.090	-5.920
26.	6940.117	8.140	7.440	4374.414	-15.500	-5.610	3952.690	-6.060	-6.100
27.	6957.224	7.910	7.340	4353.390	-15.370	-5.370	3945.409	-6.010	-6.440
28.	6973.858	7.670	7.230	4332.670	-15.210	-5.030	3938.196	-5.950	-6.670
29.	6989.965	7.410	7.100	4312.295	-15.020	-4.660	3931.077	-5.800	-6.900
30.	7005.572	7.140	6.960	4292.297	-14.800	-4.320	3924.063	-5.600	-7.120
31.	7020.595	6.860	6.810	4272.710	-14.560	-3.970	3917.162	-5.470	-7.350
32.	7035.031	6.570	6.640	4253.566	-14.290	-3.630	3910.373	-5.640	-7.590
33.	7048.864	6.270	6.470	4234.896	-13.990	-3.250	3903.686	-5.570	-7.820
34.	7062.082	5.960	6.280	4216.736	-13.670	-2.850	3897.085	-5.510	-8.050
35.	7074.675	5.660	6.090	4199.119	-13.310	-2.460	3890.546	-5.400	-8.280
36.	7086.640	5.360	5.890	4182.084	-12.910	-2.040	3884.033	-5.490	-8.510
37.	7097.977	5.060	5.680	4165.670	-12.480	-1.700	3877.505	-5.530	-8.740
38.	7108.689	4.790	5.470	4149.917	-12.010	-1.550	3870.911	-5.620	-8.970
39.	7118.784	4.500	5.250	4134.867	-11.500	-1.760	3864.192	-5.710	-9.200
40.	7128.272	4.220	5.030	4120.560	-10.960	-1.610	3857.289	-5.790	-9.430
41.	7137.168	3.950	4.810	4107.031	-10.380	-1.460	3850.136	-5.820	-9.660
42.	7145.489	3.690	4.580	4094.310	-9.770	-1.370	3842.673	-5.850	-9.890
43.	7153.257	3.440	4.350	4082.418	-9.150	-1.290	3834.842	-5.800	-10.120
44.	7160.494	3.200	4.120	4071.359	-8.520	-1.230	3826.596	-5.720	-10.350
45.	7167.227	2.970	3.890	4061.124	-7.900	-1.170	3817.902	-5.630	-10.580
46.	7173.464	2.760	3.660	4051.682	-7.300	-1.130	3808.742	-5.540	-10.810
47.	7179.296	2.560	3.430	4042.984	-6.750	-1.050	3799.114	-5.460	-11.040
48.	7184.696	2.360	3.200	4034.963	-6.250	-1.050	3789.035	-5.400	-11.270
49.	7189.718	2.210	2.980	4027.535	-5.820	-1.020	3778.536	-5.420	-11.500

Y-PLANE (XZ-PLANE) LITHIUM NIOBATE (WARNER ET AL)

	LNGVEL	LPMI12	LPMI13	FSPVEL	FSPMI12	FSPMI13	SSRVEL	SSRMI12	SSRMI13	BULK
50.	7194.396	2.060	2.760	4020.603	-5.470	-1.000	3767.660	-9.540	16.140	
51.	7198.766	1.930	2.550	4014.063	-5.200	-1.560	3756.460	-9.620	16.440	
52.	7202.669	1.810	2.340	4007.603	-5.030	-1.560	3744.999	-10.040	16.710	
53.	7206.736	1.710	2.140	4001.714	-4.940	-1.990	3733.328	-10.220	16.940	
54.	7210.406	1.630	1.940	3995.665	-4.950	-1.020	3721.521	-10.340	17.130	
55.	7213.914	1.560	1.760	3989.612	-5.030	-1.070	3709.636	-10.420	17.200	
56.	7217.295	1.510	1.580	3983.396	-5.190	-1.140	3697.733	-10.440	17.420	
57.	7220.562	1.460	1.410	3976.947	-5.430	-1.240	3685.670	-10.420	17.520	
58.	7223.804	1.450	1.250	3970.103	-5.720	-1.360	3674.101	-10.340	17.560	
59.	7226.991	1.440	1.100	3963.031	-6.060	-1.510	3662.475	-10.230	17.610	
60.	7230.162	1.440	.960	3955.429	-6.460	-1.670	3651.052	-10.070	17.610	
61.	7233.357	1.450	.820	3947.323	-6.930	-1.660	3639.066	-9.870	17.610	
62.	7236.579	1.470	.700	3938.672	-7.410	-2.170	3628.966	-9.630	17.500	
63.	7239.847	1.490	.590	3929.443	-7.910	-2.830	3618.393	-9.350	17.360	
64.	7243.176	1.520	.490	3919.617	-8.420	-2.550	3606.187	-9.030	17.230	
65.	7246.571	1.550	.400	3909.181	-8.950	-2.800	3593.307	-8.600	17.000	
66.	7250.036	1.550	.320	3898.136	-9.470	-3.070	3580.030	-8.290	16.800	
67.	7253.576	1.620	.250	3886.490	-9.960	-3.340	3566.153	-7.860	16.520	
68.	7257.162	1.640	.190	3874.262	-10.400	-3.660	3551.764	-7.400	16.200	
69.	7260.846	1.670	.140	3861.480	-10.960	-3.660	3536.373	-6.960	15.830	
70.	7264.564	1.690	.100	3848.181	-11.400	-4.120	3520.736	-6.370	15.420	
71.	7268.314	1.700	.060	3834.409	-11.810	-4.350	3505.116	-5.810	14.990	
72.	7272.062	1.700	.030	3820.216	-12.170	-4.570	3488.135	-5.210	14.440	
73.	7275.845	1.700	.010	3805.661	-12.490	-4.750	3470.335	-4.590	13.870	
74.	7279.591	1.680	-.010	3790.806	-12.760	-4.910	3451.233	-3.950	13.240	
75.	7283.266	1.650	-.030	3775.726	-12.970	-5.030	3430.366	-3.290	12.630	
76.	7286.908	1.610	-.030	3760.467	-13.120	-5.100	3427.255	-2.530	11.940	
77.	7290.432	1.560	-.040	3745.166	-13.200	-5.130	3423.407	-1.790	11.200	
78.	7293.829	1.500	-.040	3729.847	-13.220	-5.110	3423.407	-1.030	10.430	
79.	7297.074	1.420	-.040	3714.603	-13.160	-5.030	3422.714	-.220	9.620	
80.	7300.141	1.330	-.040	3699.515	-13.070	-4.850	3422.668	.540	8.770	
81.	7303.003	1.240	-.030	3684.660	-12.890	-4.690	3423.007	1.360	7.910	
82.	7305.637	1.130	-.030	3670.116	-12.640	-4.420	3423.783	2.160	7.020	
83.	7308.020	1.010	-.020	3655.951	-12.330	-4.090	3428.567	3.000	6.110	
84.	7310.130	.880	-.020	3642.250	-11.950	-3.690	3432.246	3.630	5.200	
85.	7311.949	.750	-.010	3629.066	-11.510	-3.230	3436.623	4.650	4.270	
86.	7313.461	.610	-.010	3616.465	-11.020	-2.770	3442.297	5.470	3.300	
87.	7314.651	.460	-.010	3604.504	-10.470	-2.110	3446.660	6.270	2.500	
88.	7315.509	.310	-.000	3593.234	-9.870	-1.460	3450.901	7.050	1.800	
89.	7316.027	.160	-.000	3582.702	-9.220	-.750	3454.005	7.610	1.000	
90.	7316.200	-.000	-.000	3572.946	-8.530	0.000	3456.702	7.920	0.000	
91.	7316.027	-.160	-.000	3564.005	-7.810	1.630	3459.234	8.870	-1.400	
92.	7315.509	-.310	-.000	3555.901	-7.050	3.350	3460.504	10.470	-2.110	
93.	7314.651	-.460	-.010	3548.660	-6.270	5.000	3461.465	11.020	-2.700	
94.	7313.461	-.610	-.010	3542.297	-5.470	6.290	3462.066	11.510	-3.230	
95.	7311.949	-.750	-.010	3536.823	-4.650	7.420	3462.250	11.510	-3.690	
96.	7310.130	-.880	-.020	3532.246	-3.830	8.110	3462.250	11.950	-4.050	
97.	7308.020	-1.010	-.020	3528.567	-3.000	8.610	3462.250	12.330	-4.290	
98.	7305.637	-1.130	-.030	3525.783	-2.160	7.020	3462.066	12.640	-4.420	
99.	7303.003	-1.240	-.030	3523.007	-1.360	7.510	3461.465	12.890	-4.610	

Y-PLANE (XZ-PLANE) LITHIUM NIOBATE (WARNER ET AL)

BULK

	LINVEL	LPHI12	LPHI13	FSPVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
100.	7380.141	-1.330	-0.040	3222.868	-0.546	8.770	3694.515	13.070	-1.090
101.	7297.074	-1.420	-0.040	3222.714	0.250	9.620	3714.603	13.180	-2.030
102.	7293.625	-1.500	-0.040	3223.487	1.030	10.430	3725.647	13.220	-2.110
103.	7290.432	-1.560	-0.040	3224.928	1.790	11.200	3745.168	13.200	-2.130
104.	7286.908	-1.610	-0.030	3227.255	2.530	11.540	3760.487	13.120	-2.100
105.	7283.286	-1.650	-0.030	3230.366	3.250	12.630	3775.726	12.970	-2.030
106.	7279.591	-1.680	-0.010	3234.235	3.930	13.260	3790.800	12.760	-1.910
107.	7275.849	-1.700	-0.010	3238.835	4.590	13.690	3805.661	12.490	-1.750
108.	7272.082	-1.700	-0.030	3244.139	5.210	14.440	3820.216	12.170	-1.520
109.	7268.314	-1.700	-0.060	3250.116	5.810	14.950	3834.409	11.810	-1.320
110.	7264.564	-1.690	-0.100	3256.738	6.376	15.420	3848.181	11.400	-1.120
111.	7260.846	-1.670	-0.140	3263.973	6.900	15.830	3861.400	10.960	-0.960
112.	7257.182	-1.640	-0.190	3271.785	7.400	16.200	3874.262	10.460	-0.800
113.	7253.576	-1.620	-0.250	3280.153	7.866	16.520	3886.490	9.950	-0.730
114.	7250.036	-1.550	-0.320	3289.830	8.290	16.800	3898.136	9.470	-0.700
115.	7246.571	-1.550	-0.400	3299.987	8.660	17.040	3909.181	8.950	-0.600
116.	7243.176	-1.520	-0.440	3308.187	9.030	17.230	3919.617	8.420	-0.550
117.	7239.847	-1.490	-0.590	3318.393	9.350	17.360	3929.443	7.910	-0.530
118.	7236.579	-1.470	-0.780	3328.966	9.630	17.500	3938.672	7.410	-0.500
119.	7233.357	-1.450	-0.820	3339.866	9.870	17.570	3947.323	6.930	-0.460
120.	7230.166	-1.440	-0.960	3351.052	10.070	17.610	3955.425	6.460	-0.420
121.	7226.951	-1.440	-1.100	3362.479	10.230	17.610	3963.031	6.000	-0.380
122.	7223.804	-1.440	-1.250	3374.101	10.346	17.560	3970.103	5.720	-0.360
123.	7220.582	-1.440	-1.410	3385.870	10.420	17.520	3976.947	5.430	-0.340
124.	7217.295	-1.450	-1.580	3397.833	10.440	17.420	3983.396	5.190	-0.340
125.	7213.914	-1.460	-1.760	3409.836	10.420	17.250	3989.612	5.030	-0.340
126.	7210.486	-1.460	-1.940	3421.821	10.340	17.130	3995.685	4.920	-0.340
127.	7206.736	-1.470	-2.140	3433.828	10.220	16.940	4001.714	4.940	-0.340
128.	7202.869	-1.480	-2.340	3444.995	10.040	16.710	4007.803	5.030	-0.340
129.	7198.764	-1.490	-2.550	3456.460	9.820	16.440	4014.063	5.280	-0.340
130.	7194.396	-1.500	-2.760	3467.860	9.540	16.140	4020.603	5.470	-0.340
131.	7189.716	-1.520	-2.980	3478.936	9.210	15.800	4027.535	5.820	-0.340
132.	7184.696	-1.530	-3.200	3489.835	8.850	15.430	4034.963	6.250	-0.340
133.	7179.296	-1.560	-3.430	3499.114	8.460	15.010	4042.984	6.750	-0.340
134.	7173.484	-1.560	-3.660	3508.742	8.040	14.570	4051.682	7.300	-0.340
135.	7167.227	-1.570	-3.890	3517.902	7.630	14.090	4061.124	7.500	-0.340
136.	7160.494	-1.580	-4.120	3526.596	7.220	13.590	4071.359	7.500	-0.340
137.	7153.297	-1.540	-4.350	3534.863	6.840	13.070	4082.416	9.150	-0.340
138.	7145.689	-1.560	-4.580	3542.673	6.500	12.540	4094.310	9.770	-0.340
139.	7137.168	-1.590	-4.810	3550.136	6.200	12.010	4107.031	10.360	-0.340
140.	7128.272	-1.620	-5.030	3557.269	5.950	11.480	4120.550	10.960	-0.340
141.	7118.784	-1.650	-5.250	3564.192	5.760	10.960	4134.867	11.500	-0.340
142.	7108.889	-1.670	-5.470	3570.911	5.620	10.450	4149.917	12.010	-0.340
143.	7097.377	-1.680	-5.680	3577.505	5.530	9.970	4165.670	12.460	-0.340
144.	7086.640	-1.680	-5.890	3584.033	5.490	9.510	4182.084	12.910	-0.340
145.	7074.675	-1.680	-6.090	3590.546	5.480	9.070	4199.119	13.310	-0.340
146.	7062.082	-1.680	-6.280	3597.085	5.510	8.650	4216.736	13.670	-0.340
147.	7048.664	-1.670	-6.470	3583.686	5.570	8.270	4234.896	13.990	-0.340
148.	7035.031	-1.670	-6.640	3510.373	5.640	7.900	4253.566	14.290	-0.340
149.	7020.595	-1.660	-6.810	3517.162	5.720	7.560	4272.710	14.560	-0.340

	Y-PLANE (XZ-PLANE) LITHIUM NIOBATE (WARNER ET AL)				BULK			
	LPM12	LPM13	FSRVEL	FSPM12	FSPM13	SSRVEL	SSPM12	SSPM13
150.	-7.140	6.960	3924.063	5.800	7.240	4292.297	14.600	-4.320
151.	-7.430	7.100	3931.077	5.800	6.550	4312.295	15.020	-4.000
152.	-7.670	7.230	3938.156	5.950	6.070	4322.670	15.210	-3.000
153.	-7.910	7.340	3945.409	6.010	6.410	4333.390	15.370	-2.370
154.	-8.140	7.440	3952.638	6.060	6.160	4344.419	15.500	-2.710
155.	-8.350	7.520	3960.041	6.060	5.920	4355.710	15.600	-2.020
156.	-8.540	7.560	3967.412	6.080	5.700	4367.245	15.670	-1.320
157.	-8.710	7.620	3974.783	6.080	5.460	4378.954	15.700	-0.590
158.	-8.840	7.640	3982.123	6.010	5.270	4390.792	15.700	0.000
159.	-8.950	7.640	3989.402	5.930	5.060	4402.703	15.660	-0.030
160.	-9.030	7.610	3996.585	5.830	4.850	4414.622	15.570	-0.130
161.	-9.070	7.560	4003.641	5.710	4.650	4426.479	15.430	-0.320
162.	-9.060	7.480	4010.536	5.550	4.440	4438.197	15.240	-0.450
163.	-9.020	7.370	4017.241	5.360	4.240	4450.691	14.990	-0.530
164.	-8.930	7.230	4023.724	5.180	4.020	4463.006	14.660	-0.410
165.	-8.750	7.050	4029.956	4.960	3.810	4475.031	14.300	-0.300
166.	-8.600	6.840	4035.910	4.710	3.590	4486.767	13.860	-0.210
167.	-8.350	6.590	4041.560	4.450	3.360	4511.461	13.340	-0.030
168.	-8.050	6.300	4046.883	4.170	3.130	4570.339	12.750	-0.770
169.	-7.660	5.970	4051.856	3.860	2.900	4688.324	12.060	-0.470
170.	-7.250	5.600	4056.463	3.570	2.650	4705.313	11.330	-0.150
171.	-6.760	5.190	4060.691	3.250	2.410	4721.170	10.490	-0.720
172.	-6.210	4.740	4064.497	2.910	2.150	4735.793	9.560	-0.260
173.	-5.550	4.250	4067.896	2.570	1.900	4749.036	8.550	-0.730
174.	-4.920	3.720	4070.866	2.220	1.630	4760.709	7.520	-0.160
175.	-4.190	3.160	4073.396	1.860	1.370	4770.942	6.390	-3.540
176.	-3.420	2.570	4075.478	1.490	1.100	4779.397	5.150	-2.620
177.	-2.600	1.950	4077.105	1.120	0.830	4786.067	3.940	-2.020
178.	-1.750	1.310	4078.271	0.750	0.550	4790.883	2.650	-1.460
179.	-0.860	0.660	4078.972	0.360	0.260	4793.794	1.330	-0.710
180.	-0.000	0.000	4079.205	-0.000	-0.000	4794.767	-0.000	0.000

Z-PLANE (XY-PLANE) LITHIUM NIOBATE (WARNER ET AL)

BULK

	LMGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
0.	6572.023	0.000	0.000	4794.767	0.000	0.000	4079.205	0.000	0.000
1.	6572.957	0.930	-0.660	4793.601	-1.590	0.740	4079.071	-0.220	0.200
2.	6575.740	1.840	-1.310	4790.125	-3.160	1.480	4078.669	-0.430	0.400
3.	6580.321	2.720	-1.950	4784.404	-4.660	2.210	4077.996	-0.650	0.630
4.	6586.615	3.540	-2.570	4776.543	-6.060	2.920	4077.050	-0.870	0.850
5.	6594.510	4.300	-3.170	4766.684	-7.400	3.620	4075.626	-1.100	1.080
6.	6603.068	4.960	-3.740	4755.802	-8.590	4.290	4074.320	-1.330	1.310
7.	6614.533	5.570	-4.280	4741.697	-9.630	4.930	4072.526	-1.560	1.540
8.	6626.333	6.070	-4.790	4726.990	-10.530	5.550	4070.440	-1.800	1.780
9.	6639.086	6.490	-5.270	4711.117	-11.260	6.140	4068.056	-2.040	1.920
10.	6652.615	6.800	-5.710	4694.323	-11.840	6.700	4065.372	-2.290	2.060
11.	6666.725	7.030	-6.120	4676.856	-12.250	7.240	4062.387	-2.530	2.200
12.	6681.236	7.160	-6.490	4658.964	-12.500	7.740	4059.102	-2.770	2.340
13.	6695.974	7.210	-6.840	4640.886	-12.590	8.220	4055.526	-3.010	2.480
14.	6710.762	7.180	-7.150	4622.860	-12.530	8.670	4051.671	-3.230	2.620
15.	6725.441	7.060	-7.430	4605.097	-12.320	9.090	4047.557	-3.430	2.760
16.	6739.859	6.900	-7.690	4587.802	-11.990	9.460	4043.213	-3.610	2.900
17.	6753.873	6.660	-7.920	4571.157	-11.520	9.850	4038.676	-3.750	3.040
18.	6767.353	6.360	-8.130	4555.324	-10.950	10.160	4034.000	-3.840	3.180
19.	6780.179	6.010	-8.320	4540.441	-10.260	10.460	4029.239	-3.890	3.320
20.	6792.241	5.610	-8.490	4526.624	-9.526	10.750	4024.466	-3.870	3.460
21.	6803.441	5.170	-8.630	4513.966	-8.700	10.950	4019.760	-3.790	3.590
22.	6813.692	4.690	-8.760	4502.545	-7.820	11.210	4015.206	-3.630	3.730
23.	6822.914	4.170	-8.870	4492.406	-6.900	11.530	4010.932	-3.400	3.870
24.	6831.041	3.630	-8.960	4483.588	-5.940	11.860	4006.933	-3.090	4.010
25.	6838.015	3.060	-9.040	4476.115	-4.970	12.200	4003.392	-2.700	4.150
26.	6843.786	2.470	-9.100	4469.997	-3.950	12.560	4000.365	-2.250	4.290
27.	6848.315	1.870	-9.150	4465.240	-2.950	12.940	3997.926	-1.740	4.430
28.	6851.572	1.250	-9.190	4461.844	-2.000	13.340	3996.137	-1.190	4.570
29.	6853.535	0.630	-9.210	4459.807	-1.000	13.760	3995.045	-0.620	4.710
30.	6854.190	-0.000	-9.210	4459.129	0.000	14.200	3994.677	0.000	4.850
31.	6853.535	-0.630	-9.210	4461.844	1.000	14.660	3995.045	0.620	4.990
32.	6851.572	-1.250	-9.190	4465.240	2.000	15.140	3996.137	1.190	5.130
33.	6848.315	-1.870	-9.150	4469.997	2.990	15.640	3997.926	1.740	5.270
34.	6843.786	-2.470	-9.100	4476.115	3.940	16.160	4000.365	2.250	5.410
35.	6838.015	-3.060	-9.040	4483.588	4.970	16.700	4003.392	2.700	5.550
36.	6831.041	-3.630	-8.960	4492.406	5.940	17.260	4006.933	3.090	5.690
37.	6822.914	-4.170	-8.870	4502.545	6.900	17.840	4010.932	3.400	5.830
38.	6813.692	-4.690	-8.760	4513.966	7.820	18.440	4015.206	3.630	5.970
39.	6803.441	-5.170	-8.630	4526.624	8.700	19.060	4019.760	3.790	6.110
40.	6792.241	-5.610	-8.490	4540.441	9.520	19.700	4024.466	3.870	6.250
41.	6780.179	-6.010	-8.320	4555.324	10.260	20.360	4029.239	3.890	6.390
42.	6767.353	-6.360	-8.130	4571.157	10.950	21.040	4034.000	3.840	6.530
43.	6753.873	-6.660	-7.920	4587.802	11.520	21.740	4038.676	3.750	6.670
44.	6739.859	-6.900	-7.690	4605.097	11.990	22.460	4043.213	3.610	6.810
45.	6725.441	-7.060	-7.430	4622.860	12.320	23.200	4047.557	3.430	6.950
46.	6710.762	-7.180	-7.150	4640.886	12.530	23.960	4051.671	3.230	7.090
47.	6695.974	-7.210	-6.840	4658.964	12.590	24.740	4055.526	3.010	7.230
48.	6681.236	-7.160	-6.490	4676.856	12.500	25.540	4059.102	2.770	7.370
49.	6666.725	-7.030	-6.120	4694.323	12.250	26.360	4062.387	2.530	7.510

Z-PLANE (XY-PLANE) LITHIUM NIOBATE (WARNER ET AL)

BULK

	LMGVEL	LPN12	LPN13	FSRWEL	FSPN12	FSPN13	SSRWEL	SSPN12	SSPN13
50.	6652.615	-6.800	-5.710	4694.323	11.840	6.700	4065.372	2.250	-2.660
51.	6639.088	-6.490	-5.270	4711.117	11.260	6.140	4068.056	2.040	-2.560
52.	6626.333	-6.070	-4.790	4726.990	10.530	5.550	4070.440	1.800	-2.200
53.	6614.533	-5.570	-4.280	4741.697	9.630	4.930	4072.526	1.560	-1.900
54.	6603.868	-4.980	-3.740	4755.002	8.590	4.290	4074.320	1.330	-1.690
55.	6594.510	-4.300	-3.170	4766.684	7.400	3.620	4075.826	1.100	-1.400
56.	6586.615	-3.540	-2.570	4776.543	6.060	2.920	4077.050	0.870	-1.120
57.	6580.321	-2.720	-1.950	4784.404	4.660	2.210	4077.996	0.650	-0.830
58.	6575.740	-1.840	-1.310	4790.125	3.160	1.460	4078.669	0.430	-0.500
59.	6572.957	-0.930	-0.660	4793.601	1.590	0.740	4079.071	0.220	-0.280
60.	6572.023	0.000	-0.000	4794.767	0.000	-0.000	4079.205	0.000	0.000
61.	6572.957	-0.930	0.660	4793.601	-1.590	-0.740	4079.071	-0.220	0.280
62.	6575.740	1.840	1.310	4790.125	-3.160	-1.460	4078.669	-0.430	0.500
63.	6580.321	2.720	1.950	4784.404	-4.660	-2.210	4077.996	-0.650	0.830
64.	6586.615	3.540	2.570	4776.543	-6.060	-2.920	4077.050	-0.870	1.120
65.	6594.510	4.300	3.170	4766.684	-7.400	-3.620	4075.826	-1.100	1.400
66.	6603.868	4.980	3.740	4755.002	-8.590	-4.290	4074.320	-1.330	1.690
67.	6614.533	5.570	4.280	4741.697	-9.630	-4.930	4072.526	-1.560	1.900
68.	6626.333	6.070	4.790	4726.990	-10.530	-5.550	4070.440	-1.800	2.200
69.	6639.088	6.490	5.270	4711.117	-11.260	-6.140	4068.056	-2.040	2.560
70.	6652.615	6.800	5.710	4694.323	-11.840	-6.700	4065.372	-2.250	2.860
71.	6666.725	7.030	6.120	4676.856	-12.260	-7.240	4062.387	-2.430	3.100
72.	6681.238	7.160	6.490	4658.964	-12.590	-7.740	4059.102	-2.770	3.436
73.	6695.974	7.210	6.840	4640.868	-12.850	-8.220	4055.526	-3.010	3.800
74.	6710.762	7.100	7.150	4622.860	-13.030	-8.670	4051.671	-3.230	4.110
75.	6725.441	7.060	7.430	4605.097	-13.320	-9.090	4047.557	-3.430	4.370
76.	6739.859	6.900	7.690	4587.802	-13.990	-9.480	4043.213	-3.610	4.700
77.	6753.873	6.660	7.920	4571.157	-11.520	-9.850	4038.678	-3.750	4.900
78.	6767.353	6.360	8.130	4555.324	-10.950	-10.160	4034.000	-3.840	5.200
79.	6780.175	6.010	8.320	4540.441	-10.260	-10.460	4029.239	-3.890	5.500
80.	6792.241	5.610	8.490	4526.624	-9.520	-10.710	4024.466	-3.870	5.950
81.	6803.441	5.170	8.630	4513.968	-8.700	-10.950	4019.760	-3.790	6.100
82.	6813.692	4.690	8.760	4502.545	-7.820	-11.210	4015.206	-3.630	6.100
83.	6822.914	4.170	8.870	4492.406	-6.900	-11.350	4010.902	-3.400	6.310
84.	6831.041	3.630	8.960	4483.566	-5.940	-11.540	4006.933	-3.090	6.450
85.	6838.015	3.060	9.040	4476.115	-4.970	-11.660	4003.392	-2.700	6.500
86.	6843.786	2.470	9.100	4469.997	-3.990	-11.760	4000.365	-2.250	6.610
87.	6848.315	1.870	9.150	4465.240	-2.990	-11.840	3997.926	-1.740	6.750
88.	6851.572	1.250	9.190	4461.844	-2.000	-11.690	3996.137	-1.190	6.800
89.	6853.535	0.630	9.210	4459.807	-1.000	-11.920	3994.044	-0.620	6.830
90.	6854.190	-0.000	9.210	4459.129	0.000	-11.930	3994.677	0.000	6.860
91.	6853.535	-0.630	9.210	4459.807	1.000	-11.920	3994.044	0.620	6.830
92.	6851.572	-1.250	9.190	4461.844	2.000	-11.690	3996.137	1.190	6.800
93.	6848.315	-1.870	9.150	4465.240	2.990	-11.840	3997.926	1.740	6.750
94.	6843.786	-2.470	9.100	4469.997	3.990	-11.760	4000.365	2.250	6.610
95.	6838.015	-3.060	9.040	4476.115	4.970	-11.660	4003.392	2.700	6.500
96.	6831.041	-3.630	8.960	4483.566	5.940	-11.540	4006.933	3.090	6.450
97.	6822.914	-4.170	8.870	4492.406	6.900	-11.390	4010.902	3.400	6.310
98.	6813.692	-4.690	8.760	4492.406	7.820	-11.210	4015.206	3.630	6.100
99.	6803.441	-5.170	8.630	4513.968	8.700	-10.990	4019.760	3.750	5.950

Z-PLANE (XY-PLANE) LITHIUM NIOBATE (WARNER ET AL)

BULK

	LNGVEL	LPM12	LPM13	FSRVEL	FSPM12	FSPM13	SSRVEL	SSPM12	SSPM13
100.	6792.241	-5.610	8.490	4826.624	9.520	-10.750	4024.466	3.670	2.740
101.	6780.174	-6.010	8.320	4840.441	10.260	-10.460	4029.239	3.690	2.500
102.	6767.353	-6.360	8.130	4855.324	10.990	-10.180	4034.000	3.640	2.220
103.	6753.873	-6.660	7.920	4871.157	11.520	-9.850	4036.676	3.650	1.960
104.	6739.859	-6.900	7.690	4887.802	11.990	-9.460	4038.213	3.610	1.700
105.	6725.441	-7.060	7.430	4905.097	12.320	-9.050	4047.257	3.430	1.410
106.	6710.762	-7.180	7.150	4922.860	12.530	-8.670	4051.671	3.230	1.100
107.	6695.974	-7.210	6.840	4940.888	12.590	-8.220	4055.526	3.010	0.800
108.	6681.236	-7.160	6.490	4958.964	12.500	-7.740	4059.102	2.770	0.500
109.	6666.725	-7.030	6.120	4976.856	12.250	-7.240	4062.387	2.530	0.200
110.	6652.615	-6.800	5.710	4994.323	11.840	-6.700	4065.372	2.290	0.000
111.	6639.086	-6.490	5.270	5011.117	11.260	-6.140	4068.056	2.040	0.000
112.	6626.333	-6.070	4.790	5026.990	10.530	-5.550	4070.440	1.800	0.000
113.	6614.533	-5.570	4.280	5041.697	9.630	-4.930	4072.526	1.560	0.000
114.	6603.866	-4.960	3.740	5055.002	8.590	-4.290	4074.320	1.330	0.000
115.	6594.510	-4.300	3.170	5066.684	7.400	-3.620	4075.826	1.100	0.000
116.	6586.615	-3.540	2.570	5076.543	6.060	-2.920	4077.050	0.870	0.000
117.	6580.321	-2.720	1.950	5084.404	4.660	-2.210	4077.996	0.650	0.000
118.	6575.740	-1.840	1.310	5090.125	3.160	-1.460	4078.669	0.430	0.000
119.	6572.957	-0.930	0.660	5093.601	1.590	-0.740	4079.071	0.220	0.000
120.	6572.023	0.000	0.000	4994.767	-0.000	0.000	4079.205	-0.600	-0.000
121.	6572.957	0.930	-0.660	4993.601	-1.590	0.740	4079.071	-0.220	-0.000
122.	6575.740	1.840	-1.310	4990.125	-3.160	1.460	4078.669	-0.430	-0.000
123.	6580.321	2.720	-1.950	4984.404	-4.660	2.210	4077.996	-0.650	-0.000
124.	6586.615	3.540	-2.570	4976.543	-6.060	2.920	4077.050	-0.870	-0.000
125.	6594.510	4.300	-3.170	4966.684	-7.400	3.620	4075.826	-1.100	-0.000
126.	6603.866	4.960	-3.740	4955.002	-8.590	4.290	4074.320	-1.330	-0.000
127.	6614.533	5.570	-4.280	4941.697	-9.630	4.930	4072.526	-1.560	-0.000
128.	6626.333	6.070	-4.790	4926.990	-10.530	5.550	4070.440	-1.800	-0.000
129.	6639.086	6.490	-5.270	4911.117	-11.260	6.140	4068.056	-2.040	-0.000
130.	6652.615	6.800	-5.710	4894.323	-11.840	6.700	4065.372	-2.290	-0.000
131.	6666.725	7.030	-6.120	4876.856	-12.250	7.240	4062.387	-2.530	-0.000
132.	6681.236	7.160	-6.490	4858.964	-12.500	7.740	4059.102	-2.770	-0.000
133.	6695.974	7.210	-6.840	4840.888	-12.590	8.220	4055.526	-3.010	-0.000
134.	6710.762	7.210	-7.150	4822.860	-12.530	8.670	4051.671	-3.230	-0.000
135.	6725.441	7.060	-7.430	4805.097	-12.320	9.090	4047.257	-3.430	-0.000
136.	6739.859	6.900	-7.690	4787.802	-11.990	9.480	4043.213	-3.610	-0.000
137.	6753.873	6.660	-7.920	4771.157	-11.520	9.850	4038.213	-3.750	-0.000
138.	6767.353	6.360	-8.130	4755.324	-10.950	10.180	4034.000	-3.840	-0.000
139.	6780.174	6.010	-8.320	4740.441	-10.260	10.460	4029.239	-3.650	-0.000
140.	6792.241	5.610	-8.490	4726.624	-9.520	10.750	4024.466	-3.670	-0.000
141.	6803.873	5.170	-8.630	4713.968	-8.700	10.990	4019.700	-3.790	-0.000
142.	6813.692	4.690	-8.760	4702.545	-7.820	11.210	4015.206	-3.630	-0.000
143.	6822.914	4.170	-8.870	4692.406	-6.900	11.390	4010.902	-3.400	-0.000
144.	6831.841	3.630	-8.960	4683.588	-5.940	11.540	4006.933	-3.090	-0.000
145.	6838.015	3.060	-9.040	4676.115	-4.970	11.660	4003.392	-2.700	-0.000
146.	6843.786	2.470	-9.100	4669.997	-3.990	11.760	4000.365	-2.250	-0.000
147.	6848.315	1.870	-9.150	4665.240	-2.990	11.840	3997.926	-1.740	-0.000
148.	6851.572	1.250	-9.190	4661.844	-2.000	11.650	3996.137	-1.190	-0.000
149.	6853.535	0.630	-9.210	4659.607	-1.000	11.520	3995.045	-0.620	-0.000

	Z-PLANE (XY-PLANE) LITHIUM NIOBATE (WARNER ET AL)										BULK	
	LANGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13			
150.	6054.190	-0.000	-9.210	4459.125	0.000	11.530	3934.677	0.000	-6.030			
151.	6053.535	-0.630	-9.210	4459.807	1.000	11.520	3925.045	.620	-6.030			
152.	6051.572	-1.250	-9.190	4461.844	2.000	11.090	3946.137	1.140	-6.000			
153.	6048.315	-1.670	-9.150	4465.240	2.950	11.640	3977.920	1.740	-6.070			
154.	6043.786	-2.470	-9.100	4469.997	3.590	11.760	4000.365	2.250	-6.070			
155.	6038.015	-3.060	-9.040	4476.115	4.970	11.660	4003.392	2.700	-6.500			
156.	6031.041	-3.630	-8.960	4483.566	5.940	11.540	4006.933	3.090	-6.450			
157.	6022.914	-4.170	-8.870	4492.406	6.500	11.350	4010.902	3.400	-6.310			
158.	6013.692	-4.650	-8.760	4502.545	7.620	11.210	4015.206	3.630	-6.150			
159.	6003.641	-5.170	-8.630	4513.968	8.700	10.990	4019.760	3.790	-5.970			
160.	6792.241	-5.610	-8.490	4526.624	9.520	10.750	4024.466	3.870	-5.740			
161.	6780.174	-6.010	-8.320	4540.441	10.260	10.480	4029.239	3.890	-5.500			
162.	6767.353	-6.360	-8.130	4555.324	10.950	10.160	4034.000	3.840	-5.250			
163.	6753.873	-6.660	-7.920	4571.157	11.520	9.850	4038.678	3.750	-4.980			
164.	6739.859	-6.900	-7.690	4587.802	11.990	9.460	4043.213	3.610	-4.700			
165.	6725.641	-7.060	-7.430	4605.097	12.320	9.050	4047.557	3.430	-4.410			
166.	6710.762	-7.180	-7.150	4622.860	12.530	8.620	4051.671	3.230	-4.110			
167.	6695.974	-7.210	-6.840	4640.886	12.590	8.220	4055.520	3.010	-3.790			
168.	6681.238	-7.160	-6.490	4658.964	12.500	7.740	4059.152	2.770	-3.470			
169.	6666.725	-7.030	-6.120	4676.856	12.250	7.240	4062.367	2.530	-3.150			
170.	6652.615	-6.800	-5.710	4694.323	11.640	6.700	4065.322	2.240	-2.800			
171.	6639.066	-6.490	-5.270	4711.117	11.260	6.140	4068.056	2.040	-2.530			
172.	6626.333	-6.070	-4.790	4726.990	10.930	5.550	4070.440	1.800	-2.250			
173.	6614.533	-5.570	-4.280	4741.697	9.630	4.930	4072.526	1.560	-1.970			
174.	6603.866	-4.980	-3.740	4755.002	8.590	4.250	4074.320	1.330	-1.690			
175.	6594.510	-4.300	-3.170	4766.684	7.400	3.620	4075.620	1.100	-1.400			
176.	6586.615	-3.540	-2.570	4776.543	6.080	2.520	4077.050	.670	-1.120			
177.	6580.321	-2.720	-1.950	4784.404	4.660	2.210	4077.996	.650	-0.830			
178.	6575.740	-1.840	-1.310	4790.125	3.160	1.420	4078.669	.430	-0.550			
179.	6572.957	-0.930	-0.660	4793.601	1.590	.740	4079.071	.220	-0.250			
180.	6572.023	0.000	-0.000	4794.767	-0.000	-0.000	4079.295	-0.000	0.000			

X-PLANE (YZ-PLANE) LITHIUM NIOBATE (KOROLYUK ET AL)

	LNGVEL	LPHI12	LPHI13	FSPVEL	FSPH12	FSPH13	SSPVEL	SSPH12	SSPH13
0.	5838.704	10.300	0.000	4410.045	-12.274	-0.000	3938.355	5.859	-0.000
1.	5868.703	10.550	0.000	4332.045	-12.730	-0.000	3905.300	5.579	-0.000
2.	5883.251	10.740	0.000	4374.475	-13.124	-0.000	3928.024	5.800	-0.000
3.	5906.227	10.870	0.000	4357.500	-13.814	-0.000	3958.524	5.260	-0.000
4.	5929.516	10.950	0.000	4339.241	-13.534	-0.000	3964.782	5.070	-0.000
5.	5953.007	10.980	0.000	4320.415	-13.760	-0.000	3970.803	4.657	-0.000
6.	5976.592	10.971	0.000	4302.337	-13.424	-0.000	3976.577	4.657	-0.000
7.	7000.168	10.910	0.000	4283.914	-13.800	-0.000	3982.094	4.660	-0.000
8.	7023.660	10.800	0.000	4265.650	-13.700	-0.000	3987.357	4.220	-0.000
9.	7045.914	10.660	0.000	4247.542	-13.540	-0.000	3992.357	3.994	-0.000
10.	7069.994	10.480	0.000	4229.941	-13.704	-0.000	3997.085	3.774	-0.000
11.	7092.524	10.260	0.000	4212.754	-13.010	-0.000	4001.530	3.547	-0.000
12.	7114.712	10.021	0.000	4196.077	-12.650	-0.000	4005.714	3.300	-0.000
13.	7136.381	9.750	0.000	4179.905	-12.239	-0.000	4009.507	3.070	-0.000
14.	7157.472	9.444	0.000	4164.222	-11.770	-0.000	4013.213	2.830	-0.000
15.	7177.921	9.124	0.000	4149.047	-11.240	-0.000	4016.524	2.590	-0.000
16.	7197.678	8.770	0.000	4134.371	-10.640	-0.000	4019.550	2.350	-0.000
17.	7216.686	8.410	0.000	4120.194	-10.040	-0.000	4022.275	2.104	-0.000
18.	7234.900	8.020	0.000	4106.521	-9.450	-0.000	4024.701	1.850	-0.000
19.	7252.278	7.631	0.000	4093.356	-8.740	-0.000	4026.925	1.514	-0.000
20.	7268.742	7.210	0.000	4080.696	-8.000	-0.000	4028.845	1.150	-0.000
21.	7284.391	6.760	0.000	4068.547	-7.300	-0.000	4030.450	1.110	-0.000
22.	7299.046	6.340	0.000	4056.899	-6.674	-0.000	4031.767	0.854	-0.000
23.	7312.752	5.910	0.000	4045.752	-6.053	-0.000	4032.855	0.514	-0.000
24.	7325.481	5.470	0.000	4035.112	-5.270	-0.000	4033.855	0.150	-0.000
25.	7337.217	5.010	0.000	4024.974	-4.520	-0.000	4034.784	0.000	-0.000
26.	7347.958	4.560	0.000	4015.349	-3.820	-0.000	4035.604	0.000	-0.000
27.	7357.673	4.110	0.000	4006.251	-3.144	-0.000	4036.324	0.000	-0.000
28.	7366.365	3.650	0.000	4000.795	-2.490	-0.000	4036.944	0.000	-0.000
29.	7374.087	3.200	0.000	4000.112	-1.844	-0.000	4037.464	0.000	-0.000
30.	7380.786	2.760	0.000	4001.155	-1.300	-0.000	4037.984	0.000	-0.000
31.	7386.494	2.320	0.000	4002.900	-0.770	-0.000	4038.504	0.000	-0.000
32.	7391.225	1.890	0.000	4005.260	-0.240	-0.000	4039.024	0.000	-0.000
33.	7395.000	1.470	0.000	4008.141	0.280	-0.000	4039.544	0.000	-0.000
34.	7397.842	1.060	0.000	4011.547	0.800	-0.000	4040.064	0.000	-0.000
35.	7399.780	0.660	0.000	4015.470	1.320	-0.000	4040.584	0.000	-0.000
36.	7400.846	0.280	0.000	4019.917	1.840	-0.000	4041.104	0.000	-0.000
37.	7401.077	-0.080	0.000	4024.884	2.360	-0.000	4041.624	0.000	-0.000
38.	7400.514	-0.420	0.000	4030.361	2.880	-0.000	4042.144	0.000	-0.000
39.	7399.261	-0.740	0.000	4036.344	3.400	-0.000	4042.664	0.000	-0.000
40.	7397.386	-1.040	0.000	4042.827	3.920	-0.000	4043.184	0.000	-0.000
41.	7394.922	-1.320	0.000	4049.917	4.440	-0.000	4043.704	0.000	-0.000
42.	7391.964	-1.570	0.000	4057.600	4.960	-0.000	4044.224	0.000	-0.000
43.	7387.609	-1.800	0.000	4065.884	5.480	-0.000	4044.744	0.000	-0.000
44.	7383.199	-2.000	0.000	4074.767	6.000	-0.000	4045.264	0.000	-0.000
45.	7378.515	-2.160	0.000	4084.251	6.520	-0.000	4045.784	0.000	-0.000
46.	7373.484	-2.310	0.000	4094.334	7.040	-0.000	4046.304	0.000	-0.000
47.	7368.171	-2.420	0.000	4105.017	7.560	-0.000	4046.824	0.000	-0.000
48.	7362.642	-2.500	0.000	4116.300	8.080	-0.000	4047.344	0.000	-0.000
49.	7356.964	-2.560	0.000	4128.183	8.600	-0.000	4047.864	0.000	-0.000

X-PLANE (V7-PLANE) LITHIUM NIORATE (KOROLYUK ET AL)

	LMGVEL	LPHI12	LPHI11	FSPH12	FSPH11	SSPH12	SSPH11
50.	7351.203	-2.580	0.000	4033.715	-3.180	394.945	0.000
51.	7365.824	-2.589	0.000	4029.319	-3.989	3936.948	7.820
52.	7339.690	-2.549	0.000	4023.916	-4.927	3929.754	-5.800
53.	7334.061	-2.449	-0.000	4017.460	-5.700	3922.354	0.000
54.	7328.593	-2.400	-0.000	4009.914	-6.500	3914.754	0.000
55.	7323.341	-2.300	-0.000	4001.252	-7.530	3906.965	0.000
56.	7318.352	-2.170	-0.000	3991.459	-8.464	3898.967	0.000
57.	7313.570	-2.030	-0.000	3980.536	-9.190	3891.857	0.000
58.	7309.332	-1.970	-0.000	3968.494	-10.310	3884.554	0.000
59.	7305.371	-1.690	-0.000	3955.359	-11.200	3877.109	0.000
60.	7301.911	-1.510	-0.000	3941.170	-12.050	3869.581	0.000
61.	7298.673	-1.310	-0.000	3925.944	-12.849	3861.768	0.000
62.	7295.968	-1.120	-0.000	3909.867	-13.640	3853.491	0.000
63.	7293.702	-0.920	-0.000	3892.902	-14.330	3844.837	0.000
64.	7291.877	-0.720	-0.000	3875.145	-14.950	3835.860	0.000
65.	7290.405	-0.530	-0.000	3856.625	-15.440	3826.663	0.000
66.	7289.514	-0.340	-0.000	3837.942	-15.920	3817.154	0.000
67.	7289.943	-0.170	-0.000	3818.658	-16.259	3807.210	0.000
68.	7289.756	0.000	-0.000	3799.145	-16.470	3797.716	0.000
69.	7288.940	-0.150	-0.000	3779.275	-16.570	3787.520	0.000
70.	7288.442	-0.290	-0.000	3759.451	-16.540	3777.780	0.000
71.	7288.234	-0.420	-0.000	3740.698	-16.340	3768.285	0.000
72.	7291.294	-0.530	-0.000	3721.623	-16.090	3759.760	0.000
73.	7292.573	-0.620	-0.000	3703.192	-15.750	3751.228	0.000
74.	7294.037	-0.690	-0.000	3685.464	-15.370	3742.702	0.000
75.	7295.544	-0.750	-0.000	3668.604	-14.950	3734.194	0.000
76.	7297.167	-0.790	-0.000	3652.757	-14.440	3725.715	0.000
77.	7298.896	-0.820	-0.000	3638.091	-13.840	3717.274	0.000
78.	7300.729	-0.820	-0.000	3624.714	-13.160	3697.894	0.000
79.	7302.600	-0.910	-0.000	3612.759	-12.400	3688.575	0.000
80.	7304.565	-0.990	-0.000	3602.336	-11.570	3679.312	0.000
81.	7306.502	-1.050	-0.000	3593.539	-10.690	3670.172	0.000
82.	7307.921	-1.070	-0.000	3585.442	-9.720	3661.126	0.000
83.	7309.817	-0.640	-0.000	3581.108	-8.670	3652.166	0.000
84.	7310.765	-0.570	-0.000	3577.564	-7.420	3643.370	0.000
85.	7311.943	-0.490	-0.000	3575.440	-6.050	3634.699	0.000
86.	7312.934	-0.400	-0.000	3575.930	-4.610	3625.157	0.000
87.	7313.723	-0.310	-0.000	3577.813	2.549	3617.784	0.000
88.	7314.295	-0.210	-0.000	3581.450	6.110	3609.581	0.000
89.	7314.644	-0.100	-0.000	3586.781	9.510	3601.550	0.000
90.	7314.761	-0.000	-0.000	3593.730	12.640	3593.719	0.000
91.	7314.641	-0.110	-0.000	3602.206	15.540	3585.104	-0.000
92.	7314.298	-0.210	-0.000	3612.196	18.200	3576.697	-0.000
93.	7313.697	-0.320	-0.000	3623.307	20.540	3567.505	-0.000
94.	7312.872	-0.420	-0.000	3635.647	22.310	3557.652	-0.000
95.	7311.817	-0.520	-0.000	3649.109	23.510	3547.144	-0.000
96.	7310.538	-0.620	-0.000	3663.674	24.070	3536.133	-0.000
97.	7309.043	-0.720	-0.000	3678.517	23.900	3524.624	-0.000
98.	7307.337	-0.810	-0.000	3694.214	23.000	3512.719	-0.000
99.	7305.429	-0.900	-0.000	3710.381	21.170	3500.461	-0.000

X-PLANE (YZ-PLANE) LITHIUM NITRATE (KOROLYUK ET AL)

	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
100.	-0.999	-0.010	3726.875	14.330	0.000	3529.297	-4.439	0.000
101.	-1.071	-0.000	3743.562	14.370	0.000	3523.241	-4.568	0.000
102.	-1.150	-0.000	3760.311	14.310	0.000	3519.492	-4.240	0.000
103.	-1.230	-0.000	3777.000	14.151	0.000	3514.955	-3.990	0.000
104.	-1.310	-0.000	3793.535	13.910	0.000	3509.976	-3.700	0.000
105.	-1.390	-0.000	3809.754	13.590	0.000	3504.147	-3.400	0.000
106.	-1.460	-0.000	3825.674	13.200	0.000	3502.677	-3.090	0.000
107.	-1.540	-0.000	3841.045	12.750	0.000	3499.547	-2.790	0.000
108.	-1.620	-0.000	3855.951	12.260	0.000	3496.757	-2.460	0.000
109.	-1.700	-0.000	3870.244	11.740	0.000	3494.311	-2.130	0.000
110.	-1.780	-0.000	3884.004	11.180	0.000	3492.217	-1.810	0.000
111.	-1.860	-0.000	3897.179	10.510	0.000	3490.465	-1.490	0.000
112.	-1.940	-0.000	3909.492	9.840	0.000	3489.071	-1.180	0.000
113.	-2.020	-0.000	3921.278	9.170	0.000	3488.037	-0.810	0.000
114.	-2.100	-0.000	3932.374	8.510	0.000	3487.359	-0.470	0.000
115.	-2.180	-0.000	3942.766	7.870	0.000	3487.027	-0.160	0.000
116.	-2.260	-0.000	3952.592	7.260	0.000	3487.063	0.200	0.000
117.	-2.340	-0.000	3961.819	6.680	0.000	3487.457	0.540	0.000
118.	-2.420	-0.000	3970.572	6.140	0.000	3488.209	0.890	0.000
119.	-2.500	-0.000	3978.736	5.650	0.000	3489.314	1.210	0.000
120.	-2.580	-0.000	3986.599	5.200	0.000	3490.742	1.560	0.000
121.	-2.660	-0.000	3994.057	4.800	0.000	3492.599	1.870	0.000
122.	-2.740	-0.000	4001.231	4.450	-0.000	3494.767	2.200	0.000
123.	-2.820	-0.000	4008.192	4.150	-0.000	3497.241	2.520	0.000
124.	-2.900	-0.000	4015.018	3.900	-0.000	3500.133	2.840	0.000
125.	-2.980	-0.000	4021.746	3.700	-0.000	3503.335	3.150	0.000
126.	-3.060	-0.000	4028.574	3.540	-0.000	3506.865	3.450	0.000
127.	-3.140	-0.000	4035.457	3.420	-0.000	3510.724	3.750	0.000
128.	-3.220	-0.000	4042.512	3.340	-0.000	3514.905	4.050	0.000
129.	-3.300	-0.000	4049.812	3.290	-0.000	3519.405	4.370	0.000
130.	-3.380	-0.000	4057.426	3.260	-0.000	3524.214	4.610	0.000
131.	-3.460	-0.000	4065.419	3.250	-0.000	3529.325	4.890	0.000
132.	-3.540	-0.000	4073.852	3.260	-0.000	3534.742	5.140	0.000
133.	-3.620	-0.000	4082.774	3.290	-0.000	3540.425	5.390	0.000
134.	-3.700	-0.000	4092.246	3.340	-0.000	3546.401	5.660	0.000
135.	-3.780	-0.000	4102.297	3.400	-0.000	3552.644	5.870	0.000
136.	-3.860	-0.000	4112.964	3.470	-0.000	3559.143	6.090	0.000
137.	-3.940	-0.000	4124.272	3.550	-0.000	3565.905	6.310	0.000
138.	-4.020	-0.000	4136.239	3.640	-0.000	3572.905	6.510	0.000
139.	-4.100	-0.000	4148.871	3.740	-0.000	3580.139	6.700	0.000
140.	-4.180	-0.000	4162.168	3.850	-0.000	3587.594	6.890	0.000
141.	-4.260	-0.000	4176.121	3.970	-0.000	3595.260	7.060	0.000
142.	-4.340	-0.000	4190.707	4.100	-0.000	3603.129	7.220	0.000
143.	-4.420	-0.000	4205.998	4.240	-0.000	3611.187	7.370	0.000
144.	-4.500	-0.000	4221.953	4.390	-0.000	3619.425	7.510	0.000
145.	-4.580	-0.000	4237.974	4.550	-0.000	3627.830	7.630	0.000
146.	-4.660	-0.000	4254.650	4.720	-0.000	3636.391	7.750	0.000
147.	-4.740	-0.000	4271.754	4.900	-0.000	3645.101	7.850	0.000
148.	-4.820	-0.000	4289.187	5.090	-0.000	3653.947	7.950	0.000
149.	-4.900	-0.000	4306.832	5.290	-0.000	3662.905	8.030	0.000

X-PLANE (YZ-PLANE) LITHIUM NIORATE (KOPOLYK ET AL)

	LNGVEL	LOH12	LOH13	FSRVEL	FSPH12	FSPH13	CSPVEL	SSPH12	SSPH13
154.	5807.860	-9.200	0.000	4424.693	13.279	0.000	7671.970	9.100	0.000
151.	5798.931	-9.879	0.000	4342.795	13.194	0.000	7651.151	9.150	0.000
152.	5776.467	-7.807	0.000	4456.099	13.044	0.000	7590.610	9.210	0.000
153.	5758.561	-7.537	0.000	4377.594	12.790	0.000	7590.747	8.250	0.000
154.	5743.334	-7.100	0.000	4394.756	12.463	0.000	7709.134	8.240	0.000
155.	5728.995	-5.809	0.000	4411.456	12.044	0.000	7718.584	9.300	0.000
155.	5715.356	-5.350	0.000	4427.452	11.577	0.000	7724.077	9.310	0.000
157.	5702.833	-5.850	0.000	4442.939	10.420	0.000	7747.117	9.300	0.000
154.	5691.440	-5.249	0.000	4457.452	10.239	0.000	7756.547	9.270	0.000
159.	5681.290	-4.657	0.000	4478.959	9.440	0.000	7766.164	9.240	0.000
160.	5672.489	-3.970	0.000	4487.741	9.577	0.000	7775.179	9.200	0.000
161.	5665.100	-3.240	0.000	4494.595	7.617	0.000	7785.144	9.180	0.000
162.	5659.135	-2.479	0.000	4504.288	5.640	0.000	7794.574	9.090	0.000
163.	5655.158	-1.659	0.000	4512.504	5.440	0.000	7801.954	9.070	0.000
164.	5652.678	-1.790	0.000	4519.159	4.377	0.000	7811.264	8.010	0.000
165.	5651.952	0.000	0.000	4524.502	3.120	0.000	7821.507	7.950	0.000
166.	5653.019	0.973	0.000	4527.949	1.840	0.000	7831.661	7.750	0.000
167.	5655.902	1.870	0.000	4529.671	0.620	0.000	7840.714	7.650	0.000
168.	5660.604	2.740	0.000	4529.647	-0.559	0.000	7848.661	7.540	0.000
169.	5667.117	3.540	0.000	4524.747	-1.919	0.000	7854.587	7.420	0.000
170.	5675.402	4.440	0.000	4524.747	-3.150	0.000	7867.211	7.390	0.000
171.	5685.414	5.310	0.000	4519.194	-4.350	0.000	7875.747	7.150	0.000
172.	5697.089	5.090	0.000	4512.331	-5.520	0.000	7884.200	7.020	0.000
173.	5710.345	6.470	0.000	4504.004	-6.670	0.000	7892.474	6.870	0.000
174.	5725.092	7.500	0.000	4494.150	-7.670	0.000	7900.585	6.720	0.000
175.	5741.229	8.120	0.000	4482.419	-8.640	0.000	7908.514	6.560	0.000
176.	5758.543	9.580	0.000	4470.419	-9.570	0.000	7916.277	6.390	0.000
177.	5777.220	9.140	0.000	4456.761	-10.540	0.000	7923.837	6.220	0.000
174.	5796.838	9.520	0.000	4442.079	-11.070	0.000	7931.104	6.040	0.000
179.	5817.374	9.990	0.000	4426.469	-11.710	0.000	7938.355	5.860	0.000
180.	5838.704	10.300	0.000	4410.045	-12.270	0.000			

Y-PLANE (XZ-PLANE) LITHIUM NIOBATE (KOROLYUK ET AL)

	LNG/EL	LPHI12	LPHI13	FSRWEL	FSPHI12	FSPHI13	SSRWEL	SSPHI12	SSPHI13
0.	6555.816	0.000	0.000	4760.940	0.000	0.000	4010.295	0.000	0.000
1.	6556.710	0.890	1.740	4759.956	-1.570	-1.790	4010.160	-0.224	-2.40
2.	6559.782	1.740	3.470	4757.135	-2.590	-3.150	4009.757	-0.444	-4.60
3.	6563.902	2.540	5.140	4752.467	-3.450	-4.330	4009.074	-0.660	-6.90
4.	6569.926	3.270	6.760	4745.998	-4.070	-4.900	4008.133	-0.840	-9.20
5.	6577.688	4.020	8.330	4737.795	-4.520	-5.350	4006.924	-1.000	-11.50
6.	6587.012	4.780	9.850	4727.915	-4.810	-5.550	4005.467	-1.130	-13.70
7.	6597.805	5.540	11.330	4716.515	-4.940	-5.620	4003.756	-1.240	-15.80
8.	6609.969	6.310	12.760	4703.634	-4.930	-5.570	4001.800	-1.330	-17.80
9.	6623.394	7.080	14.140	4689.404	-4.790	-5.400	3999.517	-1.400	-19.70
10.	6637.967	7.840	15.470	4673.942	-4.530	-5.130	3997.200	-1.450	-21.50
11.	6653.572	8.600	16.750	4657.165	-4.170	-4.760	3994.590	-1.490	-23.20
12.	6670.098	9.350	18.000	4639.795	-3.720	-4.300	3991.777	-1.520	-24.80
13.	6687.404	10.100	19.210	4621.350	-3.190	-3.770	3988.771	-1.540	-26.30
14.	6705.398	10.840	20.390	4602.147	-2.590	-3.170	3985.594	-1.560	-27.70
15.	6723.981	11.580	21.540	4582.301	-1.930	-2.510	3982.277	-1.570	-29.00
16.	6742.981	12.310	22.670	4561.970	-1.130	-1.710	3978.909	-1.580	-30.20
17.	6762.360	13.040	23.780	4541.104	-0.210	-0.810	3975.227	-1.590	-31.40
18.	6781.993	13.760	24.870	4519.954	0.810	0.190	3971.534	-1.600	-32.50
19.	6801.789	14.480	25.940	4498.591	1.810	1.190	3967.767	-1.610	-33.60
20.	6821.659	15.190	27.000	4477.045	2.760	2.140	3963.917	-1.620	-34.70
21.	6841.521	15.890	28.040	4455.477	3.670	3.050	3960.027	-1.630	-35.80
22.	6861.294	16.580	29.070	4433.911	4.540	3.920	3956.095	-1.640	-36.90
23.	6880.918	17.270	30.090	4412.246	5.370	4.750	3952.144	-1.650	-38.00
24.	6900.315	17.950	31.100	4390.497	6.170	5.550	3948.194	-1.660	-39.10
25.	6919.429	18.630	32.100	4369.692	6.940	6.320	3944.254	-1.670	-40.20
26.	6938.204	19.310	33.090	4348.735	7.680	7.070	3940.324	-1.680	-41.30
27.	6956.590	19.990	34.070	4328.679	8.400	7.800	3936.404	-1.690	-42.40
28.	6974.542	20.660	35.040	4308.471	9.100	8.510	3932.504	-1.700	-43.50
29.	6992.018	21.330	36.010	4288.056	9.780	9.200	3928.624	-1.710	-44.60
30.	7009.983	22.000	36.970	4268.374	10.440	9.880	3924.764	-1.720	-45.70
31.	7025.405	22.670	37.930	4249.341	11.080	10.540	3921.027	-1.730	-46.80
32.	7041.257	23.340	38.880	4230.979	11.710	11.190	3917.414	-1.740	-47.90
33.	7056.515	24.010	39.830	4213.304	12.330	11.820	3913.826	-1.750	-49.00
34.	7071.162	24.680	40.770	4196.317	12.940	12.440	3910.264	-1.760	-50.10
35.	7085.182	25.340	41.710	4180.012	13.540	13.050	3906.728	-1.770	-51.20
36.	7098.564	26.000	42.640	4174.402	14.130	13.650	3903.218	-1.780	-52.30
37.	7111.302	26.660	43.570	4169.495	14.710	14.240	3900.734	-1.790	-53.40
38.	7123.391	27.320	44.490	4165.299	15.280	14.820	3898.276	-1.800	-54.50
39.	7134.833	27.980	45.410	4161.724	15.840	15.390	3895.844	-1.810	-55.60
40.	7145.630	28.640	46.330	4158.771	16.390	15.950	3893.438	-1.820	-56.70
41.	7155.790	29.300	47.250	4156.441	16.930	16.500	3891.058	-1.830	-57.80
42.	7165.324	29.960	48.170	4154.732	17.460	17.040	3888.704	-1.840	-58.90
43.	7174.244	30.620	49.080	4153.652	17.980	17.570	3886.376	-1.850	-60.00
44.	7182.560	31.280	50.000	4153.201	18.490	18.090	3884.074	-1.860	-61.10
45.	7190.315	31.940	50.910	4153.377	19.000	18.600	3881.798	-1.870	-62.20
46.	7197.506	32.600	51.830	4154.181	19.490	19.110	3879.548	-1.880	-63.30
47.	7204.167	33.260	52.740	4155.612	19.980	19.610	3877.324	-1.890	-64.40
48.	7210.324	33.920	53.650	4157.671	20.460	20.110	3875.126	-1.900	-65.50
49.	7215.006	34.580	54.560	4160.356	20.940	20.610	3872.954	-1.910	-66.60

Y-PLANE (X7-PLANE) LITHIUM NIORATE (KOROLYUK ET AL)

	LNGVEL	LPH12	LPH11	FSPR2	FSPH20	FSPH13	SSRVL	SSPH12	SSPH11
50.	7221.243	2.20	4.450	4027.282	-4.200	-1.870	1795.988	-0.150	15.180
51.	7225.067	2.100	3.980	4022.206	-4.000	-1.700	1745.205	-0.160	15.540
52.	7230.511	1.943	3.650	4017.220	-4.050	-1.550	1774.247	-0.510	15.750
53.	7236.608	1.790	3.420	4012.213	-4.130	-1.430	1763.163	-0.610	15.920
54.	7238.393	1.650	3.190	4007.000	-4.200	-1.350	1752.025	-0.660	16.160
55.	7241.901	1.531	2.960	4001.724	-4.280	-1.300	1740.885	-0.670	16.200
56.	7245.165	1.430	2.740	3996.057	-4.300	-1.300	1729.785	-0.640	16.310
57.	7248.219	1.340	2.530	3990.002	-4.350	-1.330	1718.775	-0.580	16.420
58.	7251.093	1.270	2.320	3983.490	-4.350	-1.400	1707.894	-0.480	16.500
59.	7253.820	1.210	2.120	3976.462	-4.310	-1.510	1697.174	-0.350	16.560
60.	7256.429	1.160	1.910	3968.859	-4.200	-1.550	1686.557	-0.190	16.600
61.	7258.947	1.120	1.750	3960.672	-4.020	-1.630	1676.067	-0.080	16.520
62.	7261.398	1.100	1.540	3951.943	-3.760	-1.640	1666.337	-0.790	16.610
63.	7263.803	1.080	1.320	3942.368	-3.410	-1.620	1656.594	-0.550	16.570
64.	7266.182	1.070	1.270	3932.274	-3.070	-1.540	1647.165	-0.280	16.540
65.	7268.551	1.070	1.130	3921.427	-2.750	-1.420	1638.075	-0.790	16.480
66.	7270.921	1.070	1.010	3909.994	-2.450	-1.260	1629.357	-0.670	16.270
67.	7273.303	1.080	0.910	3897.914	-2.180	-1.070	1621.017	-0.730	16.090
68.	7275.702	1.090	0.770	3885.259	-1.910	-0.830	1613.065	-0.970	15.940
69.	7278.120	1.100	0.670	3872.067	-1.670	-0.570	1605.514	-0.590	15.520
70.	7280.557	1.100	0.580	3858.334	-1.470	-0.380	1598.594	-0.160	15.320
71.	7283.009	1.110	0.500	3844.175	-1.300	-0.260	1592.061	-0.220	14.970
72.	7285.470	1.110	0.430	3829.616	-1.160	-0.180	1586.044	-0.250	14.570
73.	7287.930	1.110	0.350	3814.744	-1.050	-0.130	1580.555	-0.260	14.120
74.	7290.378	1.100	0.310	3799.708	-0.960	-0.100	1575.573	-0.250	13.520
75.	7292.800	1.080	0.250	3784.474	-0.890	-0.080	1571.294	-0.240	13.070
76.	7295.181	1.060	0.210	3769.143	-0.830	-0.070	1567.577	-0.230	12.460
77.	7297.584	1.030	0.170	3753.911	-0.780	-0.060	1564.495	-0.230	11.880
78.	7299.752	0.990	0.140	3738.769	-0.740	-0.050	1562.081	-0.230	11.090
79.	7301.906	0.940	0.110	3723.795	-0.710	-0.040	1560.357	-0.230	10.310
80.	7303.949	0.900	0.090	3709.195	-0.680	-0.030	1559.099	-0.230	9.440
81.	7305.862	0.830	0.070	3694.795	-0.650	-0.020	1559.099	-0.230	8.630
82.	7307.627	0.760	0.050	3680.432	-0.620	-0.010	1559.099	-0.230	7.730
83.	7309.229	0.680	0.040	3667.502	-0.590	-0.010	1559.099	-0.230	6.790
84.	7310.651	0.600	0.030	3655.044	-0.560	-0.010	1559.099	-0.230	5.830
85.	7311.880	0.510	0.020	3642.760	-0.530	-0.010	1559.099	-0.230	4.950
86.	7312.983	0.410	0.010	3631.364	-0.500	-0.010	1559.099	-0.230	4.150
87.	7313.710	0.310	0.010	3620.734	-0.470	-0.010	1559.099	-0.230	3.490
88.	7314.292	0.210	0.000	3610.899	-0.440	-0.010	1559.099	-0.230	2.960
89.	7314.644	0.110	0.000	3601.800	-0.410	-0.010	1559.099	-0.230	2.460
90.	7314.761	0.000	0.000	3593.730	-0.380	-0.010	1559.099	-0.230	2.000
91.	7314.644	-0.110	0.000	3586.435	-0.350	-0.010	1559.099	-0.230	1.580
92.	7314.292	-0.210	0.000	3580.015	-0.320	-0.010	1559.099	-0.230	1.210
93.	7313.710	-0.310	0.010	3574.471	-0.290	-0.010	1559.099	-0.230	0.890
94.	7312.983	-0.410	0.010	3569.799	-0.260	-0.010	1559.099	-0.230	0.610
95.	7311.880	-0.510	0.020	3565.902	-0.230	-0.010	1559.099	-0.230	0.370
96.	7310.651	-0.600	0.030	3563.037	-0.200	-0.010	1559.099	-0.230	0.180
97.	7309.229	-0.680	0.040	3560.916	-0.170	-0.010	1559.099	-0.230	0.030
98.	7307.627	-0.760	0.050	3559.611	-0.140	-0.010	1559.099	-0.230	0.000
99.	7305.862	-0.830	0.070	3559.099	-0.110	-0.010	1559.099	-0.230	0.000

Y-PLANE (XZ-PLANE) LITHIUM NIORATE (KOROLYUK ET AL)

	LPMI12	LPMI11	FSRVEFL	FSRMI12	FSPMI13	SSRVEFL	SSPMI12	SSPMI11
109.	-0.899	.098	3559.157	.591	9.490	3709.106	12.630	-5.540
110.	-0.943	.110	3560.359	1.260	10.310	3723.745	12.469	-5.370
111.	-0.990	.140	3562.081	1.910	11.080	3738.749	13.019	-5.190
112.	-1.039	.170	3564.496	2.539	11.800	3753.911	13.099	-5.124
113.	-1.060	.210	3567.577	3.130	12.460	3769.183	13.099	-5.244
114.	-1.069	.250	3571.299	3.709	13.070	3784.674	13.020	-5.510
115.	-1.069	.290	3575.633	4.250	13.620	3799.404	12.899	-5.830
116.	-1.110	.330	3580.555	4.769	14.120	3814.368	12.680	-6.210
117.	-1.110	.370	3586.040	5.269	14.570	3829.635	12.410	-6.600
118.	-1.110	.410	3592.061	5.720	14.970	3844.175	12.090	-6.990
119.	-1.100	.450	3598.594	6.160	15.320	3856.934	11.700	-7.390
120.	-1.100	.490	3605.614	6.580	15.620	3872.047	11.270	-7.800
121.	-1.090	.530	3613.096	6.979	15.880	3885.252	10.810	-8.220
122.	-1.080	.570	3621.017	7.339	16.099	3897.914	10.310	-8.630
123.	-1.070	.610	3629.352	7.670	16.270	3909.984	9.749	-9.020
124.	-1.070	.650	3638.076	7.990	16.400	3921.427	9.230	-9.320
125.	-1.070	.690	3647.165	8.299	16.500	3932.224	8.670	-9.540
126.	-1.070	.730	3656.594	8.580	16.570	3942.363	8.110	-9.670
127.	-1.070	.770	3666.377	8.799	16.610	3951.843	7.569	-9.740
128.	-1.120	.810	3676.567	9.009	16.620	3961.672	7.020	-9.740
129.	-1.160	.850	3686.657	9.190	16.600	3969.861	6.500	-9.650
130.	-1.210	.890	3697.176	9.350	16.560	3975.467	6.010	-9.450
131.	-1.270	.930	3707.894	9.490	16.500	3983.491	5.550	-9.100
132.	-1.340	.970	3718.776	9.580	16.420	3988.002	5.150	-8.650
133.	-1.370	1.010	3729.786	9.640	16.310	3995.057	4.790	-8.130
134.	-1.530	1.050	3740.885	9.670	16.200	4001.774	4.500	-7.590
135.	-1.650	1.100	3752.025	9.669	16.060	4007.080	4.290	-7.010
136.	-1.740	1.140	3763.153	9.619	15.920	4012.213	4.130	-6.440
137.	-1.940	1.180	3774.242	9.510	15.750	4017.229	4.060	-5.890
138.	-2.100	1.230	3785.205	9.360	15.580	4022.205	4.090	-5.370
139.	-2.290	1.280	3795.988	9.190	15.380	4027.242	4.200	-4.870
140.	-2.480	1.340	3806.526	8.990	15.160	4032.564	4.510	-4.410
141.	-2.680	1.400	3816.748	8.770	14.930	4038.184	4.720	-4.020
142.	-2.820	1.470	3826.587	8.520	14.660	4044.252	5.130	-3.620
143.	-2.950	1.540	3835.977	8.250	14.370	4050.891	5.620	-3.250
144.	-3.080	1.610	3844.963	7.970	14.040	4058.205	6.190	-2.900
145.	-3.670	1.670	3853.200	7.630	13.600	4066.294	6.830	-2.500
146.	-3.940	1.740	3860.964	7.330	13.200	4075.229	7.510	-2.110
147.	-4.220	1.820	3868.146	7.070	12.860	4085.062	8.220	-1.610
148.	-4.510	1.900	3874.762	6.850	12.400	4095.862	8.930	-1.100
149.	-4.800	2.000	3880.843	6.620	11.930	4107.517	9.630	-0.590
150.	-5.100	2.100	3886.419	6.530	11.440	4120.131	10.300	0.000
151.	-5.410	2.200	3891.608	6.410	10.950	4133.677	10.940	0.600
152.	-5.740	2.300	3896.415	6.310	10.460	4148.195	11.530	1.200
153.	-6.080	2.400	3900.825	6.230	9.980	4163.750	12.090	1.800
154.	-6.350	2.500	3905.201	6.160	9.510	4179.402	12.590	2.400
155.	-6.630	2.600	3909.303	6.100	9.060	4195.713	13.050	3.000
156.	-6.920	2.700	3913.280	6.050	8.630	4213.084	13.460	3.600
157.	-7.220	2.800	3917.176	6.010	8.220	4230.989	13.840	4.200
158.	-7.500	2.900	3921.027	6.030	7.830	4249.381	14.180	4.800

Y-PLANE (X7-PLANE) LITHIUM NIORATE (KOROLYUK ET AL)

	LMW12	LMW11	FSRWEL	FSPM12	FSPM13	SSRWEL	SSPM12	SSPM13
158.	7808.983	-7.770	3924.861	3.204	7.450	4768.374	14.680	-6.120
159.	5992.018	-9.030	1928.697	3.210	7.100	4287.056	16.759	-6.590
160.	5974.542	-9.280	3932.550	3.220	6.760	4307.771	16.989	-6.850
161.	5956.590	-9.510	3936.826	3.268	6.480	4328.070	15.180	-7.110
162.	5938.204	-9.730	3940.329	3.320	6.170	4348.785	15.380	-7.150
163.	5919.429	-9.920	3944.755	3.270	5.850	4369.692	15.650	-7.580
164.	5900.315	-9.090	3948.198	3.289	5.570	4390.997	15.940	-7.740
165.	5880.918	-9.230	3952.148	3.280	5.300	4412.296	15.580	-7.960
166.	5861.294	-9.350	3956.095	3.270	5.040	4433.931	15.590	-8.110
167.	5841.821	-9.430	3960.023	3.268	4.790	4455.637	15.540	-8.230
168.	5821.559	-9.480	3964.917	3.208	4.550	4477.085	15.680	-8.320
169.	5801.789	-9.400	3967.750	3.150	4.310	4498.581	15.300	-8.360
170.	5781.993	-9.460	3971.534	3.089	4.080	4519.964	15.100	-8.360
171.	5762.358	-9.390	3975.223	3.009	3.850	4541.184	16.849	-8.320
172.	5742.983	-9.270	3978.809	2.910	3.620	4561.920	16.510	-8.240
173.	5723.861	-9.110	3982.273	2.808	3.400	4582.301	16.130	-8.090
174.	5705.398	-8.950	3985.599	2.689	3.170	4602.187	17.670	-7.900
175.	5687.444	-8.810	3988.771	2.549	2.950	4621.359	17.150	-7.560
176.	5670.090	-8.780	3991.773	2.390	2.720	4639.795	12.590	-7.460
177.	5653.572	-7.880	3994.590	2.230	2.500	4657.365	11.849	-7.010
178.	5637.967	-7.430	3997.209	2.070	2.280	4673.942	11.120	-6.500
179.	5622.296	-6.910	3999.617	1.899	2.050	4689.604	10.290	-6.140
180.	5609.450	-6.340	4001.803	1.700	1.830	4703.634	9.390	-5.620
181.	5597.885	-5.780	4003.756	1.500	1.600	4716.514	8.410	-5.050
182.	5587.012	-5.210	4005.467	1.300	1.370	4727.945	7.460	-4.430
183.	5577.689	-4.640	4006.924	1.090	1.150	4737.795	6.260	-3.760
184.	5569.926	-4.070	4008.133	.880	.920	4745.988	5.070	-3.050
185.	5563.802	-3.500	4009.175	.660	.660	4752.467	3.850	-2.330
186.	5559.382	-2.930	4009.752	.440	.440	4757.115	2.590	-1.570
187.	5556.710	-2.360	4010.168	.220	.220	4759.955	1.300	-0.790
188.	5555.816	-1.800	4010.234	-0.000	-0.000	4760.900	-0.000	0.000

7-PLANE (XY-PLANE) LITHIUM NIDRATE (KOROLYUK ET AL)

	LNQVEL	LPH12	LPH11	FSPVEL	FSPH12	FSPH11	SSRVEL	SSPH12	SSPH11
0.	5555.816	9.000	0.000	4760.900	0.000	0.000	4814.295	0.000	0.000
1.	5555.766	9.970	-0.740	4759.713	-1.630	0.790	4810.186	-0.180	-0.230
2.	5555.512	1.943	-1.470	4755.174	-3.240	1.570	4808.858	-0.450	-0.450
3.	5564.069	2.717	-2.140	4750.387	-4.780	2.340	4809.314	-0.540	-0.590
4.	5570.378	3.530	-2.810	4742.335	-6.250	3.090	4804.541	-0.720	-0.930
5.	5574.180	4.290	-3.550	4732.282	-7.680	3.820	4807.545	-0.910	-1.160
6.	5547.488	4.960	-4.130	4720.355	-8.830	4.520	4805.322	-1.100	-1.400
7.	5594.095	5.560	-4.730	4706.755	-9.920	5.190	4804.857	-1.290	-1.650
8.	5600.833	6.050	-5.350	4691.700	-10.850	5.830	4803.175	-1.480	-1.900
9.	5522.521	6.470	-5.930	4675.474	-11.580	6.430	4801.242	-1.680	-2.140
10.	5635.975	6.780	-6.330	4658.169	-12.260	7.010	4800.081	-1.880	-2.380
11.	5650.012	7.010	-6.840	4640.112	-12.710	7.550	4800.675	-2.070	-2.550
12.	5664.449	7.140	-7.260	4621.711	-13.010	8.050	4804.072	-2.270	-2.310
13.	5679.105	7.190	-7.650	4602.937	-13.140	8.540	4801.154	-2.450	-3.160
14.	5693.812	7.160	-8.000	4584.274	-13.120	8.990	4808.056	-2.590	-3.820
15.	5708.410	7.060	-8.337	4565.754	-12.850	9.410	4804.774	-2.700	-3.570
16.	5722.744	6.890	-8.590	4547.675	-12.550	9.800	4811.257	-2.830	-3.820
17.	5736.575	6.640	-8.870	4530.137	-12.210	10.150	4807.674	-3.040	-4.160
18.	5750.070	6.340	-9.100	4513.592	-11.850	10.490	4803.962	-3.110	-4.390
19.	5762.411	5.990	-9.310	4497.781	-11.560	10.780	4800.140	-3.150	-4.510
20.	5774.747	5.590	-9.460	4483.045	-11.230	11.050	4805.451	-3.170	-4.620
21.	5785.900	5.140	-9.550	4469.522	-10.900	11.300	4807.812	-3.190	-4.710
22.	5795.953	4.650	-9.490	4457.261	-10.440	11.510	4809.004	-3.190	-4.810
23.	5805.197	4.140	-9.920	4446.333	-9.920	11.690	4805.501	-3.200	-4.900
24.	5813.235	3.590	-10.170	4436.788	-9.540	11.850	4802.441	-3.200	-4.970
25.	5820.118	3.020	-10.190	4428.665	-9.470	11.980	4809.714	-3.200	-5.000
26.	5825.798	2.430	-10.190	4421.908	-9.480	12.090	4807.384	-3.200	-5.070
27.	5830.235	1.830	-10.240	4416.730	-9.370	12.170	4805.541	-3.200	-5.050
28.	5833.498	1.210	-10.230	4413.044	-9.220	12.230	4804.247	-3.200	-5.000
29.	5835.269	0.580	-10.370	4410.790	-9.130	12.270	4803.525	-3.200	-5.000
30.	5835.838	-0.050	-10.310	4410.070	-9.020	12.240	4803.814	-3.150	-5.040
31.	5835.079	-0.640	-10.310	4410.737	-8.920	12.240	4803.913	-3.090	-5.040
32.	5833.020	-1.300	-10.210	4412.913	-8.790	12.250	4805.212	-3.000	-5.010
33.	5828.567	-1.920	-10.250	4416.438	-8.600	12.200	4806.544	-2.870	-5.050
34.	5825.041	-2.520	-10.130	4421.519	-8.360	12.120	4804.882	-2.800	-5.000
35.	5819.173	-3.110	-10.170	4428.474	-8.070	12.020	4801.558	-2.600	-5.510
36.	5812.103	-3.680	-10.040	4436.607	-7.750	11.900	4804.632	-2.400	-5.500
37.	5803.990	-4.230	-9.910	4446.158	-7.560	11.740	4804.051	-2.240	-5.370
38.	5796.563	-4.740	-9.810	4457.139	-7.400	11.560	4801.715	-2.120	-5.210
39.	5786.219	-5.230	-9.670	4465.463	-7.280	11.340	4805.555	-2.000	-5.060
40.	5772.927	-5.670	-9.510	4473.070	-7.100	11.100	4809.895	-1.870	-4.860
41.	5760.776	-6.070	-9.330	4480.872	-6.930	10.830	4807.854	-1.740	-4.640
42.	5747.965	-6.420	-9.110	4487.787	-6.750	10.530	4807.307	-1.610	-4.820
43.	5734.303	-6.720	-8.840	4500.592	-6.500	10.200	4801.234	-1.480	-4.180
44.	5720.213	-6.960	-8.620	4514.273	-6.290	9.870	4804.947	-1.340	-3.940
45.	5705.725	-7.130	-8.330	4556.625	-6.070	9.460	4808.873	-1.200	-3.880
46.	5690.993	-7.230	-8.030	4585.198	-5.820	9.020	4801.401	-1.050	-3.830
47.	5676.140	-7.260	-7.670	4604.048	-5.570	8.570	4804.048	-0.850	-3.160
48.	5661.359	-7.200	-7.290	4622.910	-5.290	8.090	4807.771	-0.600	-2.900
49.	5646.813	-7.050	-6.950	4641.553	-5.010	7.570	4800.391	-0.250	-2.640

7-PLANE (XY-PLANE) LITHIUM NITRATE (KOPOLYK ET AL)

	LNVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSPVEL	SSPH12	SSPH13
50.	543.591	-6.989	-6.470	469.701	12.450	7.020	402.741	1.869	2.189
51.	551.147	-5.500	-5.910	467.092	11.729	5.840	409.479	1.530	-2.120
52.	560.199	-5.090	-5.370	463.487	10.930	5.820	406.748	1.430	-1.970
53.	559.622	-5.570	-4.930	470.549	9.970	5.180	409.377	1.230	-1.520
54.	551.399	-4.970	-4.290	472.313	9.470	4.500	409.748	1.030	-1.370
55.	557.700	-4.290	-3.550	473.286	7.820	3.790	4010.888	.840	-1.130
56.	555.882	-3.510	-2.890	476.559	5.250	3.060	4011.707	.650	-1.190
57.	555.583	-2.670	-2.190	472.359	4.760	2.390	4012.867	.460	-1.550
58.	555.215	-1.790	-1.450	475.144	3.200	1.570	4012.812	.270	-1.420
59.	553.562	-0.660	-0.730	476.112	1.580	.740	4013.132	.090	-1.180
50.	553.774	.063	-.910	476.270	-.090	-.050	4013.127	-.090	-.050
51.	553.459	1.023	.750	474.390	-1.790	-.850	4012.907	-1.200	-.290
52.	553.422	1.340	1.880	475.705	-1.350	-1.570	4012.641	-1.470	-.520
53.	553.534	2.324	2.210	471.112	-4.900	-2.410	4011.954	-.550	.750
54.	553.057	3.550	2.990	473.529	-5.370	-3.160	4010.844	-.840	.990
55.	557.155	4.410	3.570	477.274	-7.730	-3.890	4009.506	-1.090	1.230
56.	554.570	5.090	4.210	472.149	-8.360	-4.500	4009.317	-1.230	1.470
57.	553.570	5.640	4.810	470.749	-10.050	-5.270	4005.541	-1.460	1.720
58.	550.3.565	6.190	5.390	469.207	-10.990	-5.910	4004.804	-1.560	1.370
59.	552.152	5.590	5.910	467.531	-11.760	-6.520	4022.576	-1.850	2.220
70.	553.225	5.910	6.610	469.137	-12.370	-7.100	4007.994	-2.050	2.470
71.	564.515	7.130	6.870	464.047	-12.820	-7.540	3907.557	-2.270	2.730
72.	566.203	7.260	7.260	462.429	-13.100	-8.150	3904.766	-2.480	2.990
73.	567.104	7.310	7.550	462.589	-13.220	-8.530	3931.529	-2.580	3.250
74.	569.050	7.270	8.010	463.763	-13.190	-9.040	3981.253	-2.970	3.510
75.	570.879	7.160	8.320	465.175	-13.000	-9.490	3944.557	-3.060	3.750
76.	572.435	5.980	9.410	457.031	-12.830	-9.880	3909.965	-3.200	4.110
77.	573.579	6.740	8.870	459.524	-12.230	-10.280	3976.908	-3.320	4.350
78.	575.190	5.430	9.110	451.874	-11.650	-10.560	3972.977	-3.410	4.480
79.	576.116	5.080	9.310	447.031	-10.970	-10.850	3951.572	-3.450	4.590
80.	577.279	5.570	9.430	442.423	-10.200	-11.110	3964.504	-3.430	4.900
81.	578.570	5.220	9.550	448.955	-9.350	-11.350	3950.391	-3.350	5.080
82.	579.901	4.730	9.730	445.764	-8.370	-11.550	3955.407	-3.230	5.250
83.	580.195	4.210	9.970	445.314	-7.460	-11.730	3952.632	-3.020	5.390
84.	581.384	3.660	10.070	443.454	-6.450	-11.880	3949.144	-2.750	5.520
85.	582.410	3.090	10.110	442.818	-5.410	-12.000	3946.035	-2.410	5.620
86.	582.224	2.500	10.140	442.176	-4.350	-12.100	3943.371	-2.010	5.710
87.	583.786	1.890	10.230	441.692	-3.270	-12.170	3941.227	-1.560	5.770
88.	583.067	1.260	10.270	441.322	-2.180	-12.220	3939.644	-1.060	5.820
89.	583.044	.650	10.290	441.019	-1.090	-12.250	3938.674	-.560	5.850
90.	583.704	-0.000	10.310	440.845	0.000	-12.270	3938.155	0.000	5.860
91.	583.704	-.630	10.290	440.819	1.090	-12.250	3939.679	.560	5.850
92.	583.067	-1.260	10.230	441.322	2.180	-12.220	3941.227	1.060	5.820
93.	583.786	-1.890	10.270	441.692	3.270	-12.170	3941.227	1.560	5.770
94.	582.224	-2.500	10.140	442.176	4.350	-12.100	3943.371	2.010	5.710
95.	582.410	-3.090	10.110	442.818	5.410	-12.000	3946.035	2.410	5.620
96.	581.384	-3.660	10.070	443.454	6.450	-11.880	3949.144	2.750	5.520
97.	580.195	-4.210	9.970	444.019	7.460	-11.730	3952.632	3.020	5.390
98.	579.901	-4.730	9.730	445.764	8.370	-11.550	3955.407	3.230	5.250
99.	578.570	-5.220	9.550	448.955	9.350	-11.350	3960.391	3.430	5.080

Z-PLANE (XY-PLANE) LITHIUM NIOSBATE (KOPOLYUK ET AL)

	LMWEL	LMPII2	LMPII1	FSRWEL	FSPII2	FSPII3	SSRWEL	SSPII2	SSPII3
100.	5776.279	-5.670	9.490	4482.423	10.200	-11.110	3864.584	3.430	4.900
101.	5764.116	-6.080	9.310	4497.081	10.977	-10.950	3961.672	3.450	4.590
102.	5751.108	-6.430	9.190	4512.024	11.450	-10.560	3972.027	3.410	4.400
103.	5737.579	-6.740	8.870	4528.524	12.230	-10.230	3976.908	3.320	4.250
104.	5723.435	-6.980	8.510	4547.031	12.680	-9.880	3980.865	3.200	4.010
105.	5708.478	-7.160	8.120	4565.175	13.000	-9.490	3984.657	3.048	3.764
106.	5694.058	-7.270	7.610	4583.753	13.190	-9.090	3988.253	2.871	3.510
107.	5679.104	-7.310	7.090	4602.569	13.227	-8.530	3991.628	2.680	3.250
108.	5664.203	-7.260	6.560	4621.429	13.180	-8.150	3994.765	2.480	2.990
109.	5649.515	-7.130	6.020	4640.047	12.920	-7.640	3997.657	2.270	2.730
110.	5635.225	-6.910	5.480	4658.197	12.174	-7.100	4000.294	2.060	2.470
111.	5621.512	-6.590	4.910	4675.631	11.760	-6.520	4002.674	1.850	2.220
112.	5608.565	-6.190	4.300	4692.047	10.990	-5.910	4004.804	1.640	1.970
113.	5596.570	-5.680	3.680	4707.349	10.050	-5.270	4006.681	1.440	1.720
114.	5585.709	-5.090	3.010	4721.149	8.960	-4.560	4008.310	1.230	1.470
115.	5576.155	-4.410	2.290	4733.274	7.730	-3.790	4009.694	1.040	1.230
116.	5568.067	-3.650	1.490	4743.520	6.374	-2.960	4010.844	.860	.990
117.	5561.584	-2.820	0.620	4751.712	4.900	-2.140	4011.754	.650	.750
118.	5556.622	-1.940	1.490	4757.745	3.350	-1.630	4012.441	.470	.520
119.	5552.868	-1.020	.758	4761.390	1.730	-1.050	4012.997	.280	.280
120.	5550.774	-.050	-.010	4762.701	.000	-.740	4013.127	.190	.190
121.	5553.562	.060	-.730	4761.512	-1.580	-.000	4013.412	-.000	-.140
122.	5556.215	1.790	-1.450	4758.144	-3.200	1.530	4012.412	-.270	-.420
123.	5560.683	2.570	-2.180	4752.358	-4.760	2.300	4012.467	-.460	-.550
124.	5566.882	3.510	-2.890	4744.359	-6.250	3.060	4011.747	-.590	-.800
125.	5574.790	4.280	-3.558	4734.246	-7.520	3.790	4010.084	-.840	-1.170
126.	5583.999	4.970	-4.210	4722.313	-8.870	4.500	4009.764	-1.030	-1.570
127.	5594.622	5.570	-4.810	4708.540	-9.970	5.180	4009.371	-1.230	-1.920
128.	5606.399	6.090	-5.370	4693.447	-10.930	5.820	4008.574	-1.430	-2.170
129.	5619.147	6.580	-5.910	4677.092	-11.720	6.440	4007.879	-1.630	-2.420
130.	5632.681	6.830	-6.400	4659.701	-12.350	7.020	4007.261	-1.840	-2.710
131.	5646.813	7.060	-6.860	4641.553	-12.910	7.570	4006.591	-2.050	-2.980
132.	5661.359	7.200	-7.240	4622.030	-13.310	8.090	3997.771	-2.250	-3.160
133.	5676.148	7.260	-7.570	4604.044	-13.250	8.570	3994.905	-2.450	-3.430
134.	5690.903	7.230	-7.820	4585.154	-13.240	9.020	3991.981	-2.650	-3.690
135.	5705.725	7.130	-8.030	4566.475	-13.070	9.440	3984.947	-2.820	-3.940
136.	5720.213	5.960	-8.520	4548.223	-12.760	9.830	3984.947	-2.990	-4.190
137.	5734.303	6.720	-8.840	4530.492	-12.310	10.200	3981.238	-3.110	-4.430
138.	5747.865	6.420	-9.110	4513.757	-11.750	10.530	3977.597	-3.210	-4.620
139.	5760.776	6.070	-9.320	4497.872	-11.070	10.830	3973.464	-3.270	-4.560
140.	5772.927	5.670	-9.510	4483.070	-10.700	11.100	3969.446	-3.240	-4.350
141.	5784.219	5.230	-9.570	4469.463	-10.340	11.340	3965.555	-3.230	-4.140
142.	5794.563	4.740	-9.410	4457.139	-9.820	11.560	3961.915	-3.120	-3.910
143.	5803.880	4.230	-9.090	4446.158	-9.140	11.740	3958.050	-2.960	-3.670
144.	5812.103	3.680	-8.640	4436.603	-8.320	11.890	3954.534	-2.700	-3.410
145.	5819.173	3.110	-8.070	4428.478	-7.370	12.020	3951.554	-2.400	-3.130
146.	5825.041	2.520	-7.400	4421.819	-6.390	12.120	3948.845	-2.030	-2.800
147.	5829.667	1.920	-6.540	4416.638	-5.300	12.200	3946.684	-1.620	-2.460
148.	5833.028	1.300	-5.620	4412.943	-4.190	12.250	3945.012	-1.160	-2.080
149.	5835.079	.680	-4.630	4410.737	-3.090	12.280	3943.917	-.690	-1.640

7-PLANE (XY-PLANE) LITHIUM NITRATE (KOROLYUK ET AL)

	LMGVEL	LMH12	LMH13	FSPWFL	FSPH12	FSPH13	SSWVEL	SSPH12	SSPH13
148.	5875.870	0.000	-10.717	4410.020	0.020	12.280	3963.814	-0.150	0.000
151.	5835.269	-0.580	-10.317	4410.790	1.110	12.270	3963.524	0.379	-5.870
152.	5837.400	-1.210	-10.250	4413.044	2.230	12.230	3946.287	0.949	-5.880
153.	5838.236	-1.870	-10.258	4415.780	3.320	12.170	3945.581	1.314	-5.750
154.	5828.790	-2.430	-10.150	4421.900	4.400	12.080	3947.384	1.780	-5.270
155.	5828.118	-3.020	-10.030	4428.665	5.470	11.980	3948.718	2.180	-5.080
156.	5813.235	-3.590	-9.920	4436.784	6.510	11.850	3952.881	2.650	-5.070
157.	5805.197	-4.140	-9.870	4446.333	7.520	11.690	3955.601	2.720	-5.330
158.	5796.063	-4.560	-9.870	4457.251	8.480	11.510	3958.004	2.919	-5.180
159.	5785.900	-5.140	-9.660	4469.522	9.390	11.300	3962.617	3.059	-5.010
160.	5775.787	-5.580	-9.480	4483.045	10.250	11.050	3966.751	3.159	-4.820
161.	5762.411	-5.990	-9.310	4497.741	10.990	10.780	3970.180	3.180	-4.510
162.	5750.070	-6.380	-9.100	4513.582	11.660	10.480	3973.982	3.110	-4.390
163.	5736.675	-6.680	-8.870	4530.187	12.210	10.150	3977.674	3.040	-4.160
164.	5722.744	-6.980	-8.580	4547.575	12.650	9.800	3981.297	2.939	-3.920
165.	5708.410	-7.080	-8.320	4565.764	12.960	9.410	3984.771	2.790	-3.570
166.	5693.812	-7.160	-8.000	4584.274	13.120	8.990	3988.065	2.650	-3.420
167.	5679.105	-7.190	-7.650	4602.907	13.160	8.560	3991.154	2.450	-3.160
168.	5664.484	-7.180	-7.290	4621.711	13.010	8.080	3994.037	2.270	-2.910
169.	5650.012	-7.010	-6.880	4640.182	12.710	7.550	3996.675	2.079	-2.650
170.	5635.976	-6.780	-6.390	4658.169	12.260	7.010	3999.081	1.839	-2.390
171.	5622.521	-6.470	-5.830	4675.424	11.680	6.430	4001.280	1.580	-2.140
172.	5609.833	-6.060	-5.350	4691.700	10.960	5.830	4003.175	1.340	-1.900
173.	5598.095	-5.560	-4.790	4706.755	9.920	5.190	4004.867	1.090	-1.550
174.	5587.480	-4.980	-4.120	4720.355	8.830	4.520	4006.322	1.100	-1.400
175.	5578.180	-4.290	-3.590	4732.282	7.600	3.820	4007.585	0.910	-1.150
176.	5570.328	-3.530	-2.980	4742.376	6.250	3.090	4008.581	0.770	-0.930
177.	5564.068	-2.710	-2.190	4750.387	4.780	2.340	4009.314	0.599	-0.690
178.	5559.512	-1.860	-1.470	4756.174	3.240	1.570	4009.854	0.360	-0.460
179.	5556.744	-0.930	-0.740	4759.713	1.630	0.790	4010.184	0.180	-0.230
180.	5555.816	0.000	-0.010	4760.900	-0.000	-0.000	4010.295	-0.000	0.000

X-PLANE (YZ-PLANE) LITHIUM TANTALATE (SMITH AND WELSH)

BULK

	LNGL	LPM12	LPM13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
0.	5668.667	12.630	0.000	3682.959	-16.510	-0.000	3530.313	-6.390	0.000
1.	5711.428	12.910	0.000	3682.438	-17.250	-0.000	3523.432	-6.374	0.000
2.	5734.515	13.110	0.000	3641.143	-17.660	-0.000	3510.542	-6.340	0.000
3.	5757.995	13.230	0.000	3619.220	-18.410	-0.000	3504.600	-6.330	0.000
4.	5781.744	13.300	0.000	3596.812	-18.640	-0.000	3503.067	-6.260	0.000
5.	5805.646	13.300	0.000	3574.055	-19.160	-0.000	3496.399	-6.200	0.000
6.	5829.599	13.240	0.000	3551.076	-19.390	-0.000	3489.605	-6.140	0.000
7.	5853.497	13.140	0.000	3528.003	-19.530	-0.000	3483.295	-6.070	0.000
8.	5877.251	12.920	0.000	3504.946	-19.590	-0.000	3476.676	-5.990	0.000
9.	5900.776	12.740	0.000	3482.022	-19.550	-0.000	3470.527	-5.910	0.000
10.	5923.995	12.560	0.000	3459.330	-19.440	-0.000	3464.345	-5.820	0.000
11.	5946.637	12.300	0.000	3436.969	-19.250	-0.000	3458.120	-5.710	0.000
12.	5969.219	12.010	0.000	3415.032	-18.960	-0.000	3452.200	-5.600	0.000
13.	5991.141	11.690	0.000	3393.604	-18.630	-0.000	3446.441	-5.480	0.000
14.	6012.491	11.350	0.000	3372.767	-18.210	-0.000	3440.743	-5.350	0.000
15.	6033.242	10.980	0.000	3352.595	-17.720	-0.000	3435.142	-5.220	0.000
16.	6053.352	10.600	0.000	3333.159	-17.160	-0.000	3429.796	-5.167	0.000
17.	6072.782	10.200	0.000	3314.522	-16.540	-0.000	3424.563	-5.120	0.000
18.	6091.500	9.790	0.000	3296.742	-15.850	-0.000	3419.450	-4.770	0.000
19.	6109.477	9.370	0.000	3279.874	-15.110	-0.000	3414.461	-4.600	0.000
20.	6126.687	8.940	0.000	3263.965	-14.300	-0.000	3409.509	-4.430	0.000
21.	6143.109	8.500	0.000	3249.058	-13.450	-0.000	3404.595	-4.220	0.000
22.	6158.726	8.050	0.000	3235.186	-12.540	-0.000	3401.077	-4.060	0.000
23.	6173.524	7.600	0.000	3222.367	-11.600	-0.000	3396.961	-3.870	0.000
24.	6187.491	7.150	0.000	3210.661	-10.610	-0.000	3393.053	-3.670	0.000
25.	6200.619	6.700	0.000	3200.091	-9.590	-0.000	3389.359	-3.470	0.000
26.	6212.905	6.240	0.000	3190.630	-8.550	-0.000	3385.862	-3.260	0.000
27.	6224.346	5.790	0.000	3182.630	-7.480	-0.000	3382.306	-3.040	0.000
28.	6234.942	5.340	0.000	3175.130	-6.400	-0.000	3379.605	-2.820	0.000
29.	6244.697	4.900	0.000	3169.092	-5.310	-0.000	3376.813	-2.600	0.000
30.	6253.617	4.460	0.000	3164.190	-4.230	-0.000	3374.227	-2.370	0.000
31.	6261.710	4.020	0.000	3160.410	-3.150	-0.000	3371.941	-2.140	0.000
32.	6268.967	3.590	0.000	3157.736	-2.080	-0.000	3369.660	-1.900	0.000
33.	6275.461	3.160	0.000	3156.147	-1.030	-0.000	3366.042	-1.660	0.000
34.	6281.147	2.770	0.000	3155.616	-0.900	-0.000	3360.465	-1.420	0.000
35.	6286.062	2.370	0.000	3156.113	1.930	-0.000	3365.138	-1.170	0.000
36.	6290.224	1.980	0.000	3157.603	2.840	-0.000	3364.165	-0.920	0.000
37.	6293.655	1.600	0.000	3160.049	3.700	-0.000	3363.247	-0.670	0.000
38.	6296.377	1.240	0.000	3163.407	4.520	-0.000	3362.684	-0.420	0.000
39.	6298.414	0.890	0.000	3167.634	5.260	-0.000	3362.376	-0.170	0.000
40.	6299.793	0.550	0.000	3172.661	5.950	-0.000	3362.329	0.060	0.000
41.	6300.540	0.230	0.000	3178.497	6.640	-0.000	3362.537	0.330	0.000
42.	6300.684	-0.080	0.000	3185.030	7.230	-0.000	3363.002	0.600	0.000
43.	6300.254	-0.370	0.000	3192.224	7.760	-0.000	3363.724	0.830	0.000
44.	6299.262	-0.640	0.000	3200.022	8.230	-0.000	3364.700	1.080	0.000
45.	6297.000	-0.900	0.000	3208.366	8.640	-0.000	3365.930	1.320	0.000
46.	6295.640	-1.140	0.000	3217.202	8.990	-0.000	3367.413	1.570	0.000
47.	6293.435	-1.360	0.000	3226.464	9.280	-0.000	3369.145	1.810	0.000
48.	6290.621	-1.570	0.000	3236.095	9.510	-0.000	3371.124	2.020	0.000
49.	6287.431	-1.760	0.000	3246.035	9.510	-0.000	3373.348	2.260	0.000

X-PLANE (YZ-PLANE) LITHIUM TANTALATE (SMITH AND WELSH)

BULK

	LMGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
50.	6283.301	-1.930	-0.000	3456.223	9.860	-0.000	3375.013	2.510	-0.000
51.	6280.066	-2.060	-0.000	3466.600	9.860	-0.000	3376.516	2.740	-0.000
52.	6275.960	-2.210	-0.000	3477.107	9.870	-0.000	3381.452	2.960	-0.000
53.	6271.620	-2.330	-0.000	3487.688	9.880	0.000	3384.619	3.180	-0.000
54.	6267.079	-2.420	-0.000	3498.285	9.840	0.000	3384.010	3.390	-0.000
55.	6262.373	-2.500	-0.000	3508.843	9.750	0.000	3391.623	3.600	-0.000
56.	6257.576	-2.560	-0.000	3519.310	9.610	0.000	3395.450	3.800	-0.000
57.	6252.600	-2.610	-0.000	3529.633	9.430	0.000	3393.457	3.990	-0.000
58.	6247.597	-2.640	-0.000	3539.763	9.210	0.000	3403.729	4.100	-0.000
59.	6242.560	-2.650	-0.000	3549.654	8.950	0.000	3406.159	4.360	-0.000
60.	6237.516	-2.650	-0.000	3559.254	8.650	0.000	3412.052	4.540	-0.000
61.	6232.499	-2.630	-0.000	3568.538	8.310	0.000	3417.600	4.700	-0.000
62.	6227.532	-2.600	-0.000	3577.449	7.950	0.000	3422.617	4.850	-0.000
63.	6222.641	-2.550	-0.000	3585.957	7.550	0.000	3427.066	5.020	-0.000
64.	6217.852	-2.500	-0.000	3594.026	7.120	0.000	3433.121	5.160	-0.000
65.	6213.185	-2.430	-0.000	3601.626	6.670	0.000	3438.614	5.300	-0.000
66.	6208.662	-2.350	-0.000	3608.729	6.200	0.000	3444.237	5.430	-0.000
67.	6204.300	-2.260	-0.000	3615.307	5.710	0.000	3450.043	5.550	-0.000
68.	6200.116	-2.160	-0.000	3621.339	5.200	0.000	3455.944	5.670	-0.000
69.	6196.125	-2.060	-0.000	3626.806	4.660	0.000	3462.033	5.770	-0.000
70.	6192.336	-1.950	-0.000	3631.690	4.140	0.000	3468.191	5.870	-0.000
71.	6188.765	-1.840	-0.000	3635.976	3.590	0.000	3474.460	5.960	-0.000
72.	6185.414	-1.720	-0.000	3639.655	3.040	0.000	3480.842	6.040	-0.000
73.	6182.291	-1.600	-0.000	3642.724	2.480	0.000	3487.315	6.120	-0.000
74.	6179.400	-1.470	-0.000	3645.169	1.920	0.000	3493.862	6.190	-0.000
75.	6176.742	-1.350	-0.000	3646.997	1.360	0.000	3500.282	6.240	-0.000
76.	6174.318	-1.230	-0.000	3648.180	.750	0.000	3507.232	6.280	-0.000
77.	6172.125	-1.110	-0.000	3648.751	.230	0.000	3514.003	6.320	-0.000
78.	6170.159	-.990	-0.000	3648.701	-.320	0.000	3520.625	6.360	-0.000
79.	6168.415	-.870	-0.000	3648.030	-.870	0.000	3527.611	6.390	-0.000
80.	6166.886	-.760	-0.000	3646.766	-1.416	0.000	3534.593	6.400	-0.000
81.	6165.564	-.650	-0.000	3644.903	-1.940	0.000	3541.520	6.400	-0.000
82.	6164.436	-.550	-0.000	3642.452	-2.470	0.000	3548.459	6.410	-0.000
83.	6163.497	-.450	-0.000	3639.430	-2.960	0.000	3555.440	6.400	-0.000
84.	6162.730	-.360	-0.000	3635.850	-3.470	0.000	3562.375	6.360	-0.000
85.	6162.122	-.280	-0.000	3631.729	-3.960	0.000	3569.323	6.300	-0.000
86.	6161.661	-.210	-0.000	3627.084	-4.430	0.000	3576.254	6.230	-0.000
87.	6161.330	-.140	-0.000	3621.934	-4.860	0.000	3583.161	6.240	-0.000
88.	6161.124	-.090	-0.000	3616.298	-5.320	0.000	3590.035	6.240	-0.000
89.	6160.997	-.040	-0.000	3610.197	-5.690	0.000	3596.869	6.190	-0.000
90.	6160.962	0.000	-0.000	3603.653	-6.130	0.000	3603.653	6.130	-0.000
91.	6160.991	.030	-0.000	3596.690	-6.550	-0.000	3610.351	6.070	-0.000
92.	6161.067	.050	-0.000	3589.331	-6.870	-0.000	3617.044	5.990	-0.000
93.	6161.172	.060	-0.000	3581.603	-7.210	-0.000	3623.634	5.910	-0.000
94.	6161.286	.060	-0.000	3573.531	-7.520	-0.000	3630.144	5.830	-0.000
95.	6161.392	.050	-0.000	3565.143	-7.810	-0.000	3636.587	5.740	-0.000
96.	6161.471	.030	-0.000	3556.466	-8.060	-0.000	3642.895	5.640	-0.000
97.	6161.503	0.000	0.000	3547.536	-8.320	-0.000	3649.121	5.540	-0.000
98.	6161.470	-.040	-0.000	3538.376	-8.530	-0.000	3655.237	5.430	-0.000
99.	6161.351	-.090	-0.000	3529.027	-8.710	-0.000	3661.236	5.310	-0.000

	X-PLANE (YZ-PLANE) LITHIUM TANTALATE (SMITH AND WELSH)										BULK	
	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13				
100.	6161.126	0.000	3519.515	-6.866	-0.000	3667.115	5.150	-0.000				
101.	6160.781	-0.220	3509.879	-8.990	-0.000	3672.804	5.060	-0.000				
102.	6160.290	-0.300	3500.154	-9.070	-0.000	3670.476	4.530	-0.000				
103.	6159.637	-0.400	3490.376	-9.130	-0.000	3683.947	4.600	-0.000				
104.	6158.801	-0.500	3480.591	-9.150	-0.000	3689.270	4.600	-0.000				
105.	6157.764	-0.610	3470.833	-9.120	-0.000	3694.439	4.510	-0.000				
106.	6156.505	-0.730	3461.146	-9.060	-0.000	3699.449	4.360	-0.000				
107.	6155.006	-0.870	3451.573	-8.960	-0.000	3704.294	4.210	-0.000				
108.	6153.246	-1.010	3442.155	-8.820	-0.000	3708.966	4.050	-0.000				
109.	6151.211	-1.160	3432.945	-8.630	-0.000	3713.466	3.890	-0.000				
110.	6148.878	-1.330	3423.990	-8.390	-0.000	3717.708	3.730	-0.000				
111.	6146.229	-1.500	3415.330	-8.110	-0.000	3721.923	3.560	-0.000				
112.	6143.246	-1.650	3407.015	-7.760	-0.000	3725.065	3.390	-0.000				
113.	6139.912	-1.860	3399.105	-7.390	-0.000	3729.022	3.210	-0.000				
114.	6136.205	-2.060	3391.639	-6.960	-0.000	3733.177	3.040	-0.000				
115.	6132.120	-2.290	3384.671	-6.470	-0.000	3736.532	2.860	-0.000				
116.	6127.629	-2.510	3376.253	-5.930	-0.000	3739.162	2.670	-0.000				
117.	6122.720	-2.740	3367.436	-5.340	-0.000	3742.025	2.490	-0.000				
118.	6117.376	-2.960	3357.265	-4.690	-0.000	3745.156	2.300	-0.000				
119.	6111.588	-3.230	3345.803	-4.000	-0.000	3747.674	2.110	-0.000				
120.	6105.336	-3.460	3333.086	-3.250	-0.000	3750.175	1.920	-0.000				
121.	6098.610	-3.750	3319.166	-2.450	-0.000	3752.256	1.730	-0.000				
122.	6091.398	-4.010	3304.093	-1.600	-0.000	3754.119	1.530	-0.000				
123.	6083.682	-4.290	3287.900	-0.710	-0.000	3755.758	1.330	-0.000				
124.	6075.472	-4.570	3271.650	.220	-0.000	3757.172	1.140	-0.000				
125.	6066.735	-4.850	3255.365	1.190	-0.000	3758.360	.940	-0.000				
126.	6057.484	-5.140	3239.066	2.190	-0.000	3759.320	.740	-0.000				
127.	6047.700	-5.440	3222.746	3.220	-0.000	3760.053	.540	-0.000				
128.	6037.383	-5.740	3206.480	4.270	-0.000	3760.556	.340	-0.000				
129.	6026.530	-6.040	3190.260	5.330	-0.000	3760.829	.140	-0.000				
130.	6015.135	-6.340	3174.062	6.410	-0.000	3760.973	-.060	-0.000				
131.	6003.213	-6.640	3157.830	7.460	-0.000	3760.987	-.260	-0.000				
132.	5990.752	-6.940	3141.544	8.560	-0.000	3760.871	-.460	-0.000				
133.	5977.764	-7.240	3125.254	9.620	-0.000	3759.626	-.660	-0.000				
134.	5964.254	-7.530	3108.960	10.670	-0.000	3758.252	-.860	-0.000				
135.	5950.232	-7.830	3092.634	11.640	-0.000	3756.750	-1.060	-0.000				
136.	5935.711	-8.110	3076.294	12.600	-0.000	3755.132	-1.260	-0.000				
137.	5920.705	-8.390	3060.000	13.530	-0.000	3753.406	-1.460	-0.000				
138.	5905.234	-8.660	3043.754	14.440	-0.000	3751.572	-1.650	-0.000				
139.	5889.317	-8.920	3027.518	15.330	-0.000	3749.639	-1.840	-0.000				
140.	5872.961	-9.160	3011.294	16.200	-0.000	3747.607	-2.030	-0.000				
141.	5856.253	-9.400	2995.060	17.060	-0.000	3745.475	-2.230	-0.000				
142.	5839.167	-9.610	2978.830	17.900	-0.000	3743.243	-2.430	-0.000				
143.	5821.755	-9.800	2962.600	18.730	-0.000	3740.911	-2.630	-0.000				
144.	5804.071	-9.970	2946.366	19.550	-0.000	3738.479	-2.830	-0.000				
145.	5786.149	-10.120	2930.130	20.360	-0.000	3735.947	-3.030	-0.000				
146.	5768.047	-10.230	2913.894	21.160	-0.000	3733.315	-3.230	-0.000				
147.	5749.821	-10.320	2897.658	21.950	-0.000	3730.583	-3.430	-0.000				
148.	5731.537	-10.360	2881.422	22.730	-0.000	3727.751	-3.630	-0.000				
149.	5713.264	-10.370	2865.186	23.500	-0.000	3724.819	-3.830	-0.000				

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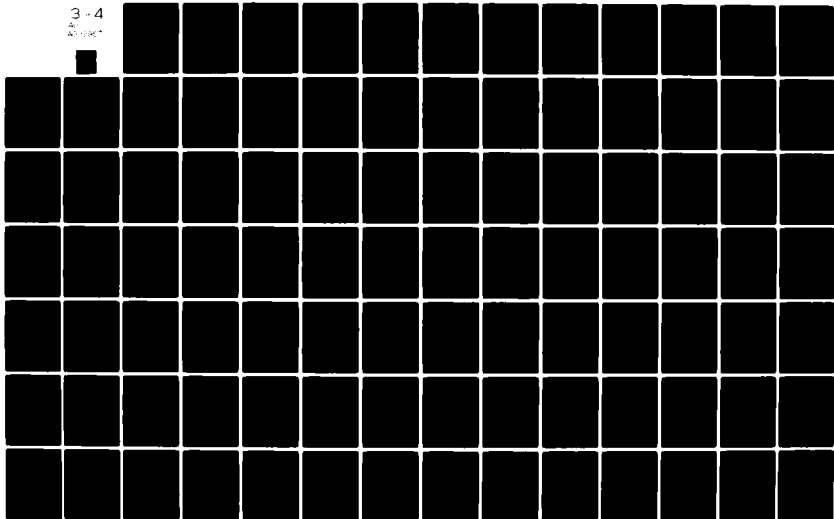
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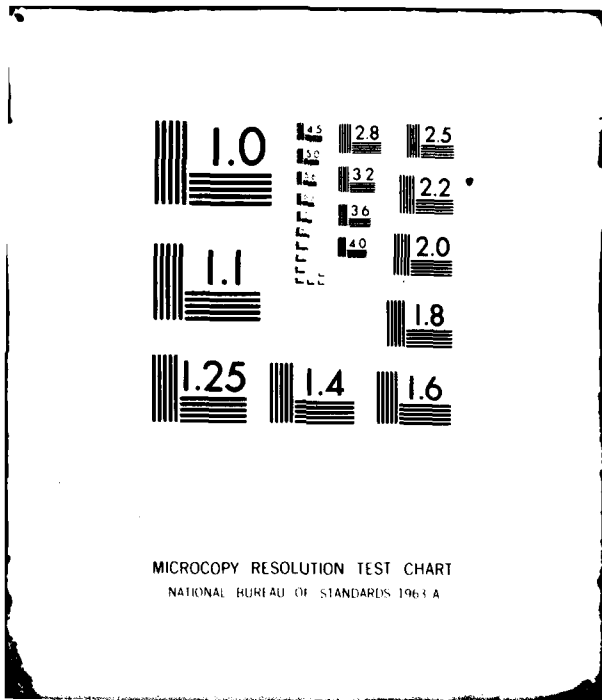
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	X-PLANE (YZ-PLANE) LITHIUM TANTALATE (SMITH AND WELSH)										BULK	
	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13	LNGVEL			
150.	-10.330	0.000	3710.915	20.260	-0.000	3715.132	-3.630	-0.000	5695.082			
151.	-10.230	0.000	3734.894	20.210	0.000	3710.701	-3.530	-0.000	5677.074			
152.	-10.050	0.000	3750.870	20.040	0.000	3706.592	-4.130	-0.000	5655.336			
153.	-9.860	0.000	3782.704	19.760	0.000	3701.311	-4.310	-0.000	5641.966			
154.	-9.600	0.000	3806.249	19.370	0.000	3696.364	-4.460	-0.000	5625.076			
155.	-9.260	0.000	3829.351	18.960	0.000	3691.254	-4.600	-0.000	5608.781			
156.	-8.830	0.000	3851.816	18.230	0.000	3685.959	-4.750	-0.000	5593.207			
157.	-8.330	0.000	3873.567	17.470	0.000	3680.574	-4.860	-0.000	5578.486			
158.	-7.730	0.000	3894.339	16.560	0.000	3675.115	-5.020	-0.000	5564.756			
159.	-7.050	0.000	3913.985	15.560	0.000	3669.317	-5.140	-0.000	5552.156			
160.	-6.280	0.000	3932.328	14.410	0.000	3663.460	-5.270	-0.000	5540.636			
161.	-5.410	0.000	3949.132	13.120	0.000	3657.233	-5.380	-0.000	5530.933			
162.	-4.460	0.000	3964.485	11.700	0.000	3651.460	-5.490	-0.000	5522.590			
163.	-3.430	0.000	3977.888	10.160	0.000	3645.275	-5.600	-0.000	5515.937			
164.	-2.320	0.000	3989.253	8.510	0.000	3638.705	-5.700	-0.000	5511.093			
165.	-1.160	0.000	3998.612	6.770	0.000	3632.598	-5.790	-0.000	5508.161			
166.	0.050	0.000	4005.779	4.940	0.000	3626.120	-5.880	-0.000	5507.224			
167.	1.280	0.000	4010.676	3.060	0.000	3619.554	-5.960	-0.000	5508.338			
168.	2.520	0.000	4013.252	1.150	0.000	3612.323	-6.040	-0.000	5513.536			
169.	3.750	0.000	4013.459	-0.760	0.000	3606.219	-6.110	-0.000	5516.817			
170.	4.950	0.000	4011.399	-2.650	0.000	3599.435	-6.170	-0.000	5524.157			
171.	6.100	0.000	4007.025	-4.430	0.000	3592.840	-6.220	-0.000	5533.495			
172.	7.160	0.000	4000.438	-6.260	0.000	3585.700	-6.270	-0.000	5544.762			
173.	8.150	0.000	3991.734	-7.950	0.000	3578.004	-6.310	-0.000	5557.645			
174.	9.100	0.000	3981.031	-9.530	0.000	3571.901	-6.360	-0.000	5572.624			
175.	9.930	0.000	3968.462	-10.990	0.000	3565.019	-6.370	-0.000	5588.965			
176.	10.660	0.000	3954.173	-12.340	0.000	3558.066	-6.390	-0.000	5606.723			
177.	11.250	0.000	3938.310	-13.560	0.000	3551.110	-6.400	-0.000	5625.744			
178.	11.830	0.000	3921.057	-14.670	0.000	3544.160	-6.410	-0.000	5645.877			
179.	12.270	0.000	3902.511	-15.650	0.000	3537.225	-6.400	-0.000	5666.966			
180.	12.630	0.000	3882.493	-16.510	0.000	3530.313	-6.390	-0.000	5688.867			

Y-PLANE (XZ-PLANE) LITHIUM TANTALATE (SMITH AND WELSH) BULK

	LMGVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
0.	5952.395	0.000	0.000	4211.571	0.000	0.000	3367.006	0.000	0.000
1.	5953.333	1.110	0.660	4210.373	-1.070	-1.010	3367.218	0.000	-0.350
2.	5956.135	2.240	1.710	4206.794	-3.710	-2.000	3367.614	0.510	-0.760
3.	5960.759	3.250	2.530	4200.079	-5.506	-2.540	3368.272	0.770	-1.110
4.	5967.138	4.250	3.330	4192.703	-7.220	-3.510	3369.152	1.020	-1.560
5.	5975.182	5.190	4.080	4182.363	-8.860	-4.818	3370.371	1.270	-2.030
6.	5984.783	6.060	4.790	4169.979	-10.400	-6.430	3371.606	1.520	-2.530
7.	5995.819	6.840	5.450	4155.688	-11.830	-7.430	3373.493	1.760	-3.070
8.	6008.158	7.538	6.050	4139.636	-13.150	-8.360	3375.429	2.000	-3.640
9.	6021.664	8.140	6.600	4121.981	-14.350	-9.160	3377.607	2.230	-4.240
10.	6036.196	8.670	7.090	4102.884	-15.430	-9.820	3380.021	2.460	-4.880
11.	6051.616	9.110	7.540	4082.506	-16.400	-10.360	3382.667	2.680	-5.560
12.	6067.789	9.470	7.930	4061.008	-17.250	-10.780	3385.534	2.880	-6.280
13.	6084.586	9.760	8.270	4038.550	-17.990	-11.090	3388.616	3.060	-7.030
14.	6101.803	10.010	8.560	4015.284	-18.630	-11.290	3391.982	3.270	-7.810
15.	6119.565	10.130	8.820	3991.361	-19.160	-11.380	3395.382	3.450	-8.610
16.	6137.524	10.230	9.030	3966.922	-19.600	-11.460	3399.043	3.610	-9.440
17.	6155.660	10.270	9.210	3942.106	-19.940	-11.500	3402.871	3.760	-10.300
18.	6173.883	10.260	9.350	3917.847	-20.190	-11.500	3406.851	3.900	-11.190
19.	6192.108	10.210	9.470	3891.871	-20.350	-11.330	3410.965	4.010	-12.100
20.	6210.250	10.110	9.550	3866.702	-20.420	-11.420	3415.192	4.100	-13.030
21.	6228.266	9.990	9.610	3841.660	-20.400	-11.460	3419.507	4.170	-13.980
22.	6246.088	9.830	9.640	3816.864	-20.290	-11.500	3423.883	4.210	-14.950
23.	6263.609	9.650	9.650	3792.431	-20.090	-11.500	3428.283	4.210	-15.940
24.	6280.830	9.440	9.650	3768.480	-19.790	-11.470	3432.667	4.160	-16.950
25.	6297.711	9.210	9.620	3745.135	-19.390	-11.420	3436.983	4.060	-17.970
26.	6314.189	8.960	9.580	3722.526	-18.860	-11.350	3441.194	3.890	-19.010
27.	6330.236	8.690	9.520	3700.798	-18.200	-11.260	3445.127	3.640	-20.070
28.	6345.824	8.410	9.450	3680.112	-17.360	-11.200	3448.763	3.280	-21.150
29.	6360.926	8.120	9.370	3660.659	-16.370	-11.130	3451.932	2.740	-22.250
30.	6375.514	7.830	9.270	3642.664	-15.120	-11.070	3454.453	2.020	-23.370
31.	6389.566	7.520	9.160	3626.392	-13.600	-11.030	3456.100	1.070	-24.500
32.	6403.112	7.210	9.040	3612.143	-11.770	-11.030	3456.607	-1.150	-25.650
33.	6416.083	6.850	8.920	3600.219	-9.640	-11.070	3455.701	-1.610	-26.810
34.	6428.492	6.570	8.788	3590.861	-7.300	-11.130	3453.165	-3.220	-27.980
35.	6440.332	6.250	8.640	3584.162	-4.920	-11.200	3448.925	-4.810	-29.160
36.	6451.599	5.940	8.480	3580.806	-2.720	-11.260	3443.111	-6.160	-30.350
37.	6462.293	5.628	8.330	3578.897	-0.840	-11.300	3436.033	-7.200	-31.550
38.	6472.413	5.300	8.160	3578.829	0.660	-11.320	3428.097	-7.630	-32.760
39.	6481.964	4.950	7.990	3579.399	1.600	-11.310	3419.709	-8.100	-33.980
40.	6490.949	4.660	7.810	3581.853	2.650	-11.290	3411.218	-8.070	-35.210
41.	6499.377	4.380	7.630	3585.106	3.270	-11.250	3402.980	-7.820	-36.450
42.	6507.256	4.080	7.440	3588.947	3.720	-11.200	3394.968	-7.400	-37.700
43.	6514.595	3.790	7.250	3593.204	4.030	-11.140	3387.547	-6.860	-38.970
44.	6521.407	3.510	7.050	3597.753	4.250	-11.060	3380.766	-6.230	-40.260
45.	6527.785	3.240	6.850	3602.449	4.340	-10.960	3374.689	-5.530	-41.570
46.	6533.582	2.970	6.650	3607.365	4.460	-10.840	3369.365	-4.800	-42.900
47.	6538.814	2.710	6.450	3612.292	4.480	-10.770	3364.823	-4.040	-44.250
48.	6543.058	2.460	6.240	3617.229	4.460	-10.660	3361.079	-3.260	-45.620
49.	6546.851	2.230	6.030	3622.137	4.410	-10.530	3356.137	-2.480	-47.010

Y-PLANE (XZ-PLANE) LITHIUM TANTALATE (SMITH AND WELSH)

BULK

	LMGVEL	LPMI12	LPMI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
50.	6152.011	2.000	5.020	3626.980	4.340	-10.350	3355.994	-1.710	-0.650
51.	6155.557	1.740	5.606	3631.728	4.230	-10.240	3354.636	-0.950	-0.200
52.	6156.786	1.580	5.390	3636.353	4.110	-10.080	3354.053	-0.200	0.700
53.	6161.483	1.380	5.170	3640.833	3.960	-9.900	3354.219	0.520	0.410
54.	6163.983	1.200	4.960	3645.144	3.800	-9.720	3354.111	1.220	1.030
55.	6165.989	1.020	4.740	3649.268	3.620	-9.530	3356.701	1.690	1.310
56.	6167.761	0.660	4.520	3653.187	3.420	-9.330	3358.961	2.520	1.500
57.	6169.240	0.710	4.310	3656.083	3.210	-9.110	3361.857	3.130	1.500
58.	6170.445	0.570	4.100	3658.341	2.990	-8.890	3365.357	3.690	1.620
59.	6171.398	0.440	3.880	3660.546	2.750	-8.660	3369.427	4.220	2.000
60.	6172.119	0.330	3.670	3662.488	2.510	-8.430	3374.032	4.720	2.230
61.	6172.628	0.220	3.470	3669.151	2.250	-8.180	3379.136	5.180	2.410
62.	6172.944	0.120	3.260	3671.525	1.990	-7.930	3384.703	5.600	2.590
63.	6173.087	0.030	3.060	3673.599	1.720	-7.670	3390.699	5.980	2.700
64.	6173.074	-0.040	2.860	3675.365	1.440	-7.400	3397.087	6.330	2.810
65.	6172.923	-0.110	2.670	3676.813	1.150	-7.130	3403.832	6.640	2.910
66.	6172.653	-0.170	2.480	3677.936	0.860	-6.850	3410.899	6.910	2.970
67.	6172.279	-0.220	2.290	3678.728	0.560	-6.570	3418.256	7.160	3.020
68.	6171.817	-0.270	2.110	3679.183	0.250	-6.280	3425.869	7.370	3.050
69.	6171.282	-0.300	1.940	3679.246	-0.050	-5.990	3433.705	7.540	3.060
70.	6170.688	-0.330	1.770	3679.064	-0.360	-5.700	3441.734	7.698	3.050
71.	6170.046	-0.350	1.610	3678.483	-0.670	-5.400	3449.924	7.810	3.020
72.	6169.375	-0.360	1.450	3677.551	-0.990	-5.110	3458.240	7.900	2.950
73.	6168.680	-0.370	1.300	3676.268	-1.300	-4.810	3466.676	7.970	2.820
74.	6167.975	-0.360	1.160	3674.633	-1.620	-4.510	3475.181	8.010	2.640
75.	6167.260	-0.370	1.020	3672.647	-1.930	-4.210	3483.736	8.030	2.450
76.	6166.570	-0.370	0.890	3670.311	-2.240	-3.910	3492.322	8.020	2.250
77.	6165.886	-0.360	0.770	3667.629	-2.550	-3.610	3500.908	7.950	2.030
78.	6165.229	-0.340	0.660	3664.603	-2.860	-3.320	3509.474	7.860	1.800
79.	6164.601	-0.330	0.560	3661.237	-3.170	-3.020	3517.998	7.740	1.550
80.	6164.009	-0.300	0.460	3657.536	-3.470	-2.730	3526.459	7.690	1.300
81.	6163.450	-0.260	0.380	3653.505	-3.760	-2.440	3534.838	7.690	1.050
82.	6162.954	-0.260	0.300	3649.152	-4.050	-2.150	3543.115	7.570	0.750
83.	6162.500	-0.230	0.230	3644.482	-4.340	-1.870	3551.272	7.440	0.400
84.	6162.101	-0.200	0.170	3639.503	-4.620	-1.590	3559.291	7.290	0.100
85.	6161.757	-0.170	0.120	3634.224	-4.890	-1.310	3567.157	7.130	0.000
86.	6161.474	-0.140	0.070	3628.653	-5.150	-1.040	3574.854	6.950	0.000
87.	6161.251	-0.100	0.040	3622.800	-5.410	-0.770	3582.366	6.760	0.000
88.	6161.091	-0.070	0.020	3616.676	-5.660	-0.510	3589.678	6.560	0.000
89.	6160.994	-0.030	0.000	3610.289	-5.860	-0.300	3596.779	6.370	0.000
90.	6160.962	0.000	0.000	3603.653	-6.130	0.000	3603.653	6.130	0.000
91.	6160.994	0.030	0.000	3596.779	-6.370	0.270	3610.289	5.880	-0.300
92.	6161.091	0.070	0.020	3589.678	-6.560	0.460	3616.676	5.660	-0.510
93.	6161.251	0.100	0.040	3582.366	-6.760	0.710	3622.800	5.410	-0.770
94.	6161.474	0.140	0.070	3574.854	-6.950	0.940	3628.653	5.150	-1.040
95.	6161.757	0.170	0.120	3567.157	-7.130	1.150	3634.224	4.820	-1.310
96.	6162.101	0.200	0.170	3559.291	-7.290	1.360	3639.503	4.620	-1.590
97.	6162.500	0.230	0.230	3551.272	-7.440	1.560	3644.482	4.340	-1.870
98.	6162.954	0.260	0.300	3543.115	-7.570	1.750	3649.152	4.050	-2.150
99.	6163.450	0.280	0.380	3534.838	-7.690	1.920	3653.505	3.760	-2.440

Y-PLANE (XZ-PLANE) LITHIUM TANTALATE (SMITH AND WELSH) BULK

	LHP12	LHP13	FSPVEL	FSPM12	FSPM13	SSRVEL	SSPM12	SSPM13
100.	6164.005	.460	3926.459	-7.790	2.090	3657.536	3.470	2.090
101.	6164.601	.560	3517.998	-7.680	2.250	3661.237	3.170	2.250
102.	6165.225	.340	3509.974	-7.950	2.390	3664.603	2.860	2.390
103.	6165.868	.770	3508.906	-7.990	2.530	3667.629	2.550	2.530
104.	6166.570	.370	3492.322	-8.020	2.650	3670.511	2.240	2.650
105.	6167.268	.370	3483.736	-8.030	2.750	3672.667	1.930	2.750
106.	6167.975	.360	3475.181	-8.030	2.840	3674.833	1.620	2.840
107.	6168.600	.370	3466.676	-7.970	2.920	3676.268	1.300	2.920
108.	6169.375	.360	3458.246	-7.900	2.990	3677.551	.990	2.990
109.	6170.066	.350	3449.924	-7.810	3.020	3678.083	.670	3.020
110.	6170.666	.330	3441.734	-7.690	3.050	3678.064	.360	3.050
111.	6171.282	.300	3433.705	-7.540	3.060	3678.296	.056	3.060
112.	6171.817	.270	3425.869	-7.370	3.050	3678.183	-.250	3.050
113.	6172.279	.220	3418.256	-7.160	3.020	3678.728	-.560	3.020
114.	6172.653	.170	3410.899	-6.910	2.970	3677.936	-.860	2.970
115.	6172.923	.110	3403.832	-6.640	2.900	3676.013	-1.150	2.900
116.	6173.074	.040	3397.987	-6.330	2.810	3674.365	-1.440	2.810
117.	6173.087	-.030	3390.699	-5.980	2.700	3673.596	-1.720	2.700
118.	6172.944	-.120	3384.703	-5.600	2.560	3671.523	-1.990	2.560
119.	6172.628	-.220	3379.136	-5.160	2.410	3669.151	-2.250	2.410
120.	6172.119	-.330	3374.832	-4.720	2.230	3666.068	-2.510	2.230
121.	6171.398	-.440	3369.427	-4.220	2.040	3663.546	-2.750	2.040
122.	6170.445	-.570	3365.357	-3.690	1.820	3660.341	-2.950	1.820
123.	6169.240	-.720	3361.857	-3.130	1.560	3656.003	-3.210	1.560
124.	6167.781	-.860	3358.961	-2.520	1.310	3653.187	-3.420	1.310
125.	6165.909	-1.020	3356.701	-1.890	1.030	3649.266	-3.620	1.030
126.	6163.903	-1.200	3355.111	-1.220	.730	3645.144	-3.800	.730
127.	6161.403	-1.380	3354.219	-.520	.410	3640.833	-3.960	.410
128.	6158.708	-1.560	3354.953	.200	.070	3636.353	-4.110	.070
129.	6155.537	-1.760	3354.838	.950	-.280	3631.728	-4.230	-.280
130.	6152.811	-2.000	3355.994	1.710	-.650	3626.980	-4.340	-.650
131.	6149.851	-2.238	3358.137	2.480	-1.030	3622.137	-4.410	-1.030
132.	6147.058	-2.468	3361.079	3.260	-1.420	3617.229	-4.460	-1.420
133.	6143.814	-2.710	3364.823	4.040	-1.820	3612.292	-4.460	-1.820
134.	6139.582	-2.970	3369.365	4.800	-2.230	3607.365	-4.460	-2.230
135.	6127.705	-3.240	3374.689	5.530	-2.640	3602.499	-4.380	-2.640
136.	6121.487	-3.510	3380.786	6.230	-3.060	3597.753	-4.290	-3.060
137.	6114.995	-3.790	3387.947	6.860	-3.470	3593.204	-4.230	-3.470
138.	6097.256	-4.060	3394.980	7.400	-3.850	3588.947	-4.120	-3.850
139.	6099.377	-4.360	3402.980	7.820	-4.200	3585.108	-3.970	-4.200
140.	6091.964	-4.660	3411.218	8.070	-4.510	3581.053	-3.720	-4.510
141.	6084.964	-4.990	3419.709	8.100	-4.710	3579.599	-3.450	-4.710
142.	6077.413	-5.388	3428.097	7.830	-4.810	3578.029	-3.160	-4.810
143.	6069.293	-5.828	3436.833	7.200	-4.810	3578.097	-.660	-4.810
144.	6061.599	-6.380	3443.111	6.180	-4.610	3580.808	2.720	-4.610
145.	6048.332	-6.250	3448.925	4.810	-4.010	3584.182	4.520	-4.010
146.	6028.492	-6.570	3483.165	3.220	-2.760	3590.861	7.300	-2.760
147.	6016.003	-6.458	3455.701	1.610	-1.350	3600.219	9.640	-1.350
148.	6003.112	-7.210	3456.687	-.130	-.750	3612.143	11.770	-.750
149.	5989.586	-7.520	3456.100	-1.070	-0.840	3626.592	13.600	-0.840

	Y-PLANE (XZ-PLANE) LITHIUM TANTALATE (SMITH AND HELSH)										BULK	
	LPM12	LPM13	FSRVEL	FSPM12	FSPM13	SSRVEL	SSPM12	SSPM13				
150.	5975.519	9.270	3654.453	-2.020	-7.970	3642.664	15.124	-11.000				
151.	5969.526	9.370	3651.932	-2.740	-6.030	3660.059	18.370	-11.130				
152.	5965.824	9.490	3648.763	-3.260	-8.030	3688.112	17.360	-11.200				
153.	5930.236	9.520	3645.127	-3.640	-7.590	3708.796	18.200	-11.250				
154.	5914.189	9.580	3641.164	-3.690	-7.510	3722.526	18.660	-11.320				
155.	5897.711	9.620	3636.983	-4.060	-7.790	3745.135	19.390	-11.420				
156.	5880.834	9.650	3632.667	-4.160	-7.650	3768.480	19.790	-11.470				
157.	5863.809	9.650	3628.283	-4.210	-7.480	3792.431	20.690	-11.500				
158.	5846.868	9.640	3623.883	-4.210	-7.290	3816.064	20.200	-11.500				
159.	5828.266	9.618	3619.587	-4.170	-7.000	3841.660	20.400	-11.400				
160.	5810.256	9.550	3615.192	-4.100	-6.850	3866.702	20.420	-11.420				
161.	5792.186	9.470	3610.965	-4.010	-6.600	3891.871	20.350	-11.330				
162.	5773.883	9.350	3606.851	-3.900	-6.340	3917.047	20.190	-11.170				
163.	5755.660	9.210	3602.871	-3.760	-6.060	3942.106	19.940	-11.020				
164.	5737.524	9.030	3599.043	-3.610	-5.770	3966.922	19.600	-10.810				
165.	5719.565	8.820	3595.362	-3.450	-5.470	3991.361	19.180	-10.540				
166.	5701.883	8.570	3591.902	-3.270	-5.150	4015.264	18.630	-10.230				
167.	5684.586	8.270	3588.616	-3.060	-4.830	4038.550	17.950	-9.870				
168.	5667.769	7.930	3585.534	-2.800	-4.490	4061.008	17.250	-9.470				
169.	5651.616	7.540	3582.667	-2.670	-4.150	4082.506	16.480	-9.030				
170.	5636.186	7.090	3580.021	-2.460	-3.800	4102.884	15.430	-8.420				
171.	5621.684	6.600	3577.607	-2.230	-3.440	4121.961	14.350	-7.620				
172.	5608.158	6.050	3575.429	-2.000	-3.070	4139.636	13.150	-7.100				
173.	5595.819	5.450	3573.493	-1.760	-2.700	4156.006	11.830	-6.430				
174.	5584.783	4.790	3571.806	-1.520	-2.330	4169.979	10.400	-5.620				
175.	5575.162	4.080	3570.371	-1.270	-1.950	4182.363	8.860	-4.610				
176.	5567.134	3.330	3569.192	-1.020	-1.560	4192.703	7.220	-3.510				
177.	5560.759	2.530	3568.272	-0.770	-1.170	4200.679	5.500	-2.300				
178.	5556.135	1.710	3567.614	-0.510	-0.780	4206.794	3.710	-2.000				
179.	5553.333	0.860	3567.216	-0.260	-0.390	4210.373	1.870	-1.010				
180.	5552.395	-0.000	3567.066	0.000	0.000	4211.571	-0.000	0.000				

Z-PLANE (XY-PLANE) LITHIUM TANTALATE (SMITH AND WELSH)

BULK

	LMGVEL	LPHI12	LPHI13	FSRWEL	FSPHI12	FSPHI13	SSRWEL	SSPHI12	SSPHI13
0.	5952.395	0.000	0.000	4211.971	0.000	0.000	3367.006	0.000	0.000
1.	5952.023	-0.510	-0.060	4210.774	-1.240	1.010	3367.374	0.560	0.390
2.	5954.103	1.000	-1.710	4200.394	-2.470	2.010	3360.241	1.120	0.700
3.	5956.212	1.460	-2.550	4204.493	-3.670	3.000	3363.662	1.660	1.100
4.	5959.117	1.940	-3.370	4198.995	-4.840	3.960	3371.637	2.240	1.500
5.	5962.772	2.370	-4.160	4192.873	-5.950	4.900	3374.280	2.790	1.940
6.	5967.121	2.750	-4.920	4183.757	-7.020	5.610	3377.427	3.330	2.310
7.	5972.090	3.100	-5.650	4174.129	-8.010	6.670	3381.131	3.660	2.600
8.	5977.631	3.400	-6.340	4163.279	-8.940	7.500	3385.303	3.800	3.000
9.	5983.641	3.650	-6.990	4151.310	-9.760	8.250	3390.171	4.080	3.390
10.	5990.046	3.860	-7.600	4138.328	-10.550	9.030	3395.603	5.370	3.710
11.	5996.762	4.010	-8.170	4124.448	-11.230	9.730	3401.302	5.660	4.080
12.	5983.706	4.110	-8.690	4189.789	-11.620	10.350	3407.609	5.310	4.310
13.	5610.791	4.160	-9.180	4094.474	-12.310	11.000	3414.379	6.690	4.670
14.	5617.937	4.170	-9.620	4070.630	-12.720	11.570	3421.583	7.670	4.950
15.	5625.864	4.130	-10.030	4062.389	-13.020	12.110	3424.147	7.420	5.220
16.	5632.096	4.050	-10.400	4045.646	-13.220	12.610	3437.147	7.710	5.460
17.	5638.960	3.930	-10.740	4029.261	-13.310	13.070	3445.412	7.990	5.600
18.	5645.589	3.770	-11.040	4012.859	-13.290	13.510	3453.920	8.130	5.860
19.	5651.928	3.570	-11.320	3996.236	-13.140	13.910	3462.597	8.220	6.050
20.	5657.894	3.350	-11.560	3980.153	-12.860	14.290	3471.354	8.230	6.150
21.	5663.456	3.050	-11.770	3964.586	-12.430	14.650	3480.663	8.130	6.300
22.	5668.564	2.610	-11.960	3949.724	-11.830	14.960	3486.656	7.500	6.390
23.	5673.170	2.510	-12.120	3935.773	-11.060	15.290	3496.929	7.530	6.440
24.	5677.237	2.190	-12.260	3922.953	-10.060	15.570	3504.724	6.590	6.470
25.	5680.734	1.850	-12.380	3911.982	-8.990	15.830	3511.658	6.260	6.400
26.	5683.632	1.500	-12.470	3901.665	-7.960	16.060	3518.096	5.340	6.460
27.	5685.985	1.130	-12.540	3893.688	-5.860	16.240	3523.253	4.220	6.410
28.	5687.544	0.760	-12.590	3887.797	-4.030	16.350	3527.111	2.930	6.410
29.	5688.536	0.360	-12.620	3884.175	-2.060	16.460	3529.502	1.500	6.310
30.	5688.867	-0.000	-12.630	3882.959	0.000	16.510	3530.313	-0.000	6.310
31.	5686.536	-0.360	-12.620	3884.179	2.060	16.480	3529.502	-1.500	6.390
32.	5687.548	-0.760	-12.590	3887.797	4.030	16.390	3527.111	-2.930	6.410
33.	5685.909	-1.130	-12.540	3893.686	5.860	16.240	3523.253	-4.220	6.440
34.	5683.632	-1.500	-12.470	3901.665	7.430	16.060	3518.096	-5.340	6.460
35.	5680.734	-1.850	-12.380	3911.982	8.990	15.830	3511.658	-6.260	6.400
36.	5677.237	-2.190	-12.260	3922.953	10.060	15.570	3504.724	-6.590	6.470
37.	5673.170	-2.510	-12.120	3935.773	11.060	15.290	3496.929	-7.530	6.440
38.	5668.564	-2.610	-11.960	3949.724	11.830	14.960	3486.656	-7.990	6.310
39.	5663.456	-3.090	-11.770	3964.586	12.430	14.650	3471.354	-8.130	6.300
40.	5657.894	-3.350	-11.560	3980.153	12.860	14.290	3462.597	-8.230	6.150
41.	5651.928	-3.570	-11.320	3996.236	13.140	13.910	3453.920	-8.220	6.050
42.	5645.589	-3.770	-11.040	4012.859	13.290	13.510	3445.412	-8.130	5.860
43.	5638.960	-3.930	-10.740	4029.261	13.310	13.070	3437.147	-7.990	5.600
44.	5632.096	-4.050	-10.400	4045.646	13.220	12.610	3429.107	-7.710	5.460
45.	5625.864	-4.130	-10.030	4062.389	13.020	12.110	3424.147	-7.420	5.220
46.	5617.937	-4.170	-9.620	4070.630	12.720	11.570	3421.583	-7.070	4.950
47.	5610.791	-4.160	-9.180	4094.474	12.310	11.000	3414.379	-6.690	4.670
48.	5603.706	-4.110	-8.690	4189.789	11.620	10.350	3407.609	-6.260	4.370
49.	5596.762	-4.010	-8.170	4124.448	11.230	9.730	3401.302	-5.660	4.080

Z-PLANE (XY-PLANE) LITHIUM TANTALATE (SMITH AND WELSH)

BULK

	LNQVEL	LPN12	LPN13	FSRWEL	FSPN12	FSPN13	SSRWEL	SSPN12	SSPN13
50.	5590.846	-3.860	-7.680	4138.328	10.550	9.030	3395.483	-9.370	3.730
51.	5593.641	-3.650	-6.990	4151.310	9.760	6.250	3390.171	-4.460	3.040
52.	5577.631	-3.400	-6.340	4163.274	8.940	7.500	3385.333	-4.300	3.000
53.	5572.890	-3.100	-5.650	4174.124	8.010	6.670	3381.131	-3.860	2.660
54.	5567.121	-2.750	-4.920	4183.757	7.020	5.610	3377.427	-3.350	2.310
55.	5562.772	-2.370	-4.160	4192.073	5.950	4.900	3374.268	-2.790	1.940
56.	5559.117	-1.940	-3.370	4198.995	4.840	3.960	3371.697	-2.240	1.200
57.	5556.212	-1.480	-2.550	4204.453	3.670	3.000	3369.682	-1.660	1.170
58.	5554.103	-1.000	-1.710	4208.394	2.470	2.140	3368.241	-1.120	.700
59.	5552.823	-.510	-.860	4210.774	1.240	1.010	3367.374	-.560	.340
60.	5552.395	0.000	0.000	4211.571	0.000	0.000	3367.086	0.000	-.000
61.	5552.823	.510	.860	4210.774	-1.240	-1.010	3367.374	.560	-.340
62.	5554.103	1.000	1.710	4208.394	-2.470	-2.140	3368.241	1.120	-.700
63.	5556.212	1.480	2.550	4204.453	-3.670	-3.000	3369.682	1.660	-1.170
64.	5559.117	1.940	3.370	4198.995	-4.840	-3.960	3371.697	2.240	-1.500
65.	5562.772	2.370	4.160	4192.073	-6.010	-5.050	3374.268	2.790	-1.940
66.	5567.121	2.750	4.920	4183.757	-7.020	-5.810	3377.427	3.350	-2.310
67.	5572.890	3.100	5.650	4174.124	-8.010	-6.670	3381.131	3.860	-2.660
68.	5577.631	3.400	6.340	4163.274	-8.940	-7.500	3385.333	4.300	-3.000
69.	5583.641	3.650	6.990	4151.310	-9.760	-8.250	3390.171	4.660	-3.340
70.	5590.846	3.860	7.680	4138.328	-10.550	-9.030	3395.483	5.370	-3.730
71.	5596.762	4.010	8.170	4124.446	-11.230	-9.730	3401.302	5.640	-4.060
72.	5603.706	4.110	8.690	4109.789	-11.820	-10.350	3407.604	6.260	-4.370
73.	5610.751	4.160	9.180	4094.474	-12.310	-11.000	3414.379	6.890	-4.670
74.	5617.937	4.170	9.620	4078.630	-12.720	-11.570	3421.203	7.500	-4.950
75.	5625.064	4.130	10.030	4062.389	-13.020	-12.110	3428.107	8.020	-5.220
76.	5632.896	4.050	10.400	4045.886	-13.220	-12.610	3435.147	8.420	-5.460
77.	5638.960	3.930	10.740	4029.261	-13.310	-13.070	3442.312	8.750	-5.650
78.	5645.569	3.770	11.040	4012.659	-13.290	-13.510	3449.520	9.030	-5.800
79.	5651.920	3.570	11.320	3996.236	-13.160	-13.910	3456.897	9.220	-6.010
80.	5657.894	3.350	11.560	3980.153	-12.850	-14.290	3464.354	9.380	-6.140
81.	5663.456	3.090	11.770	3964.586	-12.430	-14.650	3471.803	9.520	-6.300
82.	5668.564	2.810	11.960	3949.724	-11.830	-14.950	3479.358	9.600	-6.350
83.	5673.170	2.510	12.120	3935.773	-11.060	-15.250	3486.925	9.630	-6.440
84.	5677.237	2.190	12.260	3922.953	-10.000	-15.570	3494.624	9.590	-6.470
85.	5680.734	1.850	12.380	3911.502	-8.900	-15.830	3502.451	9.500	-6.460
86.	5683.632	1.500	12.470	3901.665	-7.440	-16.060	3510.394	9.340	-6.400
87.	5685.909	1.130	12.540	3893.685	-5.860	-16.240	3518.429	9.150	-6.340
88.	5687.548	.760	12.590	3887.797	-4.030	-16.390	3526.523	8.920	-6.240
89.	5688.536	.380	12.620	3884.179	-2.060	-16.460	3534.752	8.670	-6.100
90.	5688.867	-.000	12.630	3882.959	0.000	-16.510	3543.113	8.400	-6.300
91.	5688.536	-.380	12.620	3884.179	2.060	-16.460	3551.611	8.110	-6.410
92.	5687.548	-1.130	12.590	3887.797	4.030	-16.390	3560.253	7.800	-6.440
93.	5685.909	-1.500	12.540	3893.685	5.860	-16.240	3569.038	7.480	-6.460
94.	5683.632	-1.850	12.470	3901.665	7.440	-16.060	3577.929	7.150	-6.440
95.	5680.734	-2.190	12.380	3911.502	8.900	-15.830	3586.925	6.820	-6.350
96.	5677.237	-2.510	12.260	3922.953	10.000	-15.570	3596.029	6.490	-6.170
97.	5673.170	-2.810	12.120	3935.773	11.060	-15.250	3605.253	6.150	-5.900
98.	5668.564	-3.090	11.960	3949.724	11.830	-14.950	3614.624	5.800	-5.580
99.	5663.456	-3.350	11.770	3964.586	12.430	-14.650	3624.151	5.440	-5.220

Z-PLANE (XY-PLANE) LITHIUM TANTALATE (SMITH AND WELSH)

BULK

	LNGVEL	LPN12	LPN13	FSRVEL	FSPN12	FSPN13	SRVEL	SSPN12	SSPN13
100.	5657.694	-3.350	11.560	3980.153	12.866	-14.290	3471.354	-6.230	-6.130
101.	5651.920	-3.570	11.320	3996.236	13.140	-13.910	3462.597	-8.220	-8.050
102.	5645.589	-3.770	11.040	4012.659	13.290	-13.510	3453.920	-8.130	-7.960
103.	5638.960	-3.950	10.760	4029.241	13.310	-13.070	3445.412	-7.540	-7.370
104.	5632.896	-4.050	10.480	4045.866	13.220	-12.610	3437.147	-7.710	-7.540
105.	5625.864	-4.178	10.030	4062.389	13.020	-12.110	3429.167	-7.420	-7.250
106.	5618.937	-4.178	9.620	4076.630	12.726	-11.570	3421.593	-7.070	-6.900
107.	5612.791	-4.160	9.180	4094.474	12.310	-11.000	3414.374	-6.650	-6.480
108.	5603.786	-4.110	8.690	4109.709	11.820	-10.390	3407.609	-6.260	-6.090
109.	5596.762	-4.010	8.170	4124.444	11.250	-9.730	3401.362	-5.840	-5.660
110.	5590.846	-3.860	7.600	4138.328	10.556	-9.030	3395.443	-5.370	-5.230
111.	5585.641	-3.650	6.990	4151.310	9.786	-8.290	3389.171	-4.860	-4.680
112.	5577.631	-3.400	6.340	4163.279	8.940	-7.500	3382.363	-4.360	-4.190
113.	5572.890	-3.100	5.650	4174.129	8.010	-6.670	3374.131	-3.860	-3.680
114.	5567.121	-2.750	4.920	4183.757	7.020	-5.810	3374.427	-3.330	-3.160
115.	5562.772	-2.370	4.160	4192.403	5.950	-4.960	3374.260	-2.790	-2.620
116.	5559.117	-1.940	3.370	4198.945	4.840	-4.160	3371.657	-2.240	-2.070
117.	5556.212	-1.460	2.550	4204.453	3.670	-3.400	3369.662	-1.690	-1.540
118.	5554.103	-1.000	1.710	4208.394	2.470	-2.610	3366.241	-1.120	-1.000
119.	5552.823	-0.510	0.860	4210.774	1.240	-1.810	3367.374	-0.560	-0.460
120.	5552.395	0.000	0.000	4211.571	-0.000	-1.010	3367.066	-0.000	-0.000
121.	5552.823	0.510	-0.860	4213.774	-1.240	1.010	3367.374	0.560	0.460
122.	5554.103	1.000	-1.710	4208.394	-2.470	2.010	3366.241	1.120	1.000
123.	5556.212	1.460	-2.550	4204.453	-3.670	3.000	3363.682	1.690	1.540
124.	5559.117	1.940	-3.370	4198.945	-4.840	3.960	3371.697	2.240	2.070
125.	5562.772	2.370	-4.160	4192.073	-5.950	4.500	3374.260	2.790	2.620
126.	5567.121	2.750	-4.920	4183.757	-7.020	5.410	3377.427	3.330	3.160
127.	5572.896	3.100	-5.650	4174.129	-8.010	6.270	3381.131	3.860	3.680
128.	5577.631	3.400	-6.380	4163.279	-8.940	7.080	3385.353	4.360	4.190
129.	5583.641	3.650	-6.990	4151.310	-9.780	7.850	3390.171	4.860	4.680
130.	5590.846	3.860	-7.600	4138.326	-10.550	8.290	3395.443	5.370	5.230
131.	5596.762	4.010	-8.170	4124.446	-11.230	9.030	3401.302	5.840	5.660
132.	5603.786	4.110	-8.690	4109.709	-11.820	10.390	3407.609	6.260	6.090
133.	5618.791	4.160	-9.160	4094.474	-12.310	11.000	3414.379	6.650	6.480
134.	5617.937	4.170	-9.620	4078.630	-12.720	11.570	3421.543	7.070	6.900
135.	5625.864	4.150	-10.030	4062.389	-13.020	12.110	3429.167	7.420	7.250
136.	5632.896	4.050	-10.400	4045.866	-13.220	12.610	3437.147	7.710	7.540
137.	5638.960	3.930	-10.740	4029.261	-13.310	13.070	3445.412	7.950	7.780
138.	5645.589	3.770	-11.040	4012.659	-13.290	13.510	3453.920	8.130	7.960
139.	5651.920	3.570	-11.320	3996.236	-13.140	13.910	3462.597	8.220	8.050
140.	5657.694	3.350	-11.560	3980.153	-12.866	14.290	3471.354	8.230	8.060
141.	5663.456	3.090	-11.770	3964.586	-12.430	14.650	3480.083	8.130	7.960
142.	5668.564	2.810	-11.960	3949.724	-11.830	14.960	3488.659	7.900	7.730
143.	5673.170	2.510	-12.120	3935.773	-11.060	15.250	3496.929	7.530	7.360
144.	5677.237	2.190	-12.260	3922.933	-10.060	15.570	3504.724	6.950	6.780
145.	5680.734	1.850	-12.390	3911.502	-9.000	15.830	3511.850	6.260	6.090
146.	5683.632	1.500	-12.470	3901.665	-7.840	16.060	3518.094	5.340	5.170
147.	5685.909	1.130	-12.540	3893.666	-6.660	16.240	3523.233	4.220	4.050
148.	5687.546	0.760	-12.590	3887.797	-5.430	16.390	3527.111	2.930	2.760
149.	5688.536	0.380	-12.620	3884.179	-4.200	16.480	3529.502	1.500	1.330

	Z-PLANE (XY-PLANE) LITHIUM TANTALATE (SMITH AND WELSH)										BULK	
	LNQVEL	LPN12	LPN13	FSRWEL	FSPN12	FSPN13	SSRWEL	SSPN12	SSPN13			
150.	5686.867	0.000	-12.630	3682.959	0.000	16.510	3530.313	-0.000	0.330			
151.	5686.536	-0.310	-12.620	3684.179	2.060	16.460	3529.502	-1.500	0.330			
152.	5687.548	-0.760	-12.590	3687.797	4.030	16.390	3527.111	-2.930	0.410			
153.	5685.909	-1.130	-12.540	3693.606	5.860	16.240	3523.253	-4.220	0.440			
154.	5683.632	-1.500	-12.470	3701.665	7.480	16.060	3518.096	-5.340	0.400			
155.	5680.734	-1.850	-12.380	3811.502	8.900	15.830	3511.650	-6.260	0.400			
156.	5677.237	-2.150	-12.260	3922.953	10.020	15.570	3504.724	-6.936	0.410			
157.	5673.170	-2.410	-12.120	3935.773	11.060	15.290	3496.929	-7.530	0.440			
158.	5668.564	-2.610	-11.960	3949.724	11.830	14.980	3488.658	-7.980	0.390			
159.	5663.458	-3.090	-11.770	3964.586	12.430	14.650	3480.003	-8.130	0.310			
160.	5657.894	-3.350	-11.560	3980.153	12.660	14.290	3471.354	-8.230	0.170			
161.	5651.920	-3.570	-11.320	3996.236	13.146	13.910	3462.537	-8.220	0.040			
162.	5645.585	-3.770	-11.040	4012.659	13.290	13.510	3453.320	-8.130	0.880			
163.	5638.960	-3.930	-10.740	4029.261	13.310	13.070	3445.412	-7.950	0.660			
164.	5632.096	-4.050	-10.400	4045.866	13.220	12.610	3437.147	-7.710	0.460			
165.	5625.864	-4.130	-10.030	4062.369	13.020	12.110	3429.187	-7.420	0.220			
166.	5617.937	-4.170	-9.620	4078.630	12.720	11.570	3421.583	-7.070	0.340			
167.	5610.791	-4.160	-9.180	4094.674	12.310	11.000	3414.379	-6.690	0.370			
168.	5603.786	-4.110	-8.690	4099.769	11.620	10.350	3407.604	-6.260	0.800			
169.	5596.762	-4.010	-8.170	4124.448	11.230	9.730	3401.382	-5.840	0.370			
170.	5590.046	-3.860	-7.600	4138.326	10.550	9.030	3395.483	-5.370	0.390			
171.	5583.641	-3.650	-6.990	4151.310	9.760	8.290	3390.171	-4.880	0.360			
172.	5577.631	-3.400	-6.340	4163.275	8.940	7.500	3385.363	-4.360	0.300			
173.	5572.096	-3.100	-5.650	4174.129	8.010	6.670	3381.131	-3.800	0.260			
174.	5567.121	-2.750	-4.920	4183.757	7.020	5.610	3377.427	-3.330	2.310			
175.	5562.772	-2.370	-4.160	4192.073	5.950	4.900	3374.260	-2.790	1.940			
176.	5559.117	-1.940	-3.370	4198.995	4.840	3.960	3371.697	-2.240	1.560			
177.	5556.212	-1.460	-2.550	4204.453	3.670	3.000	3369.682	-1.660	1.170			
178.	5554.103	-1.000	-1.710	4208.394	2.470	2.010	3368.241	-1.120	0.700			
179.	5552.823	-0.510	-0.860	4210.774	1.240	1.010	3367.374	-0.560	0.330			
180.	5552.395	0.000	0.000	4211.571	-0.000	-0.000	3367.066	0.000	-0.000			

	LNQVEL	LPMI12	LPMI13	FSRVEL	FSPMI12	FSPMI13	SRRVEL	SSPMI12	SSPMI13
0.	5721.678	12.450	0.000	3821.167	-16.090	-0.000	3533.160	-6.750	0.000
1.	5743.961	12.670	0.000	3801.610	-16.660	-0.000	3525.866	-6.760	0.000
2.	5766.720	12.830	0.000	3781.505	-17.130	-0.000	3518.578	-6.760	0.000
3.	5789.740	12.920	0.000	3760.940	-17.500	-0.000	3511.303	-6.760	0.000
4.	5813.053	12.960	0.000	3740.158	-17.790	-0.000	3504.033	-6.750	0.000
5.	5836.438	12.940	0.000	3719.156	-17.970	-0.000	3496.834	-6.730	0.000
6.	5859.838	12.860	0.000	3698.087	-18.060	-0.000	3489.697	-6.700	0.000
7.	5883.166	12.770	0.000	3677.055	-18.100	-0.000	3482.530	-6.660	0.000
8.	5906.339	12.610	0.000	3656.161	-18.050	-0.000	3475.462	-6.620	0.000
9.	5929.281	12.430	0.000	3635.499	-17.920	-0.000	3468.464	-6.580	0.000
10.	5951.921	12.200	0.000	3615.159	-17.710	-0.000	3461.542	-6.500	0.000
11.	5974.195	11.950	0.000	3595.283	-17.440	-0.000	3454.707	-6.420	0.000
12.	5996.044	11.670	0.000	3575.770	-17.090	-0.000	3447.967	-6.340	0.000
13.	6017.414	11.370	0.000	3556.671	-16.680	-0.000	3441.330	-6.250	0.000
14.	6038.255	11.040	0.000	3538.094	-16.200	-0.000	3434.807	-6.150	0.000
15.	6058.522	10.650	0.000	3521.000	-15.660	-0.000	3428.405	-6.050	0.000
16.	6078.176	10.330	0.000	3504.146	-15.070	-0.000	3422.132	-5.940	0.000
17.	6097.180	9.950	0.000	3488.084	-14.420	-0.000	3416.998	-5.820	0.000
18.	6115.503	9.560	0.000	3472.859	-13.710	-0.000	3412.010	-5.670	0.000
19.	6133.115	9.150	0.000	3458.513	-12.960	-0.000	3407.177	-5.530	0.000
20.	6149.993	8.740	0.000	3445.080	-12.170	-0.000	3398.206	-5.390	0.000
21.	6166.116	8.320	0.000	3432.593	-11.330	-0.000	3393.005	-5.240	0.000
22.	6181.464	7.890	0.000	3421.077	-10.460	-0.000	3387.682	-5.080	0.000
23.	6196.025	7.460	0.000	3410.552	-9.560	-0.000	3382.244	-4.920	0.000
24.	6209.765	7.030	0.000	3401.035	-8.630	-0.000	3377.696	-4.740	0.000
25.	6222.737	6.590	0.000	3392.535	-7.680	-0.000	3372.951	-4.510	0.000
26.	6234.874	6.150	0.000	3385.050	-6.720	-0.000	3368.310	-4.320	0.000
27.	6246.194	5.720	0.000	3378.609	-5.750	-0.000	3363.941	-4.110	0.000
28.	6256.695	5.260	0.000	3373.180	-4.780	-0.000	3359.870	-3.900	0.000
29.	6266.380	4.850	0.000	3368.765	-3.810	-0.000	3355.983	-3.690	0.000
30.	6275.253	4.420	0.000	3365.351	-2.840	-0.000	3352.325	-3.460	0.000
31.	6283.321	4.000	0.000	3362.922	-1.900	-0.000	3348.912	-3.240	0.000
32.	6290.592	3.560	0.000	3361.456	-0.970	-0.000	3345.719	-3.000	0.000
33.	6297.074	3.160	0.000	3360.929	-0.060	-0.000	3342.700	-2.760	0.000
34.	6302.793	2.780	0.000	3361.314	0.810	-0.000	3340.000	-2.520	0.000
35.	6307.750	2.380	0.000	3362.578	1.650	-0.000	3337.651	-2.270	0.000
36.	6311.968	2.000	0.000	3364.687	2.460	-0.000	3335.549	-2.020	0.000
37.	6315.465	1.630	0.000	3367.602	3.220	-0.000	3333.545	-1.770	0.000
38.	6318.261	1.270	0.000	3371.283	3.940	-0.000	3331.684	-1.510	0.000
39.	6320.379	0.930	0.000	3375.688	4.610	-0.000	3330.000	-1.250	0.000
40.	6321.644	0.590	0.000	3380.771	5.240	-0.000	3328.451	-1.000	0.000
41.	6322.679	0.270	0.000	3386.485	5.810	-0.000	3327.037	-0.750	0.000
42.	6322.912	-0.090	0.000	3392.782	6.330	-0.000	3325.763	-0.500	0.000
43.	6322.871	-0.320	0.000	3399.611	6.800	-0.000	3324.599	-0.250	0.000
44.	6321.684	-0.600	0.000	3406.920	7.220	-0.000	3323.519	0.000	0.000
45.	6320.283	-0.860	0.000	3414.659	7.580	-0.000	3322.536	0.250	0.000
46.	6318.397	-1.100	0.000	3422.773	7.880	-0.000	3321.733	0.500	0.000
47.	6316.059	-1.330	0.000	3431.211	8.150	-0.000	3321.094	0.750	0.000
48.	6313.302	-1.540	0.000	3439.918	8.360	-0.000	3320.606	1.000	0.000
49.	6310.159	-1.730	-0.000	3448.841	8.520	-0.000	3321.296	1.250	0.000

X-PLANE (YZ-PLANE) LITHIUM TANTALATE (MARNER ET AL)

BULK

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
50.	6305.663	-1.900	-0.000	3487.926	8.620	-0.000	3332.653	1.660	-0.000
51.	6302.849	-2.060	-0.000	3487.126	8.680	-0.000	3334.673	1.920	-0.000
52.	6298.750	-2.200	-0.000	3476.383	8.650	-0.000	3336.733	2.170	-0.000
53.	6294.402	-2.330	-0.000	3485.649	8.650	-0.000	3339.090	2.420	-0.000
54.	6289.837	-2.430	-0.000	3494.874	8.570	-0.000	3341.661	2.670	-0.000
55.	6285.091	-2.520	-0.000	3504.010	8.440	-0.000	3344.522	2.910	-0.000
56.	6280.197	-2.590	-0.000	3513.009	8.270	-0.000	3347.606	3.140	-0.000
57.	6275.148	-2.640	-0.000	3521.827	8.070	-0.000	3350.936	3.370	-0.000
58.	6270.897	-2.680	-0.000	3530.421	7.820	-0.000	3354.501	3.600	-0.000
59.	6266.954	-2.700	-0.000	3538.748	7.540	-0.000	3358.230	3.820	-0.000
60.	6259.791	-2.710	-0.000	3546.769	7.230	-0.000	3362.120	4.030	-0.000
61.	6254.637	-2.700	-0.000	3554.447	6.890	-0.000	3366.163	4.240	-0.000
62.	6249.521	-2.670	-0.000	3561.747	6.520	-0.000	3371.021	4.430	-0.000
63.	6244.466	-2.630	-0.000	3568.637	6.120	-0.000	3375.607	4.630	-0.000
64.	6239.586	-2.580	-0.000	3575.086	5.690	-0.000	3380.525	4.810	-0.000
65.	6234.876	-2.520	-0.000	3581.067	5.230	-0.000	3385.617	4.990	-0.000
66.	6229.942	-2.440	-0.000	3586.555	4.780	-0.000	3390.868	5.160	-0.000
67.	6225.383	-2.360	-0.000	3591.528	4.300	-0.000	3396.239	5.320	-0.000
68.	6220.996	-2.260	-0.000	3595.966	3.800	-0.000	3401.703	5.470	-0.000
69.	6216.803	-2.160	-0.000	3599.853	3.290	-0.000	3407.273	5.620	-0.000
70.	6212.812	-2.050	-0.000	3603.175	2.760	-0.000	3413.000	5.750	-0.000
71.	6209.036	-1.940	-0.000	3605.921	2.230	-0.000	3418.877	5.880	-0.000
72.	6205.466	-1.820	-0.000	3608.063	1.700	-0.000	3424.936	6.000	-0.000
73.	6202.170	-1.690	-0.000	3609.653	1.160	-0.000	3431.247	6.110	-0.000
74.	6199.093	-1.570	-0.000	3610.631	.620	-0.000	3437.824	6.210	-0.000
75.	6196.259	-1.440	-0.000	3611.014	.080	-0.000	3444.616	6.310	-0.000
76.	6193.668	-1.310	-0.000	3610.805	-.460	-0.000	3451.675	6.400	-0.000
77.	6191.321	-1.180	-0.000	3610.009	-.960	-0.000	3458.915	6.470	-0.000
78.	6189.214	-1.050	-0.000	3608.633	-1.510	-0.000	3466.303	6.540	-0.000
79.	6187.343	-.930	-0.000	3606.605	-2.030	-0.000	3472.872	6.590	-0.000
80.	6185.702	-.810	-0.000	3604.177	-2.530	-0.000	3479.713	6.640	-0.000
81.	6184.262	-.700	-0.000	3601.122	-3.030	-0.000	3486.816	6.680	-0.000
82.	6183.073	-.590	-0.000	3597.536	-3.510	-0.000	3494.179	6.720	-0.000
83.	6182.064	-.480	-0.000	3593.435	-3.970	-0.000	3501.816	6.760	-0.000
84.	6181.242	-.380	-0.000	3588.839	-4.420	-0.000	3509.646	6.790	-0.000
85.	6180.594	-.300	-0.000	3583.767	-4.840	-0.000	3517.684	6.820	-0.000
86.	6179.752	-.220	-0.000	3578.243	-5.250	-0.000	3525.968	6.850	-0.000
87.	6179.525	-.150	-0.000	3572.209	-5.640	-0.000	3534.561	6.880	-0.000
88.	6179.403	-.040	-0.000	3565.931	-6.010	-0.000	3543.454	6.910	-0.000
89.	6179.367	0.000	-0.000	3559.105	-6.340	-0.000	3552.605	6.940	-0.000
90.	6179.356	.050	-0.000	3552.105	-6.670	-0.000	3562.015	6.970	-0.000
91.	6179.471	.050	0.000	3544.633	-6.990	-0.000	3571.684	7.000	-0.000
92.	6179.570	.060	0.000	3536.968	-7.270	-0.000	3581.621	7.030	-0.000
93.	6179.672	.050	0.000	3529.020	-7.460	-0.000	3591.822	7.060	-0.000
94.	6179.755	.040	0.000	3520.820	-7.600	-0.000	3602.291	7.090	-0.000
95.	6179.796	.010	0.000	3512.421	-7.660	-0.000	3612.953	7.120	-0.000
96.	6179.796	.010	0.000	3503.856	-7.660	-0.000	3623.801	7.150	-0.000
97.	6179.775	-.030	0.000	3495.159	-7.600	-0.000	3634.857	7.180	-0.000
98.	6179.660	-.060	0.000	3486.364	-7.500	-0.000	3646.119	7.210	-0.000
99.	6179.453	-.150	0.000	3477.506	-7.320	-0.000	3657.595	7.240	-0.000

X-PLANE (YZ-PLANE) LITHIUM TANTALATE (HARNER ET AL)									
	LMVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
100.	6179.107	-1.220	0.000	3468.626	-8.350	-0.000	3621.933	5.940	-0.000
101.	6178.689	-1.310	0.000	3459.756	-8.340	-0.000	3620.453	5.630	-0.000
102.	6177.937	-1.410	0.000	3450.936	-8.300	-0.000	3634.053	5.710	-0.000
103.	6177.067	-1.520	0.000	3442.205	-8.220	-0.000	3641.142	5.590	-0.000
104.	6175.979	-1.640	0.000	3433.600	-8.100	-0.000	3647.297	5.460	-0.000
105.	6174.651	-1.770	0.000	3425.163	-7.940	-0.000	3653.315	5.330	-0.000
106.	6173.061	-1.920	0.000	3416.933	-7.750	-0.000	3659.192	5.190	-0.000
107.	6171.190	-1.070	0.000	3408.950	-7.510	-0.000	3664.919	5.050	-0.000
108.	6169.016	-1.240	0.000	3401.257	-7.230	-0.000	3670.491	4.910	-0.000
109.	6166.521	-1.420	0.000	3393.894	-6.880	-0.000	3675.902	4.750	-0.000
110.	6163.684	-1.600	0.000	3386.904	-6.550	-0.000	3681.145	4.590	-0.000
111.	6160.486	-1.800	0.000	3380.327	-6.170	-0.000	3686.216	4.420	-0.000
112.	6156.911	-2.010	0.000	3374.205	-5.700	-0.000	3691.109	4.260	-0.000
113.	6152.939	-2.230	0.000	3368.581	-5.210	-0.000	3695.818	4.090	-0.000
114.	6148.555	-2.450	0.000	3363.494	-4.660	-0.000	3700.336	3.920	-0.000
115.	6143.743	-2.650	0.000	3358.947	-4.100	-0.000	3704.666	3.740	-0.000
116.	6138.487	-2.930	0.000	3355.100	-3.440	-0.000	3708.795	3.560	-0.000
117.	6132.773	-3.160	0.000	3351.870	-2.630	-0.000	3712.722	3.380	-0.000
118.	6126.589	-3.440	0.000	3349.338	-2.130	-0.000	3716.443	3.190	-0.000
119.	6119.921	-3.700	0.000	3347.540	-1.390	-0.000	3719.953	3.000	-0.000
120.	6112.756	-3.970	0.000	3346.512	-0.620	-0.000	3723.250	2.810	-0.000
121.	6105.092	-4.250	0.000	3346.267	1.180	-0.000	3726.329	2.610	-0.000
122.	6096.912	-4.530	0.000	3346.098	1.020	-0.000	3729.187	2.420	-0.000
123.	6088.212	-4.820	0.000	3346.075	1.680	-0.000	3731.822	2.220	-0.000
124.	6078.985	-5.110	0.000	3350.745	2.770	-0.000	3734.230	2.020	-0.000
125.	6069.227	-5.410	0.000	3354.032	3.670	-0.000	3736.409	1.810	-0.000
126.	6058.935	-5.700	0.000	3358.259	4.590	-0.000	3738.358	1.610	-0.000
127.	6048.107	-6.000	0.000	3363.444	5.524	-0.000	3740.073	1.400	-0.000
128.	6036.745	-6.300	0.000	3369.602	6.450	-0.000	3741.554	1.200	-0.000
129.	6024.849	-6.600	0.000	3376.745	7.360	-0.000	3742.798	0.990	-0.000
130.	6012.425	-6.950	0.000	3384.880	8.310	-0.000	3743.804	0.780	-0.000
131.	5999.479	-7.190	0.000	3394.011	9.236	-0.000	3744.572	0.570	-0.000
132.	5986.019	-7.460	0.000	3404.137	10.140	-0.000	3745.100	0.360	-0.000
133.	5972.056	-7.760	0.000	3415.252	11.020	-0.010	3745.386	0.150	-0.000
134.	5957.604	-8.040	0.000	3427.345	11.870	-0.000	3745.436	-0.660	-0.000
135.	5942.679	-8.310	0.000	3440.402	12.700	-0.000	3745.243	-1.270	-0.000
136.	5927.300	-8.570	0.000	3454.402	13.490	-0.000	3744.810	-1.460	-0.000
137.	5911.490	-8.830	0.000	3469.318	14.240	-0.010	3744.136	-1.690	-0.000
138.	5895.272	-9.060	0.000	3485.120	14.940	-0.000	3743.226	-1.910	-0.000
139.	5878.678	-9.260	0.000	3501.770	15.600	-0.000	3742.076	-2.110	-0.000
140.	5861.738	-9.490	0.000	3519.224	16.200	-0.000	3740.690	-2.320	-0.000
141.	5844.489	-9.670	0.000	3537.435	16.740	-0.000	3739.066	-2.530	-0.000
142.	5826.974	-9.840	0.000	3556.346	17.220	-0.000	3737.212	-2.730	-0.000
143.	5809.235	-9.960	0.000	3575.895	17.640	-0.000	3735.124	-2.940	-0.000
144.	5791.325	-10.190	0.000	3596.014	17.990	-0.000	3732.806	-3.140	-0.000
145.	5773.298	-10.160	0.000	3616.628	18.270	-0.010	3730.261	-3.340	-0.000
146.	5755.215	-10.210	0.000	3637.655	18.476	-0.000	3727.491	-3.540	-0.000
147.	5737.143	-10.210	0.000	3659.006	18.590	-0.000	3724.500	-3.730	-0.000
148.	5718.134	-10.160	0.000	3680.585	18.630	-0.000	3721.269	-3.930	-0.000
149.	5701.328	-10.100	0.000	3702.287	18.590	-0.000	3717.863	-4.120	-0.000

BULK

	X-PLANE (YZ-PLANE) LITHIUM TANTALATE (WARNER ET AL)										BULK	
	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13				
150.	5603.749	0.000	3724.003	18.450	-0.000	3714.226	-3.300	0.000				
151.	5668.511	0.000	3745.614	18.220	0.000	3710.380	-3.443	-0.000				
152.	5649.712	0.000	3766.936	17.890	0.000	3700.331	-3.670	-0.000				
153.	5633.458	0.000	3788.016	17.460	0.000	3702.882	-3.650	-0.000				
154.	5617.861	0.000	3808.536	16.920	0.000	3697.637	-3.620	-0.000				
155.	5603.036	0.000	3828.412	16.270	0.000	3693.003	-4.260	-0.000				
156.	5589.112	0.000	3847.437	15.510	0.000	3688.182	-4.360	-0.000				
157.	5576.288	0.000	3865.638	14.640	0.000	3683.182	-4.530	-0.000				
158.	5564.455	0.000	3882.884	13.640	0.000	3678.006	-4.650	-0.000				
159.	5553.979	0.000	3898.483	12.530	0.000	3672.661	-4.840	-0.000				
160.	5544.907	0.000	3912.607	11.310	0.000	3667.152	-4.990	-0.000				
161.	5537.358	0.000	3925.754	9.960	0.000	3661.486	-5.140	-0.000				
162.	5531.441	0.000	3936.952	8.540	0.000	3655.668	-5.280	-0.000				
163.	5527.256	0.000	3946.365	7.020	0.000	3649.705	-5.410	-0.000				
164.	5524.886	0.000	3953.890	5.420	0.000	3643.604	-5.540	-0.000				
165.	5524.394	0.000	3959.447	3.770	0.000	3637.371	-5.660	-0.000				
166.	5525.625	0.000	3962.977	2.070	0.000	3631.013	-5.780	-0.000				
167.	5529.199	0.000	3964.445	.360	0.000	3624.538	-5.900	-0.000				
168.	5534.513	0.000	3963.844	-1.350	0.000	3617.952	-6.000	-0.000				
169.	5541.738	0.000	3961.191	-3.040	0.000	3611.263	-6.100	-0.000				
170.	5550.625	0.000	3956.527	-4.680	0.000	3604.478	-6.200	-0.000				
171.	5561.702	0.000	3949.916	-6.250	0.000	3597.607	-6.260	-0.000				
172.	5574.280	0.000	3941.446	-7.750	0.000	3590.655	-6.360	-0.000				
173.	5588.452	0.000	3931.221	-9.160	0.000	3583.632	-6.440	-0.000				
174.	5604.101	0.000	3919.352	-10.460	0.000	3576.545	-6.500	-0.000				
175.	5621.101	0.000	3905.969	-11.680	0.000	3569.403	-6.560	-0.000				
176.	5639.319	0.000	3891.206	-12.760	0.000	3562.214	-6.610	-0.000				
177.	5658.620	0.000	3875.203	-13.770	0.000	3554.986	-6.660	-0.000				
178.	5678.670	0.000	3856.102	-14.650	0.000	3547.729	-6.700	-0.000				
179.	5699.932	0.000	3840.043	-15.420	0.000	3540.451	-6.720	-0.000				
180.	5721.676	0.000	3821.167	-16.090	0.000	3533.160	-6.750	-0.000				

Y-PLANE (XZ-PLANE) LITHIUM TANTALATE (WARMER ET AL)
BULK

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
0.	5992.421	0.000	0.000	4171.619	0.000	0.000	3330.096	0.000	0.000
1.	5993.283	.960	.830	4170.771	-1.650	-1.950	3338.251	.300	-4.420
2.	5994.700	1.910	1.650	4167.639	-3.260	-1.900	3338.710	.600	-6.920
3.	5995.760	2.840	2.450	4162.457	-4.870	-2.620	3339.474	.900	-1.270
4.	5605.370	3.720	3.220	4155.231	-6.470	-3.710	3340.541	1.200	-1.690
5.	5612.466	4.560	3.960	4146.166	-7.890	-4.570	3341.909	1.490	-2.100
6.	5620.960	5.340	4.670	4135.266	-9.200	-5.360	3343.574	1.760	-2.510
7.	5630.757	6.050	5.330	4122.625	-10.600	-6.150	3345.533	2.060	-2.920
8.	5641.752	6.690	5.940	4108.361	-11.920	-6.660	3347.781	2.340	-3.320
9.	5653.834	7.270	6.500	4092.660	-12.940	-7.520	3350.314	2.620	-3.710
10.	5668.090	7.770	7.020	4075.590	-13.970	-8.130	3353.125	2.880	-4.090
11.	5680.803	8.210	7.480	4057.306	-14.900	-8.660	3356.206	3.140	-4.470
12.	5695.459	8.560	7.900	4037.940	-15.740	-9.170	3359.552	3.390	-4.850
13.	5710.746	8.860	8.280	4017.624	-16.480	-9.620	3363.154	3.630	-5.190
14.	5726.560	9.120	8.610	3996.469	-17.130	-10.010	3367.002	3.860	-5.530
15.	5742.795	9.300	8.890	3974.661	-17.700	-10.350	3371.088	4.080	-5.880
16.	5759.354	9.430	9.140	3952.262	-18.170	-10.640	3375.398	4.290	-6.190
17.	5776.146	9.510	9.360	3929.412	-18.570	-10.890	3379.923	4.490	-6.490
18.	5793.090	9.540	9.530	3906.222	-18.860	-11.090	3384.653	4.670	-6.770
19.	5810.104	9.530	9.680	3882.803	-19.120	-11.260	3389.581	4.830	-7.040
20.	5827.115	9.440	9.800	3859.260	-19.290	-11.350	3394.644	4.980	-7.300
21.	5844.056	9.400	9.890	3835.642	-19.360	-11.450	3399.840	5.110	-7.540
22.	5860.871	9.250	9.950	3812.118	-19.400	-11.540	3405.249	5.220	-7.780
23.	5877.500	9.150	9.990	3788.873	-19.340	-11.580	3410.758	5.300	-7.990
24.	5893.895	8.960	10.010	3765.805	-19.210	-11.590	3416.421	5.360	-8.180
25.	5910.010	8.800	10.010	3743.095	-19.010	-11.560	3421.986	5.360	-8.330
26.	5925.806	8.590	9.990	3720.836	-18.720	-11.500	3427.535	5.370	-8.410
27.	5941.245	8.370	9.950	3699.125	-18.340	-11.510	3433.131	5.300	-8.500
28.	5956.297	8.130	9.900	3678.068	-17.860	-11.460	3438.832	5.170	-8.590
29.	5970.933	7.880	9.840	3657.719	-17.270	-11.420	3443.958	4.950	-8.670
30.	5985.130	7.620	9.760	3636.437	-16.520	-11.360	3448.996	4.600	-8.750
31.	5998.865	7.350	9.660	3620.202	-15.570	-11.370	3453.993	4.090	-8.830
32.	6012.122	7.070	9.560	3603.334	-14.340	-11.400	3457.524	3.320	-8.920
33.	6024.885	6.790	9.440	3588.173	-12.750	-11.460	3460.477	2.210	-7.960
34.	6037.144	6.500	9.320	3575.165	-10.660	-11.630	3462.825	.650	-7.610
35.	6048.809	6.210	9.180	3564.820	-8.190	-11.610	3461.675	-1.300	-7.160
36.	6060.113	5.920	9.030	3557.562	-5.200	-11.980	3459.017	-3.680	-6.710
37.	6070.812	5.630	8.880	3553.480	-2.300	-12.090	3455.966	-5.630	-6.290
38.	6080.984	5.330	8.720	3552.223	-.000	-12.100	3446.866	-7.460	-5.940
39.	6090.630	5.040	8.550	3553.165	1.680	-12.030	3438.403	-9.500	-5.670
40.	6099.750	4.760	8.380	3555.668	2.860	-11.930	3429.150	-11.800	-5.360
41.	6108.350	4.478	8.200	3559.224	3.640	-11.800	3419.631	-14.060	-5.060
42.	6116.434	4.190	8.010	3563.470	4.140	-11.660	3410.201	-16.680	-4.790
43.	6124.010	3.920	7.810	3568.157	4.450	-11.520	3401.099	-19.600	-4.600
44.	6131.066	3.650	7.620	3573.112	4.630	-11.370	3392.482	-23.170	-4.170
45.	6137.672	3.390	7.410	3578.215	4.710	-11.220	3384.454	-27.440	-3.840
46.	6143.780	3.130	7.210	3583.376	4.720	-11.060	3377.083	-32.510	-3.510
47.	6149.422	2.890	7.000	3588.531	4.690	-10.900	3370.412	-38.120	-3.170
48.	6154.618	2.650	6.780	3593.627	4.610	-10.720	3364.470	-44.200	-2.840
49.	6159.361	2.420	6.560	3598.623	4.490	-10.560	3359.269	-50.710	-2.500

Y-PLANE (XZ-PLANE) LITHIUM TANTALATE (WARNER ET AL)

BULK

	LMPH12	LPHI13	FSPH12	FSPH13	SSPH12	SSPH13
50.	6183.688	6.340	3603.486	4.350	3354.817	-2.170
51.	6187.886	1.980	3608.184	4.190	3351.110	-3.260
52.	6171.136	5.090	3612.695	4.000	3348.143	-1.040
53.	6176.294	1.580	3616.995	3.600	3345.304	-1.250
54.	6177.894	1.480	3621.065	3.580	3344.376	-1.150
55.	6179.557	1.220	3624.887	3.340	3343.548	-0.610
56.	6181.701	1.060	3628.445	3.090	3343.393	-0.770
57.	6183.543	.980	3631.724	2.830	3343.091	-0.070
58.	6185.104	.760	3634.710	2.560	3342.619	.180
59.	6186.460	.620	3637.393	2.260	3342.019	.420
60.	6187.652	.500	3639.761	1.990	3341.304	.680
61.	6188.677	.360	3641.803	1.690	3339.927	.950
62.	6188.693	.270	3643.512	1.390	3339.314	1.230
63.	6189.319	.180	3644.880	1.060	3339.197	1.510
64.	6189.573	.090	3645.900	.760	3338.546	1.800
65.	6189.670	.010	3646.566	.440	3338.337	2.090
66.	6189.629	-.060	3646.874	.110	3338.116	2.380
67.	6189.465	-.120	3646.820	-.210	3337.936	2.670
68.	6189.193	-.170	3646.401	-.540	3337.699	2.960
69.	6188.830	-.210	3645.617	-.870	3337.406	3.250
70.	6188.390	-.250	3644.467	-1.200	3337.059	3.540
71.	6187.886	-.260	3642.951	-1.530	3336.660	3.830
72.	6187.331	-.310	3641.071	-1.860	3336.219	4.120
73.	6186.736	-.320	3638.829	-2.180	3335.743	4.410
74.	6186.118	-.330	3636.229	-2.510	3335.220	4.700
75.	6185.483	-.340	3633.274	-2.830	3334.659	5.000
76.	6184.842	-.340	3629.972	-3.140	3334.067	5.300
77.	6184.206	-.340	3626.327	-3.450	3333.443	5.600
78.	6183.583	-.330	3622.346	-3.750	3332.787	5.900
79.	6182.981	-.310	3618.036	-4.050	3332.100	6.200
80.	6182.407	-.300	3613.412	-4.340	3331.381	6.500
81.	6181.869	-.280	3608.477	-4.620	3330.631	6.800
82.	6181.371	-.250	3603.244	-4.890	3329.850	7.100
83.	6180.920	-.230	3597.723	-5.150	3329.049	7.400
84.	6180.520	-.200	3591.926	-5.400	3328.227	7.700
85.	6180.174	-.170	3585.866	-5.650	3327.384	8.000
86.	6179.887	-.140	3579.557	-5.880	3326.520	8.300
87.	6179.661	-.100	3573.011	-6.100	3325.636	8.600
88.	6179.498	-.070	3566.244	-6.300	3324.731	8.900
89.	6179.408	-.030	3559.270	-6.490	3323.806	9.200
90.	6179.367	0.000	3552.105	-6.670	3322.861	9.500
91.	6179.400	.030	3544.766	-6.850	3321.896	9.800
92.	6179.496	.070	3537.268	-7.000	3320.911	10.100
93.	6179.661	.100	3529.631	-7.130	3320.006	10.400
94.	6179.887	.140	3521.870	-7.250	3319.181	10.700
95.	6180.174	.170	3514.006	-7.350	3318.436	11.000
96.	6180.520	.200	3506.057	-7.430	3317.771	11.300
97.	6180.920	.230	3498.042	-7.500	3317.186	11.600
98.	6181.371	.250	3489.982	-7.550	3316.681	11.900
99.	6181.869	.280	3481.898	-7.580	3316.256	12.200

Y-PLANE (XZ-PLANE) LITHIUM TANTALATE (WARNER ET AL)

BULK

	LMVEL	LPM12	LPM13	FSPVEL	FSPM12	FSPM13	SSRVEL	SSPM12	SSPM13
100.	6102.407	.300	.530	3473.011	-7.590	1.570	3613.412	4.340	-2.420
101.	6102.901	.310	.640	3465.742	-7.580	1.660	3618.036	4.050	-2.870
102.	6103.503	.330	.750	3457.714	-7.550	1.750	3622.366	3.750	-2.970
103.	6104.206	.340	.880	3449.751	-7.500	1.820	3626.327	3.450	-3.220
104.	6104.842	.340	1.020	3441.875	-7.420	1.870	3629.972	3.150	-3.340
105.	6105.483	.340	1.160	3434.112	-7.320	1.910	3633.274	2.850	-3.630
106.	6106.116	.330	1.310	3426.485	-7.200	1.940	3636.229	2.510	-4.120
107.	6106.738	.320	1.470	3419.020	-7.050	1.950	3638.829	2.180	-4.410
108.	6107.331	.310	1.640	3411.743	-6.870	1.940	3641.071	1.860	-4.700
109.	6107.886	.280	1.810	3404.680	-6.670	1.930	3642.991	1.530	-5.000
110.	6108.390	.250	1.990	3397.859	-6.440	1.900	3644.467	1.200	-5.290
111.	6108.830	.210	2.180	3391.306	-6.170	1.850	3645.617	.870	-5.560
112.	6109.193	.170	2.370	3385.045	-5.900	1.780	3646.401	.540	-5.800
113.	6109.465	.120	2.570	3379.116	-5.610	1.710	3646.828	.210	-6.170
114.	6109.629	.080	2.780	3373.536	-5.230	1.600	3646.874	-.110	-6.460
115.	6109.670	-.010	2.980	3368.337	-4.860	1.480	3646.966	-.440	-6.740
116.	6109.573	-.090	3.200	3363.546	-4.460	1.350	3646.900	-.760	-7.030
117.	6109.315	-.160	3.410	3359.197	-4.020	1.190	3646.680	-1.080	-7.300
118.	6108.893	-.270	3.630	3355.314	-3.560	1.030	3643.512	-1.390	-7.550
119.	6108.277	-.380	3.850	3351.927	-3.060	.840	3641.803	-1.690	-7.850
120.	6107.452	-.500	4.070	3349.064	-2.540	.640	3639.761	-1.940	-8.110
121.	6106.400	-.620	4.300	3346.752	-1.990	.420	3637.393	-2.200	-8.370
122.	6105.104	-.760	4.530	3345.019	-1.410	.180	3634.710	-2.560	-8.620
123.	6103.543	-.900	4.760	3343.891	-.800	-.070	3631.724	-2.830	-8.870
124.	6101.781	-1.060	4.980	3343.393	-.170	-.330	3628.445	-3.050	-9.110
125.	6179.557	-1.220	5.210	3343.548	.460	-.610	3624.867	-3.340	-9.340
126.	6177.094	-1.400	5.440	3344.376	1.150	-.900	3621.055	-3.500	-9.560
127.	6174.294	-1.580	5.670	3345.904	1.840	-1.200	3616.992	-3.600	-9.760
128.	6171.136	-1.780	5.890	3348.143	2.550	-1.510	3612.695	-3.600	-9.990
129.	6167.688	-1.960	6.120	3351.110	3.260	-1.840	3608.184	-3.500	-10.190
130.	6163.688	-2.150	6.340	3354.817	3.960	-2.170	3603.466	-3.300	-10.310
131.	6159.361	-2.420	6.560	3359.269	4.710	-2.500	3598.623	-3.000	-10.500
132.	6154.610	-2.650	6.780	3364.470	5.420	-2.840	3593.627	-2.600	-10.730
133.	6149.422	-2.890	7.000	3370.412	6.120	-3.170	3588.581	-2.100	-10.960
134.	6143.780	-3.130	7.210	3377.083	6.800	-3.510	3583.376	-1.500	-11.220
135.	6137.672	-3.350	7.410	3384.454	7.440	-3.840	3578.215	-.900	-11.470
136.	6131.086	-3.650	7.620	3392.482	8.010	-4.170	3573.112	-.300	-11.770
137.	6124.010	-3.920	7.810	3401.099	8.510	-4.480	3568.157	.300	-12.070
138.	6116.434	-4.190	8.010	3410.201	8.860	-4.780	3563.470	1.100	-12.360
139.	6108.350	-4.470	8.200	3418.631	9.060	-5.080	3558.924	1.900	-12.640
140.	6099.750	-4.760	8.380	3426.150	9.200	-5.360	3554.668	2.700	-12.930
141.	6090.630	-5.040	8.550	3433.403	9.300	-5.640	3550.755	3.500	-13.200
142.	6080.984	-5.330	8.720	3440.886	9.400	-5.940	3547.223	4.300	-13.460
143.	6070.812	-5.630	8.880	3448.966	9.500	-6.250	3544.000	5.100	-13.700
144.	6060.113	-5.920	9.030	3457.017	9.600	-6.570	3541.020	5.900	-13.900
145.	6048.889	-6.210	9.140	3465.675	9.700	-6.910	3538.280	6.700	-14.100
146.	6037.144	-6.500	9.320	3464.825	9.800	-7.210	3535.820	7.500	-14.300
147.	6024.885	-6.790	9.440	3460.477	9.900	-7.500	3533.610	8.300	-14.500
148.	6012.122	-7.070	9.568	3457.524	10.000	-7.820	3531.610	9.100	-14.700
149.	5998.865	-7.350	9.660	3453.593	10.100	-8.140	3529.780	9.900	-14.900

	Y-PLANE (XZ-PLANE) LITHIUM TANTALATE (HARNER ET AL)						BULK		
	LNQVEL	LPHI12	LPHI13	FSRWEL	FSPHI12	FSPHI13	SSRWEL	SSPHI12	SSPHI13
150.	5985.130	-7.620	9.760	3448.996	-4.600	-8.530	3038.437	18.520	-11.390
151.	5970.933	-7.880	9.840	3443.956	-4.950	-8.570	3657.789	17.270	-11.420
152.	5956.297	-8.130	9.900	3438.632	-5.170	-8.560	3670.068	17.660	-11.460
153.	5941.245	-8.370	9.950	3433.131	-5.300	-8.500	3694.125	18.340	-11.510
154.	5925.806	-8.540	9.990	3427.535	-5.376	-8.410	3720.036	18.720	-11.550
155.	5910.010	-8.800	10.010	3421.906	-5.380	-8.250	3743.049	19.010	-11.590
156.	5893.895	-8.960	10.010	3416.291	-5.360	-8.130	3766.604	19.210	-11.5.0
157.	5877.580	-9.150	9.990	3410.726	-5.300	-7.960	3780.873	19.340	-11.500
158.	5860.871	-9.290	9.950	3405.245	-5.220	-7.760	3812.196	19.400	-11.500
159.	5844.056	-9.400	9.890	3399.800	-5.110	-7.540	3835.692	19.380	-11.490
160.	5827.115	-9.460	9.800	3394.644	-4.960	-7.300	3859.260	19.290	-11.390
161.	5810.104	-9.530	9.680	3389.561	-4.830	-7.040	3882.003	19.120	-11.260
162.	5793.090	-9.540	9.530	3384.649	-4.670	-6.770	3906.222	18.980	-11.100
163.	5776.148	-9.510	9.360	3379.923	-4.490	-6.480	3929.412	18.570	-10.890
164.	5759.354	-9.430	9.140	3375.396	-4.250	-6.160	3952.262	18.170	-10.640
165.	5742.795	-9.300	8.890	3371.080	-4.060	-5.860	3974.661	17.700	-10.350
166.	5726.560	-9.120	8.610	3367.002	-3.860	-5.530	3996.489	17.130	-10.010
167.	5710.748	-8.860	8.280	3363.154	-3.630	-5.150	4017.624	16.480	-9.620
168.	5695.459	-8.580	7.900	3359.552	-3.390	-4.830	4037.940	15.740	-9.110
169.	5680.803	-8.210	7.480	3356.206	-3.140	-4.470	4057.306	14.900	-8.600
170.	5666.890	-7.770	7.020	3353.125	-2.880	-4.050	4075.590	13.970	-8.130
171.	5653.834	-7.270	6.500	3350.314	-2.620	-3.710	4092.660	12.940	-7.720
172.	5641.752	-6.640	5.940	3347.781	-2.340	-3.320	4108.381	11.820	-6.660
173.	5630.757	-6.050	5.330	3345.533	-2.060	-2.920	4122.825	10.600	-6.120
174.	5620.960	-5.340	4.670	3343.574	-1.780	-2.510	4135.266	9.280	-5.300
175.	5612.466	-4.560	3.960	3341.909	-1.490	-2.100	4146.166	7.890	-4.570
176.	5605.372	-3.720	3.220	3340.541	-1.200	-1.690	4155.281	6.410	-3.710
177.	5599.760	-2.840	2.450	3339.474	-900	-1.270	4162.457	4.870	-2.820
178.	5595.700	-1.910	1.650	3338.710	-600	-0.850	4167.634	3.200	-1.900
179.	5593.243	-0.560	0.830	3338.251	-300	-0.420	4174.771	1.620	-0.920
180.	5592.421	0.000	-0.000	3338.096	0.000	0.000	4171.615	-0.000	0.000

LNGVEL	Z-PLANE (XY-PLANE) LITHIUM TANTALATE (WARNER ET AL)				BULK	SSPHEI12				SSPHEI13
	LPM12	LPM13	FSRVEL	FSPH12		FSPH13	SSRVEL	SSPHEI2	SSPHEI3	
0.	0.000	0.000	4171.019	0.000	0.000	0.000	3336.096	0.000	0.000	0.000
1.	5592.421	-0.330	4171.020	-1.260	0.550	3336.424	0.540	0.000	0.000	0.000
2.	5592.622	0.930	4168.629	-2.500	1.960	3334.402	1.260	0.000	0.000	0.000
3.	5594.021	1.560	4184.669	-3.730	2.930	3341.030	1.920	0.000	0.000	0.000
4.	5595.996	2.060	4199.178	-4.910	3.750	3343.305	2.550	0.000	0.000	0.000
5.	5598.722	1.610	4152.286	-6.060	4.640	3348.225	3.160	0.000	0.000	0.000
6.	5602.152	2.210	4143.816	-7.150	5.490	3353.977	3.790	0.000	0.000	0.000
7.	5606.235	2.570	4134.082	-8.190	6.320	3359.785	4.400	0.000	0.000	0.000
8.	5610.913	3.000	4123.088	-9.150	7.110	3365.796	5.000	0.000	0.000	0.000
9.	5616.117	3.100	4110.926	-10.050	7.660	3374.230	5.560	0.000	0.000	0.000
10.	5621.776	3.420	4097.099	-10.870	8.070	3376.269	6.150	0.000	0.000	0.000
11.	5627.614	3.610	4083.507	-11.610	8.240	3376.996	6.650	0.000	0.000	0.000
12.	5634.152	3.760	4068.464	-12.260	8.970	3384.098	7.220	0.000	0.000	0.000
13.	5647.412	3.920	4052.681	-12.830	10.460	3391.050	7.710	0.000	0.000	0.000
14.	5654.178	3.930	4036.279	-13.310	11.010	3400.127	8.100	0.000	0.000	0.000
15.	5660.332	3.600	4019.380	-13.700	11.530	3408.096	8.610	0.000	0.000	0.000
16.	5667.003	3.820	4002.106	-14.000	12.010	3416.121	9.090	0.000	0.000	0.000
17.	5674.121	3.710	3984.596	-14.190	12.460	3427.752	9.320	0.000	0.000	0.000
18.	5680.421	3.560	3966.983	-14.260	12.660	3437.732	9.590	0.000	0.000	0.000
19.	5686.443	3.380	3949.414	-14.240	13.260	3447.590	9.760	0.000	0.000	0.000
20.	5692.138	3.170	3932.051	-14.074	13.650	3456.436	9.870	0.000	0.000	0.000
21.	5697.430	2.930	3915.066	-13.756	14.410	3468.560	9.960	0.000	0.000	0.000
22.	5702.298	2.670	3898.057	-13.270	14.340	3479.427	9.700	0.000	0.000	0.000
23.	5706.690	2.300	3883.047	-12.560	14.670	3489.066	9.380	0.000	0.000	0.000
24.	5710.572	2.080	3868.489	-11.660	14.970	3499.472	9.010	0.000	0.000	0.000
25.	5713.910	1.760	3855.276	-10.470	15.260	3508.593	8.070	0.000	0.000	0.000
26.	5716.677	1.420	3843.736	-8.970	15.520	3516.737	7.010	0.000	0.000	0.000
27.	5718.852	1.050	3834.233	-7.140	15.760	3523.576	5.640	0.000	0.000	0.000
28.	5720.418	0.720	3827.095	-4.960	15.930	3528.761	3.970	0.000	0.000	0.000
29.	5721.363	0.360	3822.669	-2.570	16.050	3532.046	2.060	0.000	0.000	0.000
30.	5721.678	-0.000	3821.167	0.000	16.050	3533.160	-0.000	0.000	0.000	0.000
31.	5721.363	-0.360	3822.669	2.570	16.050	3532.046	-2.060	0.000	0.000	0.000
32.	5720.418	-0.720	3827.095	4.960	15.930	3528.761	-3.970	0.000	0.000	0.000
33.	5718.852	-1.050	3834.233	7.140	15.760	3523.576	-5.640	0.000	0.000	0.000
34.	5716.677	-1.420	3843.736	8.970	15.520	3516.737	-7.010	0.000	0.000	0.000
35.	5713.910	-1.760	3855.276	10.470	15.260	3508.593	-8.070	0.000	0.000	0.000
36.	5710.572	-2.080	3868.489	11.660	14.970	3499.472	-9.010	0.000	0.000	0.000
37.	5706.690	-2.360	3883.047	12.560	14.670	3489.066	-9.380	0.000	0.000	0.000
38.	5702.298	-2.670	3898.057	13.270	14.340	3479.427	-9.700	0.000	0.000	0.000
39.	5697.430	-2.930	3915.066	13.760	14.010	3468.560	-9.960	0.000	0.000	0.000
40.	5692.138	-3.170	3932.051	14.070	13.650	3456.436	-9.870	0.000	0.000	0.000
41.	5686.443	-3.360	3949.414	14.240	13.260	3447.590	-9.760	0.000	0.000	0.000
42.	5680.421	-3.560	3966.983	14.260	12.660	3437.732	-9.590	0.000	0.000	0.000
43.	5674.121	-3.710	3984.596	14.190	12.460	3427.752	-9.320	0.000	0.000	0.000
44.	5667.603	-3.820	4002.106	14.000	12.010	3416.121	-9.010	0.000	0.000	0.000
45.	5660.932	-3.900	4019.380	13.700	11.530	3408.096	-8.610	0.000	0.000	0.000
46.	5654.178	-3.930	4036.279	13.310	11.010	3400.127	-8.100	0.000	0.000	0.000
47.	5647.412	-3.920	4052.681	12.830	10.460	3391.050	-7.710	0.000	0.000	0.000
48.	5640.711	-3.860	4068.464	12.260	9.970	3384.098	-7.220	0.000	0.000	0.000
49.	5634.152	-3.760	4083.507	11.610	9.240	3376.996	-6.650	0.000	0.000	0.000

Z-PLANE (XY-PLANE) LITHIUM TANTALATE (WARNER ET AL)

BULK

	LNVEL	LPHI12	LPHI13	FSRWEL	FSPHI12	FSPHI13	SSRWEL	SSPHI12	SSPHI13
50.	5627.814	-3.610	-7.380	4097.699	10.870	8.570	3370.269	-6.150	4.011
51.	5621.776	-3.420	-6.780	4110.926	10.050	7.860	3364.230	-5.580	3.680
52.	5616.117	-3.180	-6.140	4123.088	9.150	7.110	3358.796	-5.000	3.290
53.	5610.913	-2.900	-5.470	4134.062	8.190	6.320	3353.977	-4.400	2.900
54.	5606.235	-2.570	-4.760	4143.816	7.150	5.450	3349.765	-3.750	2.500
55.	5602.152	-2.210	-4.020	4152.206	6.060	4.640	3346.225	-3.180	2.100
56.	5598.722	-1.810	-3.250	4159.178	4.910	3.750	3343.305	-2.550	1.690
57.	5595.996	-1.370	-2.460	4164.669	3.730	2.630	3341.030	-1.920	1.270
58.	5594.021	-0.930	-1.650	4168.629	2.500	1.900	3339.402	-1.260	0.850
59.	5592.822	-0.470	-0.830	4171.819	1.266	0.950	3338.424	-0.640	0.420
60.	5592.421	0.000	0.000	4171.819	0.000	0.000	3338.098	0.000	0.000
61.	5592.822	-0.470	-0.830	4171.020	-1.260	-0.950	3338.424	-0.640	-0.420
62.	5594.021	0.930	1.650	4168.629	-2.500	-1.900	3339.402	1.260	0.850
63.	5595.996	1.370	2.460	4164.669	-3.730	-2.630	3341.030	1.920	1.270
64.	5598.722	1.810	3.250	4159.178	-4.910	-3.750	3343.305	2.550	1.690
65.	5602.152	2.210	4.020	4152.206	-6.060	-4.640	3346.225	3.180	2.100
66.	5606.235	2.570	4.760	4143.816	-7.150	-5.450	3349.765	3.750	2.500
67.	5610.913	2.900	5.470	4134.062	-8.190	-6.320	3353.977	4.400	2.900
68.	5616.117	3.180	6.140	4123.088	-9.150	-7.110	3358.796	5.000	3.290
69.	5621.776	3.420	6.780	4110.926	-10.050	-7.860	3364.230	5.580	3.680
70.	5627.814	3.610	7.380	4097.699	-10.870	-8.570	3370.269	6.150	4.010
71.	5634.152	3.760	7.940	4083.507	-11.610	-9.240	3376.890	6.650	4.400
72.	5640.711	3.860	8.460	4068.464	-12.280	-9.870	3384.098	7.120	4.750
73.	5647.412	3.920	8.950	4052.681	-12.830	-10.460	3391.850	7.570	5.070
74.	5654.176	3.930	9.390	4036.279	-13.310	-11.010	3400.127	8.010	5.350
75.	5660.932	3.850	9.800	4019.380	-13.700	-11.530	3408.696	8.410	5.610
76.	5667.603	3.620	10.170	4002.108	-14.006	-12.010	3418.121	8.780	5.850
77.	5674.121	3.710	10.510	3984.596	-14.190	-12.460	3427.752	9.120	6.180
78.	5680.421	3.560	10.820	3966.983	-14.280	-12.880	3437.732	9.450	6.530
79.	5686.443	3.360	11.100	3949.414	-14.240	-13.280	3447.990	9.760	6.850
80.	5692.130	3.170	11.350	3932.051	-14.070	-13.650	3458.436	10.040	7.150
81.	5697.430	2.930	11.560	3915.066	-13.760	-14.010	3469.060	10.300	7.420
82.	5702.298	2.670	11.760	3898.657	-13.270	-14.340	3479.827	10.540	7.670
83.	5706.690	2.380	11.920	3883.047	-12.560	-14.670	3490.766	10.760	7.900
84.	5710.572	2.060	12.070	3868.489	-11.660	-15.000	3499.472	10.960	8.110
85.	5713.910	1.760	12.180	3855.276	-10.470	-15.260	3508.993	11.140	8.290
86.	5716.677	1.420	12.260	3843.736	-8.970	-15.520	3518.378	11.300	8.440
87.	5718.852	1.080	12.350	3834.223	-7.140	-15.750	3523.576	11.440	8.570
88.	5720.418	0.720	12.410	3827.095	-4.960	-15.930	3529.701	11.560	8.680
89.	5721.363	-0.360	12.440	3822.669	-2.570	-16.050	3532.046	11.650	8.780
90.	5721.678	-0.000	12.450	3821.167	0.000	-16.110	3533.160	11.720	8.850
91.	5721.363	-0.360	12.440	3822.669	2.570	-16.050	3532.046	-11.650	-8.780
92.	5720.418	-1.020	12.410	3827.095	4.960	-15.930	3529.701	-11.560	-8.680
93.	5718.852	-1.660	12.350	3834.223	7.140	-15.750	3523.576	-11.440	-8.570
94.	5716.677	-2.300	12.260	3843.736	9.970	-15.520	3518.378	-11.300	-8.440
95.	5713.910	-2.940	12.180	3855.276	12.470	-15.260	3508.993	-11.140	-8.290
96.	5710.572	-3.580	12.070	3868.489	15.000	-14.970	3499.472	-10.960	-8.110
97.	5706.690	-4.220	11.920	3883.047	17.560	-14.670	3490.766	-10.760	-7.900
98.	5702.298	-4.860	11.760	3898.657	20.150	-14.340	3479.827	-10.540	-7.670
99.	5697.430	-5.500	11.560	3915.066	22.770	-14.010	3469.060	-10.300	-7.420
99.	5697.430	-5.500	11.560	3915.066	22.770	-14.010	3469.060	-10.300	-7.420

Z-PLANE (XY-PLANE) LITHIUM TANTALATE (WARNER ET AL)

BULK

	LNGLVEL	LPM12	LPM13	FSRWEL	FSPM12	FSPM13	SSRWEL	SSPM12	SSPM13
100.	5692.130	-3.170	11.350	3932.051	14.070	-13.650	3450.436	-9.670	-6.740
101.	5686.443	-3.360	11.100	3949.414	14.240	-13.260	3447.990	-9.700	-6.500
102.	5680.621	-3.560	10.920	3966.903	14.260	-12.660	3437.732	-9.550	-6.330
103.	5674.121	-3.710	10.510	3984.596	14.190	-12.460	3427.752	-9.320	-6.180
104.	5667.883	-3.820	10.170	4002.510	14.080	-12.110	3416.121	-8.990	-5.940
105.	5660.932	-3.950	9.800	4019.380	13.700	-11.530	3406.096	-8.610	-5.670
106.	5654.176	-3.920	9.390	4036.279	13.310	-11.010	3400.127	-8.100	-5.300
107.	5647.412	-3.920	8.950	4052.681	12.830	-10.460	3391.650	-7.710	-4.930
108.	5640.711	-3.860	8.460	4068.664	12.260	-9.870	3384.098	-7.220	-4.740
109.	5634.152	-3.760	7.940	4083.587	11.610	-9.240	3376.696	-6.690	-4.400
110.	5627.814	-3.610	7.380	4097.699	10.870	-8.570	3370.269	-6.150	-4.070
111.	5621.776	-3.420	6.780	4110.928	10.050	-7.860	3364.230	-5.500	-3.600
112.	5616.117	-3.160	6.140	4123.086	9.150	-7.110	3358.796	-5.000	-3.290
113.	5610.913	-2.900	5.470	4134.082	8.190	-6.320	3353.977	-4.400	-2.900
114.	5606.235	-2.570	4.760	4143.816	7.150	-5.490	3349.745	-3.750	-2.500
115.	5602.152	-2.210	4.020	4152.206	6.060	-4.640	3346.225	-3.180	-2.100
116.	5598.722	-1.810	3.250	4159.176	4.910	-3.750	3343.305	-2.550	-1.690
117.	5595.998	-1.380	2.460	4164.669	3.730	-2.830	3341.030	-1.920	-1.270
118.	5594.621	-0.930	1.650	4168.629	2.500	-1.950	3339.402	-1.260	-0.850
119.	5592.621	-0.470	0.830	4171.020	1.260	-1.110	3338.094	-0.640	-0.420
120.	5592.621	0.000	0.000	4171.020	0.000	0.000	3338.094	0.000	0.000
121.	5592.622	.870	.870	4171.020	-1.260	.950	3338.424	.840	.420
122.	5594.021	1.330	-1.650	4168.629	-2.500	1.590	3339.402	1.260	.850
123.	5595.998	1.360	-2.460	4164.669	-3.730	2.630	3341.030	1.920	1.270
124.	5596.722	1.810	-3.250	4159.176	-4.910	3.750	3343.305	2.550	1.690
125.	5602.152	2.210	-4.020	4152.206	-6.060	4.640	3346.225	3.180	2.100
126.	5606.235	2.570	-4.760	4143.816	-7.150	5.490	3349.745	3.790	2.500
127.	5610.913	2.900	-5.470	4134.082	-8.190	6.320	3353.977	4.400	2.900
128.	5616.117	3.160	-6.140	4123.086	-9.150	7.110	3358.796	5.000	3.290
129.	5621.776	3.420	-6.780	4110.928	-10.050	7.860	3364.230	5.500	3.600
130.	5627.814	3.610	-7.380	4097.699	-10.870	8.570	3370.269	6.150	4.000
131.	5634.152	3.760	-7.940	4083.587	-11.610	9.240	3376.696	6.690	4.400
132.	5640.711	3.860	-8.460	4068.664	-12.260	9.870	3384.098	7.220	4.740
133.	5647.412	3.920	-8.950	4052.681	-12.830	10.460	3391.650	7.710	5.070
134.	5654.152	3.930	-9.390	4036.279	-13.310	11.010	3400.127	8.180	5.380
135.	5660.932	3.890	-9.800	4019.380	-13.700	11.530	3406.096	8.610	5.670
136.	5667.883	3.820	-10.170	4002.510	-14.000	12.010	3416.121	9.000	5.940
137.	5674.121	3.710	-10.510	3984.596	-14.190	12.460	3427.752	9.320	6.180
138.	5680.621	3.560	-10.920	3966.903	-14.260	12.660	3437.732	9.590	6.330
139.	5686.443	3.360	-11.100	3949.414	-14.240	12.860	3447.990	9.740	6.500
140.	5692.130	3.170	-11.350	3932.051	-14.070	13.260	3458.436	9.870	6.740
141.	5702.298	2.930	-11.560	3915.066	-13.760	13.650	3469.666	9.860	6.880
142.	5710.690	2.670	-11.760	3898.057	-13.270	14.010	3479.427	9.700	6.930
143.	5716.572	2.360	-11.920	3883.047	-12.580	14.340	3489.472	9.380	7.000
144.	5713.910	2.080	-12.070	3868.409	-11.660	14.970	3499.472	8.650	7.010
145.	5716.677	1.760	-12.180	3855.276	-10.470	15.260	3509.593	8.070	6.930
146.	5716.677	1.420	-12.280	3843.736	-8.970	15.520	3516.737	7.610	6.930
147.	5716.652	1.080	-12.350	3834.223	-7.140	15.750	3523.578	6.640	6.880
148.	5720.418	.720	-12.410	3827.095	-4.980	15.930	3526.761	5.640	6.610
149.	5721.363	.360	-12.440	3822.669	-2.570	16.050	3532.046	2.060	6.760

Z-PLANE (XY-PLANE) LITHIUM TANTALATE (WARNER ET AL)

BULK

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
150.	5721.676	0.000	-12.450	3821.167	0.000	16.090	3533.160	-0.000	0.720
151.	5721.363	-0.360	-12.440	3822.669	2.570	16.050	3532.046	-2.000	6.160
152.	5720.418	-7.720	-12.410	3827.095	4.980	15.930	3528.781	-3.970	6.010
153.	5716.052	-1.060	-12.350	3834.223	7.140	15.750	3523.578	-5.640	6.000
154.	5716.677	-1.420	-12.280	3843.736	6.970	15.520	3516.737	-7.010	6.340
155.	5710.910	-1.760	-12.180	3855.276	10.470	15.260	3506.593	-8.070	6.930
156.	5710.572	-2.000	-12.070	3868.469	11.660	14.970	3499.472	-8.650	7.000
157.	5708.690	-2.300	-11.920	3883.047	12.980	14.670	3491.666	-9.360	6.950
158.	5702.298	-2.670	-11.760	3898.657	13.270	14.340	3479.427	-9.700	6.960
159.	5697.430	-2.930	-11.560	3915.066	13.760	14.010	3466.960	-9.660	6.960
160.	5692.130	-3.170	-11.350	3932.051	14.070	13.650	3456.436	-9.670	6.740
161.	5686.443	-3.380	-11.100	3949.414	14.240	13.280	3447.990	-9.700	6.500
162.	5680.421	-3.560	-10.820	3966.983	14.280	12.660	3437.732	-9.590	6.350
163.	5674.121	-3.710	-10.510	3984.586	14.190	12.460	3427.752	-9.320	6.160
164.	5667.603	-3.820	-10.170	4002.108	14.000	12.010	3416.121	-8.990	5.990
165.	5660.932	-3.850	-9.800	4019.360	13.700	11.530	3408.996	-8.610	5.670
166.	5654.176	-3.930	-9.390	4036.279	13.310	11.010	3400.127	-8.180	5.360
167.	5647.412	-3.920	-8.950	4052.661	12.830	10.460	3391.650	-7.710	5.070
168.	5640.711	-3.660	-8.460	4068.464	12.260	9.870	3384.096	-7.220	4.740
169.	5634.152	-3.760	-7.940	4083.507	11.610	9.240	3376.898	-6.690	4.400
170.	5627.614	-3.610	-7.380	4097.699	10.670	8.570	3370.269	-6.150	4.040
171.	5621.776	-3.420	-6.780	4110.928	10.050	7.860	3364.230	-5.560	3.600
172.	5616.117	-3.180	-6.140	4123.068	9.150	7.110	3358.796	-5.000	3.290
173.	5610.913	-2.900	-5.470	4134.082	6.190	6.320	3353.977	-4.400	2.990
174.	5606.235	-2.570	-4.760	4143.816	7.150	5.490	3349.785	-3.790	2.500
175.	5602.152	-2.210	-4.020	4152.216	6.060	4.640	3346.225	-3.180	2.100
176.	5598.722	-1.810	-3.250	4159.178	4.910	3.750	3343.305	-2.520	1.690
177.	5595.998	-1.360	-2.460	4164.669	3.730	2.830	3341.030	-1.920	1.270
178.	5594.021	-0.930	-1.650	4168.659	2.500	1.900	3339.482	-1.280	0.850
179.	5592.822	-0.470	-0.830	4171.020	1.266	0.950	3338.424	-0.640	0.420
180.	5592.421	0.000	0.000	4171.619	-0.000	-0.000	3338.096	0.000	-0.000

2-PLANE (XY-PLANE) MAGNESIUM OXIDE

	LMSVEL	LPMI12	LPMI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
0.	9895.272	0.000	0.000	6596.404	0.000	0.000	6596.404	0.000	0.000
1.	9896.711	1.840	0.000	6596.415	-1.970	0.000	6596.404	0.000	0.000
2.	9101.010	2.060	0.000	6590.488	-3.920	0.000	6596.404	0.000	0.000
3.	9100.100	3.050	0.000	6590.674	-5.030	0.000	6596.404	0.000	0.000
4.	9117.912	4.000	0.000	6567.083	-7.670	0.000	6596.404	0.000	0.000
5.	9130.294	4.950	0.000	6565.858	-9.430	0.000	6596.404	0.000	0.000
6.	9165.099	5.710	0.000	6529.170	-11.800	0.000	6596.404	0.000	0.000
7.	9162.151	6.460	0.000	6585.221	-12.660	0.000	6596.404	0.000	0.000
8.	9161.254	7.140	0.000	6478.231	-14.120	0.000	6596.404	0.000	0.000
9.	9220.206	7.730	0.000	6448.435	-15.460	0.000	6596.404	0.000	0.000
10.	9224.795	8.250	0.000	6416.079	-16.680	0.000	6596.404	0.000	0.000
11.	9244.809	8.680	0.000	6391.414	-17.790	0.000	6596.404	0.000	0.000
12.	9274.038	9.050	0.000	6364.692	-18.790	0.000	6596.404	0.000	0.000
13.	9300.278	9.330	0.000	6366.166	-19.670	0.000	6596.404	0.000	0.000
14.	9327.331	9.550	0.000	6286.083	-20.450	0.000	6596.404	0.000	0.000
15.	9355.000	9.710	0.000	6224.688	-21.120	0.000	6596.404	0.000	0.000
16.	9383.129	9.800	0.000	6192.216	-21.700	0.000	6596.404	0.000	0.000
17.	9411.526	9.640	0.000	6138.999	-22.170	0.000	6596.404	0.000	0.000
18.	9440.042	9.420	0.000	6094.959	-22.550	0.000	6596.404	0.000	0.000
19.	9468.527	9.760	0.000	6050.611	-22.840	0.000	6596.404	0.000	0.000
20.	9496.846	9.650	0.000	6006.065	-23.040	0.000	6596.404	0.000	0.000
21.	9524.872	9.510	0.000	5961.520	-23.156	0.000	6596.404	0.000	0.000
22.	9552.466	9.320	0.000	5917.172	-23.160	0.000	6596.404	0.000	0.000
23.	9579.580	9.110	0.000	5873.207	-23.100	0.000	6596.404	0.000	0.000
24.	9606.054	8.860	0.000	5829.806	-22.940	0.000	6596.404	0.000	0.000
25.	9631.615	8.580	0.000	5787.145	-22.690	0.000	6596.404	0.000	0.000
26.	9656.779	8.260	0.000	5745.392	-22.360	0.000	6596.404	0.000	0.000
27.	9680.866	7.960	0.000	5704.706	-21.930	0.000	6596.404	0.000	0.000
28.	9704.011	7.620	0.000	5665.252	-21.420	0.000	6596.404	0.000	0.000
29.	9726.142	7.250	0.000	5627.173	-20.820	0.000	6596.404	0.000	0.000
30.	9747.291	6.870	0.000	5590.616	-20.120	0.000	6596.404	0.000	0.000
31.	9767.133	6.480	0.000	5555.719	-19.330	0.000	6596.404	0.000	0.000
32.	9785.890	6.070	0.000	5522.614	-18.460	0.000	6596.404	0.000	0.000
33.	9803.426	5.640	0.000	5491.425	-17.460	0.000	6596.404	0.000	0.000
34.	9819.699	5.210	0.000	5462.272	-16.420	0.000	6596.404	0.000	0.000
35.	9834.674	4.770	0.000	5435.263	-15.270	0.000	6596.404	0.000	0.000
36.	9848.316	4.310	0.000	5410.503	-14.030	0.000	6596.404	0.000	0.000
37.	9860.601	3.850	0.000	5386.885	-12.710	0.000	6596.404	0.000	0.000
38.	9871.497	3.390	0.000	5366.095	-11.320	0.000	6596.404	0.000	0.000
39.	9880.985	2.910	0.000	5350.611	-9.650	0.000	6596.404	0.000	0.000
40.	9889.045	2.440	0.000	5335.700	-8.310	0.000	6596.404	0.000	0.000
41.	9895.661	1.950	0.000	5323.420	-6.720	0.000	6596.404	0.000	0.000
42.	9898.829	1.470	0.000	5313.819	-5.080	0.000	6596.404	0.000	0.000
43.	9898.512	.980	0.000	5306.934	-3.410	0.000	6596.404	0.000	0.000
44.	9896.730	.490	0.000	5302.792	-1.710	0.000	6596.404	0.000	0.000
45.	9897.470	0.000	0.000	5301.409	0.000	0.000	6596.404	0.000	0.000
46.	9896.730	-4.90	0.000	5302.792	1.710	0.000	6596.404	0.000	0.000
47.	9894.512	-9.90	0.000	5306.934	3.410	0.000	6596.404	0.000	0.000
48.	9890.820	-14.70	0.000	5313.819	5.080	0.000	6596.404	0.000	0.000
49.	9885.661	-19.50	0.000	5323.420	6.720	0.000	6596.404	0.000	0.000

Z-PLANE (XY-PLANE) MAGNESIUM OXIDE

BULK

	LNGVEL	LPMH12	LPMH13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
50.	9009.045	-2.440	0.000	5335.700	0.310	0.000	6590.404	-0.000	0.000
51.	9000.985	-2.910	0.000	5350.611	9.850	0.000	6596.404	-0.000	0.000
52.	9071.697	-3.150	0.000	5360.095	11.320	0.000	6590.404	0.000	0.000
53.	9068.601	-3.050	0.000	5308.085	12.710	0.000	6590.404	0.000	0.000
54.	9068.316	-4.310	0.000	5410.503	14.030	0.000	6590.404	-0.000	0.000
55.	9034.674	-4.770	0.000	5435.263	15.270	0.000	6598.404	-0.000	0.000
56.	9019.699	-5.210	0.000	5462.272	16.420	0.000	6598.404	0.000	0.000
57.	9003.426	-5.640	0.000	5491.425	17.460	0.000	6598.404	-0.000	0.000
58.	9765.890	-6.070	0.000	5522.614	18.460	0.000	6598.404	0.000	0.000
59.	9767.133	-6.460	0.000	5555.719	19.330	0.000	6598.404	-0.000	0.000
60.	9787.201	-6.870	0.000	5590.616	20.120	0.000	6598.404	0.000	0.000
61.	9726.142	-7.250	0.000	5627.173	20.820	0.000	6598.404	-0.000	0.000
62.	9704.011	-7.620	0.000	5665.252	21.420	0.000	6598.404	0.000	0.000
63.	9680.866	-7.960	0.000	5704.706	21.930	0.000	6598.404	-0.000	0.000
64.	9656.774	-8.280	0.000	5745.392	22.360	0.000	6598.404	0.000	0.000
65.	9631.815	-8.560	0.000	5787.145	22.690	0.000	6598.404	-0.000	0.000
66.	9606.054	-8.800	0.000	5829.806	22.940	0.000	6598.404	0.000	0.000
67.	9579.580	-9.110	0.000	5873.207	23.100	0.000	6598.404	-0.000	0.000
68.	9552.486	-9.320	0.000	5917.172	23.160	0.000	6598.404	0.000	0.000
69.	9524.872	-9.510	0.000	5961.520	23.150	0.000	6598.404	-0.000	0.000
70.	9496.546	-9.650	0.000	6006.065	23.040	0.000	6598.404	0.000	0.000
71.	9468.527	-9.760	0.000	6050.611	22.846	0.000	6598.404	-0.000	0.000
72.	9440.042	-9.820	0.000	6094.959	22.550	0.000	6598.404	0.000	0.000
73.	9411.526	-9.840	0.000	6138.899	22.170	0.000	6598.404	-0.000	0.000
74.	9383.125	-9.800	0.000	6182.216	21.700	0.000	6598.404	0.000	0.000
75.	9355.008	-9.710	0.000	6224.606	21.120	0.000	6598.404	-0.000	0.000
76.	9327.331	-9.550	0.000	6266.083	20.450	0.000	6598.404	0.000	0.000
77.	9300.278	-9.330	0.000	6306.166	19.670	0.000	6598.404	-0.000	0.000
78.	9274.038	-9.050	0.000	6344.692	18.790	0.000	6598.404	0.000	0.000
79.	9248.805	-8.660	0.000	6381.414	17.790	0.000	6598.404	-0.000	0.000
80.	9224.795	-8.250	0.000	6416.079	16.660	0.000	6598.404	0.000	0.000
81.	9202.206	-7.730	0.000	6448.435	15.460	0.000	6598.404	-0.000	0.000
82.	9181.254	-7.140	0.000	6478.231	14.120	0.000	6598.404	0.000	0.000
83.	9162.151	-6.460	0.000	6505.221	12.660	0.000	6598.404	-0.000	0.000
84.	9145.095	-5.710	0.000	6529.170	11.100	0.000	6598.404	0.000	0.000
85.	9130.294	-4.650	0.000	6549.856	9.430	0.000	6598.404	-0.000	0.000
86.	9117.912	-4.000	0.000	6567.083	7.670	0.000	6598.404	0.000	0.000
87.	9108.108	-3.050	0.000	6580.674	5.830	0.000	6598.404	-0.000	0.000
88.	9101.010	-2.060	0.000	6590.488	3.920	0.000	6598.404	0.000	0.000
89.	9086.711	-1.840	0.000	6596.415	1.970	0.000	6598.404	-0.000	0.000
90.	9085.272	0.000	0.000	6598.404	-0.000	0.000	6598.404	0.000	0.000
91.	9096.711	1.840	0.000	6596.419	-1.970	0.000	6598.404	-0.000	0.000
92.	9101.010	2.060	0.000	6590.486	-3.920	0.000	6598.404	0.000	0.000
93.	9108.108	3.050	0.000	6580.674	-5.830	0.000	6598.404	-0.000	0.000
94.	9117.912	4.000	0.000	6567.083	-7.670	0.000	6598.404	0.000	0.000
95.	9130.294	4.890	0.000	6549.856	-9.430	0.000	6598.404	-0.000	0.000
96.	9145.095	5.710	0.000	6529.170	-11.100	0.000	6598.404	0.000	0.000
97.	9162.151	6.460	0.000	6505.221	-12.660	0.000	6598.404	-0.000	0.000
98.	9181.254	7.140	0.000	6478.231	-14.120	0.000	6598.404	0.000	0.000
99.	9202.206	7.730	0.000	6448.435	-15.460	0.000	6598.404	-0.000	0.000

Z-PLANE (XY-PLANE) MAGNESIUM OXIDE

	LMGVEL	LPMI12	LPMI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
109.	9224.795	8.250	0.000	6416.074	-16.660	0.000	6598.404	0.000	0.000
109.	9248.889	8.600	0.000	6381.414	-17.790	0.000	6598.404	-0.000	0.000
109.	9274.038	9.050	0.000	6344.692	-18.790	0.000	6598.404	-0.000	0.000
109.	9300.278	9.330	0.000	6306.166	-19.670	0.000	6598.404	0.000	0.000
109.	9327.731	9.550	0.000	6266.003	-20.450	0.000	6598.404	0.000	0.000
109.	9355.088	9.710	0.000	6224.686	-21.120	0.000	6598.404	0.000	0.000
109.	9383.129	9.800	0.000	6182.216	-21.700	0.000	6598.404	0.000	0.000
107.	9411.526	9.840	0.000	6138.698	-22.170	0.000	6598.404	0.000	0.000
109.	9440.842	9.820	0.000	6094.959	-22.550	0.000	6598.404	0.000	0.000
109.	9468.527	9.760	0.000	6050.611	-22.840	0.000	6598.404	0.000	0.000
110.	9496.846	9.650	0.000	6006.065	-23.040	0.000	6598.404	0.000	0.000
111.	9524.872	9.510	0.000	5961.520	-23.150	0.000	6598.404	0.000	0.000
112.	9552.486	9.320	0.000	5917.172	-23.160	0.000	6598.404	0.000	0.000
113.	9579.580	9.110	0.000	5873.207	-23.100	0.000	6598.404	0.000	0.000
114.	9606.854	8.860	0.000	5829.806	-22.940	0.000	6598.404	-0.000	0.000
115.	9631.815	8.590	0.000	5787.145	-22.690	0.000	6598.404	-0.000	0.000
116.	9656.779	8.260	0.000	5745.392	-22.360	0.000	6598.404	0.000	0.000
117.	9680.860	7.960	0.000	5704.706	-21.930	0.000	6598.404	0.000	0.000
118.	9704.011	7.620	0.000	5665.252	-21.420	0.000	6598.404	-0.000	0.000
119.	9726.142	7.250	0.000	5627.173	-20.820	0.000	6598.404	-0.000	0.000
120.	9747.201	6.870	0.000	5590.616	-20.120	0.000	6598.404	-0.000	0.000
121.	9767.133	6.480	0.000	5555.719	-19.330	0.000	6598.404	-0.000	0.000
122.	9785.890	6.070	0.000	5522.614	-18.460	0.000	6598.404	-0.000	0.000
123.	9803.426	5.640	0.000	5491.425	-17.460	0.000	6598.404	0.000	0.000
124.	9819.695	5.210	0.000	5462.272	-16.420	0.000	6598.404	0.000	0.000
125.	9834.674	4.770	0.000	5435.263	-15.270	0.000	6598.404	0.000	0.000
126.	9848.316	4.310	0.000	5410.503	-14.030	0.000	6598.404	0.000	0.000
127.	9860.601	3.850	0.000	5386.885	-12.710	0.000	6598.404	0.000	0.000
128.	9871.497	3.390	0.000	5366.095	-11.320	0.000	6598.404	0.000	0.000
129.	9880.985	2.910	0.000	5350.611	-9.850	0.000	6598.404	0.000	0.000
130.	9889.045	2.440	0.000	5335.700	-8.310	0.000	6598.404	0.000	0.000
131.	9895.661	1.950	0.000	5323.420	-6.720	0.000	6598.404	0.000	0.000
132.	9900.820	1.470	0.000	5313.619	-5.060	0.000	6598.404	0.000	0.000
133.	9904.512	960	0.000	5306.934	-3.410	0.000	6598.404	0.000	0.000
134.	9906.730	-0.000	0.000	5302.792	-1.710	0.000	6598.404	-0.000	0.000
135.	9907.470	-0.000	0.000	5301.409	0.000	0.000	6598.404	-0.000	0.000
136.	9906.730	-0.690	0.000	5302.792	1.710	0.000	6598.404	0.000	0.000
137.	9904.512	-0.670	0.000	5306.934	3.410	0.000	6598.404	0.000	0.000
138.	9900.820	-1.470	0.000	5313.619	5.060	0.000	6598.404	0.000	0.000
139.	9895.661	-2.440	0.000	5323.420	6.720	0.000	6598.404	0.000	0.000
140.	9889.045	-3.390	0.000	5335.700	8.310	0.000	6598.404	0.000	0.000
141.	9880.985	-4.310	0.000	5350.611	9.850	0.000	6598.404	0.000	0.000
142.	9871.497	-5.210	0.000	5366.095	11.320	0.000	6598.404	0.000	0.000
143.	9860.601	-6.070	0.000	5386.885	12.710	0.000	6598.404	0.000	0.000
144.	9848.316	-6.870	0.000	5406.805	14.030	0.000	6598.404	0.000	0.000
145.	9834.674	-7.620	0.000	5427.173	15.270	0.000	6598.404	0.000	0.000
146.	9819.695	-8.260	0.000	5448.503	16.420	0.000	6598.404	0.000	0.000
147.	9803.426	-8.860	0.000	5470.616	17.460	0.000	6598.404	0.000	0.000
148.	9785.890	-9.480	0.000	5491.425	18.460	0.000	6598.404	0.000	0.000
149.	9767.133	-10.070	0.000	5512.614	19.330	0.000	6598.404	-0.000	0.000

Z-PLANE (XY-PLANE) MAGNESIUM OXIDE									
	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
150.	9747.201	-6.870	0.000	5590.616	20.120	0.000	6598.404	0.000	0.000
151.	9726.142	-7.250	0.000	5627.473	20.820	0.000	6598.404	0.000	0.000
152.	9704.011	-7.620	0.000	5665.252	21.420	0.000	6598.404	0.000	0.000
153.	9680.866	-7.960	0.000	5704.708	21.930	0.000	6598.404	0.000	0.000
154.	9656.779	-8.280	0.000	5745.392	22.360	0.000	6598.404	0.000	0.000
155.	9631.815	-8.580	0.000	5787.145	22.690	0.000	6598.404	0.000	0.000
156.	9606.054	-8.860	0.000	5829.806	22.940	0.000	6598.404	0.000	0.000
157.	9579.580	-9.110	0.000	5873.207	23.100	0.000	6598.404	0.000	0.000
158.	9552.486	-9.320	0.000	5917.172	23.160	0.000	6598.404	0.000	0.000
159.	9524.872	-9.510	0.000	5961.520	23.150	0.000	6598.404	0.000	0.000
160.	9496.846	-9.650	0.000	6006.065	23.040	0.000	6598.404	0.000	0.000
161.	9468.527	-9.760	0.000	6050.611	22.840	0.000	6598.404	0.000	0.000
162.	9440.042	-9.820	0.000	6094.959	22.550	0.000	6598.404	0.000	0.000
163.	9411.526	-9.840	0.000	6138.899	22.170	0.000	6598.404	0.000	0.000
164.	9383.129	-9.800	0.000	6182.216	21.700	0.000	6598.404	0.000	0.000
165.	9355.008	-9.710	0.000	6224.666	21.120	0.000	6598.404	0.000	0.000
166.	9327.331	-9.550	0.000	6266.883	20.450	0.000	6598.404	0.000	0.000
167.	9300.276	-9.330	0.000	6308.166	19.670	0.000	6598.404	0.000	0.000
168.	9274.038	-9.050	0.000	6344.692	18.790	0.000	6598.404	0.000	0.000
169.	9248.809	-8.680	0.000	6381.414	17.790	0.000	6598.404	0.000	0.000
170.	9224.795	-8.250	0.000	6418.079	16.660	0.000	6598.404	0.000	0.000
171.	9202.206	-7.730	0.000	6448.835	15.460	0.000	6598.404	0.000	0.000
172.	9181.254	-7.140	0.000	6478.231	14.120	0.000	6598.404	0.000	0.000
173.	9162.151	-6.460	0.000	6505.221	12.660	0.000	6598.404	0.000	0.000
174.	9145.099	-5.710	0.000	6529.170	11.100	0.000	6598.404	0.000	0.000
175.	9130.294	-4.850	0.000	6549.856	9.430	0.000	6598.404	0.000	0.000
176.	9117.912	-4.000	0.000	6567.083	7.670	0.000	6598.404	0.000	0.000
177.	9108.108	-3.050	0.000	6580.674	5.830	0.000	6598.404	0.000	0.000
178.	9101.010	-2.060	0.000	6590.480	3.920	0.000	6598.404	0.000	0.000
179.	9096.711	-1.040	0.000	6596.419	1.970	0.000	6598.404	0.000	0.000
180.	9095.272	0.000	0.000	6598.404	-0.000	0.000	6598.404	0.000	0.000

BULK

111-PLANE MAGNESIUM OXIDE

BULK

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
0.	9907.470	-0.000	0.000	6598.404	-0.000	0.000	5301.409	0.000	0.000
1.	9907.505	.060	.400	6597.625	-0.760	-0.550	5302.166	0.000	-0.250
2.	9907.926	.150	.800	6595.290	-1.550	-1.490	5304.431	1.670	-1.650
3.	9908.491	.220	1.190	6591.411	-2.310	-2.310	5306.137	2.790	-1.850
4.	9909.212	.290	1.590	6586.005	-3.070	-3.070	5333.446	3.690	-2.170
5.	9910.260	.360	1.970	6579.097	-3.810	-3.810	5350.137	4.560	-2.700
6.	9911.444	.420	2.350	6570.716	-4.540	-4.540	5356.301	5.440	-3.210
7.	9912.809	.480	2.720	6560.907	-5.240	-5.240	5337.641	6.260	-3.720
8.	9914.341	.530	3.080	6549.712	-5.930	-5.930	5348.736	7.060	-4.210
9.	9916.020	.580	3.430	6537.164	-6.590	-6.590	5360.935	7.810	-4.660
10.	9917.827	.620	3.770	6523.365	-7.210	-7.210	5374.663	8.520	-5.140
11.	9919.743	.650	4.100	6508.364	-7.810	-7.810	5389.015	9.180	-5.560
12.	9921.744	.670	4.410	6492.260	-8.360	-8.360	5404.757	9.790	-6.000
13.	9923.809	.690	4.710	6475.097	-8.880	-8.880	5421.526	10.340	-6.350
14.	9925.915	.700	4.990	6456.993	-9.340	-9.340	5439.236	10.820	-6.710
15.	9928.038	.700	5.260	6438.056	-9.750	-9.750	5457.776	11.230	-7.120
16.	9930.154	.700	5.520	6418.407	-10.100	-10.100	5477.036	11.570	-7.440
17.	9932.242	.680	5.750	6398.101	-10.390	-10.390	5497.631	11.830	-7.680
18.	9934.278	.660	5.970	6377.534	-10.590	-10.590	5517.156	11.960	-7.840
19.	9936.240	.630	6.180	6356.640	-10.690	-10.690	5537.700	12.040	-7.920
20.	9938.107	.600	6.360	6335.702	-10.700	-10.700	5558.304	11.970	-7.860
21.	9939.861	.560	6.530	6314.954	-10.570	-10.570	5579.742	11.760	-7.670
22.	9941.482	.510	6.680	6294.669	-10.290	-10.290	5596.743	11.590	-7.460
23.	9942.984	.460	6.820	6275.164	-9.840	-9.840	5617.990	11.330	-7.220
24.	9944.262	.400	6.930	6256.809	-9.180	-9.180	5636.116	11.050	-6.950
25.	9945.392	.340	7.030	6240.027	-8.280	-8.280	5652.706	10.650	-6.550
26.	9946.332	.280	7.110	6225.288	-7.110	-7.110	5667.283	9.720	-5.230
27.	9947.074	.210	7.170	6213.094	-5.660	-5.660	5679.351	8.130	-3.470
28.	9947.605	.140	7.220	6203.937	-3.960	-3.960	5680.417	6.270	-1.500
29.	9947.932	.070	7.250	6196.244	-2.040	-2.040	5695.969	4.000	-0.330
30.	9948.040	-0.000	7.266	6196.311	0.000	0.000	5694.055	0.000	-0.320
31.	9947.932	-0.070	7.250	6198.244	2.040	2.040	5660.417	-4.270	-3.310
32.	9947.605	-0.140	7.220	6203.937	3.960	3.960	5679.351	-6.130	-5.230
33.	9947.074	-0.210	7.170	6213.094	5.660	5.660	5695.969	-7.720	-6.950
34.	9946.332	-0.280	7.110	6225.288	7.110	7.110	5694.055	-9.130	-8.230
35.	9945.392	-0.340	7.030	6235.286	8.280	8.280	5652.706	-10.630	-9.420
36.	9944.262	-0.400	6.930	6240.027	9.180	9.180	5636.116	-12.040	-10.590
37.	9942.984	-0.460	6.820	6256.809	9.840	9.840	5617.990	-10.630	-9.050
38.	9941.482	-0.510	6.680	6275.164	10.290	10.290	5596.743	-11.330	-7.440
39.	9939.861	-0.560	6.530	6314.954	10.570	10.570	5579.742	-11.760	-6.670
40.	9938.107	-0.600	6.360	6335.702	10.700	10.700	5558.304	-11.960	-6.460
41.	9936.240	-0.630	6.180	6356.640	10.690	10.690	5537.700	-12.040	-6.260
42.	9934.278	-0.650	5.970	6377.534	10.590	10.590	5517.156	-11.960	-6.020
43.	9932.242	-0.660	5.750	6398.101	10.360	10.360	5497.631	-11.590	-5.740
44.	9930.154	-0.660	5.520	6418.407	10.100	10.100	5477.036	-11.570	-5.440
45.	9928.038	-0.700	5.260	6438.056	9.750	9.750	5457.776	-11.230	-5.120
46.	9925.915	-0.700	4.990	6456.993	9.340	9.340	5439.236	-10.820	-4.710
47.	9923.809	-0.690	4.710	6475.097	8.880	8.880	5421.526	-10.340	-4.210
48.	9921.744	-0.680	4.410	6492.260	8.360	8.360	5404.757	-9.790	-3.690
49.	9919.743	-0.650	4.100	6508.364	7.810	7.810	5389.015	-9.180	-3.140

111-PLANE MAGNESIUM OXIDE

	LPHI12	LPHI13	FSRWEL	FSPHI12	FSPHI13	SSRWEL	SSPHI12	SSPHI13
50.	-4620	3.770	6523.385	7.210	-5.220	5374.383	-8.520	-5.150
51.	-1560	3.430	6537.184	6.590	-4.740	5360.935	-7.610	-4.600
52.	-530	3.060	6549.712	5.930	-4.250	5348.736	-7.060	-4.210
53.	-460	2.720	6560.906	5.240	-3.750	5337.041	-6.260	-3.720
54.	-420	2.350	6570.716	4.540	-3.230	5326.301	-5.440	-3.210
55.	-360	1.970	6579.097	3.810	-2.710	5320.157	-4.580	-2.710
56.	-290	1.590	6586.005	3.070	-2.180	5313.446	-3.690	-2.170
57.	-220	1.190	6591.411	2.310	-1.640	5306.197	-2.790	-1.640
58.	-150	.800	6595.290	1.550	-1.090	5300.431	-1.870	-1.090
59.	0.000	.400	6597.625	.780	-.550	5302.166	-.940	-.550
60.	0.000	0.000	6596.404	-0.000	0.000	5301.409	-0.000	-0.000
61.	0.000	-400	6597.625	-7.80	.550	5302.166	.940	.550
62.	150	-800	6595.290	-1.550	1.050	5304.431	1.670	1.050
63.	220	-1.190	6591.411	-2.310	1.640	5306.197	2.790	1.640
64.	290	-1.590	6586.005	-3.070	2.180	5313.446	3.690	2.180
65.	360	-1.970	6579.097	-3.810	2.710	5320.157	4.580	2.710
66.	420	-2.350	6570.716	-4.540	3.230	5326.301	5.440	3.210
67.	460	-2.720	6560.907	-5.240	3.750	5337.041	6.260	3.720
68.	530	-3.060	6549.711	-5.930	4.250	5348.736	7.060	4.210
69.	560	-3.430	6537.184	-6.590	4.740	5360.935	7.810	4.660
70.	620	-3.770	6523.385	-7.210	5.220	5374.383	8.520	5.140
71.	650	-4.100	6508.384	-7.610	5.660	5389.015	9.160	5.500
72.	670	-4.410	6492.254	-8.360	6.130	5404.757	9.790	6.000
73.	690	-4.710	6475.097	-8.860	6.560	5421.228	10.340	6.390
74.	700	-4.990	6456.993	-9.340	6.970	5439.236	10.820	6.770
75.	700	-5.260	6438.056	-9.750	7.370	5457.776	11.230	7.120
76.	700	-5.520	6418.407	-10.100	7.750	5477.036	11.570	7.490
77.	660	-5.750	6398.181	-10.360	8.110	5496.660	11.830	7.790
78.	660	-5.970	6377.533	-10.590	8.450	5517.158	11.980	8.020
79.	630	-6.180	6356.639	-10.690	8.770	5537.699	12.040	8.260
80.	600	-6.360	6335.701	-10.700	9.070	5559.304	11.970	8.400
81.	560	-6.530	6314.954	-10.570	9.350	5582.722	11.760	8.500
82.	510	-6.680	6294.666	-10.290	9.610	5607.742	11.390	8.600
83.	460	-6.820	6275.164	-9.840	9.850	5634.940	10.830	8.690
84.	400	-6.930	6256.805	-9.100	10.060	5662.706	10.050	8.700
85.	340	-7.030	6240.027	-8.280	10.250	5691.283	9.020	8.710
86.	260	-7.110	6225.286	-7.110	10.420	5667.283	7.720	8.720
87.	210	-7.170	6213.094	-5.660	10.550	5674.351	6.430	8.720
88.	140	-7.220	6203.936	-3.960	10.650	5684.417	5.200	8.700
89.	80	-7.250	6196.244	-2.000	10.710	5694.055	4.000	8.650
90.	0.000	-7.260	6196.311	0.000	10.730	5694.055	0.000	8.620
91.	-80	-7.250	6198.244	2.040	10.710	5684.417	-2.200	8.530
92.	-140	-7.220	6203.936	3.960	10.650	5674.351	-4.270	8.300
93.	-210	-7.170	6213.094	5.660	10.550	5674.351	-6.130	8.270
94.	-260	-7.110	6225.286	7.110	10.420	5674.351	-7.720	8.230
95.	-340	-7.030	6240.027	8.280	10.250	5684.417	-9.020	8.100
96.	-400	-6.930	6256.809	9.100	10.060	5694.055	-10.050	8.000
97.	-460	-6.820	6275.164	9.840	9.850	5694.055	-10.630	8.000
98.	-510	-6.680	6294.666	10.290	9.610	5570.742	-11.390	8.000
99.	-560	-6.530	6314.954	10.570	9.350	5570.742	-11.760	8.000

BULK

111-PLANE MAGNESIUM OXIDE

BULK

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
100.	9930.106	-6.360	-6.360	6335.701	10.700	9.070	5550.304	-11.970	0.460
101.	9936.240	-6.630	-6.180	6356.639	10.650	8.770	537.699	-12.040	0.260
102.	9934.276	-6.660	-5.970	6377.533	10.590	8.450	551.158	-11.500	0.020
103.	9932.262	-6.600	-5.750	6396.181	10.360	8.110	549.080	-11.630	0.000
104.	9938.155	-7.000	-5.520	6416.407	10.100	7.750	547.086	-11.570	7.440
105.	9928.036	-7.000	-5.260	6438.056	9.750	7.370	5457.778	-11.230	7.120
106.	9925.915	-7.000	-4.990	6456.993	9.340	6.970	5439.236	-10.820	6.710
107.	9923.810	-6.900	-4.710	6475.097	8.600	6.560	5421.526	-10.340	6.320
108.	9921.744	-6.700	-4.410	6492.259	8.360	6.130	5404.757	-9.770	5.950
109.	9919.743	-6.600	-4.100	6508.384	7.810	5.680	5389.015	-9.140	5.600
110.	9917.827	-6.620	-3.770	6523.385	7.210	5.220	5374.353	-8.520	5.140
111.	9916.020	-5.560	-3.430	6537.184	6.590	4.740	5360.935	-7.610	4.600
112.	9914.341	-5.530	-3.060	6549.711	5.940	4.250	5348.730	-7.000	4.210
113.	9912.805	-4.600	-2.720	6560.907	5.240	3.750	5337.641	-6.200	3.720
114.	9911.444	-4.200	-2.350	6570.716	4.540	3.230	5328.301	-5.440	3.210
115.	9910.260	-3.600	-1.970	6578.097	3.810	2.710	5320.157	-4.500	2.700
116.	9909.272	-2.250	-1.590	6586.005	3.070	2.180	5313.446	-3.630	2.110
117.	9908.491	-2.220	-1.190	6591.411	2.310	1.640	5306.197	-2.730	1.600
118.	9907.926	-1.150	-0.800	6595.290	1.550	1.090	5300.441	-1.870	1.070
119.	9907.585	-0.060	-0.400	6597.625	0.760	0.550	5302.166	-0.940	0.520
120.	9907.470	-0.000	0.000	6598.404	0.000	0.000	5301.409	0.000	0.000
121.	9907.565	0.080	0.400	6597.625	-7.60	-5.50	5302.166	0.000	-5.50
122.	9907.926	0.150	0.800	6595.290	-1.550	-1.090	5300.441	1.870	-1.090
123.	9908.491	0.220	1.190	6591.411	-2.310	-1.640	5306.197	2.730	-1.640
124.	9909.272	0.290	1.590	6586.005	-3.070	-2.180	5313.446	3.630	-2.180
125.	9910.260	0.360	1.970	6579.097	-3.810	-2.710	5320.157	4.500	-2.710
126.	9911.444	0.420	2.350	6570.716	-4.540	-3.230	5328.301	5.440	-3.210
127.	9912.809	0.480	2.720	6560.908	-5.240	-3.750	5337.641	6.200	-3.720
128.	9914.340	0.530	3.060	6549.712	-5.940	-4.250	5348.730	7.000	-4.210
129.	9916.020	0.580	3.430	6537.184	-6.590	-4.740	5360.935	7.610	-4.600
130.	9917.827	0.620	3.770	6523.385	-7.210	-5.220	5374.353	8.520	-5.140
131.	9919.743	0.650	4.100	6508.384	-7.810	-5.680	5389.015	9.140	-5.560
132.	9921.744	0.670	4.410	6492.260	-8.360	-6.130	5404.757	9.770	-6.000
133.	9923.805	0.650	4.710	6475.097	-8.800	-6.580	5421.526	10.340	-6.320
134.	9925.915	0.700	4.990	6456.993	-9.340	-7.000	5439.236	10.820	-6.640
135.	9928.036	0.700	5.260	6438.056	-9.750	-7.370	5457.778	11.230	-6.970
136.	9930.154	0.700	5.520	6418.407	-10.100	-7.750	5477.036	11.570	-7.440
137.	9932.242	0.660	5.750	6398.181	-10.360	-8.110	5496.080	11.630	-7.740
138.	9934.277	0.660	5.970	6377.534	-10.590	-8.450	5517.159	11.500	-8.020
139.	9936.240	0.630	6.180	6356.640	-10.640	-8.770	5537.700	12.040	-8.260
140.	9938.107	0.600	6.360	6335.782	-10.700	-9.070	5558.385	11.570	-8.460
141.	9939.861	0.500	6.530	6314.954	-10.570	-8.350	5578.782	11.760	-8.610
142.	9941.482	0.510	6.660	6294.669	-10.290	-8.010	5598.743	11.390	-8.600
143.	9942.954	0.460	6.820	6275.164	-9.840	-7.650	5617.940	10.630	-8.370
144.	9944.262	0.400	6.930	6256.885	-9.180	-7.000	5636.118	10.050	-8.080
145.	9945.392	0.340	7.030	6240.027	-8.280	-6.250	5652.706	9.020	-7.100
146.	9946.332	0.260	7.110	6225.286	-7.110	-5.440	5667.233	7.720	-6.230
147.	9947.874	0.210	7.170	6213.094	-5.660	-4.590	5678.351	6.130	-5.270
148.	9947.609	0.140	7.220	6203.937	-4.960	-3.860	5688.447	4.270	-3.300
149.	9947.932	0.070	7.250	6198.244	-2.040	-1.070	5694.055	2.200	-2.310

111-PLANE MAGNESIUM OXIDE

BULK

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
150.	9948.840	0.000	7.260	6196.311	-0.000	-10.730	5695.969	-0.000	-3.320
151.	9947.932	-0.070	7.250	6198.244	2.040	-10.710	5694.055	-2.204	-3.310
152.	9947.609	-1.140	7.220	6203.937	3.960	-10.650	5686.417	-4.270	-3.300
153.	9947.074	-2.210	7.170	6213.094	5.660	-10.550	5679.351	-6.130	-3.290
154.	9946.332	-3.340	7.110	6225.286	7.110	-10.420	5667.283	-7.720	-3.280
155.	9945.392	-4.340	7.030	6240.027	8.260	-10.260	5652.706	-9.020	-3.170
156.	9944.262	-5.400	6.930	6256.809	9.160	-10.060	5636.116	-10.020	-3.000
157.	9942.954	-6.600	6.620	6275.164	9.840	-9.850	5617.990	-10.830	-2.890
158.	9941.482	-7.510	6.680	6294.669	10.290	-9.610	5596.783	-11.390	-2.800
159.	9939.861	-8.560	6.530	6314.954	10.570	-9.350	5576.742	-11.760	-2.670
160.	9938.107	-9.600	6.360	6335.702	10.700	-9.070	5556.304	-11.970	-2.400
161.	9936.240	-10.830	6.180	6356.640	10.850	-8.770	5537.708	-12.040	-2.000
162.	9934.274	-12.660	5.970	6377.534	10.590	-8.450	5517.158	-11.840	-1.500
163.	9932.242	-16.600	5.750	6398.181	10.360	-8.110	5496.880	-11.630	-1.000
164.	9930.154	-17.000	5.520	6418.407	10.100	-7.750	5477.936	-11.570	-1.000
165.	9928.038	-17.000	5.260	6438.056	9.750	-7.370	5457.776	-11.230	-1.120
166.	9925.915	-17.000	4.990	6456.993	9.340	-6.970	5439.236	-10.820	-1.120
167.	9923.809	-16.500	4.710	6475.097	8.880	-6.560	5421.526	-10.340	-1.030
168.	9921.744	-16.500	4.410	6492.260	8.360	-6.130	5404.757	-9.790	-0.800
169.	9919.743	-16.500	4.100	6508.384	7.810	-5.680	5388.015	-9.180	-0.500
170.	9917.827	-16.200	3.770	6523.385	7.210	-5.220	5371.333	-8.520	-0.100
171.	9916.020	-15.800	3.430	6537.184	6.590	-4.740	5354.735	-7.810	0.000
172.	9914.341	-15.300	3.080	6549.712	5.930	-4.250	5340.736	-7.060	0.000
173.	9912.805	-14.600	2.720	6560.907	5.240	-3.750	5337.841	-6.260	0.000
174.	9911.444	-14.200	2.350	6570.718	4.540	-3.230	5326.301	-5.440	0.000
175.	9910.260	-13.600	1.970	6579.097	3.810	-2.710	5320.157	-4.580	0.000
176.	9909.272	-12.900	1.590	6586.005	3.070	-2.180	5314.446	-3.690	0.000
177.	9908.491	-12.200	1.190	6591.411	2.310	-1.640	5308.137	-2.790	0.000
178.	9907.926	-11.500	.800	6595.290	1.550	-1.090	5301.431	-1.870	0.000
179.	9907.585	-10.800	.400	6597.625	.760	-.550	5302.166	-.940	0.000
180.	9907.470	-0.000	-0.000	6596.404	-0.000	0.000	5301.409	0.000	0.000

110-PLANE MAGNESIUM OXIDE

BULK

	LNQVEL	LPMI12	LPMI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
0.	10163.790	0.000	-0.000	5766.256	12.340	0.000	5766.230	-12.340	0.000
1.	10163.260	-3.340	-0.000	5766.349	12.350	0.000	5766.998	-11.540	-0.000
2.	10161.652	-7.700	0.000	5830.819	12.420	0.000	5725.328	-10.660	-0.000
3.	10158.942	-1.060	-0.000	5833.819	12.440	0.000	5707.331	-9.760	0.000
4.	10155.112	-1.420	-0.000	5855.520	12.440	0.000	5631.063	-8.760	0.000
5.	10150.144	-1.790	-0.000	5876.094	12.420	0.000	5676.658	-7.760	0.000
6.	10144.023	-2.178	-0.000	5908.712	12.390	0.000	5664.118	-6.680	0.000
7.	10138.739	-2.550	-0.000	5923.348	12.350	0.000	5653.523	-5.500	0.000
8.	10128.282	-2.930	-0.000	5945.973	12.290	0.000	5644.722	-4.400	0.000
9.	10120.848	-3.310	-0.000	5968.559	12.220	-0.000	5636.360	-3.220	0.000
10.	10107.834	-3.700	-0.000	5991.061	12.130	0.000	5633.069	-2.010	0.000
11.	10095.839	-4.090	-0.000	6013.511	12.030	0.000	5631.479	-1.780	0.000
12.	10082.667	-4.470	-0.000	6035.823	11.920	0.000	5631.206	0.000	0.000
13.	10068.323	-4.860	-0.000	6057.992	11.800	0.000	5633.067	1.770	0.000
14.	10052.816	-5.240	0.000	6079.993	11.660	-0.000	5637.056	2.540	0.000
15.	10036.137	-5.620	0.000	6101.799	11.520	0.000	5653.176	3.170	-0.000
16.	10018.362	-5.990	-0.000	6123.388	11.360	-0.000	5651.405	3.370	-0.000
17.	9999.446	-6.360	0.000	6144.735	11.190	-0.000	5681.724	6.550	-0.000
18.	9979.436	-6.730	-0.000	6165.817	11.010	0.000	5674.180	7.700	-0.000
19.	9958.358	-7.090	-0.000	6186.611	10.820	0.000	5688.934	8.810	-0.000
20.	9936.218	-7.460	-0.000	6207.094	10.620	0.000	5704.058	9.870	-0.000
21.	9913.071	-7.780	-0.000	6227.246	10.420	-0.000	5723.136	10.890	-0.000
22.	9888.944	-8.110	-0.000	6247.044	10.200	0.000	5743.263	11.850	-0.000
23.	9863.876	-8.430	0.000	6266.468	9.970	0.000	5765.169	12.750	-0.000
24.	9837.910	-8.740	-0.000	6285.498	9.740	0.000	5788.772	13.590	-0.000
25.	9811.094	-9.030	-0.000	6304.114	9.500	0.000	5813.385	14.360	-0.000
26.	9783.479	-9.310	0.000	6322.290	9.250	-0.000	5840.713	15.070	-0.000
27.	9755.121	-9.570	0.000	6340.032	9.000	0.000	5880.055	15.710	-0.000
28.	9726.083	-9.810	0.000	6357.296	8.720	-0.000	5928.299	16.280	-0.000
29.	9696.433	-10.030	0.000	6374.075	8.450	0.000	5984.930	16.770	-0.000
30.	9666.282	-10.230	-0.000	6390.352	8.170	0.000	5988.022	17.190	-0.000
31.	9635.591	-10.400	0.000	6406.110	7.890	0.000	5993.244	17.530	-0.000
32.	9604.566	-10.540	-0.000	6421.335	7.600	0.000	6026.658	17.800	0.000
33.	9573.260	-10.650	0.000	6436.031	7.300	0.000	6060.717	17.900	-0.000
34.	9541.773	-10.720	0.000	6450.126	7.000	0.000	6095.267	18.090	-0.000
35.	9510.213	-10.780	-0.000	6463.665	6.700	0.000	6130.149	18.110	0.000
36.	9478.696	-10.760	0.000	6476.615	6.390	0.000	6166.192	18.050	-0.000
37.	9447.351	-10.720	0.000	6488.964	6.070	-0.000	6205.222	17.900	-0.000
38.	9416.307	-10.630	-0.000	6500.701	5.750	-0.000	6235.054	17.670	-0.000
39.	9385.709	-10.490	-0.000	6511.815	5.430	0.000	6265.497	17.350	-0.000
40.	9355.708	-10.290	0.000	6522.294	5.100	0.000	6303.352	16.930	-0.000
41.	9326.465	-10.040	0.000	6532.131	4.770	0.000	6336.415	16.420	-0.000
42.	9298.148	-9.720	0.000	6541.315	4.440	0.000	6368.475	15.820	-0.000
43.	9270.935	-9.340	0.000	6549.839	4.100	0.000	6399.313	15.110	-0.000
44.	9245.008	-8.860	0.000	6557.694	3.760	0.000	6428.711	14.300	-0.000
45.	9220.553	-8.360	-0.000	6564.873	3.420	0.000	6456.446	13.390	-0.000
46.	9197.760	-7.770	0.000	6571.370	3.070	-0.000	6482.295	12.380	-0.000
47.	9176.618	-7.100	0.000	6577.179	2.720	-0.000	6506.041	11.270	-0.000
48.	9157.912	-6.360	0.000	6582.294	2.360	-0.000	6521.473	10.060	-0.000
49.	9141.219	-5.560	0.000	6586.711	2.000	0.000	6546.308	8.750	-0.000

110-PLANE MAGNESIUM OXIDE

	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
50.	9126.904	0.000	6590.426	1.670	0.000	6562.602	7.374	-0.000
51.	9115.115	0.000	6593.437	1.320	0.000	6575.949	5.900	-0.000
52.	9105.961	0.000	6595.739	.970	-0.000	6586.286	4.374	-0.000
53.	9099.602	0.000	6597.310	.620	0.000	6593.505	2.800	-0.000
54.	9096.052	0.000	6598.211	.260	0.000	6597.521	1.190	-0.000
55.	9095.373	0.000	6598.379	-.050	-0.000	6598.290	-.430	0.000
56.	9097.571	0.000	6597.835	-.450	-0.000	6595.804	-2.040	0.000
57.	9102.621	0.000	6596.579	-.800	0.000	6593.089	-3.640	-0.000
58.	9110.466	0.000	6594.611	-1.160	-0.000	6591.212	-5.190	-0.000
59.	9121.017	0.000	6591.935	-1.510	-0.000	6589.265	-6.660	-0.000
60.	9134.156	0.000	6588.552	-1.860	0.000	6584.386	-8.110	-0.000
61.	9145.747	0.000	6584.466	-2.210	-0.000	6578.726	-9.550	-0.000
62.	9157.630	0.000	6579.666	-2.560	-0.000	6576.456	-10.710	-0.000
63.	9187.633	0.000	6574.138	-2.910	-0.000	6493.779	-11.670	-0.000
64.	9209.576	0.000	6568.025	-3.250	-0.000	6468.695	-12.830	-0.000
65.	9233.270	0.000	6561.167	-3.600	-0.000	6442.023	-13.660	-0.000
66.	9258.526	0.000	6553.630	-3.940	-0.000	6413.382	-14.740	-0.000
67.	9285.155	0.000	6545.421	-4.280	0.000	6383.196	-15.490	-0.000
68.	9312.973	0.000	6536.566	-4.610	-0.000	6351.686	-16.150	-0.000
69.	9341.800	0.000	6527.016	-4.940	0.000	6319.070	-16.700	-0.000
70.	9371.464	0.000	6516.841	-5.270	0.000	6285.562	-17.160	-0.000
71.	9401.800	0.000	6506.025	-5.600	-0.000	6251.371	-17.530	-0.000
72.	9432.652	0.000	6494.591	-5.920	0.000	6216.690	-17.610	-0.000
73.	9463.873	0.000	6482.519	-6.240	-0.000	6181.734	-17.890	-0.000
74.	9495.325	0.000	6469.851	-6.550	0.000	6146.600	-18.090	-0.000
75.	9526.879	0.000	6456.595	-6.860	-0.000	6111.700	-18.110	-0.000
76.	9558.414	0.000	6442.744	-7.160	0.000	6076.973	-18.640	-0.000
77.	9589.815	0.000	6428.331	-7.460	-0.000	6042.662	-17.690	-0.000
78.	9620.989	0.000	6413.363	-7.750	0.000	6008.726	-17.670	-0.000
79.	9651.827	0.000	6397.855	-8.040	-0.000	5975.312	-17.300	-0.000
80.	9682.245	0.000	6381.821	-8.320	0.000	5943.764	-16.900	-0.000
81.	9712.160	0.000	6365.277	-8.600	-0.000	5912.816	-16.520	-0.000
82.	9741.496	0.000	6348.240	-8.860	-0.000	5882.397	-15.990	-0.000
83.	9770.183	0.000	6330.726	-9.120	-0.000	5853.027	-15.360	-0.000
84.	9798.156	0.000	6312.752	-9.380	0.000	5826.418	-14.710	-0.000
85.	9825.356	0.000	6294.318	-9.620	-0.000	5800.477	-13.960	-0.000
86.	9851.730	0.000	6275.500	-9.860	0.000	5776.103	-13.150	-0.000
87.	9877.227	0.000	6256.260	-10.090	-0.000	5753.366	-12.260	-0.000
88.	9901.803	0.000	6236.636	-10.310	-0.000	5732.410	-11.350	-0.000
89.	9925.417	0.000	6216.648	-10.530	0.000	5713.250	-10.360	-0.000
90.	9948.032	0.000	6196.319	-10.730	0.000	5695.973	-9.320	0.000
91.	9969.615	0.000	6175.665	-10.920	-0.000	5680.645	-8.230	-0.000
92.	9990.137	0.000	6154.720	-11.110	0.000	5667.311	-7.100	-0.000
93.	10009.573	0.000	6133.495	-11.260	-0.000	5656.017	-5.930	0.000
94.	10027.898	0.000	6112.018	-11.440	0.000	5646.798	-4.740	-0.000
95.	10045.096	0.000	6090.311	-11.600	0.000	5639.682	-3.520	0.000
96.	10061.146	0.000	6068.399	-11.740	-0.000	5634.686	-2.250	-0.000
97.	10076.042	0.000	6046.317	-11.870	0.000	5631.820	-1.050	-0.000
98.	10089.764	0.000	6024.059	-11.980	0.000	5631.046	0.190	-0.000
99.	10102.319	0.000	6001.661	-12.090	0.000	5632.476	1.430	-0.000

110-PLANE MAGNESIUM OXIDE

BULK

	LNQVEL	LPHI12	LPHI13	FSPVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
100.	10113.691	3.560	0.000	5979.199	-12.160	0.000	5635.960	2.650	0.000
101.	10123.862	3.110	-0.000	5956.640	-12.260	0.000	5641.569	3.650	-0.000
102.	10132.694	2.730	0.000	5934.030	-12.320	0.000	5649.212	5.020	-0.000
103.	10140.730	2.950	0.000	5911.396	-12.370	0.000	5650.672	6.160	-0.000
104.	10147.399	1.970	0.000	5888.766	-12.410	0.000	5670.500	7.250	-0.000
105.	10152.910	1.600	0.000	5866.167	-12.430	0.000	5684.343	8.300	-0.000
106.	10157.275	1.230	-0.000	5843.626	-12.440	0.000	5699.439	9.310	-0.000
107.	10160.511	.860	-0.000	5821.177	-12.430	0.000	5716.620	10.250	-0.000
108.	10162.637	.510	0.000	5798.843	-12.410	0.000	5735.510	11.140	-0.000
109.	10163.673	.160	0.000	5776.653	-12.370	0.000	5756.030	11.970	0.000
110.	10163.644	-.160	0.000	5754.636	-12.310	-0.000	5778.090	12.740	0.000
111.	10162.578	-.510	0.000	5732.825	-12.240	0.000	5801.600	13.440	0.000
112.	10160.506	-.860	0.000	5711.245	-12.150	-0.000	5826.460	14.060	0.000
113.	10157.461	-1.140	0.000	5689.926	-12.040	0.000	5852.569	14.650	0.000
114.	10153.461	-1.430	-0.000	5668.697	-11.910	-0.000	5879.619	15.150	0.000
115.	10148.606	-1.720	0.000	5648.187	-11.770	0.000	5908.090	15.560	0.000
116.	10142.879	-1.990	0.000	5627.925	-11.610	0.000	5937.291	15.950	0.000
117.	10136.349	-2.240	0.000	5607.640	-11.430	0.000	5967.276	16.240	0.000
118.	10129.064	-2.460	0.000	5588.261	-11.230	0.000	5997.936	16.470	0.000
119.	10121.080	-2.650	0.000	5569.115	-11.010	0.000	6029.140	16.630	0.000
120.	10112.454	-2.900	0.000	5550.431	-10.760	0.000	6060.761	16.730	0.000
121.	10103.267	-3.080	-0.000	5532.235	-10.530	0.000	6092.666	16.750	0.000
122.	10093.523	-3.240	0.000	5514.556	-10.250	0.000	6124.728	16.710	0.000
123.	10083.351	-3.370	0.000	5497.420	-9.960	0.000	6156.805	16.600	0.000
124.	10072.861	-3.498	-0.000	5480.853	-9.660	0.000	6188.761	16.430	0.000
125.	10061.969	-3.560	0.000	5464.680	-9.330	0.000	6220.459	16.190	0.000
126.	10050.871	-3.640	0.000	5449.526	-8.980	0.000	6251.759	15.890	0.000
127.	10039.646	-3.660	0.000	5434.816	-8.620	-0.000	6282.522	15.520	0.000
128.	10028.363	-3.650	-0.000	5420.771	-8.240	0.000	6312.607	15.090	0.000
129.	10017.101	-3.670	0.000	5407.316	-7.850	0.000	6341.875	14.590	0.000
130.	10005.965	-3.630	0.000	5394.770	-7.430	0.000	6378.187	14.030	0.000
131.	9994.994	-3.550	0.000	5382.856	-7.000	0.000	6397.406	13.410	0.000
132.	9984.324	-3.450	0.000	5371.691	-6.560	-0.000	6423.396	12.730	-0.000
133.	9974.028	-3.310	0.000	5361.295	-6.100	0.000	6446.032	12.000	0.000
134.	9964.194	-3.150	-0.000	5351.684	-5.630	0.000	6471.179	11.200	0.000
135.	9954.906	-2.960	0.000	5342.875	-5.150	0.000	6492.717	10.350	0.000
136.	9946.266	-2.740	0.000	5334.883	-4.650	0.000	6512.531	9.450	0.000
137.	9938.294	-2.560	-0.000	5327.720	-4.150	-0.000	6530.510	8.500	0.000
138.	9931.123	-2.230	-0.000	5321.398	-3.630	0.000	6546.553	7.500	0.000
139.	9924.801	-1.940	-0.000	5315.930	-3.110	-0.000	6560.566	6.460	0.000
140.	9919.390	-1.630	-0.000	5311.323	-2.580	0.000	6572.473	5.390	0.000
141.	9914.941	-1.310	0.000	5307.586	-2.040	0.000	6582.197	4.290	0.000
142.	9911.499	-.970	0.000	5304.745	-1.500	0.000	6589.683	3.160	0.000
143.	9908.080	-.620	0.000	5302.745	-.950	0.000	6594.885	2.010	0.000
144.	9904.704	-.260	0.000	5301.649	-.400	0.000	6597.771	.860	0.000
145.	9901.506	.090	0.000	5301.440	.140	0.000	6598.322	-.310	-0.000
146.	9908.334	.450	0.000	5302.118	.690	0.000	6596.537	-1.470	-0.000
147.	9918.234	.810	0.000	5303.680	1.240	0.000	6592.625	-2.620	0.000
148.	9913.166	1.150	0.000	5306.126	1.760	0.000	6586.813	-3.760	0.000
149.	9917.167	1.480	0.000	5309.450	2.320	0.000	6577.336	-4.670	-0.000

118-PLANE MAGNESIUM OXIDE

BULK

	LMGVEL	LPMI12	LPMI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
150.	9922.130	1.600	0.000	5313.648	2.860	0.000	6566.454	-5.960	0.000
151.	9928.030	2.100	0.000	5318.710	3.390	0.000	6553.426	-7.020	0.000
152.	9934.806	2.360	0.000	5324.630	3.910	-0.000	6540.329	-8.030	0.000
153.	9942.400	2.630	0.000	5331.398	4.420	0.000	6527.252	-9.060	-0.000
154.	9950.735	2.960	0.000	5339.000	4.920	0.000	6512.291	-9.930	-0.000
155.	9959.737	3.070	0.000	5347.426	5.410	0.000	6491.553	-10.610	-0.000
156.	9969.324	3.240	0.000	5356.660	5.880	0.000	6473.150	-11.630	0.000
157.	9979.413	3.390	0.000	5366.667	6.350	0.000	6455.203	-12.390	-0.000
158.	9989.917	3.510	0.000	5377.491	6.800	0.000	6439.836	-13.100	0.000
159.	10000.746	3.620	0.000	5389.054	7.230	-0.000	6423.179	-13.750	0.000
160.	10011.818	3.650	0.000	5401.377	7.650	0.000	6405.366	-14.340	0.000
161.	10023.040	3.650	0.000	5414.360	8.060	0.000	6386.532	-14.860	0.000
162.	10034.324	3.650	0.000	5428.102	8.440	0.000	6366.815	-15.320	0.000
163.	10045.587	3.660	-0.000	5442.501	8.810	0.000	6286.355	-15.720	0.000
164.	10056.743	3.610	0.000	5457.554	9.170	0.000	6235.231	-16.060	0.000
165.	10067.712	3.530	0.000	5473.236	9.500	-0.000	6203.763	-16.320	0.000
166.	10078.414	3.430	0.000	5489.526	9.820	0.000	6171.911	-16.530	0.000
167.	10088.774	3.300	0.000	5506.399	10.120	0.000	6139.674	-16.670	0.000
168.	10098.718	3.150	0.000	5523.825	10.400	0.000	6107.790	-16.740	0.000
169.	10108.177	2.920	0.000	5541.780	10.660	0.000	6075.754	-16.750	0.000
170.	10117.865	2.750	0.000	5560.237	10.910	0.000	6044.021	-16.800	0.000
171.	10125.360	2.560	0.000	5579.158	11.130	0.000	6012.504	-16.860	0.000
172.	10133.001	2.350	0.000	5598.547	11.340	0.000	5981.672	-16.960	0.000
173.	10139.894	2.110	0.000	5618.344	11.530	0.000	5951.353	-17.100	0.000
174.	10146.006	1.650	0.000	5638.591	11.700	0.000	5921.770	-17.260	0.000
175.	10151.269	1.570	0.000	5659.080	11.850	-0.000	5893.046	-17.360	0.000
176.	10155.697	1.260	0.000	5679.962	11.980	-0.000	5865.296	-17.490	0.000
177.	10159.188	.980	0.000	5701.146	12.100	-0.000	5838.635	-17.630	0.000
178.	10161.724	.660	0.000	5722.609	12.200	0.000	5813.172	-17.750	0.000
179.	10163.266	.340	0.000	5744.315	12.280	0.000	5788.012	-17.860	0.000
180.	10163.790	0.800	0.000	5766.236	12.340	-0.000	5766.236	-17.940	-0.000

X-PLANE (YZ-PLANE) QUARTZ

BULK

	LMGVEL	LPMI12	LPMI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
0.	5996.813	23.870	0.000	4314.379	-25.814	-0.000	3913.876	-24.000	0.000
1.	6841.602	23.250	0.000	4278.216	-25.670	-0.000	3683.692	-23.980	0.000
2.	6886.802	22.810	0.000	4282.821	-25.460	-0.000	3593.699	-23.520	0.000
3.	6138.948	22.350	0.000	4287.676	-25.220	-0.000	3524.045	-23.620	0.000
4.	6174.865	21.870	0.000	4173.475	-24.900	-0.000	3794.775	-23.690	0.000
5.	6217.461	21.380	0.000	4140.091	-24.510	-0.000	3765.935	-23.520	0.000
6.	6259.530	20.970	0.000	4107.694	-24.060	-0.000	3737.871	-23.310	0.000
7.	6300.766	20.350	0.000	4076.885	-23.550	-0.000	3709.731	-23.060	0.000
8.	6341.076	19.810	0.000	4045.818	-22.970	-0.000	3682.460	-22.760	0.000
9.	6380.477	19.270	0.000	4016.260	-22.321	-0.000	3655.886	-22.420	0.000
10.	6418.516	18.710	0.000	3988.081	-21.610	-0.000	3629.821	-22.030	0.000
11.	6456.362	18.150	0.000	3961.147	-20.920	-0.000	3604.247	-21.590	0.000
12.	6492.785	17.560	0.000	3935.519	-19.970	-0.000	3579.034	-21.110	0.000
13.	6528.157	17.000	0.000	3911.255	-19.640	-0.000	3556.329	-20.560	0.000
14.	6562.451	16.420	0.000	3888.413	-18.050	-0.000	3533.875	-19.570	0.000
15.	6595.644	15.830	0.000	3867.043	-16.990	-0.000	3511.530	-19.320	0.000
16.	6627.712	15.230	0.000	3847.197	-15.850	-0.000	3490.527	-18.610	0.000
17.	6658.635	14.630	0.000	3828.920	-14.660	-0.000	3470.516	-17.650	0.000
18.	6688.391	14.030	0.000	3812.254	-13.400	-0.000	3451.530	-17.030	0.000
19.	6716.964	13.420	0.000	3797.237	-12.080	-0.000	3433.636	-16.190	0.000
20.	6744.335	12.810	0.000	3783.983	-10.700	-0.000	3416.851	-15.210	0.000
21.	6770.469	12.200	0.000	3772.281	-9.260	-0.000	3401.221	-14.220	0.000
22.	6795.411	11.580	0.000	3762.396	-7.610	-0.000	3386.782	-13.170	0.000
23.	6819.085	10.960	0.000	3754.267	-6.310	-0.000	3373.569	-12.070	0.000
24.	6841.505	10.340	0.000	3747.985	-4.760	-0.000	3361.614	-10.520	0.000
25.	6862.661	9.720	0.000	3743.332	-3.230	-0.000	3350.946	-9.720	0.000
26.	6882.535	9.100	0.000	3740.339	-1.670	-0.000	3341.591	-8.470	0.000
27.	6901.123	8.470	0.000	3739.530	-1.100	-0.000	3333.374	-7.190	0.000
28.	6918.417	7.850	0.000	3740.299	1.450	-0.000	3326.315	-5.870	0.000
29.	6934.411	7.220	0.000	3742.833	2.990	-0.000	3321.631	-4.530	0.000
30.	6949.101	6.560	0.000	3747.116	4.500	-0.000	3317.736	-3.180	0.000
31.	6962.483	5.980	0.000	3753.126	5.980	-0.000	3315.241	-1.770	0.000
32.	6974.584	5.360	0.000	3760.836	7.420	-0.000	3314.152	-0.360	0.000
33.	6985.312	4.740	0.000	3770.213	8.810	-0.000	3314.474	1.020	0.000
34.	6994.756	4.120	0.000	3781.222	10.150	-0.000	3316.205	2.410	0.000
35.	7002.893	3.500	0.000	3793.620	11.420	-0.000	3319.341	3.790	0.000
36.	7009.719	2.950	0.000	3807.964	12.640	-0.000	3323.676	5.150	0.000
37.	7015.241	2.280	0.000	3823.882	13.760	-0.000	3329.748	6.490	0.000
38.	7019.662	1.670	0.000	3840.683	14.860	-0.000	3337.094	7.800	0.000
39.	7022.991	1.070	0.000	3859.148	15.860	-0.000	3345.744	9.070	0.000
40.	7024.834	.470	0.000	3878.939	16.790	-0.000	3355.728	10.300	0.000
41.	7024.401	-.120	0.000	3899.992	17.650	-0.000	3367.023	11.490	0.000
42.	7023.503	-0.710	0.000	3922.242	18.440	-0.000	3379.600	12.620	0.000
43.	7021.353	-1.300	0.000	3945.620	19.150	-0.000	3393.430	13.710	0.000
44.	7017.964	-1.870	0.000	3970.055	19.600	-0.000	3408.460	14.740	0.000
45.	7013.353	-2.440	0.000	3995.475	20.370	-0.000	3424.717	15.710	0.000
46.	7007.538	-3.000	0.000	4021.885	20.670	-0.000	3442.101	16.630	0.000
47.	7000.538	-3.550	0.000	4048.968	21.300	-0.000	3460.596	17.490	0.000
48.	6992.374	-4.100	0.000	4076.887	21.670	-0.000	3480.159	18.300	0.000
49.	6983.071	-4.630	0.000	4105.482	21.970	-0.000	3500.749	19.040	0.000

X-PLANE (YZ-PLANE) QUARTZ

	LNLEVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
50.	6972.654	-5.150	0.000	4134.673	22.210	-0.000	3522.321	19.730	-0.000
51.	6961.153	-5.660	0.000	4164.376	22.380	-0.000	3544.631	20.360	-0.000
52.	6948.597	-6.150	0.000	4194.508	22.500	-0.000	3568.232	20.940	-0.000
53.	6935.021	-6.630	0.000	4224.985	22.550	-0.000	3592.479	21.460	-0.000
54.	6920.462	-7.100	0.000	4255.719	22.540	-0.000	3617.522	21.940	-0.000
55.	6904.956	-7.540	0.000	4286.624	22.480	-0.000	3643.316	22.360	-0.000
56.	6888.553	-7.970	0.000	4317.608	22.360	-0.000	3669.612	22.730	-0.000
57.	6871.293	-8.380	0.000	4348.583	22.180	-0.000	3696.961	23.050	-0.000
58.	6853.230	-8.770	-0.000	4379.454	21.940	-0.000	3724.715	23.330	-0.000
59.	6834.416	-9.130	-0.000	4410.126	21.640	0.000	3753.026	23.570	-0.000
60.	6814.911	-9.470	-0.000	4440.593	21.290	0.000	3781.647	23.760	-0.000
61.	6794.777	-9.770	-0.000	4470.866	20.870	0.000	3811.129	23.920	-0.000
62.	6774.064	-10.050	-0.000	4499.971	20.400	0.000	3840.826	24.030	-0.000
63.	6752.905	-10.250	-0.000	4528.033	19.860	0.000	3870.692	24.110	-0.000
64.	6731.316	-10.450	-0.000	4557.025	19.250	0.000	3901.279	24.150	-0.000
65.	6709.406	-10.660	-0.000	4584.374	18.540	0.000	3931.944	24.160	-0.000
66.	6687.265	-10.780	-0.000	4610.766	17.840	0.000	3962.841	24.140	-0.000
67.	6664.985	-10.860	-0.000	4636.142	17.030	0.000	3993.927	24.090	-0.000
68.	6642.671	-10.890	-0.000	4660.319	16.150	0.000	4025.160	24.010	-0.000
69.	6620.431	-10.860	-0.000	4683.193	15.190	0.000	4056.496	23.900	-0.000
70.	6598.378	-10.780	-0.000	4704.634	14.140	0.000	4087.695	23.770	-0.000
71.	6576.630	-10.640	-0.000	4724.512	13.010	0.000	4117.316	23.610	-0.000
72.	6555.309	-10.430	-0.000	4742.696	11.800	0.000	4150.722	23.430	-0.000
73.	6534.540	-10.170	-0.000	4759.051	10.500	0.000	4182.072	23.220	-0.000
74.	6514.450	-9.830	-0.000	4773.449	9.120	0.000	4213.330	22.990	-0.000
75.	6495.162	-9.440	-0.000	4785.760	7.660	0.000	4244.460	22.740	-0.000
76.	6476.796	-8.980	-0.000	4795.864	6.110	0.000	4275.426	22.480	-0.000
77.	6459.475	-8.460	-0.000	4803.646	4.490	0.000	4306.194	22.190	-0.000
78.	6443.298	-7.880	-0.000	4809.010	2.810	0.000	4336.731	21.890	-0.000
79.	6428.362	-7.260	0.000	4811.865	1.070	0.000	4367.004	21.570	-0.000
80.	6414.746	-6.590	0.000	4812.142	-7.000	0.000	4396.982	21.230	-0.000
81.	6402.512	-5.850	0.000	4809.794	-2.500	0.000	4425.634	20.880	-0.000
82.	6391.700	-5.170	0.000	4804.795	-4.310	0.000	4453.931	20.520	-0.000
83.	6382.332	-4.440	0.000	4797.145	-6.120	0.000	4481.865	20.140	-0.000
84.	6374.403	-3.710	0.000	4786.866	-7.890	0.000	4513.347	19.750	-0.000
85.	6367.869	-3.000	0.000	4774.009	-9.620	0.000	4544.411	19.350	-0.000
86.	6362.744	-2.310	0.000	4758.645	-11.250	0.000	4575.012	18.940	-0.000
87.	6358.903	-1.660	0.000	4740.070	-12.900	0.000	4595.125	18.510	-0.000
88.	6356.284	-1.050	0.000	4720.798	-14.420	0.000	4622.725	18.060	-0.000
89.	6354.791	-0.500	0.000	4698.559	-15.650	0.000	4648.790	17.630	-0.000
90.	6354.316	0.000	0.000	4674.297	-17.100	0.000	4674.237	17.140	-0.000
91.	6354.752	.440	0.000	4648.169	-18.410	-0.000	4699.226	16.720	0.000
92.	6355.974	.810	0.000	4620.335	-19.550	-0.000	4723.555	16.280	0.000
93.	6357.663	1.130	0.000	4590.963	-20.500	-0.000	4747.265	15.760	0.000
94.	6360.301	1.360	0.000	4560.223	-21.510	-0.000	4770.337	15.200	0.000
95.	6363.169	1.570	0.000	4528.285	-22.300	-0.000	4792.722	14.700	0.000
96.	6366.352	1.760	0.000	4495.319	-23.070	-0.000	4814.495	14.290	-0.000
97.	6369.742	1.780	0.000	4461.492	-23.710	-0.000	4835.547	13.760	-0.000
98.	6373.234	1.610	0.000	4426.971	-24.260	-0.000	4855.694	13.270	-0.000
99.	6376.731	1.780	0.000	4391.917	-24.710	-0.000	4875.521	12.750	-0.000

X-PLANE (YZ-PLANE) QUARTZ

BULK

	LMGVEL	LPMI12	LPMI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
100.	6300.140	1.720	0.000	4356.489	-25.070	-0.000	4094.412	12.230	-0.000
101.	6303.375	1.610	0.000	4320.842	-25.340	-0.000	4312.555	11.710	-0.000
102.	6306.556	1.450	0.000	4285.126	-25.520	-0.000	4255.336	11.170	-0.000
103.	6309.814	1.270	0.000	4249.495	-25.610	-0.000	4218.544	10.640	-0.000
104.	6313.276	1.050	0.000	4214.087	-25.610	-0.000	4182.387	10.100	-0.000
105.	6316.881	.800	0.000	4179.046	-25.510	-0.000	4147.394	9.560	-0.000
106.	6320.672	.520	0.000	4144.510	-25.330	-0.000	4112.615	9.010	-0.000
107.	6324.697	.220	0.000	4110.612	-25.050	-0.000	4078.021	8.460	-0.000
108.	6328.979	-.110	0.000	4077.485	-24.660	-0.000	4043.552	7.910	-0.000
109.	6333.564	-.660	0.000	4045.257	-24.200	-0.000	4009.322	7.360	-0.000
110.	6338.423	-.820	0.000	4014.052	-23.630	-0.000	3975.362	6.800	-0.000
111.	6343.590	-1.210	0.000	3983.992	-22.950	-0.000	3941.524	6.240	-0.000
112.	6349.072	-1.610	0.000	3955.195	-22.170	-0.000	3907.842	5.680	-0.000
113.	6354.882	-2.020	0.000	3927.775	-21.280	-0.000	3874.372	5.120	-0.000
114.	6361.032	-2.450	0.000	3901.842	-20.270	-0.000	3841.091	4.560	-0.000
115.	6367.541	-2.890	0.000	3877.501	-19.160	-0.000	3807.941	4.000	-0.000
116.	6374.466	-3.340	0.000	3854.855	-17.930	-0.000	3774.938	3.420	-0.000
117.	6381.822	-3.800	0.000	3833.996	-16.590	-0.000	3742.069	2.850	-0.000
118.	6389.652	-4.270	0.000	3815.021	-15.130	-0.000	3709.341	2.290	-0.000
119.	6398.000	-4.750	0.000	3798.006	-13.570	-0.000	3676.765	1.720	-0.000
120.	6396.816	-5.230	0.000	3783.037	-11.910	-0.000	3644.346	1.150	-0.000
121.	6395.826	-5.720	0.000	3770.180	-10.150	-0.000	3612.084	.580	-0.000
122.	6395.096	-6.210	0.000	3759.499	-8.300	-0.000	3580.000	.010	-0.000
123.	6394.623	-6.710	0.000	3751.052	-6.370	-0.000	3548.129	-.350	-0.000
124.	6394.403	-7.220	0.000	3744.885	-4.360	-0.000	3516.480	-1.120	-0.000
125.	6274.033	-7.720	0.000	3741.040	-2.350	-0.000	3485.050	-1.650	-0.000
126.	6258.714	-8.230	0.000	3739.546	-.270	-0.000	3453.797	-2.220	-0.000
127.	6242.445	-8.740	0.000	3740.427	1.820	-0.000	3422.654	-2.820	-0.000
128.	6225.231	-9.250	0.000	3743.896	3.310	-0.000	3391.647	-3.380	-0.000
129.	6207.875	-9.750	0.000	3749.357	5.260	-0.000	3360.805	-3.940	-0.000
130.	6187.983	-10.260	0.000	3757.405	8.020	-0.000	3330.165	-4.510	-0.000
131.	6167.963	-10.770	0.000	3767.828	10.010	-0.000	3300.004	-5.080	-0.000
132.	6147.824	-11.260	0.000	3780.604	11.930	-0.000	3270.437	-5.620	-0.000
133.	6125.477	-11.760	0.000	3795.702	13.760	-0.000	3241.055	-6.180	-0.000
134.	6102.433	-12.260	0.000	3813.084	15.540	-0.000	3211.962	-6.730	-0.000
135.	6078.807	-12.760	0.000	3832.704	17.210	-0.000	3183.233	-7.280	-0.000
136.	6054.315	-13.270	0.000	3854.507	18.760	-0.000	3154.822	-7.830	-0.000
137.	6028.974	-13.750	0.000	3878.834	20.250	-0.000	3126.660	-8.370	-0.000
138.	6002.806	-14.230	0.000	3904.417	21.600	-0.000	3098.801	-8.920	-0.000
139.	5975.831	-14.700	0.000	3932.362	22.860	-0.000	3071.294	-9.450	-0.000
140.	5948.076	-15.170	0.000	3962.649	24.000	-0.000	3044.102	-9.990	-0.000
141.	5919.566	-15.620	0.000	3995.334	25.040	-0.000	3017.188	-10.520	-0.000
142.	5890.334	-16.050	0.000	4027.346	25.970	-0.000	2990.511	-11.050	-0.000
143.	5860.412	-16.460	0.000	4062.386	26.810	-0.000	2964.039	-11.570	-0.000
144.	5829.841	-16.860	0.000	4099.960	27.540	-0.000	2937.822	-12.090	-0.000
145.	5798.663	-17.270	0.000	4136.952	28.170	-0.000	2911.911	-12.600	-0.000
146.	5766.926	-17.650	0.000	4176.253	28.710	-0.000	2886.365	-13.110	-0.000
147.	5734.653	-17.970	0.000	4216.741	29.140	-0.000	2861.139	-13.620	-0.000
148.	5702.025	-18.270	0.000	4258.266	29.490	-0.000	2836.271	-14.110	-0.000
149.	5669.001	-18.530	0.000	4300.746	29.730	-0.000	2811.713	-14.600	-0.000

	X-PLANE (YZ-PLANE) QUARTZ				BULK			
	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
150.	5635.715	0.000	4343.972	24.870	-0.000	4774.172	-15.890	-0.000
151.	5602.275	0.000	4387.787	25.710	-0.000	4751.366	-15.570	-0.000
152.	5568.833	0.000	4431.997	25.820	-0.000	4727.972	-16.040	-0.000
153.	5535.551	0.000	4476.370	25.590	-0.000	4703.948	-16.500	-0.000
154.	5502.656	0.000	4520.632	29.200	-0.000	4679.333	-16.960	-0.000
155.	5470.436	0.000	4564.441	28.610	-0.000	4654.447	-17.410	-0.000
156.	5439.276	0.000	4607.369	27.750	0.000	4629.411	-17.840	-0.000
157.	5409.690	0.000	4646.857	26.550	0.000	4602.146	-18.270	-0.000
158.	5382.363	0.000	4686.173	24.870	0.000	4575.374	-18.690	-0.000
159.	5358.215	0.000	4724.357	22.550	0.000	4549.118	-19.100	-0.000
160.	5338.445	0.000	4756.180	19.360	0.000	4520.432	-19.500	-0.000
161.	5324.494	0.000	4782.169	15.120	0.000	4492.250	-19.890	-0.000
162.	5317.672	0.000	4800.770	9.790	0.000	4463.668	-20.260	-0.000
163.	5319.805	0.000	4810.752	3.640	0.000	4434.743	-20.620	-0.000
164.	5330.779	0.000	4811.589	-2.900	0.000	4405.441	-20.970	-0.000
165.	5350.331	0.000	4803.726	-8.050	0.000	4375.811	-21.310	-0.000
166.	5377.266	0.000	4788.344	-12.580	0.000	4345.882	-21.620	-0.000
167.	5410.090	0.000	4766.920	-16.060	0.000	4315.664	-21.930	-0.000
168.	5447.363	0.000	4740.866	-18.670	0.000	4285.247	-22.220	-0.000
169.	5487.861	0.000	4711.355	-20.600	0.000	4254.834	-22.490	-0.000
170.	5530.906	0.000	4679.300	-22.050	0.000	4223.787	-22.740	-0.000
171.	5575.526	0.000	4645.394	-23.140	0.000	4192.630	-22.970	-0.000
172.	5621.301	0.000	4610.156	-23.960	0.000	4161.760	-23.180	-0.000
173.	5667.836	0.000	4573.964	-24.550	0.000	4130.637	-23.370	-0.000
174.	5714.833	0.000	4537.184	-24.960	0.000	4099.473	-23.540	-0.000
175.	5762.953	-0.000	4500.003	-25.410	0.000	4068.315	-23.680	-0.000
176.	5809.311	-0.000	4462.639	-25.650	0.000	4037.159	-23.800	-0.000
177.	5856.453	-0.000	4425.260	-25.600	0.000	4006.167	-23.860	-0.000
178.	5903.352	-0.000	4388.006	-25.670	0.000	3975.256	-23.960	-0.000
179.	5949.903	-0.000	4351.011	-25.870	0.000	3944.515	-24.000	-0.000
180.	5996.013	-0.000	4314.379	-25.810	0.000	3913.978	-24.000	-0.000

V-PLANE (X7-PLANE) QUARTZ

	LMGVEL	LMW12	LMW13	FSPVEL	FSP12	FSP13	SSPVEL	SSP12	SSP13
0.	5784.829	0.000	0.000	5894.814	0.000	0.000	3794.285	0.000	0.000
1.	5767.826	3.400	7.770	5896.378	-4.400	-2.920	3794.014	1.450	-1.450
2.	5756.227	6.550	5.374	5886.264	-8.510	-5.550	3791.211	2.900	-2.900
3.	5770.202	9.244	7.658	5870.023	-12.167	-8.090	3784.854	4.330	-4.330
4.	5783.660	11.500	9.534	5844.397	-15.267	-10.150	3789.943	5.730	-5.730
5.	5811.119	13.240	11.170	5822.217	-17.920	-11.950	3716.657	7.120	-7.120
6.	5836.377	14.560	12.678	4892.241	-19.920	-13.230	3724.895	8.660	-8.660
7.	5853.762	15.480	13.810	4854.207	-21.620	-14.330	3737.704	9.750	-9.750
8.	5892.871	16.120	14.210	4834.471	-23.000	-15.210	3344.374	10.000	-11.260
9.	5923.064	16.530	14.910	4886.502	-24.130	-15.910	3456.374	12.180	-12.530
10.	5954.082	16.760	15.290	4847.606	-25.950	-16.460	3769.664	13.720	-13.750
11.	5985.559	16.850	15.550	4807.523	-25.810	-16.900	3784.203	14.390	-16.930
12.	6017.277	15.820	15.940	4766.519	-26.430	-17.250	3799.957	15.390	-16.070
13.	6049.003	16.700	16.150	4724.495	-26.940	-17.510	3815.857	16.330	-17.150
14.	6080.581	16.510	16.330	4682.801	-27.340	-17.700	3834.877	17.200	-18.190
15.	6111.877	16.260	16.450	4640.443	-27.650	-17.840	3857.943	17.900	-19.180
16.	6142.775	15.960	16.550	4597.947	-27.880	-17.930	3874.085	18.710	-20.120
17.	6173.102	15.630	16.510	4555.584	-28.020	-17.960	3894.904	19.360	-21.020
18.	6203.017	15.250	16.550	4513.395	-28.090	-17.950	3916.965	19.930	-21.990
19.	6232.211	14.660	16.640	4471.552	-28.070	-17.890	3939.471	20.410	-22.590
20.	6260.705	14.630	16.690	4430.205	-27.960	-17.780	3962.746	20.810	-23.670
21.	6288.448	13.900	16.580	4389.596	-27.764	-17.530	3986.804	21.190	-24.210
22.	6315.395	13.540	16.650	4349.519	-27.440	-17.430	4011.064	21.290	-24.920
23.	6341.508	13.060	16.530	4310.723	-26.990	-17.180	4035.764	21.350	-25.580
24.	6366.752	12.580	16.600	4273.047	-26.380	-16.980	4060.626	21.270	-26.260
25.	6391.097	12.090	16.560	4236.437	-25.560	-16.520	4085.414	20.990	-26.590
26.	6414.517	11.580	16.510	4202.434	-24.460	-15.110	4109.830	20.420	-27.500
27.	6436.988	11.070	16.450	4170.203	-22.960	-15.660	4133.662	19.890	-28.080
28.	6458.490	10.560	16.400	4141.002	-20.890	-15.190	4155.725	18.030	-28.590
29.	6479.004	10.040	16.310	4115.448	-17.990	-14.780	4175.749	15.770	-28.710
30.	6498.515	9.510	16.260	4094.787	-13.950	-14.550	4192.519	12.450	-28.710
31.	6517.010	8.980	16.190	4080.434	-8.560	-14.580	4204.525	7.870	-29.060
32.	6534.477	8.450	16.110	4073.719	-2.100	-15.340	4210.505	2.810	-29.420
33.	6550.907	7.920	16.010	4075.234	4.450	-16.510	4209.492	-3.270	-27.290
34.	6566.292	7.190	15.950	4084.395	9.970	-17.950	4203.243	-7.860	-25.810
35.	6580.626	6.860	15.860	4099.740	14.030	-19.350	4192.177	-10.940	-24.250
36.	6593.986	5.320	15.770	4119.625	16.770	-20.570	4178.221	-12.720	-22.760
37.	6596.127	5.790	15.690	4142.672	18.550	-21.550	4152.410	-13.590	-21.180
38.	6617.291	5.260	15.590	4167.877	19.690	-22.330	4146.962	-13.590	-20.130
39.	6627.397	4.730	15.470	4194.540	20.390	-22.940	4131.384	-13.190	-18.970
40.	6636.447	4.210	15.370	4222.175	20.800	-23.420	4116.563	-12.450	-17.880
41.	6644.446	3.690	15.250	4250.441	21.010	-23.780	4102.842	-11.660	-16.850
42.	6651.400	3.170	15.140	4279.080	21.070	-24.050	4090.465	-10.250	-15.850
43.	6657.314	2.660	15.010	4307.927	21.010	-24.250	4079.504	-8.890	-14.980
44.	6662.200	2.150	14.990	4335.412	20.470	-24.480	4070.404	-7.420	-13.920
45.	6666.066	1.650	14.750	4365.623	20.570	-24.490	4062.940	-5.850	-12.970
46.	6668.925	1.160	14.610	4394.260	20.400	-24.530	4057.315	-4.220	-12.030
47.	6670.793	.680	14.470	4422.639	20.090	-24.540	4053.553	-2.530	-11.090
48.	6671.643	.200	14.310	4450.642	19.730	-24.510	4051.509	-0.800	-10.160
49.	6671.616	-.270	14.150	4478.322	19.330	-24.440	4051.773	.900	-9.240

Y-PLANE (XZ-PLANE) QUARTZ

	LHGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
50.	5677.609	-7.729	13.940	4505.495	18.980	-24.350	7653.745	2.644	-8.320
51.	5668.616	-1.170	13.890	4532.142	18.430	-24.220	7657.733	4.490	-7.420
52.	5665.874	-1.604	13.610	4556.207	17.940	-24.070	7663.605	6.100	-6.530
53.	5662.188	-2.029	13.410	4583.674	17.420	-23.890	7671.481	7.750	-5.550
54.	5657.668	-2.430	13.230	4608.781	16.850	-23.590	7681.033	9.150	-4.800
55.	5652.341	-2.829	12.940	4632.387	16.240	-23.150	7692.574	10.890	-3.960
56.	5646.240	-3.209	12.750	4655.505	15.690	-22.910	7705.812	12.350	-3.150
57.	5639.400	-3.550	12.510	4677.949	15.050	-22.500	7720.445	13.750	-2.370
58.	5631.861	-3.907	12.240	4699.447	14.390	-22.000	7737.571	15.050	-1.620
59.	5623.663	-4.210	11.950	4720.053	13.700	-22.260	7755.927	16.280	-900
60.	5614.850	-4.510	11.570	4739.678	12.980	-21.890	7775.444	17.420	-210
61.	5605.467	-4.790	11.350	4758.194	12.250	-21.500	7797.263	18.470	4.530
62.	5595.565	-5.040	11.040	4775.674	11.480	-21.070	7820.098	19.430	1.040
63.	5585.195	-5.260	10.610	4792.028	10.680	-20.620	7844.277	20.300	1.510
64.	5574.412	-5.460	10.330	4807.209	9.850	-20.130	7869.717	21.090	2.160
65.	5563.272	-5.630	9.950	4821.158	9.000	-19.620	7896.335	21.790	2.530
66.	5551.836	-5.770	9.550	4833.858	8.120	-19.070	7924.045	22.400	3.070
67.	5540.105	-5.890	9.130	4845.231	7.210	-18.490	7952.761	22.930	3.470
68.	5528.126	-5.960	8.710	4855.240	6.270	-17.900	7982.509	23.380	3.720
69.	5516.897	-6.010	8.260	4863.840	5.300	-17.230	8012.842	23.750	4.130
70.	5504.403	-6.020	7.790	4870.945	4.310	-16.550	8044.025	24.050	4.390
71.	5492.456	-6.000	7.240	4876.572	3.240	-15.840	8075.844	24.290	4.510
72.	5480.812	-5.940	6.740	4880.742	2.260	-15.100	8104.205	24.550	4.790
73.	5468.941	-5.850	6.270	4883.375	1.170	-14.320	8131.015	24.550	4.910
74.	5457.512	-5.720	5.750	4884.199	.070	-13.520	8154.174	24.570	5.000
75.	5446.393	-5.550	5.220	4883.442	-1.040	-12.690	8170.592	24.530	5.030
76.	5435.653	-5.350	4.700	4881.100	-2.170	-11.840	8181.167	24.430	5.030
77.	5425.355	-5.120	4.170	4877.032	-3.310	-10.970	8174.805	24.270	4.970
78.	5415.561	-4.860	3.660	4871.264	-4.650	-10.090	8164.814	24.050	4.970
79.	5406.331	-4.570	3.150	4863.789	-5.680	-9.190	8151.884	23.770	4.720
80.	5397.720	-4.240	2.670	4854.607	-6.750	-8.290	8135.120	23.440	4.530
81.	5389.776	-3.890	2.210	4843.725	-7.900	-7.380	8114.054	23.050	4.280
82.	5382.548	-3.520	1.790	4831.158	-9.070	-6.460	8089.559	22.500	4.000
83.	5376.074	-3.130	1.370	4816.929	-10.150	-5.590	8062.540	22.180	3.560
84.	5370.393	-2.720	1.060	4801.068	-11.250	-4.710	8033.934	21.550	3.240
85.	5365.534	-2.290	.710	4783.515	-12.320	-3.850	8004.604	20.950	2.860
86.	5361.524	-1.850	.470	4764.015	-13.360	-3.010	7984.492	20.290	2.370
87.	5358.383	-1.390	.270	4744.121	-14.370	-2.210	7963.698	19.590	1.940
88.	5356.129	-.930	.120	4722.192	-15.350	-1.440	7941.514	18.830	1.270
89.	5354.771	-.470	.030	4698.894	-16.290	-.700	7918.677	18.030	.660
90.	5354.310	0.000	0.000	4674.297	-17.180	-.000	7894.297	17.180	-.000
91.	5354.771	.470	.030	4648.477	-18.030	1.270	7868.894	16.290	-.700
92.	5356.129	.930	.120	4621.114	-18.830	1.940	7752.192	15.350	-1.440
93.	5358.383	1.390	.270	4593.690	-19.590	1.840	7704.121	14.370	-2.210
94.	5361.524	1.850	.470	4566.492	-20.290	2.370	7704.121	14.370	-2.210
95.	5365.534	2.290	.710	4534.608	-20.960	2.860	7704.121	14.370	-2.210
96.	5370.393	2.720	1.060	4503.930	-21.550	3.240	7704.121	14.370	-2.210
97.	5376.074	3.130	1.370	4472.549	-22.100	3.660	7704.121	14.370	-2.210
98.	5382.548	3.520	1.790	4440.659	-22.600	4.000	7704.121	14.370	-2.210
99.	5389.776	3.890	2.210	4408.054	-23.050	4.280	7704.121	14.370	-2.210
100.	5397.720	4.240	2.670	4375.199	-23.450	4.530	7704.121	14.370	-2.210

Y-PLANE (X7-PLANE) QUARTZ

	LMH12	LMH13	FSPVEL	FSPH12	FSPH13	SSPVEL	SSPH12	SSPH13
107.	5197.720	2.570	4375.130	-23.640	4.530	4854.807	5.750	SSPH13
108.	5486.131	3.150	4341.884	-23.770	4.720	4854.807	5.600	-8.290
109.	5815.551	4.860	4308.410	-24.050	4.870	4854.807	5.450	-9.190
110.	5825.355	5.120	4274.805	-24.270	5.070	4854.807	5.310	-10.080
111.	5835.553	5.350	4241.167	-24.430	5.270	4854.807	5.170	-10.970
112.	5846.393	5.550	4207.592	-24.530	5.470	4854.807	5.030	-11.860
113.	5857.512	5.720	4174.176	-24.570	5.670	4854.807	4.890	-12.750
114.	5869.941	5.850	4141.015	-24.550	5.870	4854.807	4.750	-13.640
115.	5883.512	5.940	4108.206	-24.450	6.070	4854.807	4.610	-14.530
116.	5898.456	6.000	4075.844	-24.290	6.270	4854.807	4.470	-15.420
117.	5914.803	6.020	4044.025	-24.060	6.470	4854.807	4.330	-16.310
118.	5932.582	6.010	4012.842	-23.760	6.670	4854.807	4.190	-17.200
119.	5952.826	5.960	3982.190	-23.390	6.870	4854.807	4.050	-18.090
120.	5974.467	5.890	3952.761	-22.930	7.070	4854.807	3.910	-18.980
121.	5997.536	5.770	3924.046	-22.480	7.270	4854.807	3.770	-19.870
122.	5998.272	5.630	3896.335	-21.990	7.470	4854.807	3.630	-20.760
123.	5974.412	5.460	3869.717	-21.460	7.670	4854.807	3.490	-21.650
124.	5905.195	5.260	3844.277	-20.800	7.870	4854.807	3.350	-22.540
125.	5852.341	5.040	3820.098	-20.000	8.070	4854.807	3.210	-23.430
126.	5805.467	4.790	3797.263	-19.430	8.270	4854.807	3.070	-24.320
127.	5744.950	4.510	3775.844	-18.470	8.470	4854.807	2.930	-25.210
128.	5623.563	4.210	3755.927	-16.280	8.670	4854.807	2.790	-26.100
129.	5511.961	3.890	3737.571	-15.060	8.870	4854.807	2.650	-26.990
130.	5429.400	3.550	3720.846	-13.750	9.070	4854.807	2.510	-27.880
131.	5365.240	3.200	3705.812	-12.360	9.270	4854.807	2.370	-28.770
132.	5318.341	2.820	3692.524	-10.890	9.470	4854.807	2.230	-29.660
133.	5287.554	2.430	3681.033	-9.350	9.670	4854.807	2.090	-30.550
134.	5262.188	2.020	3671.341	-7.750	9.870	4854.807	1.950	-31.440
135.	5255.370	1.590	3663.605	-6.100	10.070	4854.807	1.810	-32.330
136.	5269.886	1.170	3657.733	-4.400	10.270	4854.807	1.670	-33.220
137.	5299.509	.720	3653.795	-2.680	10.470	4854.807	1.530	-34.110
138.	5341.516	.270	3651.773	-.940	10.670	4854.807	1.390	-35.000
139.	5394.903	-.200	3651.699	8.800	10.870	4854.807	1.250	-35.890
140.	5461.793	-.680	3653.553	2.530	11.070	4854.807	1.110	-36.780
141.	5541.925	-1.160	3657.315	6.220	11.270	4854.807	0.970	-37.670
142.	5635.056	-1.650	3662.949	9.850	11.470	4854.807	0.830	-38.560
143.	5742.280	-2.150	3670.404	13.420	11.670	4854.807	0.690	-39.450
144.	5871.314	-2.660	3679.609	16.900	11.870	4854.807	0.550	-40.340
145.	6021.900	-3.170	3690.455	20.250	12.070	4854.807	0.410	-41.230
146.	6194.446	-3.690	3702.842	23.400	12.270	4854.807	0.270	-42.120
147.	6398.467	-4.210	3716.563	26.350	12.470	4854.807	0.130	-43.010
148.	6633.397	-4.730	3721.384	29.100	12.670	4854.807	0.000	-43.900
149.	6909.791	-5.260	3718.962	31.590	12.870	4854.807	-0.140	-44.790
150.	7238.127	-5.790	3708.610	33.820	13.070	4854.807	-0.280	-45.680
151.	7620.906	-6.320	3700.221	35.790	13.270	4854.807	-0.420	-46.570
152.	8060.626	-6.860	3702.177	37.500	13.470	4854.807	-0.560	-47.460
153.	8568.292	-7.490	3704.249	39.030	13.670	4854.807	-0.700	-48.350
154.	9144.907	-8.220	3706.482	40.280	13.870	4854.807	-0.840	-49.240
155.	9792.477	-9.050	3708.925	41.250	14.070	4854.807	-0.980	-50.130
156.	10524.000	-9.980	3711.616	41.950	14.270	4854.807	-1.120	-51.020
157.	11352.477	-11.010	3714.610	42.380	14.470	4854.807	-1.260	-51.910
158.	12281.900	-12.140	3717.841	42.530	14.670	4854.807	-1.400	-52.800
159.	13326.370	-13.370	3721.341	42.390	14.870	4854.807	-1.540	-53.690
160.	14499.886	-14.800	3725.141	41.960	15.070	4854.807	-1.680	-54.580
161.	15817.412	-16.430	3729.281	41.280	15.270	4854.807	-1.820	-55.470
162.	17295.948	-18.260	3733.801	40.350	15.470	4854.807	-1.960	-56.360
163.	18961.484	-20.300	3738.751	39.180	15.670	4854.807	-2.100	-57.250
164.	20841.020	-22.550	3744.181	37.780	15.870	4854.807	-2.240	-58.140
165.	22972.556	-25.010	3749.141	36.160	16.070	4854.807	-2.380	-59.030
166.	25404.092	-27.690	3753.681	34.330	16.270	4854.807	-2.520	-59.920
167.	28185.628	-30.600	3757.851	32.300	16.470	4854.807	-2.660	-60.810
168.	31367.164	-33.740	3761.611	30.080	16.670	4854.807	-2.800	-61.700
169.	35008.699	-37.210	3764.911	27.680	16.870	4854.807	-2.940	-62.590
170.	39180.235	-41.020	3767.801	25.120	17.070	4854.807	-3.080	-63.480

V-PLANE (XZ-PLANE) QUADPT7

	LMCVEL	LPHI12	LPHI13	FSRWEL	FSPHI12	FSPHI13	SSPVEL	SSPHI12	SSPHI13
150.	5498.545	-9.510	16.260	3792.519	-12.650	-29.210	4096.787	13.959	-14.950
151.	5478.084	-10.069	16.330	3775.749	-15.774	-29.010	4115.443	17.990	-14.780
152.	5458.490	-10.569	16.400	3759.775	-18.074	-28.590	4131.803	29.890	-15.194
153.	5436.989	-11.078	16.458	3743.652	-19.640	-28.080	4147.283	72.650	-15.560
154.	5414.517	-11.580	16.510	3709.830	-20.420	-27.500	4207.434	74.650	-15.114
155.	5391.097	-12.090	16.558	3685.414	-20.980	-26.980	4236.877	25.560	-16.520
156.	5365.752	-12.589	16.600	3660.576	-21.270	-26.260	4273.047	26.380	-15.889
157.	5344.508	-13.069	16.637	3636.758	-21.360	-25.500	4310.774	26.990	-17.180
158.	5315.395	-13.560	16.650	3611.064	-21.790	-24.820	4269.513	27.844	-17.839
159.	5289.444	-13.992	16.648	3586.690	-21.109	-24.210	4369.586	27.750	-17.630
160.	5260.785	-14.439	16.640	3562.745	-20.810	-23.474	4330.205	27.964	-17.749
161.	5232.211	-14.869	16.640	3539.471	-20.410	-22.590	4471.557	28.070	-17.800
162.	5203.817	-15.250	16.650	3516.866	-19.970	-21.840	4513.305	28.099	-17.958
163.	5173.182	-15.630	16.610	3494.908	-19.370	-21.020	4555.584	28.820	-17.960
164.	5142.775	-15.960	16.558	3474.006	-18.360	-20.120	4597.987	27.880	-17.930
165.	5111.977	-16.260	16.659	3453.043	-17.809	-19.180	4640.443	27.650	-17.844
166.	5080.591	-16.510	16.310	3434.873	-17.200	-18.190	4682.801	27.340	-17.780
167.	5049.003	-16.709	16.450	3416.857	-16.770	-17.150	4724.895	26.940	-17.510
168.	5017.277	-16.920	15.940	3399.950	-15.390	-16.070	4766.534	26.430	-17.250
169.	5985.569	-16.850	15.660	3384.203	-14.390	-14.930	4807.527	25.810	-16.980
170.	5954.082	-15.760	15.230	3369.664	-13.820	-13.750	4847.684	25.050	-16.860
171.	5923.066	-15.539	14.810	3356.176	-12.180	-12.530	4886.507	24.130	-15.910
172.	5892.831	-15.120	14.210	3344.379	-10.990	-11.250	4923.871	23.900	-15.210
173.	5863.762	-15.449	13.830	3333.704	-9.757	-9.950	4959.207	21.520	-14.330
174.	5836.337	-14.560	12.830	3324.395	-8.860	-8.500	4992.281	19.920	-13.230
175.	5811.139	-13.243	11.170	3316.467	-7.120	-7.220	5022.217	17.820	-11.950
176.	5788.350	-11.509	9.590	3309.944	-5.739	-5.750	5044.397	15.264	-10.150
177.	5770.282	-9.280	7.649	3304.859	-4.330	-4.330	5070.023	12.150	-8.199
178.	5755.222	-6.550	5.370	3301.211	-2.900	-2.900	5086.264	8.510	-6.550
179.	5747.425	-3.800	2.770	3299.014	-1.450	-1.450	5096.374	4.499	-2.979
180.	5744.429	3.000	-0.030	3298.786	0.000	0.000	5099.416	-0.001	0.000

	Z-PLANE (XY-PLANE) QUARTZ		BULK		
	LMPII2	LMPII3	FSRVEL	FSPMI12	FSPMI13
0.	0.000	0.000	5099.014	0.000	0.000
1.	1.310	-2.790	5097.020	-2.560	2.930
2.	2.570	-5.480	5091.091	-5.050	5.770
3.	3.720	-7.590	5082.171	-7.420	6.420
4.	4.730	-10.270	5068.080	-9.620	10.040
5.	5.570	-12.300	5052.289	-11.630	12.990
6.	6.240	-14.060	5032.696	-13.440	14.670
7.	6.760	-15.560	5010.404	-15.070	16.500
8.	7.120	-16.970	4985.705	-16.520	17.500
9.	7.350	-17.800	4958.673	-17.610	17.910
10.	7.460	-18.090	4930.161	-18.370	18.630
11.	7.470	-19.660	4899.757	-20.000	21.000
12.	7.400	-20.320	4867.990	-20.910	21.140
13.	7.250	-20.070	4834.930	-21.730	22.260
14.	7.030	-21.340	4800.792	-22.450	22.930
15.	6.770	-21.740	4765.744	-23.060	23.410
16.	6.460	-22.070	4729.947	-23.630	23.610
17.	6.120	-22.360	4693.562	-24.050	24.160
18.	5.740	-22.600	4656.755	-24.450	24.460
19.	5.340	-22.910	4619.706	-24.710	24.720
20.	4.910	-22.980	4582.614	-24.850	24.940
21.	4.460	-23.130	4545.713	-24.830	25.130
22.	4.000	-23.260	4509.285	-24.620	25.290
23.	3.530	-23.360	4473.702	-24.160	25.420
24.	3.040	-23.450	4439.425	-23.340	25.530
25.	2.550	-23.520	4407.093	-22.010	25.620
26.	2.050	-23.570	4377.571	-19.970	25.680
27.	1.540	-23.610	4352.020	-16.910	25.740
28.	1.030	-23.640	4331.917	-12.550	25.770
29.	0.520	-23.660	4316.905	-6.770	25.800
30.	0.000	-23.670	4314.379	0.000	25.810
31.	-0.520	-23.660	4318.905	6.770	25.800
32.	-1.030	-23.640	4331.917	12.550	25.770
33.	-1.540	-23.610	4352.020	16.910	25.740
34.	-2.050	-23.570	4377.571	19.970	25.680
35.	-2.550	-23.520	4407.093	22.010	25.620
36.	-3.040	-23.450	4439.425	23.340	25.530
37.	-3.530	-23.360	4473.702	24.160	25.420
38.	-4.000	-23.260	4509.289	24.620	25.290
39.	-4.460	-23.130	4545.713	24.830	25.130
40.	-4.910	-22.980	4582.614	24.850	24.940
41.	-5.340	-22.810	4619.706	24.710	24.720
42.	-5.740	-22.600	4656.755	24.450	24.460
43.	-6.120	-22.360	4693.562	24.050	24.160
44.	-6.460	-22.070	4729.947	23.630	23.810
45.	-6.770	-21.740	4765.744	23.060	23.410
46.	-7.030	-21.340	4800.792	22.450	22.930
47.	-7.250	-20.970	4834.930	21.730	22.260
48.	-7.400	-20.620	4867.990	21.000	21.740
49.	-7.470	-19.660	4899.797	20.000	21.000
50.	-7.460	-18.090	4930.161	18.630	18.630
51.	-7.400	-16.970	4958.673	17.910	17.910
52.	-7.250	-16.520	4985.705	17.500	17.500
53.	-7.030	-16.520	5010.404	15.600	15.600
54.	-6.760	-15.440	5032.696	13.520	13.520
55.	-6.460	-14.670	5052.289	12.990	12.990
56.	-6.120	-13.440	5068.080	10.280	10.280
57.	-5.740	-12.300	5082.171	8.320	8.320
58.	-5.340	-10.910	5091.091	6.310	6.310
59.	-4.910	-9.620	5097.020	4.230	4.230
60.	-4.460	-8.320	5099.014	2.130	2.130
61.	-4.000	-7.470	5100.000	0.000	0.000

Z-PLANE (XY-PLANE) QUARTZ

	LMGVEL	LPM12	LPM13	FSPM12	FSPM13	SSRVEL	SSPM12	SSPM13
50.	5831.534	-7.460	-10.890	10.970	20.120	3491.762	-16.630	13.420
51.	5818.303	-7.350	-17.360	17.610	19.100	3302.629	-17.170	12.220
52.	5805.406	-7.120	-16.070	16.520	17.900	3365.303	-15.600	11.000
53.	5793.066	-6.760	-15.500	15.070	16.500	3349.851	-13.920	9.830
54.	5781.532	-6.240	-14.060	13.440	14.870	3336.334	-12.150	8.520
55.	5771.075	-5.570	-12.300	11.630	12.950	3324.804	-10.260	7.150
56.	5761.983	-4.730	-10.270	9.620	10.840	3315.309	-8.320	5.670
57.	5754.536	-3.720	-7.990	7.420	8.420	3307.684	-6.310	4.070
58.	5749.001	-2.570	-5.480	5.050	5.770	3302.959	-4.230	2.530
59.	5745.504	-1.310	-2.790	2.560	2.930	3299.356	-2.130	1.470
60.	5744.429	0.000	0.000	0.000	0.000	3296.286	0.000	0.000
61.	5745.584	1.310	2.750	-2.560	-2.530	3293.356	2.130	-1.470
62.	5749.001	2.570	5.480	-5.050	-5.770	3302.959	4.230	-2.530
63.	5754.536	3.720	7.990	-7.420	-8.420	3307.684	6.310	-4.070
64.	5761.983	4.730	10.270	-9.620	-10.840	3315.309	8.320	-5.670
65.	5771.075	5.570	12.300	-11.630	-12.950	3324.804	10.260	-7.150
66.	5781.532	6.240	14.060	-13.440	-14.870	3336.334	12.150	-8.520
67.	5793.066	6.760	15.580	-15.070	-16.500	3349.851	13.920	-9.830
68.	5805.406	7.120	16.970	-16.240	-17.950	3365.303	15.600	-11.000
69.	5818.303	7.350	18.360	-17.610	-19.100	3382.629	17.170	-12.220
70.	5831.534	7.460	18.890	-18.970	-20.120	3401.762	18.630	-13.420
71.	5844.903	7.470	19.660	-20.000	-21.000	3421.625	19.570	-14.500
72.	5858.240	7.400	20.320	-20.910	-21.740	3445.136	21.150	-15.920
73.	5871.400	7.250	20.970	-21.730	-22.380	3469.204	22.290	-16.770
74.	5884.260	7.030	21.340	-22.480	-22.930	3493.731	23.260	-17.300
75.	5896.712	6.770	21.740	-23.080	-23.410	3518.809	24.120	-17.620
76.	5908.666	6.460	22.070	-23.630	-23.810	3544.420	24.840	-18.300
77.	5920.049	6.120	22.360	-24.090	-24.160	3570.632	25.440	-18.870
78.	5930.791	5.740	22.600	-24.450	-24.460	3597.401	25.900	-19.300
79.	5940.838	5.340	22.810	-24.710	-24.720	3624.786	26.220	-19.590
80.	5950.142	4.910	22.980	-24.850	-24.940	3651.810	26.370	-19.740
81.	5958.664	4.460	23.130	-24.850	-25.130	3678.522	26.340	-19.760
82.	5966.369	4.000	23.260	-24.620	-25.290	3704.977	26.060	-19.400
83.	5973.229	3.530	23.360	-24.160	-25.420	3731.200	25.530	-18.870
84.	5979.218	3.040	23.450	-23.340	-25.530	3757.241	24.900	-18.180
85.	5984.316	2.550	23.520	-22.010	-25.620	3783.026	24.100	-17.360
86.	5988.511	2.050	23.570	-19.970	-25.640	3808.600	23.150	-16.440
87.	5991.766	1.540	23.610	-18.910	-25.700	3833.914	22.070	-15.420
88.	5994.132	1.030	23.640	-17.550	-25.770	3859.003	20.860	-14.300
89.	5995.542	.520	23.660	-16.770	-25.800	3883.816	19.530	-13.090
90.	5996.013	-0.000	23.670	-15.500	-25.810	3908.390	18.080	-11.770
91.	5995.542	-0.520	23.660	-13.910	-25.800	3932.766	16.530	-10.460
92.	5994.132	-1.030	23.640	-12.550	-25.770	3956.880	14.880	-9.150
93.	5991.766	-1.540	23.610	-11.400	-25.740	3980.680	13.130	-7.840
94.	5988.511	-2.050	23.570	-10.460	-25.680	4004.200	11.280	-6.530
95.	5984.316	-2.550	23.520	-9.620	-25.620	4027.480	9.330	-5.220
96.	5979.218	-3.040	23.450	-8.850	-25.530	4050.460	7.280	-3.910
97.	5973.229	-3.530	23.360	-8.160	-25.420	4073.180	5.130	-2.600
98.	5966.369	-4.000	23.260	-7.620	-25.290	4095.680	2.880	-1.300
99.	5958.664	-4.460	23.130	-7.150	-25.130	4117.880	0.530	0.000

Z-PLANE (XY-PLANE) QUARTZ

	LMQVEL	LPMI12	LPMI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
100.	5950.142	-4.910	22.980	4582.614	24.650	-24.940	3671.610	-26.374	-21.855
101.	5940.836	-5.340	22.410	4619.706	24.710	-24.720	3640.058	-26.220	-20.950
102.	5930.791	-5.740	22.600	4656.755	24.450	-24.460	3605.101	-25.500	-20.350
103.	5920.045	-6.120	22.360	4693.562	24.050	-24.160	3576.932	-25.440	-19.700
104.	5908.666	-6.460	22.070	4729.947	23.630	-23.610	3549.720	-24.640	-19.050
105.	5896.712	-6.770	21.740	4765.744	23.060	-23.410	3521.604	-24.120	-18.210
106.	5884.260	-7.030	21.340	4800.792	22.450	-22.930	3494.731	-23.260	-17.350
107.	5871.400	-7.250	20.870	4834.930	21.730	-22.310	3469.204	-22.290	-16.420
108.	5858.240	-7.400	20.320	4867.990	20.510	-21.740	3445.136	-21.190	-15.520
109.	5844.903	-7.470	19.660	4899.797	20.000	-21.000	3422.625	-19.570	-14.650
110.	5831.534	-7.460	18.890	4930.161	18.970	-20.120	3401.762	-18.630	-13.820
111.	5818.303	-7.350	17.960	4958.673	17.810	-19.100	3382.629	-17.170	-12.250
112.	5805.406	-7.120	16.070	4985.705	16.520	-17.500	3365.303	-15.600	-11.050
113.	5793.066	-6.760	15.080	5010.404	15.070	-16.500	3349.851	-13.920	-9.820
114.	5781.532	-6.240	14.460	5032.646	13.440	-14.470	3336.334	-12.150	-8.250
115.	5771.075	-5.570	12.300	5052.289	11.630	-12.950	3324.804	-10.280	-7.160
116.	5761.983	-4.730	10.270	5068.660	9.620	-10.640	3315.304	-8.320	-5.750
117.	5754.538	-3.720	7.990	5082.171	7.420	-8.420	3317.664	-6.310	-4.310
118.	5749.001	-2.570	5.480	5091.691	5.050	-5.770	3322.529	-4.230	-2.930
119.	5745.584	-1.310	2.790	5097.820	2.560	-2.930	3299.356	-2.130	-1.440
120.	5744.425	0.000	-0.000	5099.614	-0.000	0.000	3298.206	0.000	0.000
121.	5745.584	1.310	-2.790	5097.820	-2.560	2.930	3298.356	2.130	1.440
122.	5745.001	2.570	-5.480	5091.691	-5.050	5.770	3302.529	4.230	2.930
123.	5754.538	3.720	-7.990	5082.171	-7.420	8.420	3317.664	6.310	4.310
124.	5761.983	4.730	-10.270	5068.660	-9.620	10.640	3315.304	8.320	5.750
125.	5771.075	5.570	-12.300	5052.289	-11.630	12.950	3324.804	10.280	7.160
126.	5781.532	6.240	-14.460	5032.646	-13.440	14.670	3336.334	12.150	8.250
127.	5793.066	6.760	-15.580	5010.404	-15.070	16.500	3349.851	13.920	9.820
128.	5805.406	7.120	-16.870	4985.705	-16.520	17.500	3365.303	15.600	11.050
129.	5818.303	7.350	-17.960	4958.673	-17.810	18.100	3382.629	17.170	12.250
130.	5831.534	7.460	-18.690	4930.161	-18.970	19.100	3401.762	18.630	13.420
131.	5844.903	7.470	-19.660	4899.797	-20.000	20.120	3422.625	19.570	14.650
132.	5858.240	7.400	-20.320	4867.990	-20.910	21.740	3445.136	21.190	15.950
133.	5871.400	7.250	-20.870	4834.930	-21.730	22.310	3469.204	22.290	16.420
134.	5884.260	7.030	-21.340	4800.792	-22.450	23.260	3494.731	23.260	17.350
135.	5896.712	6.770	-21.740	4765.744	-23.060	23.410	3521.604	24.120	18.210
136.	5908.666	6.460	-22.070	4729.947	-23.630	23.610	3549.720	24.640	18.950
137.	5920.045	6.120	-22.360	4693.562	-24.090	24.160	3576.932	25.440	19.700
138.	5930.791	5.740	-22.600	4656.755	-24.450	24.460	3605.101	25.500	20.350
139.	5940.836	5.340	-22.410	4619.706	-24.710	24.720	3640.058	26.220	20.950
140.	5950.142	4.910	-22.980	4582.614	-24.650	24.540	3671.610	26.374	21.480
141.	5958.664	4.460	-23.130	4545.713	-24.830	25.130	3703.522	26.340	21.910
142.	5968.369	4.000	-23.260	4509.289	-24.620	25.290	3735.507	26.000	22.400
143.	5973.229	3.530	-23.360	4473.702	-24.160	25.420	3767.200	25.590	22.750
144.	5979.218	3.040	-23.450	4439.425	-23.340	25.530	3799.121	24.590	23.110
145.	5984.310	2.550	-23.520	4407.093	-22.010	25.620	3827.628	23.130	23.390
146.	5988.511	2.050	-23.570	4377.571	-22.010	25.660	3854.050	20.920	23.610
147.	5991.766	1.540	-23.610	4352.020	-16.910	25.740	3878.618	17.670	23.750
148.	5994.132	1.030	-23.640	4331.917	-12.550	25.770	3897.453	13.690	23.810
149.	5995.542	.520	-23.660	4318.905	-8.770	25.800	3909.700	7.050	23.980

Z-PLANE (XY-PLANE) QUARTZ

BULK

	LMGVEL	LPM112	LPM113	FSRWEL	FSPM112	FSPM113	SSRWEL	SSPM112	SSPM113
154.	5996.013	-0.000	-23.670	4314.379	0.000	25.010	3913.976	-0.000	24.000
155.	5995.542	-0.520	-23.600	4310.905	6.770	25.000	3909.706	-7.050	23.900
156.	5994.332	-1.030	-23.640	4331.917	12.550	25.770	3897.453	-13.490	23.910
157.	5991.786	-1.540	-23.610	4352.020	18.910	25.740	3876.616	-17.270	23.700
158.	5988.511	-2.050	-23.570	4377.571	24.970	25.680	3854.850	-20.920	23.610
159.	5984.318	-2.550	-23.520	4407.093	22.010	25.620	3827.620	-23.130	23.390
156.	5979.216	-3.040	-23.450	4439.425	23.340	25.530	3796.121	-24.590	23.110
157.	5973.229	-3.530	-23.360	4473.702	24.160	25.420	3767.200	-25.530	22.160
158.	5966.365	-4.000	-23.260	4509.269	24.620	25.290	3735.507	-26.080	22.400
159.	5958.664	-4.460	-23.130	4545.713	24.830	25.130	3703.522	-26.340	21.910
160.	5950.142	-4.910	-22.980	4582.614	24.650	24.940	3671.610	-26.370	21.440
161.	5940.836	-5.340	-22.810	4619.706	24.710	24.720	3644.050	-26.220	20.990
162.	5930.791	-5.740	-22.600	4656.755	24.450	24.460	3609.101	-25.900	20.390
163.	5920.049	-6.120	-22.360	4693.562	24.090	24.160	3576.932	-25.440	19.700
164.	5908.666	-6.480	-22.070	4729.947	23.630	23.610	3549.720	-24.640	18.900
165.	5896.732	-6.770	-21.740	4765.744	23.060	23.410	3521.619	-24.120	18.210
166.	5884.260	-7.030	-21.340	4800.792	22.450	22.530	3494.731	-23.260	17.300
167.	5871.400	-7.250	-20.870	4834.930	21.730	22.380	3469.204	-22.290	16.480
168.	5858.240	-7.400	-20.320	4867.990	20.910	21.740	3445.136	-21.190	15.920
169.	5844.903	-7.470	-19.660	4899.797	20.000	21.000	3422.625	-19.970	14.900
170.	5831.534	-7.480	-18.990	4930.161	18.970	20.120	3401.762	-18.630	13.920
171.	5818.303	-7.350	-17.960	4958.673	17.610	19.100	3382.629	-17.170	12.920
172.	5805.406	-7.120	-16.870	4985.705	16.520	17.900	3365.303	-15.600	11.900
173.	5793.066	-6.760	-15.580	5010.404	15.070	16.500	3349.951	-13.920	10.930
174.	5781.532	-6.240	-14.060	5032.696	13.440	14.070	3336.334	-12.190	9.920
175.	5771.075	-5.570	-12.300	5052.289	11.630	12.550	3324.004	-10.260	8.910
176.	5761.983	-4.730	-10.270	5068.680	9.620	10.840	3315.309	-8.320	7.960
177.	5754.538	-3.720	-7.990	5082.171	7.420	8.420	3307.084	-6.310	6.970
178.	5748.011	-2.570	-5.480	5091.691	5.000	5.770	3302.556	-4.230	5.930
179.	5742.584	-1.310	-2.790	5097.626	2.500	2.930	3299.356	-2.130	4.840
180.	5744.429	0.000	0.000	5099.614	-0.000	-0.000	3298.286	0.000	-0.000

X-PLANE (YZ-PLANE) ROUTE

	LNQVEL	LPHI12	LPHI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
0.	7863.497	-0.000	-0.000	6645.215	0.000	0.000	5302.561	-0.000	-0.000
1.	7885.005	1.250	-0.000	6644.867	-0.340	0.000	5381.702	1.450	0.000
2.	7889.515	2.500	-0.000	6643.823	-0.690	0.000	5374.130	-2.000	0.000
3.	7896.997	3.720	-0.000	6642.084	-1.030	0.000	5374.894	-3.090	0.000
4.	7907.396	4.900	-0.000	6639.652	-1.370	0.000	5369.029	-4.060	0.000
5.	7920.849	6.050	-0.000	6636.529	-1.710	0.000	5361.611	-4.990	0.000
6.	7936.661	7.140	-0.000	6632.718	-2.060	0.000	5352.728	-5.880	0.000
7.	7955.332	8.100	-0.000	6628.222	-2.390	0.000	5342.480	-6.660	0.000
8.	7976.548	9.160	-0.000	6623.045	-2.730	0.000	5330.982	-7.400	0.000
9.	8000.187	10.070	-0.000	6617.152	-3.070	0.000	5316.357	-8.060	0.000
10.	8026.116	10.920	-0.000	6610.668	-3.400	0.000	5304.733	-8.650	0.000
11.	8054.200	11.700	-0.000	6603.480	-3.730	0.000	5294.246	-9.150	0.000
12.	8084.300	12.420	-0.000	6595.634	-4.060	0.000	5275.031	-9.580	0.000
13.	8116.276	13.060	-0.000	6587.137	-4.390	0.000	5254.224	-9.950	0.000
14.	8149.995	13.650	-0.000	6577.997	-4.710	0.000	5242.962	-10.190	0.000
15.	8185.314	14.170	-0.000	6568.223	-5.030	0.000	5226.374	-10.360	0.000
16.	8222.101	14.640	-0.000	6557.823	-5.350	0.000	5209.591	-10.490	0.000
17.	8260.227	15.050	-0.000	6546.807	-5.660	0.000	5192.733	-10.530	0.000
18.	8299.567	15.400	-0.000	6535.166	-5.970	0.000	5175.920	-10.510	0.000
19.	8340.000	15.710	-0.000	6522.971	-6.270	0.000	5159.261	-10.410	0.000
20.	8381.412	15.970	-0.000	6510.173	-6.570	0.000	5142.800	-10.250	0.000
21.	8423.691	16.190	-0.000	6496.804	-6.860	0.000	5126.616	-10.040	0.000
22.	8466.733	16.360	-0.000	6482.877	-7.150	0.000	5111.219	-9.780	0.000
23.	8510.439	16.500	-0.000	6468.406	-7.440	0.000	5096.152	-9.430	0.000
24.	8554.713	16.610	-0.000	6453.405	-7.720	0.000	5081.691	-9.020	0.000
25.	8599.467	16.680	-0.000	6437.888	-7.990	0.000	5067.905	-8.630	0.000
26.	8644.616	16.720	-0.000	6421.870	-8.260	0.000	5054.057	-8.170	0.000
27.	8690.079	16.730	-0.000	6405.368	-8.520	0.000	5042.802	-7.660	0.000
28.	8735.780	16.720	-0.000	6388.396	-8.770	0.000	5031.106	-7.130	0.000
29.	8781.646	16.680	-0.000	6370.976	-9.020	0.000	5020.099	-6.560	0.000
30.	8827.614	16.620	-0.000	6353.121	-9.250	0.000	5011.050	-5.970	0.000
31.	8873.614	16.540	-0.000	6334.851	-9.400	0.000	5002.391	-5.350	0.000
32.	8919.567	16.440	-0.000	6316.183	-9.710	0.000	4994.705	-4.720	0.000
33.	8965.476	16.320	-0.000	6297.139	-9.920	0.000	4988.012	-4.070	0.000
34.	9011.225	16.190	-0.000	6277.737	-10.130	0.000	4982.324	-3.410	0.000
35.	9056.785	16.040	-0.000	6257.996	-10.330	0.000	4977.647	-2.750	0.000
36.	9102.105	15.880	-0.000	6237.943	-10.510	0.000	4973.966	-2.060	0.000
37.	9147.135	15.710	-0.000	6217.593	-10.690	0.000	4971.337	-1.420	0.000
38.	9191.844	15.510	-0.000	6196.971	-10.860	0.000	4969.693	-0.760	0.000
39.	9236.176	15.310	-0.000	6176.096	-11.020	0.000	4968.042	-0.000	0.000
40.	9280.102	15.100	-0.000	6154.999	-11.170	0.000	4968.370	0.540	0.000
41.	9323.577	14.860	-0.000	6133.696	-11.300	0.000	4970.697	1.160	0.000
42.	9366.570	14.650	-0.000	6112.213	-11.430	0.000	4972.880	1.770	0.000
43.	9409.046	14.410	-0.000	6090.576	-11.540	0.000	4976.012	2.360	0.000
44.	9450.974	14.170	-0.000	6068.808	-11.640	0.000	4980.025	2.930	0.000
45.	9492.323	13.920	-0.000	6046.915	-11.730	0.000	4984.884	3.470	0.000
46.	9533.065	13.660	-0.000	6024.982	-11.810	0.000	4990.596	3.980	0.000
47.	9573.174	13.390	-0.000	6002.977	-11.870	0.000	4997.083	4.470	0.000
48.	9612.622	13.120	-0.000	5980.944	-11.920	0.000	5004.185	4.930	0.000
49.	9651.386	12.850	-0.000	5958.911	-11.960	0.000	5012.061	5.360	0.000

BULK

X-PLANE (YZ-PLANE) RUTILE

	LPHI12	LPHI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
50.	9689.443	-0.000	5936.904	-11.980	0.000	5020.588	6.120	0.000
51.	9726.772	-0.000	5914.952	-11.990	0.000	5029.720	6.120	0.000
52.	9763.351	-0.000	5893.040	-11.980	0.000	5034.412	6.460	0.000
53.	9799.162	-0.000	5871.316	-11.960	0.000	5043.617	6.760	0.000
54.	9834.185	-0.000	5849.693	-11.920	0.000	5060.287	7.630	0.000
55.	9868.604	-0.000	5828.233	-11.860	0.000	5071.373	7.260	0.000
56.	9901.802	-0.000	5806.967	-11.790	0.000	5082.827	7.460	0.000
57.	9934.364	-0.000	5785.921	-11.710	0.000	5094.600	7.630	0.000
58.	9966.875	-0.000	5765.125	-11.600	0.000	5106.842	7.770	0.000
59.	9999.921	-0.000	5744.607	-11.480	0.000	5119.904	7.870	0.000
60.	10026.890	-0.000	5724.394	-11.350	0.000	5133.338	7.850	0.000
61.	10055.970	-0.000	5704.516	-11.190	0.000	5143.695	7.590	0.000
62.	10084.145	-0.000	5684.995	-11.020	0.000	5156.526	8.000	0.000
63.	10111.417	-0.000	5665.871	-10.830	0.000	5169.106	7.590	0.000
64.	10137.764	-0.000	5647.160	-10.630	0.000	5181.826	7.940	0.000
65.	10163.180	-0.000	5628.893	-10.400	0.000	5194.403	7.670	0.000
66.	10187.657	-0.000	5611.097	-10.160	0.000	5206.870	7.770	0.000
67.	10211.166	-0.000	5593.797	-9.900	0.000	5219.185	7.640	0.000
68.	10233.761	-0.000	5577.019	-9.630	0.000	5231.305	7.490	0.000
69.	10255.374	-0.000	5560.790	-9.330	0.000	5243.109	7.320	0.000
70.	10276.015	-0.000	5545.132	-9.020	0.000	5254.796	7.120	0.000
71.	10295.690	-0.000	5530.072	-8.690	0.000	5266.093	6.950	0.000
72.	10314.381	-0.000	5515.631	-8.350	0.000	5277.030	6.660	0.000
73.	10332.087	-0.000	5501.832	-7.990	0.000	5287.598	6.400	0.000
74.	10348.804	-0.000	5488.696	-7.610	0.000	5297.730	6.120	0.000
75.	10364.526	-0.000	5476.248	-7.220	0.000	5307.427	5.830	0.000
76.	10379.252	-0.000	5464.503	-6.810	0.000	5316.636	5.510	0.000
77.	10392.975	-0.000	5453.482	-6.390	0.000	5325.335	5.190	0.000
78.	10405.695	-0.000	5443.202	-5.950	0.000	5333.496	4.840	0.000
79.	10417.406	-0.000	5433.681	-5.500	0.000	5341.100	4.480	0.000
80.	10428.106	-0.000	5424.934	-5.040	0.000	5348.119	4.120	0.000
81.	10437.797	-0.000	5416.975	-4.570	0.000	5354.533	3.740	0.000
82.	10446.472	-0.000	5409.817	-4.090	0.000	5360.323	3.350	0.000
83.	10454.130	-0.000	5403.473	-3.600	0.000	5365.473	2.950	0.000
84.	10460.771	-0.000	5397.953	-3.100	0.000	5369.967	2.540	0.000
85.	10466.391	-0.000	5393.267	-2.600	0.000	5373.792	2.130	0.000
86.	10470.992	-0.000	5389.421	-2.080	0.000	5376.937	1.710	0.000
87.	10474.571	-0.000	5386.424	-1.570	0.000	5379.392	1.290	0.000
88.	10477.126	-0.000	5384.275	-1.050	0.000	5381.151	.860	0.000
89.	10478.662	-0.000	5382.991	-.520	0.000	5382.200	.430	0.000
90.	10479.174	-0.000	5382.561	0.000	0.000	5382.561	0.000	0.000
91.	10478.562	-0.000	5382.991	.520	0.000	5382.200	-.430	0.000
92.	10477.126	-0.000	5384.275	1.050	0.000	5381.151	-1.290	0.000
93.	10466.391	-0.000	5389.421	1.570	0.000	5379.392	-1.710	0.000
94.	10454.130	-0.000	5393.267	2.080	0.000	5376.937	-2.130	0.000
95.	10446.472	-0.000	5397.953	2.600	0.000	5373.792	-2.540	0.000
96.	10437.797	-0.000	5403.473	3.100	0.000	5369.967	-2.950	0.000
97.	10428.106	-0.000	5409.817	3.600	0.000	5365.473	-3.350	0.000
98.	10417.406	-0.000	5416.975	4.090	0.000	5360.323	-3.740	0.000
99.	10405.695	-0.000	5424.934	4.570	0.000	5354.533	-4.120	0.000
100.	10392.975	-0.000	5433.681	5.040	0.000	5348.119	-4.480	0.000

X-PLANE (YZ-PLANE) RUTILE

	LMGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
100.	10428.100	-3.210	-0.000	5424.934	5.040	0.000	5340.119	-4.120	-3.000
101.	10417.406	-3.530	-0.000	5433.681	5.500	0.000	5341.100	-4.490	-0.000
102.	10405.695	-3.650	-0.000	5443.202	5.950	0.000	5333.444	-4.640	-0.000
103.	10392.975	-4.170	-0.000	5453.482	6.390	0.000	5325.339	-5.190	-0.000
104.	10379.252	-4.490	-0.000	5464.583	6.810	0.000	5316.636	-5.510	-0.000
105.	10364.526	-4.810	-0.000	5476.248	7.220	0.000	5307.427	-5.830	-0.000
106.	10348.804	-5.130	-0.000	5488.656	7.610	0.000	5297.738	-6.120	-0.000
107.	10332.087	-5.450	-0.000	5501.832	7.950	0.000	5287.596	-6.400	-0.000
108.	10314.381	-5.770	-0.000	5515.631	8.350	0.000	5277.030	-6.680	-0.000
109.	10295.690	-6.090	-0.000	5530.072	8.690	0.000	5266.093	-6.950	-0.000
110.	10276.019	-6.410	-0.000	5545.132	9.020	0.000	5254.798	-7.120	-0.000
111.	10255.374	-6.730	-0.000	5560.790	9.330	0.000	5243.165	-7.320	-0.000
112.	10233.761	-7.050	-0.000	5577.019	9.630	0.000	5231.305	-7.490	-0.000
113.	10211.186	-7.370	-0.000	5593.797	9.900	0.000	5219.165	-7.640	-0.000
114.	10187.657	-7.690	-0.000	5611.097	10.160	0.000	5206.070	-7.770	-0.000
115.	10163.180	-8.010	-0.000	5628.893	10.400	0.000	5194.403	-7.870	-0.000
116.	10137.764	-8.320	-0.000	5647.160	10.630	0.000	5181.626	-7.940	-0.000
117.	10111.417	-8.640	-0.000	5665.871	10.830	0.000	5169.106	-7.990	-0.000
118.	10084.149	-8.950	-0.000	5684.995	11.020	0.000	5156.526	-8.000	-0.000
119.	10055.970	-9.270	-0.000	5704.516	11.190	0.000	5143.895	-7.990	-0.000
120.	10026.950	-9.580	-0.000	5724.594	11.350	0.000	5131.330	-7.950	-0.000
121.	9996.921	-9.890	-0.000	5744.607	11.480	0.000	5118.904	-7.870	-0.000
122.	9966.075	-10.190	0.000	5765.125	11.600	0.000	5106.672	-7.770	-0.000
123.	9934.364	-10.500	0.000	5785.921	11.710	0.000	5094.600	-7.630	-0.000
124.	9901.802	-10.800	0.000	5806.967	11.790	0.000	5082.027	-7.460	-0.000
125.	9868.404	-11.110	0.000	5828.233	11.860	0.000	5071.373	-7.260	-0.000
126.	9834.185	-11.460	0.000	5849.693	11.920	0.000	5060.207	-7.030	-0.000
127.	9799.162	-11.700	0.000	5871.518	11.960	0.000	5049.617	-6.760	-0.000
128.	9763.351	-11.990	0.000	5893.060	11.980	0.000	5039.412	-6.460	-0.000
129.	9726.772	-12.280	0.000	5914.952	11.990	0.000	5029.720	-6.120	-0.000
130.	9689.443	-12.570	0.000	5936.904	11.980	0.000	5020.586	-5.760	-0.000
131.	9651.366	-12.850	0.000	5958.911	11.960	0.000	5012.001	-5.360	-0.000
132.	9612.622	-13.120	0.000	5980.944	11.920	-0.000	5004.105	-4.930	-0.000
133.	9573.174	-13.390	0.000	6002.977	11.870	-0.000	4997.033	-4.470	-0.000
134.	9533.065	-13.660	0.000	6024.982	11.810	-0.000	4990.556	-3.980	-0.000
135.	9492.323	-13.920	0.000	6046.935	11.730	-0.000	4984.884	-3.470	-0.000
136.	9450.974	-14.170	0.000	6068.806	11.640	-0.000	4980.025	-2.930	-0.000
137.	9409.046	-14.410	0.000	6090.576	11.540	-0.000	4976.012	-2.360	-0.000
138.	9366.570	-14.650	0.000	6112.213	11.430	-0.000	4972.840	-1.770	-0.000
139.	9323.577	-14.880	0.000	6133.696	11.300	-0.000	4970.657	-1.160	-0.000
140.	9280.102	-15.100	0.000	6154.999	11.170	-0.000	4969.370	-0.540	-0.000
141.	9236.178	-15.310	0.000	6176.096	11.020	-0.000	4969.042	.700	-0.000
142.	9191.844	-15.510	0.000	6196.971	10.860	-0.000	4969.693	1.700	-0.000
143.	9147.135	-15.700	0.000	6217.593	10.690	-0.000	4971.337	1.420	-0.000
144.	9102.105	-15.860	0.000	6237.943	10.510	-0.000	4973.946	2.060	-0.000
145.	9056.785	-16.040	0.000	6257.996	10.330	-0.000	4977.647	2.750	-0.000
146.	9011.225	-16.190	0.000	6277.737	10.130	-0.000	4982.324	3.410	-0.000
147.	8965.476	-16.320	0.000	6297.139	9.920	-0.000	4988.012	4.070	-0.000
148.	8919.587	-16.440	0.000	6316.183	9.710	-0.000	4994.705	4.720	-0.000
149.	8873.614	-16.540	0.000	6334.851	9.460	-0.000	5002.391	5.350	-0.000

BULK

X-PLANE (YZ-PLANE) RUTILE									
	LPMI12	LPMI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13	
150.	8827.614	0.000	6353.121	9.250	-0.000	5011.050	0.570	-0.000	
151.	8781.646	0.000	6370.976	9.020	-0.000	5020.659	0.560	-0.000	
152.	8735.760	0.000	6388.398	8.770	-0.000	5031.188	7.130	-0.000	
153.	8690.079	0.000	6405.366	8.520	-0.000	5042.602	7.660	-0.000	
154.	8644.616	0.000	6421.870	8.260	-0.000	5054.057	8.170	-0.000	
155.	8599.467	0.000	6437.888	7.990	-0.000	5067.909	8.630	-0.000	
156.	8554.713	0.000	6453.405	7.720	-0.000	5081.691	9.050	-0.000	
157.	8510.439	0.000	6468.406	7.440	-0.000	5096.152	9.430	-0.000	
158.	8466.733	0.000	6482.877	7.150	-0.000	5111.219	9.760	-0.000	
159.	8423.691	0.000	6496.804	6.860	-0.000	5126.016	10.040	-0.000	
160.	8381.412	0.000	6510.173	6.570	-0.000	5142.060	10.250	-0.000	
161.	8340.000	0.000	6522.971	6.270	-0.000	5159.261	10.410	-0.000	
162.	8299.567	0.000	6535.166	5.970	-0.000	5175.920	10.510	-0.000	
163.	8260.227	0.000	6546.807	5.660	-0.000	5192.733	10.530	-0.000	
164.	8222.101	0.000	6557.823	5.350	-0.000	5209.291	10.490	-0.000	
165.	8185.314	0.000	6568.223	5.030	-0.000	5226.374	10.380	-0.000	
166.	8149.995	0.000	6577.957	4.710	-0.000	5242.962	10.190	-0.000	
167.	8116.276	0.000	6587.137	4.390	-0.000	5259.224	9.920	-0.000	
168.	8084.300	0.000	6595.634	4.060	-0.000	5275.031	9.560	-0.000	
169.	8054.200	0.000	6603.400	3.730	-0.000	5290.246	9.150	-0.000	
170.	8026.116	0.000	6610.668	3.400	-0.000	5304.733	8.650	-0.000	
171.	8000.167	0.000	6617.192	3.070	-0.000	5318.357	8.060	-0.000	
172.	7976.540	0.000	6623.045	2.730	-0.000	5330.962	7.400	-0.000	
173.	7955.332	0.000	6628.222	2.390	-0.000	5342.480	6.660	-0.000	
174.	7936.661	0.000	6632.718	2.060	-0.000	5352.728	5.860	-0.000	
175.	7920.649	0.000	6636.529	1.710	-0.000	5361.611	4.990	-0.000	
176.	7907.396	0.000	6639.652	1.370	-0.000	5369.029	4.060	-0.000	
177.	7896.397	0.000	6642.084	1.030	-0.000	5374.094	3.090	-0.000	
178.	7889.515	0.000	6643.823	0.690	-0.000	5379.136	2.080	-0.000	
179.	7885.005	0.000	6644.867	0.340	-0.000	5381.702	1.050	-0.000	
180.	7883.497	0.000	6645.215	-0.000	-0.000	5382.561	-0.000	-0.000	

Z-PLANE (XY-PLANE) REV11F

	LNGVEL	LPHI12	LPHI13	FSPVEL	FSPHI12	FSPHI13	SARVEL	SSPHI12	SSPHI13
0.	7887.697	0.000	0.000	6645.215	0.000	0.000	5382.561	0.000	0.000
1.	7898.779	5.990	0.000	6636.566	-8.440	0.000	5382.561	0.000	0.000
2.	7912.021	11.360	0.000	6611.228	-16.060	0.000	5382.561	0.000	0.000
3.	7945.515	15.760	0.000	6578.615	-22.390	0.000	5382.561	0.000	0.000
4.	7989.416	19.050	0.000	6517.488	-27.420	0.000	5382.561	0.000	0.000
5.	8041.199	21.430	0.000	6457.490	-31.350	0.000	5382.561	0.000	0.000
6.	8098.958	23.050	0.000	6380.853	-34.440	0.000	5382.561	0.000	0.000
7.	8161.020	24.110	0.000	6301.283	-36.890	0.000	5382.561	0.000	0.000
8.	8226.086	24.730	0.000	6216.155	-38.890	0.000	5382.561	0.000	0.000
9.	8292.990	25.040	0.000	6126.559	-40.560	0.000	5382.561	0.000	0.000
10.	8361.040	25.110	0.000	6033.359	-41.980	0.000	5382.561	0.000	0.000
11.	8428.565	24.950	0.000	5937.243	-43.220	0.000	5382.561	0.000	0.000
12.	8498.064	24.740	0.000	5838.771	-44.310	0.000	5382.561	0.000	0.000
13.	8566.159	24.390	0.000	5738.409	-45.290	0.000	5382.561	0.000	0.000
14.	8633.525	23.940	0.000	5636.547	-46.170	0.000	5382.561	0.000	0.000
15.	8699.911	23.440	0.000	5533.531	-46.940	0.000	5382.561	0.000	0.000
16.	8765.109	22.880	0.000	5429.665	-47.710	0.000	5382.561	0.000	0.000
17.	8828.947	22.270	0.000	5325.732	-48.390	0.000	5382.561	0.000	0.000
18.	8891.280	21.630	0.000	5220.493	-49.000	0.000	5382.561	0.000	0.000
19.	8951.985	20.960	0.000	5115.699	-49.550	0.000	5382.561	0.000	0.000
20.	9010.955	20.270	0.000	5011.098	-50.050	0.000	5382.561	0.000	0.000
21.	9068.099	19.550	0.000	4906.932	-50.490	0.000	5382.561	0.000	0.000
22.	9123.339	18.820	0.000	4803.467	-50.870	0.000	5382.561	0.000	0.000
23.	9175.502	18.070	0.000	4700.892	-51.190	0.000	5382.561	0.000	0.000
24.	9224.927	17.310	0.000	4599.524	-51.440	0.000	5382.561	0.000	0.000
25.	9271.959	16.540	0.000	4499.605	-51.610	0.000	5382.561	0.000	0.000
26.	9316.944	15.750	0.000	4401.410	-51.690	0.000	5382.561	0.000	0.000
27.	9359.749	14.960	0.000	4305.225	-51.680	0.000	5382.561	0.000	0.000
28.	9401.322	14.160	0.000	4211.345	-51.570	0.000	5382.561	0.000	0.000
29.	9441.631	13.360	0.000	4120.074	-51.370	0.000	5382.561	0.000	0.000
30.	9480.543	12.540	0.000	4031.751	-51.090	0.000	5382.561	0.000	0.000
31.	9517.927	11.740	0.000	3946.714	-50.740	0.000	5382.561	0.000	0.000
32.	9553.659	10.910	0.000	3865.269	-49.440	0.000	5382.561	0.000	0.000
33.	9588.611	10.080	0.000	3787.944	-48.730	0.000	5382.561	0.000	0.000
34.	9619.164	9.250	0.000	3714.765	-47.520	0.000	5382.561	0.000	0.000
35.	9644.297	8.420	0.000	3646.362	-46.000	0.000	5382.561	0.000	0.000
36.	9667.992	7.590	0.000	3583.054	-44.110	0.000	5382.561	0.000	0.000
37.	9689.233	6.750	0.000	3525.220	-41.790	0.000	5382.561	0.000	0.000
38.	9708.007	5.910	0.000	3473.184	-38.960	0.000	5382.561	0.000	0.000
39.	9724.302	5.070	0.000	3427.296	-35.520	0.000	5382.561	0.000	0.000
40.	9738.107	4.230	0.000	3387.872	-31.400	0.000	5382.561	0.000	0.000
41.	9749.414	3.380	0.000	3355.195	-26.520	0.000	5382.561	0.000	0.000
42.	9758.215	2.540	0.000	3329.511	-20.890	0.000	5382.561	0.000	0.000
43.	9764.506	1.690	0.000	3311.017	-14.410	0.000	5382.561	0.000	0.000
44.	9768.282	.850	0.000	3298.851	-7.370	0.000	5382.561	0.000	0.000
45.	9769.541	0.000	0.000	3290.112	0.000	0.000	5382.561	0.000	0.000
46.	9768.282	-.850	0.000	3299.861	7.370	0.000	5382.561	0.000	0.000
47.	9764.506	-1.690	0.000	3311.017	14.410	0.000	5382.561	0.000	0.000
48.	9758.215	-2.540	0.000	3329.511	20.890	0.000	5382.561	0.000	0.000
49.	9749.414	-3.380	0.000	3355.195	26.520	0.000	5382.561	0.000	0.000

Z-PLANE (XY-PLANE) ROTULE

	LWSVEL	LPM12	LSM13	FSRVEL	FSPM12	FSPM13	SSRVEL	SSPM12	SSPM13
50.	3234.107	-4.239	0.000	3307.972	31.600	0.000	5392.561	-0.000	0.000
51.	3724.302	-5.079	0.000	3427.206	35.520	0.000	5382.561	0.000	0.000
52.	3709.007	-5.919	0.000	3473.194	36.460	0.000	5382.561	-0.000	0.000
53.	3689.233	-6.750	0.000	3525.220	41.790	0.000	5382.561	0.000	0.000
54.	3667.992	-7.594	0.000	3583.064	44.110	0.000	5382.561	-0.000	0.000
55.	3644.297	-8.428	0.000	3646.362	46.000	0.000	5382.561	0.000	0.000
56.	3618.164	-9.250	0.000	3714.745	47.520	0.000	5382.561	-0.000	0.000
57.	3589.611	-10.080	0.000	3787.844	48.730	0.000	5382.561	0.000	0.000
58.	3558.659	-10.910	0.000	3865.289	49.680	0.000	5382.561	-0.000	0.000
59.	3525.327	-11.730	0.000	3946.714	50.410	0.000	5382.561	0.000	0.000
60.	3489.643	-12.540	0.000	4031.761	50.950	0.000	5382.561	-0.000	0.000
61.	3451.631	-13.340	0.000	4120.984	51.330	0.000	5382.561	0.000	0.000
62.	3411.322	-14.160	0.000	4214.986	51.570	0.000	5382.561	-0.000	0.000
63.	3368.749	-14.960	0.000	4305.225	51.690	0.000	5382.561	0.000	0.000
64.	3323.948	-15.750	0.000	4401.410	51.690	0.000	5382.561	-0.000	0.000
65.	3276.959	-16.530	0.000	4499.605	51.610	0.000	5382.561	0.000	0.000
66.	3227.927	-17.310	0.000	4599.524	51.440	0.000	5382.561	-0.000	0.000
67.	3176.502	-18.070	0.000	4700.697	51.190	0.000	5382.561	0.000	0.000
68.	3123.739	-18.820	0.000	4803.447	50.870	0.000	5382.561	-0.000	0.000
69.	3069.099	-19.550	0.000	4906.932	50.490	0.000	5382.561	0.000	0.000
70.	3010.955	-20.270	0.000	4911.095	50.050	0.000	5382.561	-0.000	0.000
71.	2951.995	-20.980	0.000	4915.699	49.550	0.000	5382.561	0.000	0.000
72.	2891.280	-21.670	0.000	4920.493	49.000	0.000	5382.561	-0.000	0.000
73.	2829.947	-22.370	0.000	4925.232	48.390	0.000	5382.561	0.000	0.000
74.	2765.109	-22.990	0.000	4929.665	47.710	0.000	5382.561	-0.000	0.000
75.	2699.911	-23.640	0.000	4933.531	46.990	0.000	5382.561	0.000	0.000
76.	2633.525	-24.340	0.000	4936.547	46.170	0.000	5382.561	-0.000	0.000
77.	2565.159	-24.990	0.000	4938.404	45.290	0.000	5382.561	0.000	0.000
78.	2494.064	-25.640	0.000	4938.771	44.310	0.000	5382.561	-0.000	0.000
79.	2429.565	-26.300	0.000	4937.243	43.220	0.000	5382.561	0.000	0.000
80.	2361.860	-26.990	0.000	4934.359	41.980	0.000	5382.561	-0.000	0.000
81.	2292.990	-27.690	0.000	4929.659	40.560	0.000	5382.561	0.000	0.000
82.	2226.046	-28.420	0.000	4924.155	38.890	0.000	5382.561	-0.000	0.000
83.	2161.020	-29.170	0.000	4917.243	37.090	0.000	5382.561	0.000	0.000
84.	2095.950	-29.940	0.000	4909.653	35.440	0.000	5382.561	-0.000	0.000
85.	2041.194	-30.720	0.000	4901.490	33.550	0.000	5382.561	0.000	0.000
86.	1989.415	-31.510	0.000	4892.448	27.420	0.000	5382.561	-0.000	0.000
87.	1945.615	-32.320	0.000	4882.915	22.390	0.000	5382.561	0.000	0.000
88.	1912.021	-33.130	0.000	4872.228	16.060	0.000	5382.561	-0.000	0.000
89.	1880.779	-33.950	0.000	4860.566	9.460	0.000	5382.561	0.000	0.000
90.	1853.497	0.000	0.000	4845.215	-0.000	0.000	5382.561	-0.000	0.000
91.	1829.779	5.990	0.000	4826.566	-8.440	0.000	5382.561	0.000	0.000
92.	1812.021	11.360	0.000	4804.229	-16.060	0.000	5382.561	-0.000	0.000
93.	1794.515	15.740	0.000	4777.915	-22.390	0.000	5382.561	0.000	0.000
94.	1789.416	19.050	0.000	4747.499	-27.420	0.000	5382.561	-0.000	0.000
95.	17941.199	21.430	0.000	4714.490	-31.750	0.000	5382.561	0.000	0.000
96.	17990.958	23.050	0.000	4680.453	-36.460	0.000	5382.561	-0.000	0.000
97.	1812.020	24.110	0.000	4630.128	-38.890	0.000	5382.561	0.000	0.000
98.	1826.046	24.730	0.000	4576.195	-39.890	0.000	5382.561	-0.000	0.000
99.	1842.990	25.060	0.000	4516.559	-40.560	0.000	5382.561	-0.000	0.000

7-PLANE (XY-PLANE) PROFILE

	LMGDEL	LMWH12	LMWH13	FSMDEL	FSPH12	FSPH13	SSMDEL	SSPH12	SSPH13
100.	9361.040	25.117	0.000	6033.359	-41.988	0.000	5882.561	0.000	0.000
101.	9429.555	24.990	0.010	5917.243	-43.220	0.000	5882.561	0.000	0.000
102.	9498.058	24.740	0.000	5878.771	-44.310	0.000	5882.561	0.000	0.000
103.	9566.150	24.300	0.000	5738.488	-45.200	0.000	5882.561	0.000	0.000
104.	9634.525	23.840	0.000	5676.547	-46.170	0.000	5882.561	0.000	0.000
105.	9699.911	23.440	0.000	5533.511	-46.980	0.000	5882.561	0.000	0.000
106.	9765.109	22.880	0.000	5429.666	-47.710	0.000	5882.561	0.000	0.000
107.	9828.647	22.270	0.000	5265.212	-48.190	0.000	5882.561	0.000	0.000
108.	9891.240	21.570	0.000	5220.493	-49.000	0.000	5882.561	0.000	0.000
109.	9951.395	21.950	0.000	5115.599	-49.550	0.000	5882.561	0.000	0.000
110.	9910.955	20.270	0.000	5011.098	-50.050	0.000	5882.561	0.000	0.000
111.	9868.099	19.550	0.000	4806.932	-50.490	0.000	5882.561	0.000	0.000
112.	9823.339	19.820	0.000	4603.447	-50.870	0.000	5882.561	0.000	0.000
113.	9776.602	19.070	0.000	4700.892	-51.190	0.000	5882.561	0.000	0.000
114.	9727.827	17.310	0.000	4599.524	-51.440	0.000	5882.561	0.000	0.000
115.	9276.959	15.530	0.000	4499.505	-51.610	0.000	5882.561	0.000	0.000
116.	3323.948	15.750	0.000	4401.414	-51.690	0.000	5882.561	0.000	0.000
117.	3368.740	16.260	0.000	4305.225	-51.690	0.000	5882.561	0.000	0.000
118.	3431.322	19.160	0.000	4211.345	-51.570	0.000	5882.561	0.000	0.000
119.	9451.531	13.360	0.000	4120.044	-51.370	0.000	5882.561	0.000	0.000
120.	9449.643	12.540	0.000	4031.761	-50.950	0.000	5882.561	0.000	0.000
121.	9525.327	11.770	0.000	3966.714	-50.410	0.000	5882.561	0.000	0.000
122.	9588.659	10.910	0.000	3865.299	-49.580	0.000	5882.561	0.000	0.000
123.	9589.511	10.040	0.000	3787.944	-48.730	0.000	5882.561	0.000	0.000
124.	9618.154	9.250	0.000	3714.745	-47.520	0.000	5882.561	0.000	0.000
125.	9644.287	8.420	0.000	3646.362	-45.000	0.000	5882.561	0.000	0.000
126.	9667.992	7.590	0.000	3583.064	-44.110	0.000	5882.561	0.000	0.000
127.	9689.233	5.750	0.000	3525.220	-41.790	0.000	5882.561	0.000	0.000
128.	9708.007	5.910	0.000	3473.184	-38.960	0.000	5882.561	0.000	0.000
129.	9724.302	5.070	0.000	3427.296	-35.520	0.000	5882.561	0.000	0.000
130.	9738.107	4.230	0.000	3387.972	-31.400	0.000	5882.561	0.000	0.000
131.	9749.614	3.380	0.000	3355.196	-26.520	0.000	5882.561	0.000	0.000
132.	9758.215	2.540	0.000	3329.511	-20.840	0.000	5882.561	0.000	0.000
133.	9764.506	1.590	0.000	3311.017	-14.410	0.000	5882.561	0.000	0.000
134.	9768.282	0.850	0.000	3299.861	-7.370	0.000	5882.561	0.000	0.000
135.	9769.541	-0.300	0.000	3296.132	0.000	0.000	5882.561	0.000	0.000
136.	9768.282	-0.850	0.000	3299.861	7.370	0.000	5882.561	0.000	0.000
137.	9754.505	-1.590	0.000	3311.017	14.410	0.000	5882.561	0.000	0.000
138.	9758.215	-2.540	0.000	3329.511	20.840	0.000	5882.561	0.000	0.000
139.	9749.614	-3.380	0.000	3355.196	26.520	0.000	5882.561	0.000	0.000
140.	9738.107	-4.230	0.000	3387.972	31.400	0.000	5882.561	0.000	0.000
141.	9724.302	-5.070	0.000	3427.296	35.520	0.000	5882.561	0.000	0.000
142.	9708.007	-5.910	0.000	3473.184	38.960	0.000	5882.561	0.000	0.000
143.	9689.233	-6.750	0.000	3525.220	41.790	0.000	5882.561	0.000	0.000
144.	9667.992	-7.590	0.000	3583.064	44.110	0.000	5882.561	0.000	0.000
145.	9644.287	-8.420	0.000	3646.362	45.000	0.000	5882.561	0.000	0.000
146.	9618.154	-9.250	0.000	3714.745	47.520	0.000	5882.561	0.000	0.000
147.	9589.511	-10.040	0.000	3787.972	48.730	0.000	5882.561	0.000	0.000
148.	9589.511	-10.910	0.000	3865.299	49.580	0.000	5882.561	0.000	0.000
149.	9525.327	-11.730	0.000	3966.714	50.410	0.000	5882.561	0.000	0.000

7-PLANE (XY-PLANE) RUTBLE

	LNQUEL	LPMT12	LDPT13	FSPVEL	FSPMT12	FSPMT13	SSRVEL	SSPMT17	SSPMT13
150.	3494.543	-12.569	0.000	4031.761	50.950	0.000	5382.561	0.000	0.000
151.	3451.631	-13.350	0.000	4120.084	51.770	0.000	5382.561	0.000	0.000
152.	3411.722	-14.150	0.000	4211.345	51.570	0.000	5382.561	0.000	0.000
153.	3369.749	-14.960	0.000	4305.225	51.680	0.000	5382.561	0.000	0.000
154.	3327.968	-15.750	0.000	4401.410	51.690	0.000	5382.561	0.000	0.000
155.	3276.959	-16.530	0.000	4499.605	51.610	0.000	5382.561	0.000	0.000
156.	3227.827	-17.310	0.000	4598.524	51.440	0.000	5382.561	0.000	0.000
157.	3176.602	-18.070	0.000	4700.982	51.190	0.000	5382.561	0.000	0.000
158.	3123.339	-18.820	0.000	4803.447	50.870	0.000	5382.561	0.000	0.000
159.	3069.099	-19.550	0.000	4906.932	50.480	0.000	5382.561	0.000	0.000
160.	3010.955	-20.270	0.000	5011.098	50.050	0.000	5382.561	0.000	0.000
161.	2951.985	-20.960	0.000	5115.699	49.550	0.000	5382.561	0.000	0.000
162.	2891.280	-21.530	0.000	5220.493	49.000	0.000	5382.561	0.000	0.000
163.	2829.947	-22.070	0.000	5325.232	48.390	0.000	5382.561	0.000	0.000
164.	2765.109	-22.580	0.000	5429.666	47.710	0.000	5382.561	0.000	0.000
165.	2699.911	-23.040	0.000	5533.531	46.980	0.000	5382.561	0.000	0.000
166.	2633.525	-23.440	0.000	5636.547	46.170	0.000	5382.561	0.000	0.000
167.	2566.159	-23.790	0.000	5738.408	45.290	0.000	5382.561	0.000	0.000
168.	2499.064	-24.090	0.000	5838.771	44.310	0.000	5382.561	0.000	0.000
169.	2429.565	-24.340	0.000	5937.243	43.220	0.000	5382.561	0.000	0.000
170.	2359.860	-24.550	0.000	6033.359	41.980	0.000	5382.561	0.000	0.000
171.	2292.990	-24.720	0.000	6126.559	40.560	0.000	5382.561	0.000	0.000
172.	2226.045	-24.850	0.000	6216.155	38.890	0.000	5382.561	0.000	0.000
173.	2161.020	-24.940	0.000	6301.283	36.890	0.000	5382.561	0.000	0.000
174.	2098.958	-25.000	0.000	6380.953	34.640	0.000	5382.561	0.000	0.000
175.	2041.199	-25.030	0.000	6453.400	31.750	0.000	5382.561	0.000	0.000
176.	1989.416	-25.050	0.000	6517.444	27.420	0.000	5382.561	0.000	0.000
177.	1945.515	-25.040	0.000	6578.615	22.390	0.000	5382.561	0.000	0.000
178.	1912.021	-25.000	0.000	6631.228	16.060	0.000	5382.561	0.000	0.000
179.	1890.779	-5.990	0.000	6676.566	8.440	0.000	5382.561	0.000	0.000
180.	1883.497	0.000	0.000	6695.215	-0.000	0.000	5382.561	0.000	0.000

X-PLANE (YZ-PLANE) SAPPHIRE

	LNQVEL	LPHI12	LPHI13	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
0.	11192.366	4.650	0.000	6467.934	0.000	6044.632	-8.650	0.000
1.	11207.665	4.360	-0.000	6451.889	-8.160	6033.526	-8.250	0.000
2.	11223.762	3.940	-0.000	6435.552	-8.330	6024.391	-4.370	0.000
3.	11234.639	3.580	-0.000	6419.000	-8.460	6017.460	-3.170	0.000
4.	11246.280	3.210	0.000	6402.232	-8.590	6012.793	-1.560	0.000
5.	11256.675	2.850	0.000	6385.266	-8.700	6013.266	-0.740	0.000
6.	11265.815	2.480	0.000	6368.125	-8.810	6010.081	0.470	0.000
7.	11273.694	2.110	0.000	6350.824	-8.910	6012.074	1.710	0.000
8.	11280.312	1.740	0.000	6333.365	-9.000	6016.309	2.910	0.000
9.	11285.670	1.360	0.000	6315.827	-9.060	6022.744	4.090	0.000
10.	11289.772	1.010	0.000	6298.172	-9.150	6031.347	5.250	0.000
11.	11292.626	0.650	0.000	6280.439	-9.210	6042.075	6.370	0.000
12.	11294.243	0.290	0.000	6262.651	-9.250	6054.600	7.450	0.000
13.	11294.637	-0.060	0.000	6244.827	-9.290	6067.704	8.490	0.000
14.	11293.826	-0.410	0.000	6226.991	-9.320	6086.402	9.460	0.000
15.	11291.630	-0.750	0.000	6209.163	-9.340	6105.136	10.410	0.000
16.	11288.674	-1.080	0.000	6191.365	-9.360	6125.594	11.280	0.000
17.	11284.364	-1.410	0.000	6173.620	-9.370	6147.761	12.090	0.000
18.	11278.992	-1.730	0.000	6155.950	-9.370	6171.545	12.840	0.000
19.	11272.532	-2.050	0.000	6138.376	-9.350	6196.089	13.530	0.000
20.	11265.041	-2.330	0.000	6120.922	-9.290	6223.525	14.150	0.000
21.	11256.561	-2.610	0.000	6103.605	-9.190	6251.563	14.700	0.000
22.	11247.137	-2.860	0.000	6086.460	-9.120	6280.731	15.160	0.000
23.	11236.816	-3.140	0.000	6069.498	-9.040	6314.997	15.590	0.000
24.	11225.655	-3.360	0.000	6052.744	-8.950	6342.175	15.930	0.000
25.	11213.706	-3.600	0.000	6036.221	-8.850	6374.155	16.210	0.000
26.	11201.025	-3.810	0.000	6019.951	-8.730	6406.001	16.410	0.000
27.	11187.650	-4.000	0.000	6003.956	-8.600	6437.976	16.590	0.000
28.	11173.755	-4.170	0.000	5988.250	-8.460	6473.536	16.690	0.000
29.	11159.296	-4.310	0.000	5972.878	-8.300	6517.344	16.690	0.000
30.	11144.365	-4.440	0.000	5957.838	-8.130	6564.217	16.540	0.000
31.	11129.112	-4.540	0.000	5943.156	-7.950	6575.180	16.400	0.000
32.	11113.545	-4.620	0.000	5928.859	-7.760	6600.750	16.200	0.000
33.	11097.784	-4.670	0.000	5914.962	-7.550	6642.049	15.920	0.000
34.	11081.907	-4.700	0.000	5901.486	-7.340	6674.842	15.560	0.000
35.	11066.010	-4.700	0.000	5888.450	-7.100	6708.978	15.160	0.000
36.	11050.161	-4.670	0.000	5875.875	-6.840	6736.304	14.710	0.000
37.	11034.535	-4.610	0.000	5863.776	-6.560	6768.659	14.170	0.000
38.	11019.150	-4.520	0.000	5852.174	-6.340	6793.983	13.570	0.000
39.	11004.131	-4.410	0.000	5841.084	-6.060	6825.917	12.910	0.000
40.	10989.577	-4.260	0.000	5830.523	-5.770	6852.509	12.190	0.000
41.	10975.565	-4.090	0.000	5820.507	-5.480	6877.556	11.410	0.000
42.	10962.252	-3.880	0.000	5811.051	-5.170	6900.925	10.570	0.000
43.	10949.665	-3.650	0.000	5802.169	-4.850	6922.445	9.660	0.000
44.	10937.926	-3.390	0.000	5793.875	-4.520	6942.114	8.740	0.000
45.	10927.111	-3.100	0.000	5786.160	-4.160	6959.701	7.790	0.000
46.	10917.295	-2.790	0.000	5779.100	-3.840	6975.139	6.710	0.000
47.	10908.562	-2.460	0.000	5772.642	-3.490	6986.337	5.640	0.000
48.	10900.964	-2.110	0.000	5766.817	-3.130	6994.212	4.540	0.000
49.	10894.550	-1.750	0.000	5761.634	-2.770	7007.698	3.440	0.000

	X-PLANE (YZ-PLANE) SAPPHIRE				BULK			
	LPMI12	LPMI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
50.	10089.389	-1.370	5757.101	-2.400	0.000	7013.738	2.250	0.000
51.	10085.490	-0.980	5753.225	-2.020	0.000	7017.293	1.000	0.000
52.	10082.882	-0.590	5750.012	-1.640	0.000	7018.338	-1.000	-0.000
53.	10081.576	-0.200	5747.466	-1.260	0.000	7016.865	-2.280	0.000
54.	10081.570	0.150	5745.596	-0.880	0.000	7012.878	-2.450	0.000
55.	10082.850	0.560	5744.399	-0.500	0.000	7006.402	-3.610	0.000
56.	10085.389	0.950	5743.880	-0.100	0.000	6997.472	-4.750	0.000
57.	10089.353	1.310	5744.036	0.280	0.000	6986.141	-5.860	0.000
58.	10094.093	1.660	5744.874	0.670	0.000	6972.477	-6.940	0.000
59.	10098.152	1.990	5746.386	1.060	0.000	6956.559	-7.980	0.000
60.	10907.266	2.290	5748.572	1.440	0.000	6930.480	-8.970	0.000
61.	10915.360	2.570	5751.429	1.820	0.000	6910.343	-9.920	0.000
62.	10924.355	2.830	5754.952	2.200	0.000	8896.204	-10.820	0.000
63.	10934.165	3.060	5758.135	2.570	0.000	6872.365	-11.670	0.000
64.	10944.701	3.260	5763.972	2.940	0.000	6846.777	-12.450	0.000
65.	10955.869	3.430	5769.456	3.300	0.000	6819.639	-13.180	0.000
66.	10967.575	3.570	5775.576	3.650	0.000	6791.094	-13.840	0.000
67.	10979.721	3.660	5782.329	4.000	0.000	6761.269	-14.440	0.000
68.	10992.211	3.720	5789.697	4.340	0.000	6730.377	-14.970	0.000
69.	11004.947	3.820	5797.673	4.670	0.000	6698.512	-15.440	0.000
70.	11017.836	3.850	5806.242	5.000	0.000	6665.050	-15.840	0.000
71.	11030.782	3.850	5815.394	5.310	0.000	6632.049	-16.170	0.000
72.	11043.695	3.820	5825.113	5.620	0.000	6598.765	-16.430	0.000
73.	11056.485	3.770	5835.385	5.910	0.000	6564.658	-16.630	0.000
74.	11069.066	3.690	5846.195	6.190	0.000	6530.303	-16.750	0.000
75.	11081.356	3.550	5857.526	6.470	0.000	6496.047	-16.800	0.000
76.	11093.276	3.460	5869.363	6.730	0.000	6461.922	-16.790	0.000
77.	11104.750	3.320	5881.686	6.980	0.000	6428.101	-16.700	0.000
78.	11115.707	3.150	5894.475	7.210	0.000	6394.692	-16.540	0.000
79.	11126.070	2.960	5907.722	7.440	0.000	6361.673	-16.300	0.000
80.	11135.799	2.760	5921.397	7.650	0.000	6329.705	-16.000	0.000
81.	11144.811	2.540	5935.484	7.850	0.000	6298.567	-15.620	0.000
82.	11153.056	2.310	5949.963	8.040	0.000	6268.355	-15.170	0.000
83.	11160.484	2.060	5964.814	8.210	0.000	6239.279	-14.650	0.000
84.	11167.045	1.800	5980.016	8.360	0.000	6211.404	-14.060	0.000
85.	11172.654	1.520	5995.547	8.530	0.000	6183.932	-13.390	0.000
86.	11177.390	1.240	6011.386	8.680	0.000	6160.046	-12.660	0.000
87.	11181.097	0.940	6027.512	8.790	0.000	6136.765	-11.880	0.000
88.	11183.780	0.630	6043.603	8.900	0.000	6113.141	-11.000	0.000
89.	11185.488	0.320	6060.536	9.000	0.000	6091.320	-10.070	0.000
90.	11185.957	-0.000	6077.390	9.080	0.000	6070.390	-9.080	0.000
91.	11185.401	-0.330	6094.443	9.160	0.000	6061.432	-8.040	0.000
92.	11183.722	-0.660	6111.671	9.220	0.000	6047.516	-6.950	0.000
93.	11180.903	-1.000	6129.052	9.270	0.000	6032.712	-5.820	0.000
94.	11176.931	-1.340	6146.565	9.300	0.000	6020.071	-4.640	0.000
95.	11171.797	-1.680	6164.187	9.330	0.000	6010.641	-3.440	0.000
96.	11165.494	-2.020	6181.895	9.340	0.000	6010.455	-2.210	0.000
97.	11158.016	-2.370	6199.667	9.340	0.000	6010.555	-0.960	0.000
98.	11149.371	-2.720	6217.482	9.330	0.000	6009.946	0.300	0.000
99.	11139.556	-3.060	6235.316	9.310	0.000	6011.642	1.500	0.000

		X-PLANE (YZ-PLANE) SAPPHIRE					BULK				
		LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13		
100.	LNGVEL	11126.580	-0.000	6253.149	9.250	0.000	6013.643	2.610	-0.000		
101.		11116.484	-0.000	6270.959	9.236	0.000	6021.937	4.650	-0.000		
102.		11103.192	-0.006	6288.724	9.160	0.000	6030.205	5.260	-0.000		
103.		11088.810	-0.000	6306.423	9.110	0.000	6041.316	6.450	-0.000		
104.		11073.331	-0.000	6324.036	9.040	0.000	6054.331	7.820	-0.000		
105.		11056.779	-0.000	6341.541	8.960	0.000	6068.901	9.210	-0.000		
106.		11039.183	-0.000	6358.918	8.866	0.000	6086.767	9.770	-0.000		
107.		11020.575	-0.000	6376.147	8.760	0.000	6106.062	10.780	-0.000		
108.		11000.991	-0.000	6393.209	8.656	0.000	6127.308	11.720	-0.000		
109.		10980.474	-0.000	6410.084	8.530	0.000	6150.421	12.610	-0.000		
110.		10959.067	-0.000	6426.753	8.400	0.000	6173.307	13.430	-0.000		
111.		10936.820	-0.000	6443.136	8.260	0.000	6201.962	14.180	-0.000		
112.		10913.789	-0.000	6459.400	8.110	0.000	6233.373	14.860	-0.000		
113.		10890.031	-0.000	6475.341	7.960	0.000	6259.536	15.470	-0.000		
114.		10865.611	0.000	6491.004	7.800	0.000	6290.414	16.010	-0.000		
115.		10840.599	0.000	6506.372	7.630	0.000	6322.476	16.480	-0.000		
116.		10815.071	0.000	6521.429	7.460	0.000	6355.583	16.840	-0.000		
117.		10789.105	0.000	6536.156	7.270	0.000	6389.580	17.150	-0.000		
118.		10762.790	0.000	6550.583	7.080	0.000	6424.345	17.370	-0.000		
119.		10736.218	0.000	6564.569	6.890	0.000	6459.687	17.520	-0.000		
120.		10709.467	0.000	6578.223	6.690	0.000	6495.453	17.580	-0.000		
121.		10682.704	0.000	6591.468	6.480	0.000	6531.471	17.570	-0.000		
122.		10655.979	0.000	6604.353	6.270	0.000	6567.365	17.470	-0.000		
123.		10629.430	0.000	6616.802	6.050	0.000	6603.555	17.290	-0.000		
124.		10603.182	0.000	6628.824	5.830	-0.000	6639.254	17.030	-0.000		
125.		10577.365	0.000	6640.406	5.610	-0.000	6674.471	16.680	-0.000		
126.		10552.114	0.000	6651.537	5.360	-0.000	6709.013	16.250	-0.000		
127.		10527.570	0.000	6662.205	5.130	-0.000	6742.684	15.740	-0.000		
128.		10503.078	0.000	6672.399	4.890	-0.000	6775.264	15.140	-0.000		
129.		10481.187	0.000	6682.119	4.640	-0.000	6806.616	14.480	-0.000		
130.		10459.647	0.000	6691.326	4.390	-0.000	6836.479	13.690	-0.000		
131.		10439.410	0.000	6700.041	4.140	-0.000	6864.679	12.640	-0.000		
132.		10420.625	0.000	6708.243	3.890	-0.000	6891.325	11.500	-0.000		
133.		10403.440	0.000	6715.927	3.620	-0.000	6917.325	10.890	-0.000		
134.		10387.997	0.000	6723.084	3.360	-0.000	6937.410	9.840	-0.000		
135.		10374.426	0.000	6729.706	3.100	-0.000	6957.111	9.040	-0.000		
136.		10362.859	0.000	6735.786	2.830	-0.000	6974.276	7.420	-0.000		
137.		10353.398	0.000	6741.324	2.560	-0.000	6989.770	6.140	-0.000		
138.		10346.183	0.000	6746.308	2.290	-0.000	7003.477	4.610	-0.000		
139.		10341.171	0.000	6750.735	2.020	-0.000	7009.302	3.440	-0.000		
140.		10338.535	0.000	6754.601	1.740	-0.000	7015.173	2.450	-0.000		
141.		10338.285	0.000	6757.903	1.470	-0.000	7020.042	-	-0.000		
142.		10340.424	0.000	6760.636	1.190	-0.000	7017.989	-0.780	-0.000		
143.		10344.948	0.000	6762.799	0.910	-0.000	7014.720	-2.160	-0.000		
144.		10351.627	0.000	6764.330	0.630	-0.000	7006.565	-3.570	-0.000		
145.		10361.010	0.000	6765.406	0.350	-0.000	6999.482	-4.520	-0.000		
146.		10372.424	0.000	6765.847	0.070	-0.000	6987.551	-6.230	-0.000		
147.		10385.979	0.000	6765.713	-0.200	-0.000	6972.874	-7.490	-0.000		
148.		10401.566	0.000	6765.003	-0.480	-0.000	6955.576	-8.630	-0.000		
149.		10419.072	0.000	6763.719	-0.760	-0.000	6935.794	-9.630	-0.000		

X-PLANE (YZ-PLANE) SAPPHIRE

	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
150.	6.310	0.000	6761.861	-1.041	-0.000	6713.686	-16.699	-0.000
151.	6.760	0.000	6759.431	-1.320	-0.000	6889.417	-16.699	0.000
152.	7.200	0.000	6756.432	-1.590	-0.000	6663.165	-12.790	0.000
153.	7.500	0.000	6752.867	-1.870	-0.000	6035.113	-13.610	0.000
154.	7.900	0.000	6748.738	-2.140	-0.000	6005.451	-14.360	0.000
155.	8.100	0.000	6744.850	-2.420	-0.000	6774.371	-15.020	0.000
156.	8.400	0.000	6738.808	-2.690	-0.000	6742.067	-15.600	0.000
157.	8.590	0.000	6733.017	-2.950	-0.000	6700.731	-16.100	-0.000
158.	8.720	0.000	6726.682	-3.220	0.000	6674.526	-16.510	-0.000
159.	8.820	0.000	6719.809	-3.460	0.000	6639.732	-16.640	-0.000
160.	8.870	0.000	6712.406	-3.740	0.000	6604.451	-17.100	-0.000
161.	8.900	0.000	6704.479	-4.000	0.000	6569.069	-17.270	-0.000
162.	8.870	0.000	6696.036	-4.260	0.000	6533.227	-17.360	-0.000
163.	8.820	0.000	6687.086	-4.510	0.000	6497.039	-17.360	-0.000
164.	8.730	0.000	6677.638	-4.760	0.000	6462.296	-17.320	-0.000
165.	8.620	0.000	6667.730	-5.000	0.000	6427.359	-17.100	-0.000
166.	8.480	0.000	6657.284	-5.240	0.000	6392.509	-16.960	-0.000
167.	8.320	0.000	6646.395	-5.470	0.000	6357.337	-16.670	-0.000
168.	8.130	0.000	6635.056	-5.700	0.000	6320.549	-16.310	-0.000
169.	7.920	0.000	6623.267	-5.930	0.000	6294.766	-15.870	-0.000
170.	7.690	0.000	6611.044	-6.150	0.000	6264.123	-15.360	-0.000
171.	7.450	0.000	6598.395	-6.370	0.000	6234.745	-14.700	-0.000
172.	7.100	0.000	6585.346	-6.580	0.000	6206.725	-14.120	-0.000
173.	6.910	0.000	6571.897	-6.780	0.000	6184.265	-13.460	-0.000
174.	6.620	0.000	6558.066	-6.980	0.000	6157.303	-12.620	-0.000
175.	6.310	0.000	6543.872	-7.170	0.000	6132.207	-11.770	-0.000
176.	6.000	0.000	6529.325	-7.360	0.000	6110.020	-10.860	-0.000
177.	5.670	0.000	6514.441	-7.540	0.000	6091.330	-9.890	-0.000
178.	5.340	0.000	6499.237	-7.710	0.000	6073.786	-8.870	-0.000
179.	5.000	0.000	6483.725	-7.880	0.000	6050.270	-7.800	-0.000
180.	4.650	0.000	6467.934	-8.030	0.000	6044.632	-6.650	-0.000

BULK

Y-PLANE (XZ-PLANE) SAPPHIRE

BULK

	LNGVEL	LPHI12	LPHI13	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
0.	11174.720	0.000	0.000	0.000	0.000	5743.655	0.000	0.000
1.	11174.216	-0.360	0.250	-1.180	-1.180	5744.930	0.600	-4.000
2.	11172.705	-0.550	0.500	-3.360	-3.360	5746.147	1.230	-7.400
3.	11170.192	-0.590	0.740	-5.300	-5.300	5753.491	2.440	-11.700
4.	11166.683	-1.160	0.990	-7.000	-7.000	5760.931	3.620	-17.000
5.	11162.189	-1.470	1.240	-8.700	-8.700	5770.430	4.820	-23.300
6.	11156.722	-1.750	1.460	-10.300	-10.300	5781.935	5.960	-30.600
7.	11150.295	-2.030	1.730	-11.800	-11.800	5795.565	7.050	-38.900
8.	11142.939	-2.300	1.970	-13.200	-13.200	5810.704	8.090	-48.200
9.	11134.662	-2.570	2.220	-14.400	-14.400	5827.806	9.060	-58.500
10.	11125.494	-2.830	2.460	-15.400	-15.400	5846.595	9.970	-69.800
11.	11115.464	-3.080	2.690	-16.200	-16.200	5866.750	10.820	-82.100
12.	11104.601	-3.330	2.930	-16.800	-16.800	5888.774	11.610	-95.400
13.	11092.941	-3.560	3.170	-17.200	-17.200	5911.905	12.350	-109.700
14.	11080.522	-3.760	3.400	-17.400	-17.400	5936.199	13.040	-125.000
15.	11067.363	-3.950	3.630	-17.400	-17.400	5961.490	13.680	-141.300
16.	11053.570	-4.150	3.850	-17.100	-17.100	5987.533	14.280	-158.600
17.	11039.130	-4.370	4.070	-16.600	-16.600	6014.302	14.840	-176.900
18.	11024.116	-4.600	4.290	-15.900	-15.900	6041.400	15.370	-196.200
19.	11008.580	-4.850	4.500	-15.000	-15.000	6068.630	15.870	-216.500
20.	10992.584	-5.100	4.710	-14.000	-14.000	6095.721	16.340	-237.800
21.	10976.187	-5.340	4.910	-13.000	-13.000	6122.374	16.780	-260.100
22.	10959.457	-5.570	5.110	-12.000	-12.000	6148.260	17.190	-283.400
23.	10942.276	-5.790	5.290	-11.000	-11.000	6173.030	17.580	-307.700
24.	10925.276	-6.010	5.470	-10.000	-10.000	6196.317	17.940	-333.000
25.	10907.975	-6.200	5.650	-9.000	-9.000	6217.755	18.280	-359.300
26.	10890.639	-6.380	5.810	-8.000	-8.000	6236.997	18.600	-386.600
27.	10873.352	-6.550	5.960	-7.000	-7.000	6253.743	18.900	-414.900
28.	10856.186	-6.710	6.100	-6.000	-6.000	6267.770	19.180	-444.200
29.	10839.266	-6.860	6.240	-5.200	-5.200	6278.553	19.440	-474.500
30.	10822.651	-7.000	6.350	-4.500	-4.500	6287.278	19.680	-505.800
31.	10806.442	-7.130	6.460	-3.900	-3.900	6292.632	19.900	-538.100
32.	10790.735	-7.250	6.560	-3.400	-3.400	6295.187	20.100	-571.400
33.	10775.624	-7.360	6.650	-3.000	-3.000	6296.371	20.280	-605.700
34.	10761.204	-7.460	6.690	-2.700	-2.700	6296.639	20.440	-641.000
35.	10747.571	-7.550	6.730	-2.500	-2.500	6291.450	20.580	-677.300
36.	10734.817	-7.630	6.760	-2.400	-2.400	6286.452	20.700	-714.600
37.	10722.032	-7.700	6.770	-2.400	-2.400	6280.072	20.800	-752.900
38.	10710.302	-7.760	6.760	-2.500	-2.500	6272.514	20.880	-792.200
39.	10702.708	-7.810	6.740	-2.600	-2.600	6263.956	20.940	-832.500
40.	10694.326	-7.850	6.690	-2.700	-2.700	6254.554	20.980	-873.800
41.	10687.223	-7.880	6.630	-2.800	-2.800	6244.444	21.000	-916.100
42.	10681.461	-7.900	6.550	-2.900	-2.900	6233.744	21.010	-959.400
43.	10677.090	-7.910	6.450	-3.000	-3.000	6222.557	21.000	-1003.700
44.	10674.150	-7.910	6.330	-3.100	-3.100	6210.976	21.000	-1049.000
45.	10672.671	-7.900	6.200	-3.200	-3.200	6199.002	21.000	-1095.300
46.	10672.670	-7.890	6.050	-3.300	-3.300	6186.946	21.000	-1142.600
47.	10674.154	-7.870	5.890	-3.400	-3.400	6174.639	21.000	-1190.900
48.	10677.117	-7.840	5.740	-3.500	-3.500	6162.219	21.000	-1240.200
49.	10681.539	-7.800	5.520	-3.600	-3.600	6149.741	21.000	-1290.500

Y-PLANE (XZ-PLANE) SAPPHIRE

BULK

	LMGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
50.	10667.390	2.010	5.330	7002.086	-2.240	1.420	6137.261	-6.640	-17.440
51.	10694.630	2.430	5.120	6996.234	-3.240	1.860	6124.626	-6.610	-17.550
52.	10703.204	2.830	4.910	6988.261	-4.230	2.350	6112.485	-6.570	-17.660
53.	10713.051	3.200	4.690	6978.221	-5.190	2.810	6100.283	-6.490	-17.760
54.	10724.099	3.550	4.470	6966.174	-6.110	3.270	6088.263	-6.400	-17.850
55.	10736.269	3.860	4.240	6952.213	-7.000	3.710	6076.407	-6.280	-17.940
56.	10749.476	4.170	4.020	6936.405	-7.850	4.150	6064.937	-6.140	-18.030
57.	10763.626	4.440	3.790	6918.863	-8.660	4.570	6053.713	-5.960	-18.130
58.	10778.629	4.660	3.570	6899.660	-9.410	4.970	6042.833	-5.790	-18.230
59.	10794.381	4.860	3.350	6878.970	-10.120	5.350	6032.337	-5.580	-18.330
60.	10810.784	5.060	3.140	6856.847	-10.760	5.710	6022.262	-5.350	-18.430
61.	10827.734	5.200	2.930	6833.430	-11.390	6.050	6012.606	-5.100	-18.530
62.	10845.130	5.310	2.720	6808.836	-11.940	6.360	6003.327	-4.830	-18.620
63.	10862.872	5.350	2.530	6783.195	-12.450	6.640	5994.539	-4.540	-18.710
64.	10880.956	5.440	2.330	6756.622	-12.890	6.890	5985.920	-4.230	-18.800
65.	10899.492	5.480	2.150	6729.241	-13.290	7.110	5977.505	-3.900	-18.890
66.	10917.176	5.450	1.970	6701.173	-13.640	7.300	5972.729	-3.540	-18.980
67.	10935.321	5.420	1.800	6672.537	-13.930	7.450	5968.657	-3.160	-19.070
68.	10953.335	5.360	1.640	6643.450	-14.170	7.550	5965.233	-2.770	-19.160
69.	10971.133	5.270	1.490	6614.026	-14.360	7.600	5962.574	-2.350	-19.250
70.	10988.634	5.160	1.340	6584.375	-14.520	7.680	5952.710	-1.920	-19.340
71.	11005.760	5.030	1.210	6554.606	-14.660	7.680	5943.626	-1.470	-19.430
72.	11022.437	4.880	1.080	6524.820	-14.680	7.600	5947.330	-1.060	-19.520
73.	11038.555	4.710	.960	6495.116	-14.650	7.550	5946.021	-0.510	-19.610
74.	11054.169	4.520	.840	6465.596	-14.600	7.430	5945.548	-0.010	-19.700
75.	11069.098	4.320	.740	6436.343	-14.520	7.260	5945.999	0.510	-19.790
76.	11083.323	4.100	.640	6407.447	-14.390	7.050	5947.402	1.040	-19.880
77.	11096.793	3.860	.550	6378.989	-14.220	6.800	5949.700	1.540	-19.970
78.	11109.457	3.610	.470	6351.046	-14.010	6.500	5953.156	2.010	-20.060
79.	11121.270	3.350	.390	6323.690	-13.770	6.160	5957.558	2.710	-20.150
80.	11132.192	3.080	.320	6296.969	-13.460	5.760	5963.000	3.260	-20.240
81.	11142.185	2.800	.260	6271.005	-13.170	5.360	5969.501	3.660	-20.330
82.	11151.214	2.510	.200	6245.796	-12.820	4.900	5977.078	4.040	-20.420
83.	11159.251	2.210	.160	6221.415	-12.440	4.400	5985.743	4.400	-20.510
84.	11166.269	1.910	.110	6197.910	-12.030	3.870	5995.507	4.630	-20.600
85.	11172.245	1.600	.080	6175.325	-11.590	3.300	6006.376	4.820	-20.690
86.	11177.161	1.290	.050	6153.695	-11.130	2.610	6018.360	4.980	-20.780
87.	11181.000	.970	.030	6133.064	-10.650	2.060	6031.456	5.110	-20.870
88.	11183.751	.650	.010	6113.452	-10.140	1.480	6045.664	5.210	-20.960
89.	11185.405	.320	0.000	6094.887	-9.620	0.810	6060.978	5.280	-21.050
90.	11185.957	-0.000	-0.000	6077.390	-9.080	0.060	6077.390	5.300	-21.140
91.	11185.405	-.320	0.000	6060.976	-8.530	-0.530	6094.887	5.280	-21.230
92.	11183.751	-0.650	.010	6045.664	-7.960	-1.470	6113.452	5.110	-21.320
93.	11181.000	-0.970	.030	6031.456	-7.390	-2.220	6133.064	4.820	-21.410
94.	11177.161	-1.290	.050	6018.360	-6.810	-2.950	6153.695	4.400	-21.500
95.	11172.245	-1.600	.080	6006.378	-6.220	-3.760	6175.325	3.870	-21.590
96.	11166.269	-1.910	.110	5995.507	-5.630	-4.420	6197.910	3.180	-21.680
97.	11159.251	-2.210	.160	5985.743	-5.040	-4.980	6221.415	2.610	-21.770
98.	11151.214	-2.510	.200	5977.078	-4.450	-5.450	6245.743	2.060	-21.860
99.	11142.185	-2.800	.260	5969.501	-3.860	-5.860	6271.005	1.480	-21.950

Y-PLANE (XZ-PLANE) SAPPHIRE

	LNVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SRVEL	SSPH12	SSPH13
100.	11132.192	-3.060	.320	5963.000	-3.260	-7.540	6230.989	13.480	5.780
101.	11121.270	-3.350	.390	5957.558	-2.710	-8.270	6323.690	13.770	6.160
102.	11109.457	-3.610	.470	5953.156	-2.140	-8.980	6351.046	14.010	6.500
103.	11096.793	-3.860	.550	5949.780	-1.540	-9.680	6378.989	14.220	6.800
104.	11083.323	-4.100	.640	5947.402	-1.040	-10.330	6407.447	14.330	7.080
105.	11069.856	-4.320	.740	5945.999	-.510	-10.970	6436.333	14.520	7.420
106.	11054.169	-4.520	.840	5945.546	.010	-11.590	6465.596	14.600	7.830
107.	11038.555	-4.710	.960	5946.021	.510	-12.170	6495.118	14.650	7.990
108.	11022.937	-4.880	1.080	5947.390	1.000	-12.730	6524.880	14.690	8.040
109.	11005.760	-5.030	1.210	5949.626	1.470	-13.260	6554.606	14.600	8.080
110.	10988.634	-5.160	1.340	5952.700	1.920	-13.760	6584.375	14.500	8.000
111.	10971.433	-5.270	1.440	5956.574	2.350	-14.230	6614.106	14.360	7.940
112.	10953.335	-5.360	1.640	5961.233	2.770	-14.680	6643.450	14.170	7.800
113.	10935.321	-5.420	1.800	5966.627	3.160	-15.070	6671.937	13.930	7.650
114.	10917.176	-5.450	1.970	5972.729	3.540	-15.440	6701.173	13.640	7.300
115.	10898.992	-5.460	2.150	5979.505	3.890	-15.780	6732.921	13.290	6.800
116.	10880.856	-5.440	2.330	5986.920	4.230	-16.100	6766.622	12.890	6.200
117.	10862.872	-5.390	2.530	5994.934	4.540	-16.370	6802.195	12.500	5.600
118.	10845.130	-5.310	2.720	6003.527	4.830	-16.620	6839.638	12.150	5.000
119.	10827.734	-5.200	2.930	6012.646	5.100	-16.850	6878.430	11.800	4.400
120.	10810.784	-5.060	3.140	6022.262	5.350	-17.080	6918.097	10.760	3.800
121.	10794.361	-4.960	3.350	6032.337	5.560	-17.260	6958.970	9.810	3.200
122.	10778.629	-4.860	3.570	6042.833	5.750	-17.330	6999.693	9.010	2.500
123.	10763.628	-4.740	3.790	6053.713	5.900	-17.430	7040.663	8.360	1.800
124.	10749.476	-4.610	4.020	6064.937	6.140	-17.510	7082.403	7.850	1.100
125.	10736.264	-3.980	4.240	6076.467	6.260	-17.570	7124.213	7.400	0.400
126.	10724.099	-3.350	4.470	6088.263	6.400	-17.600	7166.019	6.110	0.000
127.	10713.051	-3.260	4.690	6100.283	6.490	-17.600	7207.221	5.190	0.000
128.	10703.204	-2.630	4.910	6112.465	6.570	-17.560	7248.261	4.230	0.000
129.	10694.630	-2.430	5.120	6124.826	6.610	-17.540	7289.234	3.240	0.000
130.	10687.390	-2.010	5.330	6137.261	6.640	-17.440	7330.000	2.240	0.000
131.	10681.535	-1.580	5.520	6149.741	6.640	-17.390	7370.787	1.220	0.000
132.	10677.117	-1.140	5.710	6162.219	6.610	-17.290	7411.311	.200	0.000
133.	10674.154	-.660	5.890	6174.634	6.550	-17.160	7451.656	.000	0.000
134.	10672.670	-.230	6.050	6186.946	6.460	-17.020	7491.830	.000	0.000
135.	10672.671	.680	6.200	6199.062	6.340	-16.850	7531.838	.000	0.000
136.	10674.150	1.130	6.330	6210.976	6.190	-16.670	7571.688	.000	0.000
137.	10677.090	1.560	6.450	6222.557	5.990	-16.470	7611.290	.000	0.000
138.	10681.461	1.960	6.550	6233.744	5.750	-16.250	7650.640	.000	0.000
139.	10687.223	2.380	6.630	6244.444	5.460	-16.010	7689.633	.000	0.000
140.	10694.326	2.760	6.690	6254.554	5.120	-15.750	7728.266	.000	0.000
141.	10702.708	3.120	6.740	6263.956	4.710	-15.470	7766.545	.000	0.000
142.	10712.502	3.450	6.760	6272.514	4.220	-15.170	7804.462	.000	0.000
143.	10723.032	3.750	6.770	6280.072	3.650	-14.850	7841.907	.000	0.000
144.	10734.817	4.030	6.760	6286.452	2.990	-14.500	7878.875	.000	0.000
145.	10747.571	4.280	6.730	6291.450	2.210	-14.120	7915.352	.000	0.000
146.	10761.204	4.490	6.690	6294.839	1.310	-13.720	7951.321	.000	0.000
147.	10775.624	4.660	6.630	6296.371	.270	-13.290	7986.764	.000	0.000
148.	10790.735	4.840	6.550	6295.787	-.460	-12.830	8021.566	.000	0.000
149.	10806.442	4.840	6.460	6292.632	-2.200	-12.340	8055.635	.000	0.000

Y-PLANE (XZ-PLANE) SAPPHIRE

	LPHI12	LPHI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
150.	4.970	6.350	6287.276	-3.610	-11.630	6765.154	-7.070	-5.530
151.	5.070	6.240	6278.953	-3.060	-11.360	6755.421	-6.190	-6.650
152.	5.140	6.100	6267.770	-6.560	-10.710	6743.645	-5.820	-6.440
153.	5.190	5.960	6253.743	-8.040	-10.240	6733.951	-4.800	-6.040
154.	5.210	5.810	6236.997	-9.410	-9.730	6726.352	-3.210	-6.800
155.	5.200	5.650	6217.755	-10.640	-9.240	6720.760	-2.260	-6.910
156.	5.170	5.470	6196.317	-11.710	-8.710	6717.031	-1.810	-6.970
157.	5.120	5.290	6173.830	-12.600	-8.340	6714.893	-1.670	-6.970
158.	5.040	5.110	6148.266	-13.310	-7.950	6714.174	-1.650	-6.970
159.	4.940	4.910	6122.374	-13.640	-7.540	6714.619	.470	-6.010
160.	4.830	4.710	6095.721	-14.200	-7.160	6716.010	.680	-6.010
161.	4.690	4.500	6068.630	-14.416	-6.830	6718.141	1.190	-6.490
162.	4.540	4.290	6041.400	-14.470	-6.490	6720.642	1.430	-6.270
163.	4.370	4.070	6014.305	-14.400	-6.160	6723.958	1.600	-6.030
164.	4.190	3.850	5987.593	-14.200	-5.830	6727.360	1.710	-5.760
165.	4.000	3.630	5961.490	-13.690	-5.500	6730.937	1.770	-5.490
166.	3.760	3.400	5936.199	-13.470	-5.170	6734.994	1.790	-5.210
167.	3.560	3.170	5911.905	-12.960	-4.840	6739.252	1.770	-4.930
168.	3.330	2.930	5886.774	-12.350	-4.500	6741.644	1.720	-4.650
169.	3.060	2.690	5860.958	-11.650	-4.150	6746.313	1.650	-4.370
170.	2.830	2.460	5846.595	-10.870	-3.800	6748.632	1.560	-4.090
171.	2.570	2.220	5827.886	-10.020	-3.450	6751.699	1.440	-3.810
172.	2.300	1.970	5810.704	-9.090	-3.060	6754.541	1.320	-3.530
173.	2.030	1.730	5795.385	-8.100	-2.710	6757.109	1.160	-3.250
174.	1.750	1.480	5781.935	-7.050	-2.340	6759.370	1.030	-2.970
175.	1.470	1.240	5770.430	-5.960	-1.960	6761.333	.870	-2.690
176.	1.180	.990	5760.931	-4.820	-1.570	6762.947	.700	-2.410
177.	.850	.740	5753.491	-3.650	-1.160	6764.218	.530	-2.130
178.	.590	.500	5748.147	-2.450	-0.750	6765.132	.360	-1.850
179.	.300	.250	5744.930	-1.230	-0.400	6765.684	.180	-1.570
180.	-0.000	-0.000	5743.655	0.000	0.000	6765.868	-0.000	0.000

Z-PLANE (XY-PLANE) SAPPHIRE

BULK

	LMQVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSKVEL	SSPH12	SSPH13
0.	11174.720	0.000	0.000	6765.866	0.000	0.000	5743.855	0.000	0.000
1.	11174.769	0.030	-0.250	6765.266	-0.560	0.350	5744.443	0.670	0.000
2.	11174.915	0.040	-0.500	6763.551	-1.120	0.760	5740.205	1.340	0.750
3.	11175.156	0.060	-0.740	6760.665	-1.680	1.170	5743.131	2.000	1.100
4.	11175.490	0.110	-0.990	6756.641	-2.230	1.560	5753.211	2.650	1.500
5.	11175.913	0.140	-1.230	6751.497	-2.770	1.940	5750.425	3.290	1.900
6.	11176.421	0.160	-1.460	6745.257	-3.300	2.320	5769.751	3.910	2.300
7.	11177.086	0.160	-1.700	6737.947	-3.810	2.650	5772.159	4.510	2.650
8.	11177.664	0.200	-1.920	6729.602	-4.310	3.060	5780.615	5.080	3.000
9.	11178.306	0.220	-2.140	6720.254	-4.790	3.420	5790.079	5.630	3.300
10.	11179.165	0.240	-2.360	6709.965	-5.250	3.770	5800.505	6.140	3.720
11.	11179.991	0.250	-2.570	6698.770	-5.680	4.110	5811.000	6.620	4.030
12.	11180.857	0.260	-2.770	6686.732	-6.080	4.440	5828.026	7.060	4.300
13.	11181.751	0.270	-2.960	6673.916	-6.460	4.760	5836.994	7.460	4.590
14.	11182.664	0.270	-3.150	6660.357	-6.790	5.080	5850.671	7.810	4.890
15.	11183.587	0.270	-3.320	6646.256	-7.090	5.360	5864.970	8.110	5.100
16.	11184.509	0.270	-3.490	6631.586	-7.330	5.670	5879.737	8.350	5.300
17.	11185.419	0.260	-3.640	6616.495	-7.530	5.940	5899.064	8.520	5.600
18.	11186.309	0.260	-3.790	6601.100	-7.660	6.210	5910.021	8.650	5.800
19.	11187.166	0.250	-3.920	6585.553	-7.720	6.460	5920.295	8.650	5.900
20.	11187.987	0.230	-4.050	6569.953	-7.700	6.650	5941.939	8.500	6.130
21.	11188.756	0.220	-4.160	6554.605	-7.550	6.920	5975.510	8.200	6.200
22.	11189.471	0.200	-4.260	6539.611	-7.350	7.120	5972.042	7.800	6.300
23.	11190.115	0.160	-4.350	6525.240	-6.990	7.350	5987.127	7.670	6.400
24.	11190.696	0.160	-4.430	6511.772	-6.480	7.450	6000.056	7.600	6.540
25.	11191.195	0.130	-4.500	6499.515	-5.810	7.640	6013.093	7.620	6.600
26.	11191.610	0.110	-4.550	6488.805	-4.960	7.780	6023.527	7.570	6.600
27.	11191.936	0.060	-4.600	6479.965	-3.920	7.850	6032.701	7.400	6.600
28.	11192.175	0.030	-4.630	6473.399	-2.720	7.970	6039.333	7.200	6.600
29.	11192.316	0.030	-4.650	6469.317	-1.400	8.020	6043.441	6.900	6.600
30.	11192.366	-0.000	-4.650	6467.934	0.000	8.030	6046.632	6.500	6.600
31.	11192.316	-0.030	-4.650	6469.317	1.400	8.020	6043.441	6.000	6.600
32.	11192.175	-0.060	-4.630	6473.399	2.720	7.970	6039.333	5.300	6.600
33.	11191.936	-0.060	-4.600	6479.989	3.920	7.850	6032.701	4.200	6.600
34.	11191.610	-0.110	-4.550	6488.805	4.960	7.720	6023.527	2.500	6.600
35.	11191.195	-0.130	-4.500	6499.515	5.810	7.640	6013.093	1.500	6.600
36.	11190.696	-0.160	-4.430	6511.772	6.480	7.450	6000.056	0.900	6.600
37.	11190.115	-0.180	-4.350	6525.240	6.990	7.350	5987.127	0.400	6.600
38.	11189.471	-0.200	-4.260	6539.611	7.350	7.120	5972.042	0.100	6.600
39.	11188.756	-0.220	-4.160	6554.605	7.550	6.920	5975.510	0.000	6.600
40.	11187.987	-0.230	-4.050	6569.953	7.700	6.650	5941.939	0.000	6.600
41.	11187.166	-0.250	-3.920	6585.553	7.720	6.460	5920.295	0.000	6.600
42.	11186.309	-0.260	-3.790	6601.106	7.660	6.210	5910.021	0.000	6.600
43.	11185.415	-0.260	-3.640	6616.499	7.530	5.940	5900.000	0.000	6.600
44.	11184.509	-0.270	-3.490	6631.586	7.330	5.670	5879.737	0.000	6.600
45.	11183.587	-0.270	-3.320	6646.256	7.090	5.360	5864.970	0.000	6.600
46.	11182.664	-0.270	-3.150	6660.357	6.790	5.080	5850.671	0.000	6.600
47.	11181.751	-0.270	-2.960	6673.916	6.460	4.760	5836.994	0.000	6.600
48.	11180.857	-0.260	-2.770	6686.732	6.080	4.440	5828.026	0.000	6.600
49.	11179.991	-0.250	-2.570	6698.770	5.680	4.110	5811.000	0.000	6.600

Z-PLANE (XY-PLANE) SAPPHIRE

BULK

	LPMI12	LPMI13	FSRWEL	FSPHI12	FSPHI13	SSRWEL	SSPHI12	SSPHI13
50.	-0.240	-2.360	6709.965	5.250	3.770	5000.505	-0.140	3.720
51.	-0.220	-2.140	6720.255	4.790	3.420	5790.079	-5.630	3.330
52.	-0.200	-1.920	6729.602	4.310	3.060	5780.615	-5.060	3.000
53.	-0.180	-1.700	6737.947	3.610	2.650	5772.159	-4.510	2.690
54.	-0.160	-1.460	6745.257	3.300	2.320	5764.751	-3.910	2.320
55.	-0.140	-1.230	6751.497	2.770	1.940	5758.425	-3.290	1.920
56.	-0.110	-0.990	6756.641	2.230	1.560	5753.211	-2.650	1.510
57.	-0.080	-0.740	6760.665	1.660	1.170	5748.131	-2.000	1.120
58.	-0.050	-0.500	6763.551	1.120	0.780	5743.205	-1.340	0.730
59.	-0.030	-0.250	6765.286	0.560	0.350	5744.443	-0.670	0.400
60.	0.000	0.000	6765.866	0.000	-0.000	5743.055	0.000	-0.000
61.	0.030	0.250	6765.266	-0.500	-0.350	5744.443	0.670	-0.400
62.	0.060	0.490	6763.551	-1.120	-0.780	5746.205	1.340	-0.960
63.	0.080	0.740	6760.665	-1.660	-1.170	5743.211	2.000	-1.510
64.	0.110	0.990	6756.641	-2.230	-1.560	5743.211	2.650	-1.920
65.	0.140	1.230	6751.497	-2.770	-1.940	5750.425	3.290	-2.320
66.	0.160	1.460	6745.257	-3.300	-2.320	5764.751	3.910	-2.690
67.	0.180	1.700	6737.947	-3.810	-2.650	5772.159	4.510	-3.000
68.	0.200	1.920	6729.602	-4.310	-3.060	5780.615	5.060	-3.330
69.	0.220	2.140	6720.255	-4.790	-3.420	5790.079	5.630	-3.720
70.	0.240	2.360	6709.965	-5.250	-3.770	5000.505	6.140	-4.000
71.	0.250	2.570	6698.770	-5.080	-3.770	5811.940	6.620	-4.260
72.	0.260	2.770	6686.732	-6.000	-4.440	5824.026	7.080	-4.540
73.	0.270	2.960	6673.916	-6.460	-4.760	5836.934	7.460	-4.820
74.	0.270	3.150	6660.397	-6.740	-5.040	5850.671	7.810	-5.090
75.	0.270	3.320	6646.256	-7.090	-5.380	5864.970	8.110	-5.360
76.	0.270	3.490	6631.566	-7.330	-5.670	5879.797	8.350	-5.600
77.	0.260	3.640	6616.499	-7.530	-5.940	5895.045	8.520	-5.800
78.	0.250	3.790	6601.106	-7.660	-6.210	5910.731	8.630	-5.900
79.	0.250	3.920	6585.553	-7.720	-6.460	5926.825	8.650	-5.910
80.	0.230	4.050	6569.993	-7.760	-6.590	5943.343	8.580	-5.810
81.	0.220	4.160	6554.604	-7.560	-6.520	5960.310	8.400	-5.620
82.	0.200	4.260	6539.611	-7.350	-6.350	5977.642	8.110	-5.360
83.	0.180	4.350	6525.240	-7.090	-6.120	5995.327	7.670	-5.000
84.	0.160	4.430	6511.772	-6.480	-5.490	6000.698	7.080	-4.540
85.	0.130	4.500	6499.515	-5.610	-4.640	6013.043	6.320	-4.060
86.	0.110	4.550	6488.805	-4.960	-3.760	6023.827	5.370	-3.070
87.	0.080	4.600	6479.989	-3.920	-2.650	6032.701	4.240	-1.970
88.	0.060	4.630	6473.394	-2.720	-1.920	6039.333	2.940	-0.660
89.	0.030	4.650	6469.934	-0.400	-0.020	6044.441	1.510	0.000
90.	-0.000	4.650	6469.317	0.000	-0.030	6048.032	-0.000	-0.000
91.	-0.030	4.650	6469.317	1.400	-0.020	6043.441	-1.510	-0.000
92.	-0.060	4.630	6473.394	2.720	-0.570	6039.333	-2.940	-0.660
93.	-0.080	4.600	6479.989	3.920	-1.650	6032.701	-4.240	-1.970
94.	-0.110	4.550	6488.805	4.960	-2.700	6023.827	-5.370	-3.070
95.	-0.130	4.500	6499.515	5.610	-3.640	6013.043	-6.320	-4.060
96.	-0.160	4.430	6511.772	6.480	-4.490	6000.698	-7.080	-4.540
97.	-0.180	4.350	6525.240	6.990	-5.320	5988.127	-7.670	-5.000
98.	-0.200	4.260	6539.611	7.350	-6.120	5977.642	-8.110	-5.360
99.	-0.220	4.160	6554.609	7.560	-6.520	5968.310	-8.400	-5.620

Z-PLANE (XY-PLANE) SAPPHIRE

BULK

	LMGVEL	LPMI12	LPMI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
100.	11167.907	-0.230	4.050	6569.993	7.700	-6.650	5941.994	-8.150	-6.130
101.	11187.186	-0.250	3.920	6545.553	7.720	-6.460	5926.295	-8.650	-5.970
102.	11186.309	-0.260	3.790	6601.106	7.660	-6.210	5910.591	-8.630	-5.800
103.	11185.419	-0.260	3.640	6616.495	7.530	-5.540	5895.045	-8.520	-5.630
104.	11184.505	-0.270	3.490	6631.568	7.330	-5.670	5879.797	-8.350	-5.460
105.	11183.587	-0.270	3.320	6646.256	7.090	-5.360	5864.571	-8.110	-5.300
106.	11182.664	-0.270	3.150	6660.397	6.790	-5.140	5849.344	-7.610	-4.800
107.	11181.751	-0.270	2.960	6673.916	6.460	-4.760	5834.117	-7.460	-4.620
108.	11180.857	-0.260	2.770	6686.732	6.080	-4.440	5824.026	-7.063	-4.330
109.	11179.991	-0.250	2.570	6698.770	5.660	-4.110	5811.040	-6.623	-4.030
110.	11179.165	-0.240	2.360	6709.965	5.250	-3.770	5800.055	-6.140	-3.720
111.	11178.366	-0.220	2.140	6720.255	4.790	-3.420	5790.079	-5.630	-3.360
112.	11177.664	-0.200	1.920	6729.641	4.310	-3.060	5780.615	-5.000	-3.000
113.	11177.006	-0.180	1.700	6737.947	3.810	-2.650	5772.154	-4.350	-2.650
114.	11176.421	-0.160	1.460	6745.257	3.300	-2.320	5764.751	-3.910	-2.320
115.	11175.913	-0.140	1.230	6751.497	2.770	-1.940	5758.425	-3.290	-1.950
116.	11175.450	-0.110	0.990	6756.641	2.230	-1.560	5753.211	-2.650	-1.570
117.	11175.156	-0.080	0.740	6760.665	1.680	-1.170	5749.131	-2.000	-1.100
118.	11174.915	-0.060	0.500	6763.551	1.120	-0.760	5746.235	-1.340	-0.790
119.	11174.765	-0.030	0.250	6765.208	0.560	-0.390	5744.443	-0.670	-0.440
120.	11174.720	0.000	-0.000	6765.866	0.000	0.000	5743.655	0.000	0.000
121.	11174.769	-0.030	-0.250	6765.288	-0.560	0.350	5744.443	0.670	0.400
122.	11174.915	-0.060	-0.500	6763.551	-1.120	0.760	5746.235	1.340	0.700
123.	11175.156	-0.110	-0.740	6760.665	-1.680	1.170	5749.131	2.000	1.160
124.	11175.450	-0.140	-0.990	6756.641	-2.230	1.560	5753.211	2.650	1.570
125.	11175.913	-0.160	-1.230	6751.497	-2.770	1.940	5758.425	3.290	1.950
126.	11176.421	-0.180	-1.460	6745.257	-3.300	2.320	5764.751	3.910	2.320
127.	11177.006	-0.180	-1.700	6737.947	-3.810	2.650	5772.154	4.510	2.650
128.	11177.664	-0.200	-1.920	6729.641	-4.310	3.060	5780.615	5.060	3.000
129.	11178.366	-0.220	-2.140	6720.255	-4.750	3.420	5790.079	5.630	3.360
130.	11179.165	-0.240	-2.360	6709.965	-5.250	3.770	5800.055	6.140	3.720
131.	11179.991	-0.250	-2.570	6698.770	-5.660	4.110	5811.040	6.623	4.030
132.	11180.857	-0.260	-2.770	6686.732	-6.080	4.440	5824.026	7.063	4.330
133.	11181.751	-0.270	-2.960	6673.916	-6.460	4.760	5834.117	7.460	4.620
134.	11182.664	-0.270	-3.150	6660.397	-6.790	5.060	5849.344	7.810	4.860
135.	11183.587	-0.260	-3.320	6646.256	-7.090	5.380	5864.571	8.110	5.100
136.	11184.505	-0.270	-3.490	6631.568	-7.330	5.670	5879.797	8.350	5.360
137.	11185.419	-0.260	-3.640	6616.495	-7.530	5.940	5895.045	8.520	5.600
138.	11186.309	-0.260	-3.790	6601.106	-7.660	6.210	5910.591	8.630	5.800
139.	11187.186	-0.250	-3.920	6585.553	-7.720	6.460	5926.295	8.650	5.970
140.	11187.987	-0.230	-4.050	6569.993	-7.700	6.650	5941.994	8.580	6.130
141.	11188.758	-0.200	-4.160	6554.609	-7.580	6.820	5957.516	8.400	6.260
142.	11189.471	-0.200	-4.260	6539.611	-7.350	7.120	5972.642	8.110	6.360
143.	11190.119	-0.180	-4.350	6525.240	-7.090	7.320	5987.127	7.670	6.440
144.	11190.696	-0.160	-4.430	6511.772	-6.860	7.450	6000.096	7.060	6.500
145.	11191.195	-0.130	-4.500	6499.515	-6.610	7.640	6013.043	6.320	6.640
146.	11191.610	-0.110	-4.550	6488.805	-6.360	7.860	6023.027	5.570	6.810
147.	11191.938	-0.080	-4.600	6479.969	-6.100	8.090	6032.701	4.740	6.960
148.	11192.175	-0.060	-4.630	6473.399	-5.840	8.270	6039.333	4.240	7.040
149.	11192.310	-0.030	-4.650	6469.317	-5.600	8.400	6043.441	3.800	7.090

Z-PLANE (XY-PLANE) SAPPHIRE

	LNGVEL	LPM12	LPM13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
150.	11192.366	-0.000	-4.650	6467.934	0.000	6.030	6044.632	-0.000	0.000
151.	11192.316	-0.030	-4.650	6469.317	1.400	6.020	6043.441	-1.510	0.000
152.	11192.175	-0.060	-4.630	6473.339	2.720	7.570	6032.333	-2.540	0.000
153.	11191.938	-0.080	-4.600	6479.965	3.920	7.650	6032.701	-4.240	0.000
154.	11191.610	-0.110	-4.550	6488.805	4.960	7.620	6023.827	-5.370	0.000
155.	11191.195	-0.130	-4.500	6499.515	5.810	7.640	6013.043	-6.320	0.000
157.	11190.119	-0.160	-4.350	6525.240	6.990	7.320	5987.127	-7.670	0.000
158.	11190.096	-0.160	-4.430	6511.772	6.460	7.450	6000.098	-7.600	0.000
159.	11189.471	-0.200	-4.260	6539.611	7.350	7.120	5972.042	-8.110	0.000
160.	11188.758	-0.220	-4.160	6554.609	7.560	6.520	5957.516	-8.400	0.000
161.	11187.967	-0.230	-4.050	6569.993	7.700	6.450	5941.395	-8.200	0.000
162.	11187.168	-0.250	-3.920	6585.553	7.720	6.460	5920.295	-8.200	0.000
163.	11186.309	-0.260	-3.790	6601.110	7.660	6.210	5910.591	-8.630	0.000
164.	11185.419	-0.260	-3.640	6616.499	7.530	5.940	5920.345	-8.520	0.000
165.	11184.509	-0.270	-3.490	6631.586	7.330	5.670	5679.797	-8.350	0.000
166.	11183.587	-0.270	-3.320	6646.256	7.030	5.360	5664.370	-8.110	0.000
167.	11182.664	-0.270	-3.150	6660.397	6.730	5.180	5650.671	-7.810	0.000
168.	11181.751	-0.270	-2.960	6673.916	6.460	4.760	5630.934	-7.460	0.000
169.	11180.857	-0.260	-2.770	6686.732	6.000	4.440	5624.026	-7.060	0.000
170.	11179.991	-0.250	-2.570	6698.770	5.600	4.110	5611.040	-6.620	0.000
171.	11179.165	-0.240	-2.360	6709.965	5.250	3.770	5600.505	-6.140	0.000
172.	11178.366	-0.220	-2.140	6720.259	4.790	3.420	5730.079	-5.630	0.000
173.	11177.664	-0.200	-1.920	6729.602	4.310	3.060	5780.615	-5.060	0.000
174.	11177.006	-0.160	-1.700	6737.947	3.810	2.690	5772.159	-4.510	0.000
175.	11176.421	-0.160	-1.460	6745.257	3.300	2.320	5764.751	-3.910	0.000
176.	11175.913	-0.140	-1.230	6751.497	2.770	1.940	5758.425	-3.290	0.000
177.	11175.490	-0.110	-0.990	6756.641	2.230	1.560	5753.211	-2.650	0.000
178.	11175.156	-0.060	-0.740	6760.685	1.660	1.170	5749.131	-2.000	0.000
179.	11174.915	-0.060	-0.500	6763.551	1.120	.780	5746.205	-1.340	0.000
179.	11174.769	-0.030	-0.250	6765.288	.560	.390	5744.443	-0.670	0.000
180.	11174.720	0.000	0.000	6765.868	-0.000	-0.400	5743.855	0.000	0.000

Z-PLANE (XY-PLANE) SILICON

	LMVEL	LPMI12	LPHI13	FRRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
0.	8440.654	0.000	0.000	5844.920	0.000	0.000	5844.920	0.000	0.000
1.	8441.825	.910	0.000	5843.222	-1.910	0.000	5844.920	0.600	0.000
2.	8445.341	1.610	0.000	5838.145	-3.790	0.000	5844.920	0.000	0.000
3.	8451.148	2.690	0.000	5829.736	-5.640	0.000	5844.920	0.000	0.000
4.	8459.181	3.530	0.000	5818.073	-7.440	0.000	5844.920	-0.000	0.000
5.	8469.346	4.330	0.000	5803.264	-9.160	0.000	5844.920	0.000	0.000
6.	8481.534	5.040	0.000	5785.436	-10.810	0.000	5844.920	0.000	0.000
7.	8495.609	5.770	0.000	5764.750	-12.370	0.000	5844.920	0.000	0.000
8.	8511.427	6.390	0.000	5741.370	-13.630	0.000	5844.920	-0.000	0.000
9.	8528.832	6.950	0.000	5715.464	-15.190	0.000	5844.920	0.000	0.000
10.	8547.661	7.440	0.000	5687.286	-16.440	0.000	5844.920	0.000	0.000
11.	8567.748	7.870	0.000	5656.980	-17.580	0.000	5844.920	0.000	0.000
12.	8588.926	8.220	0.000	5624.774	-18.620	0.000	5844.920	-0.000	0.000
13.	8611.028	8.520	0.000	5590.876	-19.560	0.000	5844.920	0.000	0.000
14.	8633.893	8.750	0.000	5555.503	-20.390	0.000	5844.920	-0.000	0.000
15.	8657.363	8.920	0.000	5518.858	-21.120	0.000	5844.920	0.000	0.000
16.	8681.287	9.040	0.000	5481.146	-21.750	0.000	5844.920	-0.000	0.000
17.	8705.520	9.100	0.000	5442.578	-22.290	0.000	5844.920	0.000	0.000
18.	8729.925	9.120	0.000	5403.345	-22.730	0.000	5844.920	-0.000	0.000
19.	8754.373	9.080	0.000	5363.644	-23.070	0.000	5844.920	0.000	0.000
20.	8778.742	9.010	0.000	5323.665	-23.320	0.000	5844.920	-0.000	0.000
21.	8802.919	8.890	0.000	5283.592	-23.480	0.000	5844.920	0.000	0.000
22.	8826.756	8.740	0.000	5243.606	-23.550	0.000	5844.920	0.000	0.000
23.	8850.275	8.560	0.000	5203.880	-23.520	0.000	5844.920	0.000	0.000
24.	8873.263	8.340	0.000	5164.584	-23.410	0.000	5844.920	0.000	0.000
25.	8895.675	8.100	0.000	5125.884	-23.200	0.000	5844.920	0.000	0.000
26.	8917.432	7.830	0.000	5087.940	-22.900	0.000	5844.920	0.000	0.000
27.	8938.461	7.540	0.000	5050.905	-22.510	0.000	5844.920	0.000	0.000
28.	8958.694	7.220	0.000	5014.930	-22.020	0.000	5844.920	0.000	0.000
29.	8978.070	6.890	0.000	4980.159	-21.430	0.000	5844.920	0.000	0.000
30.	8996.531	6.530	0.000	4946.731	-20.750	0.000	5844.920	0.000	0.000
31.	9014.026	6.170	0.000	4914.780	-19.970	0.000	5844.920	0.000	0.000
32.	9030.506	5.780	0.000	4884.433	-19.050	0.000	5844.920	0.000	0.000
33.	9045.928	5.360	0.000	4855.612	-18.110	0.000	5844.920	0.000	0.000
34.	9060.254	4.970	0.000	4829.030	-17.040	0.000	5844.920	0.000	0.000
35.	9073.446	4.550	0.000	4804.196	-15.860	0.000	5844.920	0.000	0.000
36.	9085.475	4.130	0.000	4781.409	-14.600	0.000	5844.920	0.000	0.000
37.	9096.311	3.690	0.000	4760.762	-13.240	0.000	5844.920	0.000	0.000
38.	9105.929	3.240	0.000	4742.340	-11.800	0.000	5844.920	0.000	0.000
39.	9114.307	2.750	0.000	4726.217	-10.270	0.000	5844.920	0.000	0.000
40.	9121.428	2.330	0.000	4712.460	-8.660	0.000	5844.920	0.000	0.000
41.	9127.275	1.870	0.000	4701.125	-7.020	0.000	5844.920	0.000	0.000
42.	9131.836	1.410	0.000	4692.260	-5.310	0.000	5844.920	0.000	0.000
43.	9135.180	.940	0.000	4685.901	-3.570	0.000	5844.920	0.000	0.000
44.	9137.062	.470	0.000	4682.075	-1.790	0.000	5844.920	0.000	0.000
45.	9137.716	0.000	0.000	4680.798	0.000	0.000	5844.920	0.000	0.000
46.	9137.062	-.470	0.000	4682.075	1.790	0.000	5844.920	0.000	0.000
47.	9135.180	-.940	0.000	4685.901	3.570	0.000	5844.920	0.000	0.000
48.	9131.836	-1.410	0.000	4692.260	5.310	0.000	5844.920	0.000	0.000
49.	9127.275	-1.870	0.000	4701.125	7.020	0.000	5844.920	0.000	0.000

BULK

Z-PLANE (XY-PLANE) SILICON

BULK

	LMGVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
50.	9121.428	-2.330	0.000	4712.460	0.660	0.000	5044.920	-0.000	0.000
51.	9114.387	-2.790	0.000	4726.217	10.270	0.000	5044.920	-0.000	0.000
52.	9105.925	-3.240	0.000	4742.340	11.600	0.000	5044.920	-0.000	0.000
53.	9096.311	-3.690	0.000	4760.762	13.240	0.000	5044.920	-0.000	0.000
54.	9085.475	-4.130	0.000	4781.409	14.600	0.000	5044.920	-0.000	0.000
55.	9073.446	-4.550	0.000	4804.146	15.860	0.000	5044.920	-0.000	0.000
56.	9060.254	-4.970	0.000	4828.830	17.040	0.000	5044.920	-0.000	0.000
57.	9045.928	-5.360	0.000	4855.412	18.110	0.000	5044.920	-0.000	0.000
58.	9030.506	-5.760	0.000	4884.433	19.050	0.000	5044.920	-0.000	0.000
59.	9014.026	-6.170	0.000	4914.780	19.970	0.000	5044.920	-0.000	0.000
60.	8996.531	-6.530	0.000	4946.731	20.750	0.000	5044.920	-0.000	0.000
61.	8976.070	-6.850	0.000	4980.154	21.430	0.000	5044.920	-0.000	0.000
62.	8954.694	-7.220	0.000	5014.930	22.020	0.000	5044.920	-0.000	0.000
63.	8938.461	-7.540	0.000	5050.905	22.510	0.000	5044.920	-0.000	0.000
64.	8917.432	-7.830	0.000	5087.940	22.900	0.000	5044.920	-0.000	0.000
65.	8895.675	-8.100	0.000	5125.664	23.200	0.000	5044.920	-0.000	0.000
66.	8873.263	-8.340	0.000	5164.584	23.410	0.000	5044.920	-0.000	0.000
67.	8850.275	-8.560	0.000	5203.080	23.520	0.000	5044.920	-0.000	0.000
68.	8826.796	-8.740	0.000	5243.606	23.550	0.000	5044.920	-0.000	0.000
69.	8802.919	-8.890	0.000	5285.592	23.480	0.000	5044.920	-0.000	0.000
70.	8778.742	-9.010	0.000	5328.665	23.320	0.000	5044.920	-0.000	0.000
71.	8754.373	-9.060	0.000	5363.644	23.070	0.000	5044.920	-0.000	0.000
72.	8729.925	-9.120	0.000	5403.345	22.730	0.000	5044.920	-0.000	0.000
73.	8705.520	-9.160	0.000	5442.578	22.290	0.000	5044.920	-0.000	0.000
74.	8681.267	-9.140	0.000	5481.146	21.750	0.000	5044.920	-0.000	0.000
75.	8657.363	-8.920	0.000	5518.856	21.120	0.000	5044.920	-0.000	0.000
76.	8633.893	-8.750	0.000	5555.503	20.390	0.000	5044.920	-0.000	0.000
77.	8611.028	-8.520	0.000	5590.878	19.560	0.000	5044.920	-0.000	0.000
78.	8588.926	-8.220	0.000	5624.774	18.620	0.000	5044.920	-0.000	0.000
79.	8567.748	-7.870	0.000	5656.960	17.580	0.000	5044.920	-0.000	0.000
80.	8547.661	-7.440	0.000	5687.286	16.440	0.000	5044.920	-0.000	0.000
81.	8528.632	-6.950	0.000	5715.484	15.190	0.000	5044.920	-0.000	0.000
82.	8511.627	-6.350	0.000	5743.370	13.850	0.000	5044.920	-0.000	0.000
83.	8495.609	-5.770	0.000	5764.750	12.370	0.000	5044.920	-0.000	0.000
84.	8481.534	-5.060	0.000	5785.436	10.610	0.000	5044.920	-0.000	0.000
85.	8469.346	-4.330	0.000	5803.264	9.160	0.000	5044.920	-0.000	0.000
86.	8459.181	-3.530	0.000	5818.073	7.440	0.000	5044.920	-0.000	0.000
87.	8451.146	-2.690	0.000	5829.736	5.640	0.000	5044.920	-0.000	0.000
88.	8445.341	-1.810	0.000	5838.165	3.790	0.000	5044.920	-0.000	0.000
89.	8441.829	-0.910	0.000	5843.222	1.910	0.000	5044.920	-0.000	0.000
90.	8440.654	0.000	0.000	5844.920	-0.000	0.000	5044.920	-0.000	0.000
91.	8441.629	.910	0.000	5843.222	-1.910	0.000	5044.920	-0.000	0.000
92.	8445.341	1.610	0.000	5838.165	-3.790	0.000	5044.920	-0.000	0.000
93.	8451.146	2.690	0.000	5829.736	-5.640	0.000	5044.920	-0.000	0.000
94.	8459.181	3.530	0.000	5818.073	-7.440	0.000	5044.920	-0.000	0.000
95.	8469.346	4.330	0.000	5803.264	-9.160	0.000	5044.920	-0.000	0.000
96.	8481.534	5.060	0.000	5785.436	-10.610	0.000	5044.920	-0.000	0.000
97.	8495.609	5.770	0.000	5764.750	-12.370	0.000	5044.920	-0.000	0.000
98.	8511.627	6.350	0.000	5743.370	-13.850	0.000	5044.920	-0.000	0.000
99.	8528.632	6.950	0.000	5715.484	-15.190	0.000	5044.920	-0.000	0.000

Z-PLANE (XY-PLANE) SILICON

BULK

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
100.	8547.661	7.440	0.000	5607.266	-16.440	0.000	5044.920	0.000	0.000
101.	8567.740	7.870	0.000	5656.980	-17.560	0.000	5044.920	-0.000	0.000
102.	8566.926	8.220	0.000	5624.774	-18.620	0.000	5044.920	0.000	0.000
103.	8611.028	8.520	0.000	5590.878	-19.560	0.000	5044.920	0.000	0.000
104.	8633.893	8.750	0.000	5555.503	-20.350	0.000	5044.920	0.000	0.000
105.	8657.363	8.920	0.000	5518.856	-21.120	0.000	5044.920	0.000	0.000
106.	8661.267	9.040	0.000	5481.146	-21.750	0.000	5044.920	0.000	0.000
107.	8705.920	9.100	0.000	5442.578	-22.290	0.000	5044.920	0.000	0.000
108.	8729.925	9.120	0.000	5403.345	-22.730	0.000	5044.920	0.000	0.000
109.	8754.373	9.060	0.000	5363.644	-23.070	0.000	5044.920	-0.000	0.000
110.	8776.742	9.010	0.000	5323.665	-23.320	0.000	5044.920	0.660	0.660
111.	8802.919	8.950	0.000	5283.592	-23.460	0.000	5044.920	0.000	0.000
112.	8826.796	8.740	0.000	5243.516	-23.560	0.000	5044.920	0.000	0.000
113.	8850.275	8.560	0.000	5203.680	-23.520	0.000	5044.920	0.000	0.000
114.	8873.263	8.340	0.000	5164.564	-23.410	0.000	5044.920	0.000	0.000
115.	8895.675	8.160	0.000	5125.884	-23.200	0.000	5044.920	0.000	0.000
116.	8917.432	7.830	0.000	5087.940	-22.960	0.000	5044.920	-0.000	0.000
117.	8938.461	7.540	0.000	5050.905	-22.510	0.000	5044.920	0.000	0.000
118.	8958.694	7.220	0.000	5014.930	-22.020	0.000	5044.920	0.660	0.660
119.	8978.070	6.950	0.000	4980.159	-21.430	0.000	5044.920	0.000	0.000
120.	8996.551	6.550	0.000	4946.731	-20.750	0.000	5044.920	0.000	0.000
121.	9014.026	6.170	0.000	4914.780	-19.970	0.000	5044.920	0.000	0.000
122.	9030.506	5.760	0.000	4884.433	-19.090	0.000	5044.920	0.000	0.000
123.	9047.920	5.300	0.000	4855.812	-18.110	0.000	5044.920	0.000	0.000
124.	9066.254	4.970	0.000	4829.030	-17.040	0.000	5044.920	0.000	0.000
125.	9083.446	4.550	0.000	4804.196	-15.860	0.000	5044.920	0.000	0.000
126.	9099.475	4.130	0.000	4781.409	-14.600	0.000	5044.920	0.000	0.000
127.	9096.311	3.690	0.000	4760.762	-13.240	0.000	5044.920	0.000	0.000
128.	9105.929	3.240	0.000	4742.340	-11.800	0.000	5044.920	-0.000	0.000
129.	9114.307	2.790	0.000	4726.217	-10.270	0.000	5044.920	-0.000	0.000
130.	9121.426	2.330	0.000	4712.460	-8.660	0.000	5044.920	0.000	0.000
131.	9127.273	1.670	0.000	4701.125	-7.020	0.000	5044.920	0.000	0.000
132.	9131.836	1.410	0.000	4692.260	-5.310	0.000	5044.920	0.000	0.000
133.	9135.100	.940	0.000	4685.901	-3.570	0.000	5044.920	0.000	0.000
134.	9137.062	.470	0.000	4680.756	-1.790	0.000	5044.920	0.000	0.000
135.	9137.716	-0.000	0.000	4680.756	0.000	0.000	5044.920	-0.000	0.000
136.	9137.062	-0.470	0.000	4682.075	1.790	0.000	5044.920	0.000	0.000
137.	9135.100	-0.940	0.000	4685.901	3.570	0.000	5044.920	-0.000	0.000
138.	9131.836	-1.410	0.000	4692.260	5.310	0.000	5044.920	0.000	0.000
139.	9127.273	-1.670	0.000	4701.125	7.020	0.000	5044.920	0.000	0.000
140.	9121.426	-2.330	0.000	4712.460	8.660	0.000	5044.920	0.000	0.000
141.	9114.307	-2.790	0.000	4726.217	10.270	0.000	5044.920	0.000	0.000
142.	9105.929	-3.240	0.000	4742.340	11.800	0.000	5044.920	-0.000	0.000
143.	9096.311	-3.690	0.000	4760.762	13.240	0.000	5044.920	-0.000	0.000
144.	9085.475	-4.130	0.000	4781.405	14.600	0.000	5044.920	0.000	0.000
145.	9073.446	-4.550	0.000	4804.196	15.860	0.000	5044.920	0.000	0.000
146.	9066.254	-4.970	0.000	4829.030	17.040	0.000	5044.920	-0.000	0.000
147.	9045.920	-5.380	0.000	4855.812	18.110	0.000	5044.920	0.000	0.000
148.	9030.506	-5.760	0.000	4884.433	19.090	0.000	5044.920	-0.000	0.000
149.	9014.026	-6.170	0.000	4914.780	19.970	0.000	5044.920	-0.000	0.000

Z-PLANE (XY-PLANE) SILICON

BULK

	LNQVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
150.	6996.531	-6.530	0.000	4946.731	20.790	0.000	5044.920	0.000	0.000
151.	6978.070	-6.890	0.000	4980.159	21.430	0.000	5044.920	0.000	0.000
152.	6956.694	-7.220	0.000	5014.930	22.020	0.000	5044.920	0.000	0.000
153.	6936.461	-7.540	0.000	5050.905	22.510	0.000	5044.920	0.000	0.000
154.	6917.432	-7.830	0.000	5087.940	22.900	0.000	5044.920	0.000	0.000
155.	6895.675	-8.110	0.000	5125.884	23.200	0.000	5044.920	0.000	0.000
156.	6873.263	-8.340	0.000	5164.584	23.410	0.000	5044.920	0.000	0.000
157.	6850.275	-8.560	0.000	5203.880	23.520	0.000	5044.920	0.000	0.000
158.	6826.796	-8.740	0.000	5243.606	23.550	0.000	5044.920	0.100	0.000
159.	6802.915	-8.690	0.000	5283.592	23.480	0.000	5044.920	0.000	0.000
160.	6778.742	-9.010	0.000	5323.605	23.320	0.000	5044.920	0.000	0.000
161.	6754.373	-9.060	0.000	5363.644	23.070	0.000	5044.920	0.000	0.000
162.	6729.925	-9.120	0.000	5403.345	22.730	0.000	5044.920	0.664	0.000
163.	6705.520	-9.100	0.000	5442.576	22.290	0.000	5044.920	-0.000	0.000
164.	6681.287	-9.040	0.000	5481.148	21.790	0.000	5044.920	0.000	0.000
165.	6657.363	-8.920	0.000	5518.850	21.120	0.000	5044.920	0.000	0.000
166.	6633.893	-8.750	0.000	5555.503	20.390	0.000	5044.920	0.000	0.000
167.	6611.028	-8.520	0.000	5590.876	19.560	0.000	5044.920	0.000	0.000
168.	6588.926	-8.220	0.000	5624.774	18.620	0.000	5044.920	0.000	0.000
169.	6567.746	-7.870	0.000	5658.980	17.560	0.000	5044.920	-0.000	0.000
170.	6547.661	-7.440	0.000	5687.261	16.440	0.000	5044.920	0.000	0.000
171.	6528.632	-6.950	0.000	5715.484	15.190	0.000	5044.920	-0.000	0.000
172.	6511.427	-6.350	0.000	5741.370	13.830	0.000	5044.920	-0.000	0.000
173.	6495.609	-5.770	0.000	5764.750	12.370	0.000	5044.920	0.000	0.000
174.	6481.534	-5.060	0.000	5785.436	10.610	0.000	5044.920	0.000	0.000
175.	6469.346	-4.330	0.000	5803.264	9.160	0.000	5044.920	0.000	0.000
176.	6459.181	-3.530	0.000	5818.073	7.440	0.000	5044.920	0.000	0.000
177.	6451.346	-2.690	0.000	5829.736	5.640	0.000	5044.920	0.000	0.000
178.	6445.341	-1.810	0.000	5838.145	3.790	0.000	5044.920	0.000	0.000
179.	6441.025	-0.910	0.000	5843.222	1.910	0.000	5044.920	0.000	0.000
180.	6440.054	0.000	0.000	5844.920	-0.000	0.000	5044.920	0.000	0.000

111-PLANE SILICON

	LNQVEL	LPNH12	LPNH13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
0.	9137.716	-0.000	0.000	5844.920	-0.000	0.000	4680.796	0.000	-0.000
1.	9137.804	.060	.380	5844.225	-0.760	-.550	4681.450	.570	-.560
2.	9138.067	.130	.770	5842.158	-1.550	-1.150	4683.561	1.530	-1.150
3.	9138.501	.190	1.130	5838.717	-2.320	-1.640	4687.003	2.890	-1.730
4.	9139.102	.250	1.498	5833.920	-3.070	-2.180	4691.002	3.420	-2.300
5.	9139.663	.300	1.860	5827.769	-3.820	-2.710	4697.436	4.740	-2.960
6.	9140.774	.350	2.220	5820.349	-4.550	-3.240	4705.379	5.620	-3.400
7.	9141.826	.400	2.570	5811.636	-5.260	-3.760	4714.899	6.480	-3.940
8.	9143.006	.450	2.910	5801.686	-5.950	-4.260	4724.955	7.300	-4.450
9.	9144.300	.480	3.240	5790.547	-6.610	-4.760	4735.203	8.080	-4.950
10.	9145.694	.520	3.560	5778.271	-7.250	-5.240	4747.431	8.810	-5.440
11.	9147.172	.540	3.870	5764.917	-7.850	-5.710	4760.980	9.490	-5.900
12.	9148.716	.560	4.170	5750.551	-8.410	-6.160	4775.293	10.110	-6.340
13.	9150.313	.560	4.460	5735.245	-8.940	-6.600	4790.565	10.680	-6.750
14.	9151.940	.550	4.730	5719.094	-9.410	-7.020	4806.742	11.100	-7.150
15.	9153.582	.550	4.980	5702.180	-9.840	-7.430	4823.681	11.600	-7.510
16.	9155.220	.560	5.230	5684.612	-10.200	-7.810	4841.275	11.990	-7.850
17.	9156.836	.570	5.450	5666.511	-10.500	-8.150	4859.405	12.210	-8.170
18.	9158.413	.560	5.660	5648.011	-10.710	-8.530	4877.936	12.360	-8.480
19.	9159.934	.530	5.860	5629.266	-10.840	-8.860	4896.710	12.430	-8.740
20.	9161.382	.500	6.040	5610.461	-10.880	-9.170	4915.549	12.360	-8.940
21.	9162.743	.470	6.200	5591.798	-10.740	-9.440	4934.243	12.150	-9.090
22.	9164.001	.430	6.350	5573.525	-10.460	-9.720	4952.547	11.770	-9.310
23.	9165.144	.350	6.480	5555.926	-10.030	-9.560	4970.175	11.210	-9.340
24.	9166.160	.340	6.590	5539.336	-9.370	-10.150	4986.731	10.610	-9.210
25.	9167.036	.250	6.660	5524.139	-8.470	-10.380	5002.011	9.350	-9.060
26.	9167.765	.230	6.760	5510.765	-7.290	-10.550	5015.491	8.010	-8.930
27.	9168.345	.180	6.820	5499.686	-5.820	-10.640	5028.499	6.370	-8.770
28.	9168.761	.120	6.870	5491.353	-4.070	-10.750	5034.846	4.440	-8.600
29.	9169.013	.060	6.900	5484.404	-2.100	-10.850	5040.840	2.290	-8.420
30.	9169.097	-0.000	6.900	5484.404	0.000	-10.870	5041.805	0.000	-8.200
31.	9169.013	-0.060	6.890	5480.166	2.100	-10.850	5040.840	-2.290	-8.020
32.	9168.761	-0.120	6.870	5491.353	4.070	-10.750	5034.846	-4.440	-7.800
33.	9168.345	-0.180	6.820	5499.686	5.820	-10.640	5028.499	-6.370	-7.710
34.	9167.765	-0.230	6.760	5510.765	7.290	-10.550	5015.491	-8.010	-7.730
35.	9167.036	-0.290	6.680	5524.140	8.470	-10.380	5002.011	-9.350	-7.860
36.	9166.160	-0.340	6.590	5539.336	9.370	-10.150	4986.731	-10.610	-8.200
37.	9165.144	-0.390	6.480	5555.926	10.030	-9.560	4970.175	-11.210	-8.200
38.	9164.001	-0.430	6.350	5573.525	10.460	-8.860	4952.547	-11.770	-8.200
39.	9162.743	-0.470	6.200	5591.796	10.740	-8.450	4934.243	-12.150	-8.140
40.	9161.382	-0.500	6.040	5610.461	10.880	-8.170	4915.549	-12.360	-8.050
41.	9159.934	-0.530	5.860	5629.266	10.840	-8.040	4896.710	-12.430	-8.070
42.	9158.413	-0.560	5.660	5648.011	10.710	-8.030	4877.936	-12.360	-8.050
43.	9156.836	-0.570	5.450	5666.511	10.500	-8.100	4859.405	-12.210	-8.110
44.	9155.220	-0.580	5.230	5684.612	10.200	-8.610	4841.275	-11.550	-8.070
45.	9153.582	-0.590	4.980	5702.180	9.840	-8.430	4823.681	-11.550	-8.050
46.	9151.940	-0.590	4.730	5719.094	9.410	-8.080	4806.742	-11.100	-8.110
47.	9150.313	-0.560	4.460	5735.245	8.940	-8.660	4790.565	-10.680	-8.070
48.	9148.716	-0.560	4.170	5750.551	8.410	-8.160	4775.293	-10.110	-8.050
49.	9147.172	-0.540	3.870	5764.917	7.850	-8.710	4760.980	-9.490	-8.050

111-PLANE SILICON

BULK

	LNGVEL	LPHI12	LPHI13	F5RVEL	F5PHI12	F5PHI13	SSRVEL	SSPHI12	SSPHI13
50.	9145.694	-0.520	3.560	5778.271	7.250	-5.240	4747.491	-0.616	-5.440
51.	9144.380	-0.460	3.240	5790.547	6.610	-4.760	4735.203	-8.000	-7.950
52.	9143.006	-0.450	2.910	5801.686	5.950	-4.260	4724.055	-7.300	-7.450
53.	9141.626	-0.400	2.570	5811.636	5.260	-3.760	4714.095	-6.400	-6.450
54.	9140.774	-0.350	2.220	5820.349	4.550	-3.240	4705.379	-5.620	-5.450
55.	9139.063	-0.300	1.860	5827.789	3.820	-2.710	4697.536	-4.740	-4.740
56.	9138.182	-0.250	1.490	5833.920	3.070	-2.160	4691.602	-3.820	-3.820
57.	9136.501	-0.190	1.130	5838.717	2.320	-1.640	4687.003	-2.690	-2.690
58.	9136.067	-0.130	0.750	5842.156	1.550	-1.100	4683.561	-1.950	-1.950
59.	9137.804	0.000	0.380	5844.225	0.760	-0.550	4681.490	-0.570	-0.570
60.	9137.716	0.000	0.000	5844.920	-0.000	0.000	4681.490	1.530	1.530
61.	9137.804	0.060	-0.380	5844.229	-1.550	1.100	4683.561	2.620	2.620
62.	9138.067	0.130	-0.750	5842.156	-2.320	1.640	4687.003	3.820	3.820
63.	9138.581	0.250	-1.130	5838.717	-3.070	2.160	4691.602	4.740	4.740
64.	9139.102	0.300	-1.490	5833.920	-3.820	2.710	4697.536	5.620	5.620
65.	9139.863	0.350	-1.860	5827.789	-4.550	3.240	4705.379	6.400	6.400
66.	9140.774	0.400	-2.220	5820.349	-5.260	3.760	4714.095	7.300	7.300
67.	9141.826	0.450	-2.570	5811.635	-6.000	4.260	4724.055	8.000	8.000
68.	9143.006	0.500	-2.910	5801.686	-6.950	4.760	4735.203	8.600	8.600
69.	9144.300	0.600	-3.240	5790.547	-7.610	5.240	4747.491	9.000	9.000
70.	9145.694	0.520	-3.560	5778.271	-8.250	5.710	4760.060	9.450	9.450
71.	9147.172	0.540	-3.870	5764.917	-8.850	6.160	4775.243	10.110	10.110
72.	9148.718	0.560	-4.170	5750.551	-9.410	6.600	4790.504	10.680	10.680
73.	9150.313	0.500	-4.460	5735.249	-9.940	7.020	4806.742	11.160	11.160
74.	9151.941	0.590	-4.730	5719.094	-10.440	7.430	4823.601	11.600	11.600
75.	9153.582	0.590	-4.980	5702.180	-10.900	7.810	4841.275	12.000	12.000
76.	9155.220	0.600	-5.230	5684.612	-11.350	8.160	4859.405	12.210	12.210
77.	9156.836	0.570	-5.450	5666.511	-11.790	8.530	4877.936	12.360	12.360
78.	9158.413	0.560	-5.660	5648.011	-12.210	8.850	4896.710	12.430	12.430
79.	9159.934	0.530	-5.860	5629.266	-12.610	9.170	4915.549	12.360	12.360
80.	9161.382	0.500	-6.040	5610.460	-13.000	9.450	4934.243	12.150	12.150
81.	9162.743	0.470	-6.200	5591.798	-13.360	9.720	4952.547	11.770	11.770
82.	9164.001	0.430	-6.350	5573.524	-13.700	10.030	4970.175	11.200	11.200
83.	9165.144	0.350	-6.460	5555.925	-14.030	10.360	4988.000	10.410	10.410
84.	9166.180	0.340	-6.590	5539.335	-14.350	10.660	4988.000	9.560	9.560
85.	9167.038	0.250	-6.660	5524.139	-14.670	10.950	4988.000	8.610	8.610
86.	9167.769	0.230	-6.760	5510.769	-14.980	11.230	4988.000	7.610	7.610
87.	9168.346	0.160	-6.820	5499.686	-15.290	11.500	4988.000	6.610	6.610
88.	9168.762	0.120	-6.870	5491.353	-15.620	11.750	4988.000	5.610	5.610
89.	9169.013	0.060	-6.890	5486.166	-16.000	12.000	4988.000	4.610	4.610
90.	9169.097	0.000	-6.900	5484.404	0.000	12.210	4988.000	3.610	3.610
91.	9169.013	-0.060	-6.890	5486.166	2.100	12.430	4988.000	2.610	2.610
92.	9168.762	-0.120	-6.870	5484.404	4.070	12.610	4988.000	1.610	1.610
93.	9168.346	-0.160	-6.820	5499.686	5.820	12.790	4988.000	0.610	0.610
94.	9167.769	-0.230	-6.760	5510.769	7.250	12.950	4988.000	-0.370	-0.370
95.	9167.038	-0.290	-6.660	5524.139	8.470	13.100	4988.000	-1.370	-1.370
96.	9166.180	-0.340	-6.590	5539.335	9.370	13.240	4988.000	-2.370	-2.370
97.	9165.144	-0.390	-6.460	5555.925	10.030	13.360	4988.000	-3.370	-3.370
98.	9164.001	-0.430	-6.350	5573.524	10.460	13.450	4988.000	-4.370	-4.370
99.	9162.743	-0.470	-6.200	5591.798	10.740	13.500	4988.000	-5.370	-5.370

111-PLANE SILICON

BULK

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
100.	9161.382	-500	-6.040	5610.460	10.850	9.170	4912.549	-12.360	0.340
101.	9159.934	-530	-5.860	5629.268	10.640	8.960	4996.710	-12.430	1.710
102.	9158.413	-560	-5.680	5648.011	10.710	8.830	4977.936	-12.360	0.430
103.	9156.836	-570	-5.650	5666.511	10.200	8.160	4959.405	-12.210	0.170
104.	9155.220	-580	-5.230	5684.612	10.200	7.610	4941.275	-11.950	7.850
105.	9153.582	-550	-4.980	5702.180	9.640	7.830	4923.661	-11.600	7.510
106.	9151.941	-550	-4.730	5719.054	9.410	7.020	4906.742	-11.160	1.110
107.	9150.313	-580	-4.460	5735.259	8.940	6.800	4794.504	-10.600	0.110
108.	9148.716	-580	-4.170	5750.551	8.410	6.160	4775.243	-10.110	6.340
109.	9147.172	-590	-3.870	5764.917	7.850	5.710	4760.860	-9.450	5.900
110.	9145.684	-520	-3.560	5778.271	7.250	5.240	4747.431	-8.610	5.440
111.	9144.300	-460	-3.260	5790.547	6.610	4.760	4735.203	-8.060	4.950
112.	9143.006	-440	-2.910	5801.686	5.950	4.260	4724.055	-7.300	4.450
113.	9141.826	-400	-2.570	5811.635	5.260	3.760	4714.030	-6.400	3.940
114.	9140.774	-350	-2.220	5820.344	4.560	3.240	4705.374	-5.420	3.400
115.	9138.863	-300	-1.860	5827.789	3.820	2.710	4697.536	-4.750	2.800
116.	9137.102	-250	-1.490	5833.920	3.070	2.160	4691.002	-3.620	2.300
117.	9135.501	-190	-1.130	5838.717	2.320	1.640	4687.003	-2.690	1.730
118.	9134.067	-130	-0.750	5842.158	1.550	1.100	4683.561	-1.930	1.100
119.	9132.804	-060	-0.380	5844.229	0.780	0.550	4681.748	-0.970	0.200
120.	9131.716	-000	0.000	5844.920	0.000	0.000	4680.748	0.000	0.000
121.	9131.064	000	0.380	5844.229	-0.780	-0.550	4681.490	0.970	-0.280
122.	9130.067	110	0.750	5842.158	-1.550	-1.100	4683.561	1.930	-1.160
123.	9138.501	150	1.130	5838.717	-2.320	-1.640	4687.003	2.690	-1.730
124.	9139.102	250	1.490	5833.920	-3.070	-2.160	4691.002	3.620	-2.300
125.	9139.863	300	1.860	5827.789	-3.820	-2.710	4697.536	4.750	-2.800
126.	9140.774	350	2.220	5820.344	-4.560	-3.240	4705.379	5.620	-3.400
127.	9141.826	400	2.570	5811.636	-5.260	-3.760	4714.030	6.400	-3.940
128.	9143.006	450	2.910	5801.686	-5.950	-4.260	4724.055	7.300	-4.450
129.	9144.300	480	3.260	5790.547	-6.610	-4.760	4735.203	8.060	-4.950
130.	9145.694	520	3.560	5778.271	-7.250	-5.240	4747.431	8.810	-5.440
131.	9147.172	540	3.870	5764.917	-7.850	-5.710	4760.860	9.450	-5.900
132.	9148.716	560	4.170	5750.551	-8.410	-6.160	4775.243	10.110	-6.340
133.	9150.313	500	4.460	5735.259	-8.940	-6.600	4794.504	10.600	-6.710
134.	9151.940	590	4.730	5719.054	-9.410	-7.020	4806.742	11.160	-7.100
135.	9153.582	590	4.980	5702.180	-9.640	-7.830	4823.661	11.600	-7.510
136.	9155.220	560	5.230	5684.612	-10.200	-8.160	4841.275	12.210	-8.170
137.	9156.836	570	5.450	5666.511	-10.500	-8.410	4859.406	12.360	-8.450
138.	9158.413	560	5.680	5648.011	-10.710	-8.530	4877.936	12.430	-8.730
139.	9159.934	530	5.860	5629.268	-10.850	-8.860	4896.710	12.560	-9.010
140.	9161.382	500	6.040	5610.460	-10.950	-9.170	4912.549	12.660	-9.340
141.	9162.783	470	6.200	5591.796	-10.740	-8.940	4923.661	12.360	-8.810
142.	9164.001	430	6.350	5573.525	-10.460	-8.610	4935.203	12.150	-8.450
143.	9165.144	390	6.480	5555.926	-10.130	-8.240	4947.431	11.710	-8.060
144.	9166.160	340	6.590	5539.336	-10.030	-8.160	4960.860	11.200	-7.600
145.	9167.036	290	6.680	5524.140	-9.370	-7.420	4975.243	10.410	-6.710
146.	9167.769	230	6.750	5510.785	-8.470	-6.470	4991.002	9.350	-5.620
147.	9168.345	180	6.800	5499.686	-7.250	-5.240	5006.742	8.060	-4.450
148.	9168.761	120	6.870	5491.353	-6.070	-4.070	5023.661	6.370	-3.200
149.	9169.013	060	6.890	5486.166	-2.100	-0.650	5040.860	2.290	-0.020

	111-PLANE SILICON				BULK			
	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSKVEL	SSPH12	SSPH13
150.	9159.097	0.000	6.900	-0.000	-10.870	5041.805	-0.000	-9.020
151.	9169.013	-0.060	6.490	2.100	-10.050	2040.040	-2.250	-9.020
152.	9168.761	-0.120	6.870	4.070	-10.790	5034.846	-4.440	-9.000
153.	9168.345	-0.180	6.820	5.820	-10.680	5026.499	-6.370	-9.770
154.	9167.769	-0.230	6.760	7.290	-10.550	5015.401	-8.010	-9.730
155.	9167.038	-0.290	6.680	8.470	-10.360	5002.401	-9.350	-9.680
156.	9166.160	-0.340	6.590	9.370	-10.190	4986.791	-10.410	-9.570
157.	9165.144	-0.390	6.460	10.030	-9.960	4970.175	-11.200	-9.450
158.	9164.001	-0.430	6.350	10.400	-9.720	4952.547	-11.770	-9.310
159.	9162.743	-0.470	6.200	10.740	-9.450	4934.243	-12.190	-9.150
160.	9161.382	-0.500	6.040	10.850	-9.170	4915.549	-12.360	-8.940
161.	9159.934	-0.530	5.860	10.640	-8.860	4896.710	-12.430	-8.710
162.	9158.413	-0.560	5.660	10.710	-8.530	4877.936	-12.300	-8.450
163.	9156.836	-0.570	5.450	10.500	-8.160	4859.405	-12.210	-8.150
164.	9155.220	-0.560	5.230	10.200	-7.810	4841.275	-11.950	-7.820
165.	9153.562	-0.590	5.020	9.840	-7.430	4823.681	-11.600	-7.450
166.	9151.940	-0.590	4.730	9.410	-7.020	4806.742	-11.100	-7.150
167.	9150.313	-0.560	4.460	8.940	-6.600	4790.565	-10.600	-6.820
168.	9148.716	-0.560	4.170	8.410	-6.160	4775.243	-10.110	-6.350
169.	9147.172	-0.540	3.870	7.850	-5.710	4760.860	-9.490	-5.850
170.	9145.694	-0.520	3.560	7.250	-5.240	4747.491	-8.610	-5.440
171.	9144.300	-0.480	3.240	6.610	-4.760	4735.203	-8.000	-5.050
172.	9143.006	-0.450	2.910	5.950	-4.260	4724.055	-7.300	-4.650
173.	9141.826	-0.400	2.570	5.260	-3.760	4714.099	-6.480	-4.240
174.	9140.774	-0.350	2.220	4.550	-3.240	4705.379	-5.620	-3.840
175.	9139.863	-0.300	1.860	3.820	-2.710	4697.936	-4.740	-3.400
176.	9139.102	-0.250	1.490	3.070	-2.160	4691.632	-3.820	-2.930
177.	9138.501	-0.190	1.130	2.320	-1.640	4687.003	-2.890	-2.450
178.	9138.067	-0.130	.750	1.550	-1.100	4683.561	-1.930	-1.960
179.	9137.804	-0.060	.380	.760	-0.550	4681.490	-0.970	-1.500
180.	9137.716	0.000	-0.000	-0.000	0.000	4680.798	0.000	0.000

110-PLANE SILICON

	LNVEL	LPMI12	LPMI13	FSPVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
0.	9358.539	0.000	-0.000	5098.466	12.530	0.000	9096.451	-12.530	0.000
1.	9358.074	-3.350	-0.000	5118.303	12.560	0.000	5079.392	-11.700	-0.000
2.	9356.664	-1.660	-0.000	5138.297	12.610	0.000	5061.775	-10.610	-0.000
3.	9354.286	-1.010	-0.000	5158.407	12.620	0.000	5045.690	-9.620	-0.000
4.	9350.923	-1.360	-0.000	5178.607	12.620	0.000	5031.212	-8.840	-0.000
5.	9346.559	-1.710	-0.000	5198.870	12.600	0.000	5016.405	-7.770	-0.000
6.	9341.183	-2.070	-0.000	5219.173	12.570	0.000	5007.330	-6.650	-0.000
7.	9334.782	-2.430	-0.000	5239.490	12.530	0.000	4996.040	-5.490	-0.000
8.	9327.351	-2.800	-0.000	5259.795	12.460	0.000	4990.580	-4.290	-0.000
9.	9318.084	-3.160	-0.000	5280.066	12.390	0.000	4984.989	-3.060	-0.000
10.	9309.379	-3.530	-0.000	5300.277	12.300	0.000	4981.296	-1.800	-0.000
11.	9298.837	-3.900	-0.000	5320.405	12.200	0.000	4979.531	-0.530	-0.000
12.	9287.261	-4.270	-0.000	5340.426	12.090	-0.000	4979.703	-0.720	-0.000
13.	9274.657	-4.630	-0.000	5360.318	11.960	0.000	4981.821	2.040	-0.000
14.	9261.034	-5.000	-0.000	5380.057	11.820	0.000	4985.886	3.310	-0.000
15.	9246.402	-5.360	-0.000	5399.621	11.670	0.000	4991.000	4.570	-0.000
16.	9230.776	-5.710	-0.000	5418.969	11.510	0.000	4994.011	5.810	-0.000
17.	9214.177	-6.060	-0.000	5438.139	11.340	-0.000	5009.631	7.010	-0.000
18.	9196.621	-6.410	0.000	5457.051	11.160	0.000	5021.313	8.160	-0.000
19.	9178.132	-6.750	-0.000	5475.703	10.960	0.000	5034.617	9.310	-0.000
20.	9158.736	-7.070	-0.000	5494.076	10.760	0.000	5050.095	10.360	-0.000
21.	9138.469	-7.390	-0.000	5512.150	10.550	0.000	5067.090	11.400	0.000
22.	9117.357	-7.700	-0.000	5529.907	10.330	0.000	5085.739	12.360	-0.000
23.	9095.442	-8.000	-0.000	5547.327	10.100	0.000	5105.965	13.260	-0.000
24.	9072.762	-8.260	-0.000	5564.394	9.860	0.000	5127.702	14.090	-0.000
25.	9049.363	-8.550	-0.000	5581.089	9.620	0.000	5150.053	14.850	-0.000
26.	9025.295	-8.800	-0.000	5597.395	9.360	0.000	5175.329	15.530	-0.000
27.	9000.611	-9.030	-0.000	5613.296	9.100	0.000	5201.031	16.150	-0.000
28.	8975.368	-9.250	-0.000	5628.777	8.830	0.000	5227.053	16.600	-0.000
29.	8949.630	-9.440	-0.000	5643.822	8.560	0.000	5252.683	17.140	-0.000
30.	8923.466	-9.600	-0.000	5658.416	8.280	0.000	5284.432	17.520	-0.000
31.	8896.947	-9.750	-0.000	5672.545	7.990	0.000	5313.886	17.830	-0.000
32.	8870.154	-9.860	-0.000	5686.195	7.690	0.000	5344.003	18.050	-0.000
33.	8843.171	-9.940	-0.000	5699.353	7.390	0.000	5374.616	18.190	-0.000
34.	8816.089	-9.990	-0.000	5712.007	7.090	0.000	5405.566	18.240	-0.000
35.	8789.006	-10.000	0.000	5724.144	6.780	0.000	5436.761	18.220	-0.000
36.	8762.024	-9.970	0.000	5735.754	6.460	0.000	5467.967	18.110	-0.000
37.	8735.254	-9.910	-0.000	5746.824	6.140	0.000	5499.105	17.910	-0.000
38.	8708.614	-9.790	0.000	5757.345	5.820	0.000	5529.351	17.620	-0.000
39.	8682.625	-9.630	0.000	5767.306	5.490	-0.000	5560.353	17.240	-0.000
40.	8657.417	-9.420	0.000	5776.702	5.160	0.000	5590.139	16.790	-0.000
41.	8632.726	-9.160	0.000	5785.519	4.830	-0.000	5619.130	16.220	-0.000
42.	8608.692	-8.840	0.000	5793.752	4.490	-0.000	5647.144	15.570	-0.000
43.	8586.058	-8.460	0.000	5801.391	4.150	0.000	5674.000	14.830	-0.000
44.	8564.373	-8.020	0.000	5808.432	3.800	-0.000	5699.513	13.990	-0.000
45.	8543.984	-7.520	0.000	5814.867	3.460	0.000	5723.502	13.060	-0.000
46.	8525.042	-6.960	0.000	5820.690	3.110	-0.000	5749.786	12.030	-0.000
47.	8507.690	-6.340	0.000	5825.896	2.760	0.000	5766.191	10.920	-0.000
48.	8492.071	-5.670	0.000	5830.481	2.400	0.000	5784.551	9.720	-0.000
49.	8478.316	-4.940	0.000	5834.440	2.050	0.000	5800.711	8.430	-0.000

BULK

110-PLANE SILICON

	LNQVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
50.	8466.553	-4.150	0.000	5837.770	1.690	0.000	5014.529	7.000	-0.000
51.	8456.885	-3.330	0.000	5840.466	1.340	-0.000	5825.678	5.660	-0.000
52.	8449.406	-2.470	0.000	5842.531	0.980	-0.000	5834.654	4.190	-0.000
53.	8444.191	-1.580	0.000	5843.956	0.620	0.000	5840.772	2.660	-0.000
54.	8441.291	-0.670	0.000	5844.747	0.260	0.000	5844.173	1.140	-0.000
55.	8440.736	0.240	0.000	5844.698	-0.090	-0.000	5844.024	-0.410	-0.000
56.	8442.531	1.150	0.000	5844.410	-0.450	0.000	5842.718	-1.950	-0.000
57.	8446.659	2.050	0.000	5843.284	-0.810	0.000	5837.877	-3.480	-0.000
58.	8453.077	2.930	0.000	5841.921	-1.170	0.000	5830.346	-4.970	-0.000
59.	8461.722	3.770	0.000	5839.122	-1.530	0.000	5820.200	-6.420	-0.000
60.	8472.510	4.570	0.000	5836.091	-1.860	-0.000	5807.533	-7.800	-0.000
61.	8485.335	5.330	0.000	5832.428	-2.240	-0.000	5792.462	-9.120	-0.000
62.	8500.094	6.030	0.000	5826.136	-2.590	-0.000	5775.122	-10.360	-0.000
63.	8516.645	6.660	0.000	5823.225	-2.940	0.000	5755.661	-11.520	-0.000
64.	8534.654	7.270	0.000	5817.692	-3.290	-0.000	5734.243	-12.560	-0.000
65.	8554.575	7.790	0.000	5811.545	-3.640	-0.000	5711.037	-13.560	-0.000
66.	8575.670	8.260	0.000	5804.790	-3.960	-0.000	5686.221	-14.440	-0.000
67.	8597.961	8.670	0.000	5797.432	-4.330	-0.000	5655.376	-15.230	-0.000
68.	8621.361	9.010	0.000	5789.476	-4.670	0.000	5632.465	-15.930	-0.000
69.	8645.666	9.300	0.000	5780.936	-5.000	0.000	5603.333	-16.530	-0.000
70.	8670.752	9.540	0.000	5771.813	-5.340	-0.000	5574.500	-17.040	-0.000
71.	8696.463	9.720	0.000	5762.116	-5.670	-0.000	5544.367	-17.450	-0.000
72.	8722.726	9.860	0.000	5751.859	-5.990	-0.000	5513.709	-17.760	-0.000
73.	8749.355	9.950	0.000	5741.047	-6.310	-0.000	5482.696	-18.020	-0.000
74.	8776.251	9.990	0.000	5729.690	-6.630	-0.000	5451.503	-18.170	-0.000
75.	8803.300	10.000	0.000	5717.801	-6.940	0.000	5420.284	-18.240	-0.000
76.	8830.395	9.970	0.000	5705.369	-7.250	0.000	5389.200	-18.220	-0.000
77.	8857.436	9.900	0.000	5692.466	-7.550	-0.000	5358.400	-18.120	-0.000
78.	8884.330	9.600	0.000	5679.046	-7.850	-0.000	5328.030	-17.940	-0.000
79.	8910.988	9.670	-0.000	5665.144	-8.140	0.000	5298.231	-17.660	-0.000
80.	8937.330	9.520	0.000	5650.767	-8.420	0.000	5265.135	-17.330	-0.000
81.	8963.276	9.340	0.000	5635.934	-8.700	-0.000	5240.670	-16.910	-0.000
82.	8988.762	9.140	-0.000	5620.627	-8.970	-0.000	5213.558	-16.410	-0.000
83.	9013.717	8.910	0.000	5604.952	-9.240	-0.000	5187.314	-15.830	-0.000
84.	9038.063	8.670	-0.000	5588.635	-9.500	0.000	5162.247	-15.160	-0.000
85.	9061.804	8.410	0.000	5572.321	-9.750	-0.000	5136.456	-14.450	-0.000
86.	9084.829	8.130	0.000	5555.426	-9.990	0.000	5116.045	-13.660	-0.000
87.	9107.111	7.640	0.000	5538.172	-10.220	0.000	5092.095	-12.790	-0.000
88.	9128.607	7.540	-0.000	5520.572	-10.450	-0.000	5075.691	-11.600	-0.000
89.	9149.276	7.230	0.000	5502.645	-10.660	0.000	5071.007	-10.270	-0.000
90.	9169.069	6.900	-0.000	5484.411	-10.870	-0.000	5041.611	-9.620	-0.000
91.	9188.009	6.570	0.000	5465.866	-11.070	0.000	5027.463	-8.720	-0.000
92.	9206.008	6.230	-0.000	5447.097	-11.250	0.000	5014.915	-7.570	-0.000
93.	9223.063	5.860	0.000	5428.057	-11.430	-0.000	5004.212	-6.360	-0.000
94.	9239.150	5.520	-0.000	5408.789	-11.600	0.000	4995.390	-5.160	-0.000
95.	9254.252	5.170	0.000	5389.314	-11.750	0.000	4980.479	-3.910	-0.000
96.	9268.353	4.800	-0.000	5369.655	-11.900	0.000	4963.498	-2.640	-0.000
97.	9281.440	4.440	0.000	5349.833	-12.030	0.000	4948.460	-1.360	-0.000
98.	9293.502	4.070	0.000	5329.870	-12.150	-0.000	4937.370	-0.000	-0.000
99.	9304.533	3.700	-0.000	5309.769	-12.260	-0.000	4980.223	1.260	-0.000

BULK

110-PLANE SILICON

	LNQVEL	LPHI12	LPHI13	FSPVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
100.	9314.527	3.340	-0.000	5269.619	-12.356	-0.000	4983.009	2.470	-0.000
101.	9323.484	2.970	0.000	5269.369	-12.430	0.000	4987.736	3.710	-0.000
102.	9331.404	2.600	-0.000	5249.077	-12.500	0.000	4994.266	4.930	-0.000
103.	9338.290	2.240	0.000	5228.762	-12.550	0.000	5002.720	6.110	-0.000
104.	9344.144	1.860	0.000	5208.450	-12.590	0.000	5012.959	7.250	-0.000
105.	9348.965	1.520	0.000	5188.165	-12.630	0.000	5024.955	8.340	-0.000
106.	9352.822	1.170	0.000	5167.932	-12.660	0.000	5036.652	9.360	-0.000
107.	9355.663	.820	0.000	5147.776	-12.680	0.000	5053.987	10.360	-0.000
108.	9357.526	.450	-0.000	5127.725	-12.590	-0.000	5070.691	11.290	-0.000
109.	9358.411	.150	0.000	5107.602	-12.550	-0.000	5089.287	12.150	0.000
110.	9358.411	-.170	-0.000	5088.034	-12.500	-0.000	5109.096	12.940	0.000
111.	9357.476	-.660	0.000	5068.446	-12.420	0.000	5130.231	13.660	0.000
112.	9355.663	-.790	0.000	5049.069	-12.330	-0.000	5152.600	14.320	0.000
113.	9352.999	-1.060	0.000	5029.923	-12.250	-0.000	5176.109	14.990	0.000
114.	9349.519	-1.360	0.000	5011.036	-12.160	0.000	5200.656	15.620	0.000
115.	9345.259	-1.630	0.000	4992.435	-11.990	-0.000	5226.139	15.660	0.000
116.	9340.260	-1.860	-0.000	4974.146	-11.790	0.000	5252.449	16.230	0.000
117.	9334.564	-2.120	0.000	4956.154	-11.610	0.000	5279.476	16.830	0.000
118.	9328.216	-2.340	0.000	4938.606	-11.410	0.000	5307.106	17.460	0.000
119.	9321.265	-2.550	0.000	4921.486	-11.190	0.000	5335.222	18.120	0.000
120.	9313.763	-2.730	0.000	4904.619	-10.960	-0.000	5363.706	18.800	0.000
121.	9305.764	-2.900	0.000	4888.271	-10.700	0.000	5392.437	19.520	-0.650
122.	9297.326	-3.050	-0.000	4872.366	-10.420	0.000	5421.291	16.970	0.000
123.	9288.508	-3.170	0.000	4856.988	-10.130	0.000	5450.146	16.650	-0.000
124.	9279.374	-3.260	0.000	4842.101	-9.850	0.000	5478.976	16.670	-0.000
125.	9269.990	-3.360	0.000	4827.746	-9.490	0.000	5507.856	16.810	0.000
126.	9260.423	-3.410	0.000	4813.946	-9.140	0.000	5535.456	16.990	0.000
127.	9250.743	-3.440	0.000	4800.726	-8.770	0.000	5563.057	15.710	0.000
128.	9241.022	-3.450	0.000	4788.104	-8.360	0.000	5590.027	15.260	0.000
129.	9231.333	-3.430	0.000	4776.099	-7.960	0.000	5618.242	14.740	0.000
130.	9221.752	-3.360	-0.000	4764.733	-7.560	0.000	5641.261	14.170	0.000
131.	9212.352	-3.300	0.000	4754.022	-7.130	0.000	5665.921	13.530	0.000
132.	9203.209	-3.200	0.000	4743.966	-6.660	0.000	5689.143	12.840	0.000
133.	9194.399	-3.070	0.000	4734.640	-6.210	0.000	5711.132	12.060	0.000
134.	9185.993	-2.920	0.000	4726.000	-5.730	0.000	5731.776	11.270	0.000
135.	9178.063	-2.740	0.000	4718.081	-5.240	0.000	5750.973	10.410	0.000
136.	9170.679	-2.540	0.000	4710.895	-4.760	0.000	5768.616	9.490	0.000
137.	9163.905	-2.310	0.000	4704.455	-4.220	0.000	5784.614	8.530	0.000
138.	9157.803	-2.060	0.000	4698.771	-3.700	0.000	5798.600	7.530	0.000
139.	9152.426	-1.790	0.000	4693.894	-3.170	0.000	5811.334	6.460	0.000
140.	9147.830	-1.560	0.000	4689.712	-2.620	0.000	5821.908	5.400	0.000
141.	9144.053	-1.260	0.000	4686.352	-2.060	0.000	5830.541	4.300	0.000
142.	9141.133	-.890	0.000	4683.780	-1.530	0.000	5837.184	3.170	0.000
143.	9139.097	-.570	0.000	4681.999	-.970	0.000	5841.799	2.020	0.000
144.	9137.965	-.240	-0.000	4681.014	-.410	-0.000	5844.358	.860	0.000
145.	9137.748	.090	0.000	4680.826	.150	0.000	5844.848	-.310	-0.000
146.	9136.449	.420	0.000	4680.435	.710	0.000	5843.646	-1.470	-0.000
147.	9140.060	.748	0.000	4682.840	1.266	0.000	5839.617	-2.630	-0.000
148.	9142.566	1.060	0.000	4685.039	1.820	0.000	5833.927	-3.770	-0.000
149.	9145.943	1.360	0.000	4688.026	2.370	0.000	5826.226	-4.600	-0.000

	110-PLANE SILICON						GULK					
	LMGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13			
150.	9150.154	1.660	0.000	4691.802	2.910	0.000	5016.563	-5.960	0.000			
151.	9155.172	1.930	0.000	4696.354	3.456	0.000	5004.980	-7.640	0.000			
152.	9160.936	2.190	0.000	4701.677	3.980	0.000	5001.568	-8.660	0.000			
153.	9167.402	2.430	0.000	4707.761	4.500	0.000	5000.376	-9.040	0.000			
154.	9174.506	2.650	0.000	4714.597	5.010	0.000	5000.500	-9.560	0.000			
155.	9182.186	2.840	0.000	4722.172	5.500	0.000	5000.025	-10.670	0.000			
156.	9190.376	3.010	0.000	4730.473	5.990	0.000	5000.000	-11.710	0.000			
157.	9199.085	3.150	0.000	4739.488	6.460	0.000	5000.000	-12.490	0.000			
158.	9208.000	3.260	0.000	4749.200	6.920	0.000	5000.000	-13.210	0.000			
159.	9217.288	3.350	0.000	4759.595	7.360	0.000	5000.000	-13.680	0.000			
160.	9226.793	3.410	0.000	4770.654	7.790	0.000	5000.000	-14.480	0.000			
161.	9236.440	3.440	0.000	4782.359	8.200	0.000	5000.000	-15.020	0.000			
162.	9246.155	3.450	0.000	4794.693	8.590	0.000	5000.000	-15.500	0.000			
163.	9255.863	3.430	0.000	4807.634	8.970	0.000	5000.000	-15.920	0.000			
164.	9265.693	3.350	0.000	4821.163	9.320	0.000	5000.000	-16.270	0.000			
165.	9274.972	3.220	0.000	4835.258	9.660	0.000	5000.000	-16.550	0.000			
166.	9284.233	3.050	0.000	4849.896	9.990	0.000	5000.000	-16.770	0.000			
167.	9293.207	2.810	0.000	4865.056	10.250	0.000	5000.000	-16.920	0.000			
168.	9301.632	2.570	0.000	4880.714	10.570	0.000	5000.000	-17.010	0.000			
169.	9310.046	2.610	0.000	4896.847	10.840	0.000	5000.000	-17.020	0.000			
170.	9317.790	2.640	0.000	4913.429	11.080	0.000	5000.000	-16.970	0.000			
171.	9325.007	2.440	0.000	4930.437	11.310	0.000	5000.000	-16.840	0.000			
172.	9331.646	2.230	0.000	4947.846	11.520	0.000	5000.000	-16.650	0.000			
173.	9337.656	2.000	0.000	4965.629	11.710	0.000	5000.000	-16.380	0.000			
174.	9342.989	1.750	0.000	4983.763	11.860	0.000	5000.000	-16.040	0.000			
175.	9347.603	1.450	0.000	5002.220	12.030	0.000	5000.000	-15.640	0.000			
176.	9351.456	1.210	0.000	5020.974	12.170	0.000	5000.000	-15.160	0.000			
177.	9354.510	.930	0.000	5040.001	12.260	0.000	5000.000	-14.600	0.000			
178.	9356.729	.630	0.000	5059.273	12.300	0.000	5000.000	-13.960	0.000			
179.	9358.062	.320	0.000	5076.765	12.460	0.000	5000.000	-13.290	0.000			
180.	9358.539	0.000	0.000	5096.451	12.530	0.000	5000.000	-12.530	0.000			

Z-PLANE (XY-PLANE) SPINEL

	LNQVEL	LPMI12	LPMI13	FSPVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
0.	6826.732	0.000	0.000	6536.474	0.000	0.000	6536.474	0.000	0.000
1.	8829.780	2.200	0.000	6532.465	-4.020	0.000	6536.474	0.000	0.000
2.	8838.530	4.340	0.000	6520.512	-7.930	0.000	6536.474	0.000	0.000
3.	8855.012	6.350	0.000	6500.837	-11.670	0.000	6536.474	0.000	0.000
4.	8872.813	8.200	0.000	6473.785	-15.150	0.000	6536.474	0.000	0.000
5.	8897.507	9.860	0.000	6439.803	-18.350	0.000	6536.474	0.000	0.000
6.	8926.685	11.300	0.000	6399.806	-21.240	0.000	6536.474	0.000	0.000
7.	8959.581	12.520	0.000	6353.157	-23.840	0.000	6536.474	0.000	0.000
8.	8995.901	13.540	0.000	6301.624	-26.140	0.000	6536.474	0.000	0.000
9.	9035.040	14.380	0.000	6245.378	-28.190	0.000	6536.474	0.000	0.000
10.	9076.499	15.000	0.000	6184.970	-30.000	0.000	6536.474	0.000	0.000
11.	9119.813	15.460	0.000	6120.924	-31.590	0.000	6536.474	0.000	0.000
12.	9164.552	15.820	0.000	6053.732	-33.000	0.000	6536.474	0.000	0.000
13.	9210.329	16.030	0.000	5983.856	-34.240	0.000	6536.474	0.000	0.000
14.	9256.794	16.120	0.000	5911.722	-35.330	0.000	6536.474	0.000	0.000
15.	9303.634	16.120	0.000	5837.730	-36.280	0.000	6536.474	0.000	0.000
16.	9350.569	16.050	0.000	5762.253	-37.110	0.000	6536.474	0.000	0.000
17.	9397.351	15.870	0.000	5685.639	-37.840	0.000	6536.474	0.000	0.000
18.	9443.759	15.640	0.000	5608.218	-38.450	0.000	6536.474	0.000	0.000
19.	9489.596	15.360	0.000	5530.303	-38.960	0.000	6536.474	0.000	0.000
20.	9534.688	15.020	0.000	5452.193	-39.380	0.000	6536.474	0.000	0.000
21.	9578.879	14.650	0.000	5374.177	-39.780	0.000	6536.474	0.000	0.000
22.	9622.026	14.230	0.000	5296.534	-39.930	0.000	6536.474	0.000	0.000
23.	9664.012	13.780	0.000	5219.537	-40.050	0.000	6536.474	0.000	0.000
24.	9704.720	13.300	0.000	5143.453	-40.080	0.000	6536.474	0.000	0.000
25.	9744.050	12.790	0.000	5068.548	-40.000	0.000	6536.474	0.000	0.000
26.	9781.914	12.260	0.000	4995.082	-39.810	0.000	6536.474	0.000	0.000
27.	9818.231	11.710	0.000	4923.315	-39.500	0.000	6536.474	0.000	0.000
28.	9852.928	11.140	0.000	4853.805	-39.060	0.000	6536.474	0.000	0.000
29.	9885.938	10.550	0.000	4785.988	-38.500	0.000	6536.474	0.000	0.000
30.	9917.204	9.950	0.000	4720.779	-37.780	0.000	6536.474	0.000	0.000
31.	9946.672	9.340	0.000	4658.370	-36.860	0.000	6536.474	0.000	0.000
32.	9974.294	8.710	0.000	4598.930	-35.750	0.000	6536.474	0.000	0.000
33.	10000.027	8.080	0.000	4542.704	-34.520	0.000	6536.474	0.000	0.000
34.	10023.831	7.430	0.000	4489.933	-33.160	0.000	6536.474	0.000	0.000
35.	10045.674	6.760	0.000	4440.847	-31.620	0.000	6536.474	0.000	0.000
36.	10065.524	6.120	0.000	4395.671	-29.960	0.000	6536.474	0.000	0.000
37.	10083.353	5.460	0.000	4354.615	-27.120	0.000	6536.474	0.000	0.000
38.	10099.139	4.790	0.000	4317.879	-24.610	0.000	6536.474	0.000	0.000
39.	10112.861	4.110	0.000	4285.644	-21.810	0.000	6536.474	0.000	0.000
40.	10124.500	3.430	0.000	4258.874	-18.720	0.000	6536.474	0.000	0.000
41.	10134.043	2.750	0.000	4235.312	-15.370	0.000	6536.474	0.000	0.000
42.	10141.477	2.080	0.000	4217.679	-11.770	0.000	6536.474	0.000	0.000
43.	10146.794	1.380	0.000	4204.872	-7.970	0.000	6536.474	0.000	0.000
44.	10149.987	.690	0.000	4196.959	-4.020	0.000	6536.474	0.000	0.000
45.	10151.051	0.000	0.000	4194.383	0.000	0.000	6536.474	0.000	0.000
46.	10149.987	-.690	0.000	4196.959	4.020	0.000	6536.474	0.000	0.000
47.	10146.794	-1.380	0.000	4204.872	7.970	0.000	6536.474	0.000	0.000
48.	10141.477	-2.080	0.000	4217.679	11.770	0.000	6536.474	0.000	0.000
49.	10134.043	-2.750	0.000	4235.312	15.370	0.000	6536.474	0.000	0.000

BULK

	Z-PLANE (XY-PLANE) SPINEL				BULK			
	LPMI12	LPMI13	FSPVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
50.	1024.500	-3.430	4258.074	18.720	0.000	6536.474	-0.000	0.000
51.	10112.861	-4.110	4285.844	21.810	0.000	6536.474	0.000	0.000
52.	10099.139	-4.750	4317.879	24.610	0.000	6536.474	0.000	0.000
53.	10083.353	-5.460	4354.615	27.120	0.000	6536.474	0.000	0.000
54.	10065.524	-6.120	4395.671	29.360	0.000	6536.474	-0.000	0.000
55.	10045.674	-6.760	4440.847	31.320	0.000	6536.474	0.000	0.000
56.	10023.831	-7.430	4489.933	33.040	0.000	6536.474	0.000	0.000
57.	10000.027	-8.060	4542.704	34.520	0.000	6536.474	0.000	0.000
58.	9974.294	-8.710	4598.930	35.750	0.000	6536.474	-0.000	0.000
59.	9946.672	-9.340	4658.379	36.860	0.000	6536.474	-0.000	0.000
60.	9917.284	-9.950	4720.779	37.760	0.000	6536.474	0.000	0.000
61.	9885.936	-10.550	4785.900	38.480	0.000	6536.474	0.000	0.000
62.	9852.928	-11.140	4853.505	39.060	0.000	6536.474	-0.000	0.000
63.	9818.231	-11.710	4923.315	39.500	0.000	6536.474	0.000	0.000
64.	9781.914	-12.260	4995.082	39.810	0.000	6536.474	0.000	0.000
65.	9744.050	-12.790	5068.546	40.000	0.000	6536.474	-0.000	0.000
66.	9704.720	-13.300	5143.453	40.080	0.000	6536.474	0.000	0.000
67.	9664.012	-13.780	5219.537	40.050	0.000	6536.474	0.000	0.000
68.	9622.028	-14.230	5296.534	39.930	0.000	6536.474	0.000	0.000
69.	9578.875	-14.650	5374.177	39.700	0.000	6536.474	-0.000	0.000
70.	9534.688	-15.020	5452.193	39.380	0.000	6536.474	0.000	0.000
71.	9489.596	-15.360	5530.303	38.960	0.000	6536.474	-0.000	0.000
72.	9443.759	-15.640	5608.216	38.450	0.000	6536.474	0.000	0.000
73.	9397.351	-15.870	5685.635	37.840	0.000	6536.474	-0.000	0.000
74.	9350.569	-16.030	5762.253	37.110	0.000	6536.474	0.000	0.000
75.	9303.634	-16.120	5837.730	36.260	0.000	6536.474	0.000	0.000
76.	9256.794	-16.120	5911.722	35.330	0.000	6536.474	0.000	0.000
77.	9210.329	-16.030	5983.856	34.240	0.000	6536.474	-0.000	0.000
78.	9164.552	-15.820	6053.732	33.000	0.000	6536.474	0.000	0.000
79.	9119.813	-15.480	6120.924	31.590	0.000	6536.474	0.000	0.000
80.	9076.499	-15.000	6184.970	30.000	0.000	6536.474	0.000	0.000
81.	9035.040	-14.360	6245.376	28.190	0.000	6536.474	0.000	0.000
82.	8995.901	-13.540	6301.624	26.140	0.000	6536.474	-0.000	0.000
83.	8959.581	-12.520	6353.157	23.840	0.000	6536.474	0.000	0.000
84.	8926.605	-11.360	6399.406	21.240	0.000	6536.474	-0.000	0.000
85.	8897.507	-9.860	6439.803	18.350	0.000	6536.474	0.000	0.000
86.	8872.813	-8.200	6473.785	15.150	0.000	6536.474	-0.000	0.000
87.	8853.012	-6.350	6500.837	11.670	0.000	6536.474	0.000	0.000
88.	8838.530	-4.340	6520.512	7.930	0.000	6536.474	0.000	0.000
89.	8829.700	-2.200	6532.465	4.020	0.000	6536.474	-0.000	0.000
90.	8826.732	0.000	6536.474	-0.000	0.000	6536.474	0.000	0.000
91.	8829.700	2.200	6532.465	-4.020	0.000	6536.474	0.000	0.000
92.	8836.530	4.340	6520.512	-7.930	0.000	6536.474	0.000	0.000
93.	8853.012	6.350	6500.837	-11.670	0.000	6536.474	0.000	0.000
94.	8872.813	8.200	6473.785	-15.150	0.000	6536.474	-0.000	0.000
95.	8897.507	9.860	6439.803	-18.350	0.000	6536.474	0.000	0.000
96.	8926.605	11.300	6399.408	-21.240	0.000	6536.474	-0.000	0.000
97.	8959.581	12.520	6353.157	-23.840	0.000	6536.474	0.000	0.000
98.	8995.901	13.540	6301.624	-26.140	0.000	6536.474	-0.000	0.000
99.	9035.040	14.360	6245.376	-28.190	0.000	6536.474	0.000	0.000

Z-PLANE (XY-PLANE) SPINEL

BULK

	LMVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SRVEL	SSPH12	SSPH13
100.	9876.499	15.000	0.000	6184.970	-30.000	0.000	6536.474	-0.000	0.000
101.	9119.813	15.460	0.000	6120.924	-31.590	0.000	6536.474	0.000	0.000
102.	9164.552	15.820	0.000	6053.732	-33.000	0.000	6536.474	0.000	0.000
103.	9210.329	16.030	0.000	5983.656	-34.246	0.000	6536.474	0.000	0.000
104.	9256.794	16.120	0.000	5911.722	-35.330	0.000	6536.474	0.000	0.000
105.	9303.634	16.120	0.000	5837.730	-36.256	0.000	6536.474	0.000	0.000
106.	9350.569	16.030	0.000	5762.253	-37.110	0.000	6536.474	0.000	0.000
107.	9397.351	15.870	0.000	5685.639	-37.840	0.000	6536.474	0.000	0.000
108.	9443.759	15.640	0.000	5608.216	-38.450	0.000	6536.474	0.000	0.000
109.	9489.596	15.360	0.000	5530.303	-38.960	0.000	6536.474	0.000	0.000
110.	9534.688	15.020	0.000	5452.193	-39.360	0.000	6536.474	0.000	0.000
111.	9578.879	14.650	0.000	5374.177	-39.700	0.000	6536.474	0.000	0.000
112.	9622.028	14.230	0.000	5296.534	-39.930	0.000	6536.474	0.000	0.000
113.	9664.812	13.760	0.000	5219.537	-40.050	0.000	6536.474	0.000	0.000
114.	9704.720	13.300	0.000	5143.453	-40.080	0.000	6536.474	0.000	0.000
115.	9744.050	12.790	0.000	5068.844	-40.000	0.000	6536.474	0.000	0.000
116.	9781.914	12.260	0.000	4995.082	-39.810	0.000	6536.474	0.000	0.000
117.	9818.231	11.710	0.000	4923.315	-39.500	0.000	6536.474	0.000	0.000
118.	9852.928	11.140	0.000	4853.505	-39.066	0.000	6536.474	0.000	0.000
119.	9885.936	10.550	0.000	4785.906	-38.460	0.000	6536.474	0.000	0.000
120.	9917.204	9.950	0.000	4720.779	-37.760	0.000	6536.474	0.000	0.000
121.	9946.672	9.340	0.000	4658.370	-36.860	0.000	6536.474	0.000	0.000
122.	9974.294	8.710	0.000	4598.930	-35.790	0.000	6536.474	0.000	0.000
123.	10000.027	8.060	0.000	4542.704	-34.520	0.000	6536.474	0.000	0.000
124.	10023.831	7.430	0.000	4489.933	-33.040	0.000	6536.474	0.000	0.000
125.	10045.674	6.780	0.000	4440.847	-31.320	0.000	6536.474	0.000	0.000
126.	10065.524	6.120	0.000	4395.671	-29.360	0.000	6536.474	0.000	0.000
127.	10083.353	5.460	0.000	4354.615	-27.120	0.000	6536.474	0.000	0.000
128.	10099.134	4.790	0.000	4317.475	-24.610	0.000	6536.474	0.000	0.000
129.	10112.861	4.110	0.000	4285.644	-21.810	0.000	6536.474	0.000	0.000
130.	10124.500	3.430	0.000	4258.074	-18.720	0.000	6536.474	0.000	0.000
131.	10134.043	2.750	0.000	4235.312	-15.370	0.000	6536.474	0.000	0.000
132.	10141.477	2.060	0.000	4217.475	-11.770	0.000	6536.474	0.000	0.000
133.	10146.794	1.360	0.000	4204.672	-7.970	0.000	6536.474	0.000	0.000
134.	10149.987	0.690	0.000	4196.959	-4.020	0.000	6536.474	0.000	0.000
135.	10151.051	-0.000	0.000	4193.363	0.000	0.000	6536.474	0.000	0.000
136.	10149.987	-0.690	0.000	4196.959	4.020	0.000	6536.474	0.000	0.000
137.	10146.794	-1.360	0.000	4204.672	7.970	0.000	6536.474	0.000	0.000
138.	10141.477	-2.060	0.000	4217.475	11.770	0.000	6536.474	0.000	0.000
139.	10134.043	-2.750	0.000	4235.312	15.370	0.000	6536.474	0.000	0.000
140.	10124.500	-3.430	0.000	4258.074	18.720	0.000	6536.474	0.000	0.000
141.	10112.861	-4.110	0.000	4285.644	21.810	0.000	6536.474	0.000	0.000
142.	10099.134	-4.790	0.000	4317.475	24.610	0.000	6536.474	0.000	0.000
143.	10083.353	-5.460	0.000	4354.615	27.120	0.000	6536.474	0.000	0.000
144.	10065.524	-6.120	0.000	4395.671	29.360	0.000	6536.474	0.000	0.000
145.	10045.674	-6.780	0.000	4440.847	31.320	0.000	6536.474	0.000	0.000
146.	10023.831	-7.430	0.000	4489.933	33.040	0.000	6536.474	0.000	0.000
147.	10000.027	-8.060	0.000	4542.704	34.520	0.000	6536.474	0.000	0.000
148.	9974.294	-8.710	0.000	4598.930	35.790	0.000	6536.474	0.000	0.000
149.	9946.672	-9.340	0.000	4658.370	36.860	0.000	6536.474	0.000	0.000

	Z--PLANE (XY-PLANE) SPINEL									
	LPMI12	LPHI13	FSPVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13	BULK	
150.	9917.204	-9.950	0.000	4720.779	0.000	6536.474	0.000	0.000	6536.474	0.000
151.	9895.936	-10.550	0.000	4785.908	0.000	6536.474	0.000	0.000	6536.474	0.000
152.	9852.926	-11.140	0.000	4853.505	0.000	6536.474	0.000	0.000	6536.474	0.000
153.	9810.231	-11.720	0.000	4923.315	0.000	6536.474	0.000	0.000	6536.474	0.000
154.	9768.914	-12.260	0.000	4995.082	0.000	6536.474	0.000	0.000	6536.474	0.000
155.	9744.050	-12.750	0.000	5068.548	0.000	6536.474	0.000	0.000	6536.474	0.000
156.	9704.720	-13.300	0.000	5143.453	0.000	6536.474	0.000	0.000	6536.474	0.000
157.	9664.032	-13.780	0.000	5219.537	0.000	6536.474	0.000	0.000	6536.474	0.000
158.	9622.026	-14.230	0.000	5296.534	0.000	6536.474	0.000	0.000	6536.474	0.000
159.	9576.879	-14.650	0.000	5374.177	0.000	6536.474	0.000	0.000	6536.474	0.000
160.	9534.688	-15.020	0.000	5452.193	0.000	6536.474	0.000	0.000	6536.474	0.000
161.	9489.596	-15.360	0.000	5530.303	0.000	6536.474	0.000	0.000	6536.474	0.000
162.	9443.759	-15.640	0.000	5608.218	0.000	6536.474	0.000	0.000	6536.474	0.000
163.	9397.351	-15.870	0.000	5685.635	0.000	6536.474	0.000	0.000	6536.474	0.000
164.	9350.569	-16.030	0.000	5762.253	0.000	6536.474	0.000	0.000	6536.474	0.000
165.	9303.634	-16.120	0.000	5837.730	0.000	6536.474	0.000	0.000	6536.474	0.000
166.	9256.794	-16.120	0.000	5911.722	0.000	6536.474	0.000	0.000	6536.474	0.000
167.	9210.329	-16.030	0.000	5983.856	0.000	6536.474	0.000	0.000	6536.474	0.000
168.	9164.552	-15.620	0.000	6053.732	0.000	6536.474	0.000	0.000	6536.474	0.000
169.	9119.813	-15.460	0.000	6120.924	0.000	6536.474	0.000	0.000	6536.474	0.000
170.	9075.499	-15.000	0.000	6184.970	0.000	6536.474	0.000	0.000	6536.474	0.000
171.	9035.040	-14.360	0.000	6245.376	0.000	6536.474	0.000	0.000	6536.474	0.000
172.	8995.901	-13.540	0.000	6301.624	0.000	6536.474	0.000	0.000	6536.474	0.000
173.	8959.501	-12.520	0.000	6353.157	0.000	6536.474	0.000	0.000	6536.474	0.000
174.	8926.605	-11.300	0.000	6399.406	0.000	6536.474	0.000	0.000	6536.474	0.000
175.	8897.507	-9.860	0.000	6439.803	0.000	6536.474	0.000	0.000	6536.474	0.000
176.	8872.813	-8.200	0.000	6473.785	0.000	6536.474	0.000	0.000	6536.474	0.000
177.	8853.012	-6.350	0.000	6500.837	0.000	6536.474	0.000	0.000	6536.474	0.000
178.	8838.530	-4.340	0.000	6520.512	0.000	6536.474	0.000	0.000	6536.474	0.000
179.	8829.700	-2.200	0.000	6532.465	0.000	6536.474	0.000	0.000	6536.474	0.000
180.	8826.732	0.000	0.000	6536.474	0.000	6536.474	0.000	0.000	6536.474	0.000

111-PLANE SPINEL

BULK

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
0.	10151.051	0.000	0.000	6536.474	0.000	0.000	4194.383	0.000	-0.000
1.	10151.304	.160	.600	6535.141	-1.340	-0.950	4195.850	2.290	-1.230
2.	10152.057	.320	1.200	6531.147	-2.670	-1.890	4200.242	4.560	-2.440
3.	10153.303	.480	1.800	6524.513	-3.990	-2.830	4207.536	6.740	-3.650
4.	10155.025	.630	2.380	6515.270	-5.290	-3.760	4217.691	8.930	-4.820
5.	10157.200	.770	2.960	6503.465	-6.570	-4.670	4230.652	10.990	-5.960
6.	10159.803	.910	3.540	6489.135	-7.810	-5.560	4246.348	12.950	-7.070
7.	10162.799	1.030	4.070	6472.411	-9.020	-6.460	4264.692	14.760	-8.130
8.	10166.153	1.140	4.600	6453.317	-10.190	-7.330	4285.593	16.440	-9.130
9.	10169.823	1.230	5.110	6431.969	-11.300	-8.170	4308.904	18.000	-10.000
10.	10173.765	1.310	5.600	6408.478	-12.370	-8.990	4334.524	19.450	-10.840
11.	10177.932	1.370	6.070	6382.987	-13.370	-9.790	4362.235	20.720	-11.650
12.	10182.276	1.420	6.510	6355.573	-14.310	-10.570	4392.055	21.820	-12.450
13.	10186.746	1.460	6.940	6326.450	-15.170	-11.320	4423.023	22.770	-13.220
14.	10191.291	1.470	7.340	6295.767	-15.950	-12.040	4456.893	23.560	-13.920
15.	10195.861	1.470	7.710	6263.715	-16.640	-12.730	4491.377	24.180	-14.500
16.	10200.406	1.450	8.060	6230.516	-17.220	-13.400	4527.107	24.630	-15.010
17.	10204.877	1.420	8.390	6196.376	-17.690	-14.040	4563.726	24.900	-15.470
18.	10209.226	1.370	8.690	6161.505	-18.090	-14.650	4600.939	24.900	-15.840
19.	10213.408	1.310	8.960	6126.466	-18.220	-15.230	4638.915	24.650	-16.160
20.	10217.380	1.240	9.210	6091.391	-18.220	-15.760	4675.779	24.490	-16.430
21.	10221.101	1.150	9.440	6056.621	-18.010	-16.310	4712.603	24.490	-16.640
22.	10224.534	1.050	9.640	6022.773	-17.550	-16.860	4748.900	23.870	-16.840
23.	10227.646	.940	9.820	5990.332	-16.790	-17.260	4782.611	22.560	-16.840
24.	10230.406	.830	9.970	5959.915	-15.870	-17.680	4814.603	21.700	-16.970
25.	10232.787	.700	10.100	5932.215	-14.140	-18.060	4843.665	20.040	-16.970
26.	10234.766	.570	10.260	5907.992	-12.160	-18.390	4869.023	17.520	-16.970
27.	10236.326	.430	10.260	5886.034	-9.700	-18.660	4899.676	15.290	-16.970
28.	10237.450	.250	10.340	5873.104	-6.760	-18.860	4933.665	12.130	-16.970
29.	10238.129	.150	10.380	5863.849	-3.490	-19.030	4915.097	8.440	-16.970
30.	10238.356	-0.000	10.390	5860.712	0.000	-19.030	4918.384	4.340	-16.970
31.	10238.125	-.150	10.380	5863.849	3.490	-18.950	4915.097	-4.340	-16.970
32.	10237.450	-.290	10.340	5873.104	6.760	-18.660	4905.452	-8.440	-16.970
33.	10236.326	-.430	10.260	5886.034	9.700	-18.390	4899.676	-12.130	-16.970
34.	10234.766	-.570	10.260	5907.992	12.160	-18.390	4899.676	-15.290	-16.970
35.	10232.787	-.700	10.100	5932.215	14.140	-18.060	4933.665	-17.520	-16.970
36.	10230.406	-.830	9.970	5959.915	15.870	-17.680	4915.097	-20.040	-16.970
37.	10227.646	-.940	9.820	5990.332	16.790	-17.260	4814.603	-21.700	-16.970
38.	10224.534	-1.050	9.640	6022.773	17.550	-16.860	4782.612	-22.560	-16.840
39.	10221.101	-1.150	9.440	6056.621	18.010	-16.310	4748.900	-23.670	-16.840
40.	10217.375	-1.240	9.210	6091.391	18.220	-15.760	4712.603	-23.670	-16.640
41.	10213.408	-1.310	8.960	6126.466	18.220	-15.230	4675.779	-24.490	-16.430
42.	10209.226	-1.370	8.690	6161.505	18.090	-14.650	4638.915	-24.650	-16.160
43.	10204.877	-1.420	8.390	6196.376	18.090	-14.040	4600.939	-24.900	-15.840
44.	10200.406	-1.460	8.060	6230.516	17.690	-13.400	4563.726	-24.900	-15.470
45.	10195.861	-1.470	7.710	6263.715	17.220	-12.730	4527.107	-24.630	-15.010
46.	10191.291	-1.470	7.340	6295.766	16.640	-12.040	4491.377	-24.180	-14.500
47.	10186.745	-1.460	6.940	6326.450	15.950	-11.320	4456.893	-23.560	-13.920
48.	10182.276	-1.420	6.510	6355.573	14.310	-10.570	4423.023	-22.770	-13.260
49.	10177.932	-1.370	6.070	6382.967	13.370	-9.790	4392.055	-21.820	-12.500
							4362.295	-20.720	-11.620

111-PLANE SPINEL

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
50.	10173.765	-1.310	5.600	6408.478	12.370	-6.990	4334.524	-19.450	-10.950
51.	10169.823	-1.230	5.110	6431.969	11.300	-8.170	4308.905	-18.040	-10.080
52.	10166.153	-1.140	4.600	6453.317	10.190	-7.330	4285.583	-16.460	-9.130
53.	10162.798	-1.030	4.070	6472.411	9.020	-6.460	4264.692	-14.760	-8.130
54.	10159.603	-0.910	3.520	6489.155	7.810	-5.560	4246.346	-12.990	-7.070
55.	10157.200	-0.770	2.960	6503.865	6.570	-4.670	4230.652	-10.990	-5.960
56.	10155.025	-0.630	2.380	6515.270	5.290	-3.760	4217.691	-8.530	-4.820
57.	10153.303	-0.480	1.800	6524.513	3.990	-2.830	4207.536	-6.760	-3.620
58.	10152.057	-0.320	1.200	6531.547	2.670	-1.890	4200.242	-4.760	-2.440
59.	10151.304	-0.160	0.600	6535.541	1.340	-0.950	4195.050	-2.820	-1.230
60.	10151.051	0.000	0.000	6536.474	-0.000	0.000	4194.383	-0.800	-0.000
61.	10151.304	0.160	-0.600	6535.541	-1.340	0.950	4195.050	2.820	1.230
62.	10152.056	0.320	-1.200	6531.547	-2.670	1.890	4200.242	4.760	2.440
63.	10153.303	0.480	-1.800	6524.513	-3.990	2.830	4207.536	6.760	3.620
64.	10155.025	0.630	-2.380	6515.270	-5.290	3.760	4217.691	8.530	4.820
65.	10157.201	0.770	-2.960	6503.865	-6.570	4.670	4230.652	10.990	5.960
66.	10159.603	0.910	-3.520	6489.155	-7.810	5.560	4246.346	12.990	7.070
67.	10162.800	1.030	-4.070	6472.411	-9.020	6.460	4264.692	14.760	8.130
68.	10166.153	1.140	-4.600	6453.317	-10.190	7.330	4285.583	16.460	9.130
69.	10169.823	1.230	-5.110	6431.969	-11.300	8.170	4308.905	18.040	10.080
70.	10173.765	1.310	-5.600	6408.478	-12.370	8.990	4334.524	19.450	10.950
71.	10177.932	1.370	-6.070	6382.967	-13.376	9.750	4362.295	20.720	11.610
72.	10182.276	1.420	-6.510	6355.573	-14.316	10.570	4392.054	21.820	12.580
73.	10186.746	1.460	-6.940	6326.449	-15.171	11.320	4423.623	22.770	13.200
74.	10191.291	1.470	-7.340	6295.767	-15.950	12.040	4456.803	23.560	13.520
75.	10195.862	1.470	-7.710	6263.715	-16.640	12.730	4491.377	24.160	13.950
76.	10200.407	1.450	-8.060	6230.506	-17.220	13.400	4527.106	24.630	14.420
77.	10204.877	1.420	-8.390	6196.376	-17.690	14.040	4563.726	24.900	14.920
78.	10209.226	1.370	-8.690	6161.594	-18.030	14.650	4600.934	24.960	15.440
79.	10213.406	1.310	-8.960	6126.466	-18.220	15.230	4638.415	24.850	15.980
80.	10217.360	1.240	-9.210	6091.341	-18.220	15.760	4675.779	24.490	16.530
81.	10221.101	1.150	-9.440	6056.621	-18.016	16.310	4712.603	23.870	16.840
82.	10224.534	1.050	-9.640	6022.772	-17.500	16.800	4749.400	22.960	16.000
83.	10227.646	0.940	-9.820	5990.332	-16.790	17.260	4782.611	21.700	15.210
84.	10230.406	0.830	-9.970	5959.915	-15.670	17.660	4814.603	20.440	14.420
85.	10232.767	0.700	-10.100	5932.215	-14.140	18.060	4843.664	17.920	13.600
86.	10234.767	0.570	-10.200	5907.991	-12.160	18.390	4869.023	15.290	12.760
87.	10236.326	0.430	-10.260	5886.033	-9.700	18.660	4895.075	12.130	11.950
88.	10237.451	0.290	-10.340	5863.103	-6.760	18.860	4915.452	8.440	11.150
89.	10238.129	0.150	-10.360	5863.849	-3.450	18.990	4915.096	4.340	10.390
90.	10238.356	0.000	-10.390	5860.712	0.000	19.030	4916.364	-0.000	9.540
91.	10238.129	-0.150	-10.360	5863.849	3.440	19.030	4916.096	-4.340	8.690
92.	10237.451	-0.290	-10.340	5873.103	6.760	18.990	4905.452	-8.440	7.840
93.	10236.326	-0.430	-10.260	5886.033	9.700	18.660	4895.075	-12.130	7.050
94.	10234.767	-0.570	-10.200	5907.991	12.160	18.390	4869.023	-15.290	6.210
95.	10232.767	-0.700	-10.100	5932.215	14.140	18.060	4843.664	-17.520	5.420
96.	10230.406	-0.830	-9.970	5959.915	15.670	17.660	4814.603	-20.040	4.670
97.	10227.646	-0.940	-9.820	5990.332	16.790	17.260	4782.611	-21.700	3.920
98.	10224.534	-1.050	-9.640	6022.772	17.500	16.800	4749.400	-22.960	3.170
99.	10221.101	-1.150	-9.440	6056.621	18.010	16.310	4712.603	-23.670	2.420

BULK

111-PLANE SPINEL

BULK

	LNVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
100.	10217.380	-1.240	-9.210	6091.341	18.220	19.780	4675.779	-24.450	16.430
101.	10213.406	-1.310	-8.960	6126.466	18.220	19.780	4630.415	-24.650	16.160
102.	10209.226	-1.370	-8.690	6161.594	18.030	18.650	4600.939	-24.900	15.840
103.	10204.877	-1.420	-8.390	6196.376	17.690	18.040	4563.726	-24.900	15.450
104.	10200.407	-1.450	-8.060	6230.506	17.220	17.400	4527.106	-24.630	15.010
105.	10195.662	-1.470	-7.710	6263.715	16.640	16.640	4491.377	-24.150	14.500
106.	10191.291	-1.470	-7.340	6295.767	15.950	16.040	4456.003	-23.580	13.920
107.	10186.746	-1.460	-6.940	6326.449	15.170	15.320	4423.623	-22.770	13.280
108.	10182.276	-1.420	-6.510	6355.573	14.310	14.570	4392.054	-21.620	12.500
109.	10177.932	-1.370	-6.070	6382.967	13.370	13.370	4362.245	-20.720	11.610
110.	10173.765	-1.310	-5.600	6408.478	12.370	12.370	4334.524	-19.450	10.940
111.	10169.823	-1.230	-5.110	6431.969	11.300	11.300	4308.904	-18.040	10.080
112.	10166.153	-1.140	-4.600	6453.317	10.190	10.190	4285.533	-16.460	9.130
113.	10162.800	-1.030	-4.070	6472.411	9.020	9.020	4264.692	-14.760	8.130
114.	10159.603	-0.910	-3.520	6489.155	7.610	7.610	4246.348	-12.950	7.000
115.	10157.201	-0.770	-2.960	6503.465	6.070	6.070	4230.692	-10.990	5.900
116.	10155.025	-0.630	-2.380	6515.270	5.290	5.290	4217.691	-8.930	4.820
117.	10153.303	-0.480	-1.800	6524.513	3.950	3.950	4207.536	-6.780	3.820
118.	10152.058	-0.320	-1.200	6531.147	2.670	2.670	4200.242	-4.560	2.840
119.	10151.304	-0.160	-0.600	6535.141	1.340	1.340	4195.050	-2.250	1.870
120.	10151.051	-0.000	0.000	6536.474	0.000	0.000	4194.383	0.000	0.900
121.	10151.304	0.160	0.600	6535.141	-1.340	-1.340	4195.050	2.250	-1.230
122.	10152.057	0.320	1.200	6531.147	-2.670	-2.670	4200.242	4.560	-2.470
123.	10153.303	0.480	1.800	6524.513	-3.950	-3.950	4207.536	6.780	-3.820
124.	10155.025	0.630	2.380	6515.270	-5.290	-5.290	4217.691	8.930	-5.820
125.	10157.200	0.770	2.960	6503.465	-6.570	-6.570	4230.692	10.990	-7.760
126.	10159.603	0.910	3.520	6489.155	-7.610	-7.610	4246.348	12.950	-9.070
127.	10162.795	1.030	4.070	6472.411	-8.020	-8.020	4264.692	14.760	-10.130
128.	10166.153	1.140	4.600	6453.317	-10.190	-10.190	4285.533	16.460	-10.990
129.	10169.823	1.230	5.110	6431.969	-11.300	-11.300	4308.904	18.040	-11.610
130.	10173.765	1.310	5.600	6408.478	-12.370	-12.370	4334.524	19.450	-12.080
131.	10177.932	1.370	6.070	6382.967	-13.370	-13.370	4362.245	20.720	-12.500
132.	10182.276	1.420	6.510	6355.573	-14.310	-14.310	4392.054	22.770	-13.280
133.	10186.745	1.470	6.940	6326.450	-15.170	-15.170	4423.623	24.900	-13.920
134.	10191.291	1.470	7.340	6295.766	-15.950	-15.950	4456.003	27.000	-14.500
135.	10195.661	1.420	7.710	6263.716	-16.640	-16.640	4491.377	29.150	-14.970
136.	10200.406	1.450	8.060	6230.506	-17.220	-17.220	4527.106	31.340	-15.340
137.	10204.877	1.420	8.390	6196.376	-17.690	-17.690	4563.726	33.560	-15.630
138.	10209.226	1.370	8.690	6161.594	-18.030	-18.030	4600.939	35.800	-15.840
139.	10213.406	1.310	8.960	6126.466	-18.220	-18.220	4630.415	38.050	-16.000
140.	10217.379	1.240	9.210	6091.341	-18.220	-18.220	4675.779	40.220	-16.130
141.	10221.101	1.150	9.440	6056.621	-18.010	-18.010	4715.603	42.320	-16.200
142.	10224.534	1.050	9.640	6022.773	-17.550	-17.550	4762.612	44.340	-16.230
143.	10227.646	0.940	9.820	5990.332	-16.790	-16.790	4814.603	46.280	-16.230
144.	10230.405	0.830	9.970	5959.915	-15.670	-15.670	4869.665	48.050	-16.190
145.	10232.787	0.700	10.100	5932.215	-14.140	-14.140	4928.023	49.680	-16.040
146.	10234.766	0.570	10.200	5907.992	-12.160	-12.160	4995.043	51.160	-15.780
147.	10236.326	0.430	10.240	5888.934	-9.700	-9.700	5075.876	52.500	-15.440
148.	10237.450	0.290	10.340	5873.104	-6.780	-6.780	5169.452	53.650	-15.000
149.	10238.125	0.150	10.380	5863.649	-3.490	-3.490	5275.007	54.590	-14.490

111-PLANE SPINEL										
	LNGVEL	LPHI12	LPHI13	FSPRVL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13	BULK
150.	10230.356	0.000	10.390	5860.712	-0.000	-19.630	4310.364	-0.000	-10.940	
151.	10230.129	-0.150	10.380	5863.449	3.490	-18.550	4315.097	-4.340	-16.920	
152.	10237.450	-0.290	10.340	5873.104	6.760	-16.660	4305.452	-0.440	-16.970	
153.	10236.326	-0.630	10.260	5868.034	9.700	-18.660	4089.076	-12.130	-10.920	
154.	10230.766	-0.570	10.200	5907.592	12.160	-18.350	4069.023	-15.250	-17.010	
155.	10232.787	-0.700	10.100	5932.215	14.140	-18.060	4043.665	-17.920	-17.000	
156.	10230.406	-0.830	9.970	5959.915	15.676	-17.660	4014.603	-20.080	-16.970	
157.	10227.646	-0.940	9.820	6022.773	16.750	-17.260	4782.611	-21.700	-10.910	
158.	10224.534	-1.050	9.640	6056.621	17.550	-16.600	4746.400	-22.500	-10.600	
159.	10221.101	-1.150	9.440	6091.341	18.010	-16.310	4712.603	-23.870	-10.640	
160.	10217.380	-1.240	9.210	6126.466	18.220	-15.760	4675.773	-24.490	-10.430	
161.	10213.408	-1.310	8.960	6161.595	18.420	-15.230	4630.445	-24.650	-10.160	
162.	10209.226	-1.370	8.690	6196.376	18.036	-14.610	4600.433	-24.500	-10.050	
163.	10204.406	-1.420	8.390	6230.506	17.650	-14.040	4563.126	-24.500	-10.420	
164.	10199.861	-1.470	7.710	6263.716	17.220	-13.400	4527.107	-24.630	-10.010	
165.	10191.291	-1.470	7.340	6295.767	16.640	-12.730	4491.377	-24.100	-10.500	
166.	10186.746	-1.460	6.940	6326.450	15.176	-11.320	4456.003	-23.500	-13.920	
167.	10182.276	-1.420	6.510	6355.573	14.310	-10.570	4423.623	-22.770	-13.200	
168.	10177.932	-1.370	6.070	6382.967	13.370	-9.750	4392.095	-22.860	-12.900	
169.	10173.765	-1.310	5.600	6408.476	12.370	-8.950	4362.295	-20.720	-11.610	
170.	10166.023	-1.230	5.110	6431.969	11.300	-8.170	4334.524	-19.450	-10.500	
171.	10160.153	-1.140	4.600	6453.317	10.190	-7.330	4306.904	-18.040	-10.000	
172.	10152.799	-1.030	4.070	6472.411	9.020	-6.460	4264.692	-16.480	-9.130	
173.	10150.003	-0.910	3.520	6499.155	7.610	-5.560	4246.346	-14.760	-8.130	
174.	10157.200	-0.770	2.960	6503.465	6.570	-4.670	4230.652	-12.950	-7.070	
175.	10155.025	-0.630	2.380	6515.270	5.290	-3.760	4217.691	-0.530	-5.960	
176.	10151.303	-0.480	1.800	6524.513	3.990	-2.830	4207.536	-6.760	-3.620	
177.	10152.057	-0.320	1.200	6531.147	2.670	-1.890	4200.242	-4.560	-2.440	
178.	10151.304	-0.160	0.600	6535.141	1.340	-0.950	4195.050	-2.250	-1.230	
180.	10151.051	0.000	-0.000	6536.474	-0.000	0.600	4194.303	0.600	0.600	

110-PLANE SPINEL

	LNVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
0.	10555.633	0.000	0.000	5096.132	-24.526	0.000	5096.100	24.520	0.000
1.	10554.851	-4.950	0.000	5056.783	-23.340	0.000	5136.756	24.430	0.000
2.	10552.481	-9.950	0.000	5020.006	-22.020	0.000	5177.537	24.310	0.000
3.	10548.493	-14.950	0.000	4985.969	-20.540	0.000	5216.390	24.170	0.000
4.	10542.863	-2.010	0.000	4954.632	-18.920	0.000	5259.265	24.000	0.000
5.	10535.568	-2.530	0.000	4926.745	-17.140	0.000	5300.112	23.800	0.000
6.	10526.586	-3.060	0.000	4901.847	-15.210	0.000	5340.883	23.600	0.000
7.	10515.908	-3.600	0.000	4880.266	-13.140	0.000	5381.524	23.300	0.000
8.	10503.515	-4.130	0.000	4862.121	-10.940	0.000	5422.006	23.110	0.000
9.	10489.400	-4.680	0.000	4847.506	-8.610	0.000	5462.267	22.830	0.000
10.	10473.556	-5.220	0.000	4836.512	-6.150	0.000	5502.270	22.540	0.000
11.	10455.980	-5.770	0.000	4829.206	-3.690	0.000	5541.971	22.230	0.000
12.	10436.671	-6.320	0.000	4825.644	-1.140	0.000	5581.329	21.910	0.000
13.	10415.633	-6.870	0.000	4825.863	1.440	0.000	5620.305	21.570	0.000
14.	10392.871	-7.420	0.000	4829.881	4.020	0.000	5658.657	21.210	0.000
15.	10368.394	-7.970	0.000	4837.700	6.560	0.000	5696.950	20.840	0.000
16.	10342.215	-8.520	0.000	4849.306	9.060	0.000	5734.546	20.460	0.000
17.	10314.347	-9.060	0.000	4864.664	11.460	0.000	5771.609	20.060	0.000
18.	10284.811	-9.600	0.000	4883.725	13.770	0.000	5808.106	19.650	0.000
19.	10253.627	-10.140	0.000	4906.422	15.960	0.000	5844.001	19.230	0.000
20.	10220.822	-10.670	0.000	4932.671	18.010	0.000	5879.204	18.800	0.000
21.	10186.425	-11.150	0.000	4962.375	19.930	0.000	5913.863	18.360	0.000
22.	10150.469	-11.710	0.000	4995.422	21.690	0.000	5947.767	17.910	0.000
23.	10112.992	-12.220	0.000	5031.684	23.300	0.000	5980.346	17.450	0.000
24.	10074.036	-12.720	0.000	5071.024	24.760	0.000	6013.377	16.980	0.000
25.	10033.646	-13.200	0.000	5113.291	26.080	0.000	6045.027	16.500	0.000
26.	9991.880	-13.660	0.000	5158.323	27.250	0.000	6075.273	16.010	0.000
27.	9948.789	-14.140	0.000	5205.949	28.270	0.000	6104.889	15.520	0.000
28.	9904.441	-14.560	0.000	5255.987	29.160	0.000	6133.050	15.020	0.000
29.	9858.905	-15.000	0.000	5308.246	29.910	0.000	6160.335	14.510	0.000
30.	9812.261	-15.400	0.000	5362.526	30.540	0.000	6190.720	13.990	0.000
31.	9764.595	-15.780	0.000	5418.624	31.050	0.000	6217.185	13.470	0.000
32.	9716.005	-16.120	0.000	5476.316	31.430	0.000	6242.706	12.950	0.000
33.	9666.595	-16.440	0.000	5535.381	31.700	0.000	6267.271	12.410	0.000
34.	9616.486	-16.720	0.000	5595.581	31.860	0.000	6290.825	11.860	0.000
35.	9565.809	-16.960	0.000	5656.671	31.900	0.000	6313.443	11.330	0.000
36.	9514.711	-17.150	0.000	5718.394	31.830	0.000	6335.017	10.790	0.000
37.	9463.355	-17.290	0.000	5780.479	31.660	0.000	6355.563	10.230	0.000
38.	9411.923	-17.380	0.000	5842.641	31.340	0.000	6375.064	9.660	0.000
39.	9360.620	-17.390	0.000	5904.579	30.920	0.000	6393.507	9.120	0.000
40.	9309.673	-17.330	0.000	5965.972	30.370	0.000	6410.879	8.550	0.000
41.	9259.334	-17.170	0.000	6026.476	29.660	0.000	6427.167	7.990	0.000
42.	9209.888	-16.920	0.000	6085.734	28.840	0.000	6442.359	7.420	0.000
43.	9161.848	-16.550	0.000	6143.346	27.850	0.000	6456.446	6.850	0.000
44.	9114.961	-16.060	0.000	6198.898	26.680	0.000	6469.416	6.270	0.000
45.	9070.287	-15.420	0.000	6251.941	25.320	0.000	6481.262	5.690	0.000
46.	9027.804	-14.610	0.000	6302.001	23.750	0.000	6491.975	5.120	0.000
47.	8988.194	-13.640	0.000	6348.579	21.950	0.000	6501.246	4.530	0.000
48.	8951.849	-12.470	0.000	6391.155	19.910	0.000	6509.871	3.950	0.000
49.	8919.254	-11.110	0.000	6429.203	17.610	0.000	6517.242	3.370	0.000

110-PLANE SPINEL			BULK						
	LANGVEL	LPMI12	LPMI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
50.	8998.893	-9.540	0.000	6462.201	15.040	-0.000	6523.356	2.780	0.000
51.	8967.233	-7.750	0.000	6469.651	12.220	0.000	6528.317	2.200	0.000
52.	8948.698	-5.660	0.000	6511.106	9.160	-0.000	6532.042	1.610	0.000
53.	8935.846	-3.790	0.000	6526.188	5.910	-0.000	6534.710	1.020	0.000
54.	8928.341	-1.620	0.000	6534.618	2.530	-0.000	6536.157	.430	-0.000
55.	8926.935	.560	0.000	6536.433	-.160	0.000	6536.235	-.510	0.000
56.	8931.470	2.760	0.000	6531.008	-4.330	-0.000	6535.539	-1.740	0.000
57.	8941.836	4.900	0.000	6519.036	-7.650	-0.000	6533.473	-1.330	0.000
58.	8957.822	6.900	0.000	6500.550	-10.600	-0.000	6530.239	-1.420	0.000
59.	8979.113	8.740	0.000	6475.878	-13.740	-0.000	6525.036	-2.510	0.000
60.	8995.311	10.390	0.000	6445.438	-16.430	-0.000	6520.272	-3.090	0.000
61.	8935.967	11.850	0.000	6409.710	-18.860	0.000	6513.547	-3.660	0.000
62.	8970.603	13.110	0.000	6369.206	-21.020	-0.000	6505.666	-4.260	0.000
63.	9006.731	14.180	0.000	6324.451	-22.930	-0.000	6496.635	-4.840	0.000
64.	9049.874	15.060	0.000	6275.971	-24.610	0.000	6488.460	-5.420	0.000
65.	9093.871	15.770	0.000	6224.275	-26.070	-0.000	6475.148	-6.000	0.000
66.	9135.395	16.340	0.000	6169.850	-27.320	-0.000	6462.709	-6.580	0.000
67.	9186.948	16.760	0.000	6113.156	-28.400	-0.000	6449.147	-7.150	0.000
68.	9235.866	17.070	0.000	6054.626	-29.300	-0.000	6434.475	-7.720	0.000
69.	9285.621	17.270	0.000	5994.663	-30.060	-0.000	6418.702	-8.290	0.000
70.	9336.514	17.370	0.000	5933.644	-30.670	-0.000	6401.841	-8.850	0.000
71.	9387.879	17.390	0.000	5871.922	-31.160	0.000	6383.942	-9.410	0.000
72.	9439.876	17.340	0.000	5809.628	-31.520	-0.000	6364.050	-9.970	0.000
73.	9490.892	17.230	0.000	5747.670	-31.760	-0.000	6344.044	-10.530	0.000
74.	9541.734	17.060	-0.000	5685.741	-31.880	-0.000	6323.723	-11.070	0.000
75.	9592.629	16.840	0.000	5624.320	-31.890	-0.000	6301.642	-11.620	0.000
76.	9643.823	16.560	0.000	5563.666	-31.790	-0.000	6278.528	-12.160	0.000
77.	9692.776	16.260	0.000	5504.038	-31.570	-0.000	6254.423	-12.700	0.000
78.	9741.770	15.940	0.000	5445.664	-31.240	-0.000	6229.356	-13.230	0.000
79.	9785.865	15.560	0.000	5388.792	-30.800	-0.000	6203.327	-13.750	0.000
80.	9837.022	15.190	0.000	5333.626	-30.230	-0.000	6176.374	-14.270	0.000
81.	9883.091	14.780	0.000	5280.389	-29.530	-0.000	6148.511	-14.780	0.000
82.	9928.009	14.350	-0.000	5229.276	-28.710	-0.000	6119.761	-15.260	0.000
83.	9971.782	13.960	0.000	5180.490	-27.750	-0.000	6090.145	-15.780	0.000
84.	10014.102	13.430	-0.000	5134.212	-26.650	-0.000	6059.664	-16.270	0.000
85.	10055.146	12.950	0.000	5090.615	-25.400	-0.000	6028.414	-16.750	0.000
86.	10094.786	12.460	-0.000	5049.878	-24.020	0.000	5998.350	-17.230	0.000
87.	10132.967	11.950	0.000	5012.145	-22.470	-0.000	5968.520	-17.690	0.000
88.	10169.646	11.440	0.000	4977.564	-20.780	-0.000	5929.954	-18.150	0.000
89.	10204.783	10.920	0.000	4946.266	-18.930	-0.000	5895.679	-18.590	0.000
90.	10238.343	10.350	-0.000	4918.374	-16.950	-0.000	5867.726	-19.020	0.000
91.	10270.296	9.850	0.000	4893.990	-14.820	-0.000	5842.125	-19.460	0.000
92.	10300.613	9.320	0.000	4873.203	-12.670	0.000	5788.908	-19.870	0.000
93.	10329.270	8.770	0.000	4856.890	-10.220	-0.000	5714.168	-20.270	0.000
94.	10356.249	8.230	0.000	4842.708	-7.750	-0.000	5714.760	-20.660	0.000
95.	10381.531	7.660	-0.000	4833.096	-5.230	0.000	5676.697	-21.040	0.000
96.	10405.184	7.130	0.000	4827.285	-2.660	-0.000	5638.956	-21.400	0.000
97.	10426.957	6.580	0.000	4825.275	-.080	-0.000	5599.778	-21.750	0.000
98.	10447.862	6.030	0.000	4827.056	2.490	-0.000	5560.543	-22.080	0.000
99.	10465.476	5.460	-0.000	4832.600	5.020	-0.000	5521.049	-22.460	0.000

110-PLANE SPINEL

	LNGLVL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
100.	10402.137	4.430	0.000	4441.061	7.480	-0.000	5481.183	-22.700	0.000
101.	10497.066	4.350	0.000	4654.777	9.850	-0.000	5441.039	-22.980	0.000
102.	10510.272	3.950	-0.000	4871.266	12.110	-0.000	5400.656	-23.240	0.000
103.	10521.780	3.310	0.000	4891.241	14.250	-0.000	5360.066	-23.490	0.000
104.	10531.540	2.780	-0.000	4914.566	16.250	-0.000	5319.366	-23.710	0.000
105.	10539.626	2.260	-0.000	4941.186	18.100	-0.000	5276.551	-23.910	0.000
106.	10546.042	1.740	0.000	4970.901	19.800	-0.000	5237.603	-24.090	0.000
107.	10550.002	1.230	0.000	5003.589	21.340	-0.000	5196.614	-24.250	0.000
108.	10553.932	.720	0.000	5039.093	22.740	-0.000	5155.492	-24.360	0.000
109.	10555.460	.230	0.000	5077.250	23.960	-0.000	5115.271	-24.460	0.000
110.	10555.417	-.250	0.000	5117.886	25.050	-0.000	5074.702	-24.560	-0.000
111.	10553.835	-.730	-0.000	5160.824	26.050	0.000	5034.340	-24.610	-0.000
112.	10550.764	-1.180	0.000	5205.876	26.800	0.000	4994.236	-24.620	-0.000
113.	10546.236	-1.630	0.000	5252.654	27.570	0.000	4954.454	-24.610	-0.000
114.	10540.302	-2.060	0.000	5301.563	28.150	0.000	4915.043	-24.560	-0.000
115.	10533.014	-2.480	0.000	5351.805	28.610	0.000	4876.063	-24.480	-0.000
116.	10524.428	-2.870	-0.000	5403.377	28.950	0.000	4837.573	-24.360	-0.000
117.	10514.686	-3.250	0.000	5456.076	29.150	0.000	4799.632	-24.200	-0.000
118.	10503.613	-3.610	-0.000	5509.700	29.320	0.000	4762.300	-24.000	-0.000
119.	10491.523	-3.940	0.000	5564.036	29.360	0.000	4725.637	-23.760	-0.000
120.	10478.411	-4.250	0.000	5618.876	29.300	0.000	4689.705	-23.470	-0.000
121.	10464.360	-4.540	0.000	5674.010	29.140	0.000	4654.564	-23.140	0.000
122.	10449.460	-4.790	0.000	5729.226	28.890	0.000	4620.275	-22.770	0.000
123.	10433.605	-5.020	0.000	5784.310	28.560	0.000	4586.901	-22.340	0.000
124.	10417.496	-5.220	0.000	5839.040	28.130	0.000	4554.502	-21.860	0.000
125.	10400.640	-5.380	0.000	5893.223	27.620	0.000	4523.139	-21.330	0.000
126.	10383.352	-5.500	-0.000	5946.620	27.020	0.000	4492.072	-20.740	0.000
127.	10365.750	-5.560	0.000	5999.021	26.340	0.000	4463.762	-20.100	0.000
128.	10347.960	-5.640	0.000	6050.206	25.560	0.000	4435.666	-19.400	0.000
129.	10330.115	-5.650	-0.000	6099.959	24.700	0.000	4409.242	-18.650	0.000
130.	10312.350	-5.610	0.000	6148.060	23.740	0.000	4383.946	-17.830	0.000
131.	10294.806	-5.530	-0.000	6194.291	22.700	0.000	4360.032	-16.960	0.000
132.	10277.433	-5.460	0.000	6238.437	21.560	0.000	4337.552	-16.030	0.000
133.	10260.373	-5.320	0.000	6280.284	20.340	0.000	4316.526	-15.140	0.000
134.	10244.978	-4.960	0.000	6319.621	19.020	0.000	4297.092	-13.540	0.000
135.	10229.297	-4.710	0.000	6356.246	17.600	0.000	4279.204	-12.690	0.000
136.	10215.575	-4.390	-0.000	6389.961	16.100	0.000	4262.935	-11.730	0.000
137.	10202.457	-4.020	0.000	6420.577	14.510	0.000	4248.322	-10.520	0.000
138.	10190.578	-3.610	-0.000	6447.920	12.840	0.000	4235.402	-9.270	-0.000
139.	10180.066	-3.150	0.000	6471.826	11.090	0.000	4224.204	-7.970	0.000
140.	10171.038	-2.660	-0.000	6492.150	9.270	0.000	4214.757	-6.640	0.000
141.	10163.594	-2.140	0.000	6508.763	7.380	0.000	4207.084	-5.270	0.000
142.	10157.822	-1.590	-0.000	6521.559	5.450	0.000	4201.204	-3.660	0.000
143.	10153.769	-1.020	0.000	6530.454	3.460	0.000	4197.132	-2.470	0.000
144.	10151.545	-.630	-0.000	6535.391	1.460	0.000	4194.870	-1.650	0.000
145.	10151.115	.160	0.000	6536.335	-.530	-0.000	4194.447	.360	0.000
146.	10152.505	.740	0.000	6533.280	-2.540	-0.000	4194.841	1.600	0.000
147.	10155.698	1.320	0.000	6526.240	-4.520	-0.000	4194.056	3.220	0.000
148.	10160.657	1.860	0.000	6515.284	-6.460	-0.000	4204.064	4.620	0.000
149.	10167.321	2.420	0.000	6500.460	-8.360	-0.000	4210.513	6.000	0.000

BULK

110-PLANE SPINEL		BULK					
	LMSVEL	LPHI12	LPHI13	FSPH12	FSPH13	SSPH12	SSPH13
150.	10175.613	2.930	0.000	-10.240	0.000	4234.526	7.350
151.	10185.439	3.400	0.000	-12.020	-0.000	4229.900	6.660
152.	10196.686	3.630	0.000	-13.730	0.000	4242.011	5.940
153.	10209.238	4.220	0.000	-15.360	-0.000	4255.629	11.170
154.	10222.956	4.570	0.000	-16.910	0.000	4271.321	12.350
155.	10237.702	4.670	0.000	-18.360	-0.000	4288.450	13.470
156.	10253.332	5.120	0.000	-19.730	0.000	4307.175	14.550
157.	10269.696	5.350	0.000	-21.000	-0.000	4327.454	15.570
158.	10286.667	5.470	0.000	-22.160	0.000	4349.239	16.530
159.	10304.034	5.760	0.000	-23.260	-0.000	4372.483	17.430
160.	10321.711	5.630	0.000	-24.260	0.000	4397.133	18.270
161.	10339.536	5.650	0.000	-25.160	-0.000	4423.136	19.050
162.	10357.359	5.620	0.000	-25.980	0.000	4450.440	19.760
163.	10375.075	5.550	0.000	-26.710	-0.000	4478.205	20.450
164.	10392.527	5.440	0.000	-27.350	0.000	4506.713	21.060
165.	10409.601	5.300	0.000	-27.900	-0.000	4535.966	21.620
166.	10426.162	5.120	0.000	-28.370	0.000	4571.403	22.120
167.	10442.159	4.900	0.000	-28.750	-0.000	4604.405	22.570
168.	10457.427	4.650	0.000	-29.040	0.000	4638.269	22.970
169.	10471.890	4.390	0.000	-29.230	-0.000	4673.016	23.320
170.	10485.456	4.090	0.000	-29.340	0.000	4708.562	23.630
171.	10498.039	3.770	0.000	-29.350	-0.000	4744.908	23.690
172.	10509.555	3.420	0.000	-29.260	0.000	4781.932	24.110
173.	10519.942	3.050	0.000	-29.080	-0.000	4819.593	24.290
174.	10529.120	2.660	0.000	-28.760	0.000	4857.631	24.430
175.	10537.026	2.260	0.000	-28.360	-0.000	4896.567	24.530
176.	10543.607	1.840	-0.300	-27.890	0.000	4935.002	24.590
177.	10548.805	1.400	-0.000	-27.420	-0.000	4975.417	24.620
178.	10552.571	.940	0.000	-26.660	0.000	5015.376	24.620
179.	10554.461	.400	-0.000	-25.560	-0.000	5055.022	24.590
180.	10555.633	0.010	-0.000	-24.520	-0.000	5096.100	24.520

X-PLANE (YZ-PLANE) TELLURIUM DIOXIDE

BULK

	LMGVEL	LPMI12	LPMI13	FSPVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
0.	3316.876	-8.000	-0.000	3049.599	0.000	0.000	2103.340	0.000	-0.000
1.	3316.576	-6.600	-0.000	3049.621	.910	0.000	2103.333	0.000	0.000
2.	3315.676	-1.200	-0.000	3051.088	1.620	0.000	2103.312	-0.400	0.000
3.	3314.175	1.700	-0.000	3053.197	2.720	0.000	2103.276	-0.670	0.000
4.	3312.876	-2.300	-0.000	3056.142	3.610	0.000	2103.227	-0.990	0.000
5.	3309.380	-2.370	-0.000	3059.319	4.690	0.000	2103.165	-1.10	0.000
6.	3306.866	-3.560	-0.000	3064.518	5.350	0.000	2103.090	-1.10	0.000
7.	3302.203	-4.150	-0.000	3069.929	6.190	0.000	2103.004	-1.40	0.000
8.	3297.727	-4.740	-0.000	3076.143	7.020	0.000	2102.907	-1.60	0.000
9.	3292.863	-5.330	-0.000	3083.145	7.820	0.000	2102.801	-1.70	0.000
10.	3287.814	-5.910	-0.000	3090.920	8.600	0.000	2102.686	-1.90	0.000
11.	3280.784	-6.450	-0.000	3099.454	9.356	0.660	2102.563	-2.00	0.660
12.	3273.976	-7.060	-0.000	3108.729	10.076	0.000	2102.434	-2.10	0.000
13.	3266.600	-7.650	-0.000	3118.725	10.770	0.000	2102.300	-2.10	0.000
14.	3258.855	-8.230	-0.000	3129.424	11.430	0.000	2102.162	-2.20	0.000
15.	3250.146	-8.800	-0.000	3140.805	12.060	0.000	2102.021	-2.20	0.000
16.	3241.065	-9.370	-0.000	3152.846	12.660	0.000	2101.879	-2.20	0.000
17.	3231.472	-9.940	-0.000	3165.523	13.230	0.000	2101.736	-2.20	0.000
18.	3221.317	-10.500	-0.000	3178.814	13.760	0.000	2101.594	-2.20	0.000
19.	3210.625	-11.060	-0.000	3192.694	14.260	0.000	2101.454	-2.20	0.000
20.	3199.405	-11.620	-0.000	3207.139	14.730	0.000	2101.316	-2.10	0.000
21.	3187.665	-12.170	-0.000	3222.121	15.170	0.000	2101.182	-2.10	0.000
22.	3175.413	-12.720	-0.000	3237.617	15.570	0.000	2101.053	-2.00	0.000
23.	3162.658	-13.260	-0.000	3253.596	15.940	0.000	2100.926	-1.90	0.000
24.	3149.408	-13.790	-0.000	3270.039	16.276	0.000	2100.810	-1.90	0.000
25.	3135.675	-14.320	-0.000	3286.912	16.580	0.000	2100.698	-1.70	0.000
26.	3121.466	-14.850	-0.000	3304.190	16.850	0.000	2100.594	-1.60	0.000
27.	3106.799	-15.360	-0.000	3321.845	17.100	0.000	2100.496	-1.50	0.000
28.	3091.677	-15.870	-0.000	3339.851	17.310	0.000	2100.407	-1.30	0.000
29.	3076.115	-16.360	-0.000	3358.179	17.500	0.000	2100.326	-1.20	0.000
30.	3060.126	-16.870	-0.000	3376.802	17.660	0.000	2100.253	-1.10	0.000
31.	3043.721	-17.360	-0.000	3395.693	17.790	0.000	2100.189	-0.90	0.000
32.	3026.914	-17.840	-0.000	3414.824	17.970	0.000	2100.134	-0.60	0.000
33.	3009.720	-18.310	-0.000	3434.169	18.100	0.000	2100.087	-0.40	0.000
34.	2992.151	-18.770	-0.000	3453.780	18.030	0.000	2100.049	-0.20	0.000
35.	2974.223	-19.220	-0.000	3473.590	18.050	0.000	2100.020	-0.00	0.000
36.	2955.952	-19.670	-0.000	3493.614	18.060	0.000	2100.000	-0.00	0.000
37.	2937.353	-20.100	-0.000	3513.145	18.046	0.000	2099.986	-0.00	0.000
38.	2918.443	-20.520	-0.000	3533.157	18.010	0.000	2099.984	0.000	0.000
39.	2899.239	-20.920	-0.000	3553.225	17.950	0.000	2099.989	-0.00	0.000
40.	2879.759	-21.320	-0.000	3573.324	17.870	0.000	2100.001	-0.30	0.000
41.	2860.026	-21.700	-0.000	3593.429	17.776	0.600	2100.022	-0.60	0.000
42.	2840.043	-22.060	-0.000	3613.516	17.650	0.000	2100.049	-0.80	0.000
43.	2819.865	-22.420	-0.000	3633.562	17.526	0.000	2100.084	-0.80	0.000
44.	2799.468	-22.750	-0.000	3653.542	17.360	0.000	2100.125	-0.70	0.000
45.	2778.872	-23.070	0.000	3673.434	17.200	0.000	2100.173	-0.60	0.000
46.	2758.138	-23.370	0.000	3693.215	17.010	0.000	2100.227	-0.60	0.000
47.	2737.268	-23.660	0.000	3712.864	16.810	0.000	2100.287	-1.00	0.000
48.	2716.286	-23.920	0.000	3732.356	16.590	0.000	2100.352	-1.10	0.000
49.	2695.214	-24.170	0.000	3751.678	16.360	0.000	2100.422	-1.10	0.000

BULK

X-PLANE (YZ-PLANE) TELLURIUM DIOXIDE

	LNGVEL	LPMI12	LPMI13	FSRVEL	FSPMI12	FSPMI13	SRVEL	SSPMI12	SSPMI13
50.	2679.876	-24.390	0.000	3770.802	16.120	0.000	2100.496	.120	-0.000
51.	2652.696	-24.590	0.000	3789.711	15.860	0.000	2100.575	.130	-0.000
52.	2631.703	-24.770	0.000	3808.384	15.590	0.000	2100.657	.130	-0.000
53.	2610.518	-24.920	0.000	3826.804	15.310	0.000	2100.733	.140	-0.000
54.	2589.369	-25.050	0.000	3844.990	15.020	0.000	2100.833	.140	-0.000
55.	2568.284	-25.150	0.000	3862.807	14.710	0.000	2100.924	.150	-0.000
56.	2547.290	-25.220	0.000	3880.355	14.400	0.000	2101.018	.150	-0.000
57.	2526.416	-25.260	0.000	3897.579	14.060	0.000	2101.114	.150	-0.000
58.	2505.691	-25.270	0.000	3914.461	13.740	0.000	2101.212	.150	-0.000
59.	2485.143	-25.240	0.000	3930.986	13.400	0.000	2101.310	.150	-0.000
60.	2464.803	-25.180	0.000	3947.139	13.040	0.000	2101.410	.160	-0.000
61.	2444.702	-25.080	0.000	3962.904	12.660	0.000	2101.509	.160	-0.000
62.	2424.870	-24.950	0.000	3978.267	12.310	0.000	2101.609	.160	-0.000
63.	2405.339	-24.770	0.000	3993.214	11.940	0.000	2101.709	.160	-0.000
64.	2386.141	-24.550	0.000	4007.733	11.550	0.000	2101.808	.150	-0.000
65.	2367.307	-24.260	0.000	4021.809	11.160	0.000	2101.906	.150	-0.000
66.	2348.869	-23.970	0.000	4035.432	10.770	0.000	2102.003	.150	-0.000
67.	2330.861	-23.610	0.000	4048.588	10.360	0.000	2102.099	.150	-0.000
68.	2313.314	-23.200	0.000	4061.267	9.950	0.000	2102.192	.140	-0.000
69.	2296.261	-22.740	0.000	4073.457	9.540	0.000	2102.284	.140	-0.000
70.	2279.734	-22.220	0.000	4085.149	9.110	0.000	2102.373	.140	-0.000
71.	2263.765	-21.640	0.000	4096.333	8.690	0.000	2102.459	.130	-0.000
72.	2248.367	-21.010	0.000	4106.999	8.260	0.000	2102.543	.130	-0.000
73.	2233.630	-20.320	0.000	4117.138	7.820	0.000	2102.624	.120	-0.000
74.	2219.526	-19.570	0.000	4126.742	7.380	0.000	2102.701	.120	-0.000
75.	2206.104	-18.750	0.000	4135.804	6.940	0.000	2102.774	.110	-0.000
76.	2193.393	-17.870	0.000	4144.315	6.490	0.000	2102.844	.110	-0.000
77.	2181.422	-16.930	0.000	4152.269	6.040	0.000	2102.910	.100	-0.000
78.	2170.219	-15.930	0.000	4159.660	5.590	0.000	2102.971	.090	-0.000
79.	2159.806	-14.870	0.000	4166.481	5.130	0.000	2103.029	.090	-0.000
80.	2150.215	-13.740	0.000	4172.726	4.680	0.000	2103.082	.090	-0.000
81.	2141.461	-12.560	0.000	4178.394	4.220	0.000	2103.130	.070	-0.000
82.	2133.570	-11.320	0.000	4183.476	3.750	0.000	2103.173	.060	-0.000
83.	2126.559	-10.030	0.000	4187.969	3.250	0.000	2103.212	.060	-0.000
84.	2120.446	-8.690	0.000	4191.871	2.820	0.000	2103.246	.050	-0.000
85.	2115.248	-7.310	0.000	4195.177	2.350	0.000	2103.275	.040	-0.000
86.	2110.976	-5.900	0.000	4197.886	1.860	0.000	2103.298	.030	-0.000
87.	2107.642	-4.430	0.000	4199.995	1.410	0.000	2103.316	.020	-0.000
88.	2105.254	-2.960	0.000	4201.503	.940	0.000	2103.330	.020	-0.000
89.	2103.819	-1.450	0.000	4202.408	.470	0.000	2103.338	.010	-0.000
90.	2103.340	-0.000	0.000	4202.710	-0.000	0.000	2103.340	0.000	-0.000
91.	2103.819	1.490	-0.000	4202.408	-0.470	0.000	2103.338	-0.010	0.000
92.	2105.254	2.960	-0.000	4201.503	-0.940	0.000	2103.330	-0.020	0.000
93.	2107.642	4.430	-0.000	4199.995	-1.410	0.000	2103.316	-0.020	0.000
94.	2110.976	5.900	-0.000	4197.886	-1.860	0.000	2103.298	-0.030	0.000
95.	2115.248	7.310	-0.000	4195.177	-2.350	0.000	2103.275	-0.040	0.000
96.	2120.446	8.690	-0.000	4191.871	-2.820	0.000	2103.246	-0.050	0.000
97.	2126.559	10.030	-0.000	4187.969	-3.250	0.000	2103.212	-0.060	0.000
98.	2133.570	11.320	-0.000	4183.476	-3.750	0.000	2103.173	-0.060	0.000
99.	2141.461	12.560	-0.000	4178.394	-4.220	0.000	2103.130	-0.070	0.000

X-PLANE (YZ-PLANE) TELLURIUM DIOXIDE

BULK

LNQVEL	LPM12	LPM13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
100.	2150.215	13.740	-0.000	4172.728	-0.000	2103.082	-0.000	0.000
101.	2159.806	14.870	-0.000	4186.681	-0.000	2103.029	-0.060	0.000
102.	2170.219	15.930	-0.000	4159.660	-0.000	2102.971	-0.090	0.000
103.	2181.422	16.930	-0.000	4152.269	-0.000	2102.910	-0.160	0.000
104.	2193.353	17.870	-0.000	4144.315	-0.000	2102.844	-0.110	0.000
105.	2205.104	18.750	-0.000	4135.804	-0.000	2102.774	-0.110	0.000
106.	2219.526	19.570	-0.000	4126.742	-0.000	2102.701	-0.120	0.000
107.	2233.630	20.320	-0.000	4117.136	-0.000	2102.624	-0.120	0.000
108.	2248.367	21.010	-0.000	4106.999	-0.000	2102.543	-0.130	0.000
109.	2263.765	21.640	-0.000	4096.333	-0.000	2102.453	-0.130	0.000
110.	2279.734	22.220	-0.000	4085.149	-0.000	2102.373	-0.140	0.000
111.	2296.261	22.740	-0.000	4073.457	-0.000	2102.284	-0.140	0.000
112.	2313.314	23.200	-0.000	4061.267	-0.000	2102.192	-0.140	0.000
113.	2330.861	23.610	-0.000	4048.566	-0.000	2102.099	-0.150	0.000
114.	2348.865	23.970	-0.000	4035.432	-0.000	2102.003	-0.150	0.000
115.	2367.307	24.280	-0.000	4021.809	-0.000	2101.906	-0.150	0.000
116.	2386.141	24.550	-0.000	4007.733	-0.000	2101.808	-0.150	0.000
117.	2405.359	24.770	-0.000	3993.214	-0.000	2101.709	-0.160	0.000
118.	2424.870	24.950	-0.000	3978.267	-0.000	2101.609	-0.160	0.000
119.	2444.702	25.080	-0.000	3962.904	-0.000	2101.509	-0.160	0.000
120.	2464.803	25.160	-0.000	3947.139	-0.000	2101.410	-0.160	0.000
121.	2485.143	25.240	-0.000	3930.986	-0.000	2101.310	-0.150	0.000
122.	2505.691	25.270	-0.000	3914.461	-0.000	2101.212	-0.150	0.000
123.	2526.416	25.260	-0.000	3897.579	-0.000	2101.114	-0.150	0.000
124.	2547.290	25.220	-0.000	3880.355	-0.000	2101.016	-0.150	0.000
125.	2568.264	25.150	-0.000	3862.807	-0.000	2100.924	-0.150	0.000
126.	2589.369	25.050	-0.000	3844.950	-0.000	2100.833	-0.140	0.000
127.	2610.516	24.920	-0.000	3826.804	-0.000	2100.743	-0.140	0.000
128.	2631.703	24.770	-0.000	3808.384	-0.000	2100.657	-0.130	0.000
129.	2652.958	24.590	-0.000	3789.711	-0.000	2100.575	-0.130	0.000
130.	2674.276	24.390	-0.000	3770.802	-0.000	2100.496	-0.120	0.000
131.	2695.624	24.170	-0.000	3751.676	-0.000	2100.422	-0.110	0.000
132.	2716.266	23.920	-0.000	3732.356	-0.000	2100.352	-0.110	0.000
133.	2737.266	23.660	-0.000	3712.864	-0.000	2100.287	-0.100	0.000
134.	2758.536	23.370	-0.000	3693.215	-0.000	2100.227	-0.090	0.000
135.	2779.972	23.070	-0.000	3673.434	-0.000	2100.173	-0.080	0.000
136.	2799.448	22.750	-0.000	3653.542	-0.000	2100.125	-0.070	0.000
137.	2819.045	22.420	-0.000	3633.562	-0.000	2100.084	-0.060	0.000
138.	2840.043	22.060	-0.000	3613.516	-0.000	2100.049	-0.050	0.000
139.	2860.020	21.700	-0.000	3593.429	-0.000	2100.022	-0.040	0.000
140.	2879.759	21.320	-0.000	3573.324	-0.000	2100.001	-0.030	0.000
141.	2899.239	20.920	-0.000	3553.225	-0.000	2099.984	-0.020	0.000
142.	2918.443	20.520	-0.000	3533.157	-0.000	2099.964	-0.010	0.000
143.	2937.353	20.100	-0.000	3513.145	-0.000	2099.960	-0.000	0.000
144.	2955.952	19.670	-0.000	3493.214	-0.000	2099.986	-0.000	0.000
145.	2974.223	19.220	-0.000	3473.390	-0.000	2100.020	-0.000	0.000
146.	2992.151	18.770	-0.000	3453.700	-0.000	2100.049	-0.000	0.000
147.	3009.720	18.310	-0.000	3434.169	-0.000	2100.087	-0.000	0.000
148.	3026.914	17.840	-0.000	3414.824	-0.000	2100.134	-0.000	0.000
149.	3043.721	17.360	-0.000	3395.693	-0.000	2100.169	-0.000	0.000

X-PLANE (YZ-PLANE) TELLURIUM DIOXIDE

BULK

	LNGVEL	LPMI12	LPMI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
150.	3060.126	16.870	-0.000	3376.802	-17.660	0.000	2106.253	.113	-0.000
151.	3076.115	16.350	-0.000	3358.175	-17.506	0.000	2100.326	.120	-0.000
152.	3091.677	15.870	-0.000	3339.851	-17.310	0.660	2100.407	.130	-0.000
153.	3106.794	15.360	-0.000	3321.845	-17.100	0.000	2100.496	.150	-0.000
154.	3121.466	14.850	-0.000	3304.190	-16.850	0.000	2100.594	.150	-0.000
155.	3135.675	14.320	-0.000	3286.912	-16.580	0.000	2100.690	.170	-0.000
156.	3149.408	13.790	-0.000	3270.039	-16.270	0.660	2100.610	.190	-0.000
157.	3162.656	13.260	-0.000	3253.596	-15.940	0.000	2100.920	.170	-0.000
158.	3175.413	12.720	-0.000	3237.617	-15.570	0.000	2101.053	.200	-0.000
159.	3187.665	12.170	-0.000	3222.121	-15.170	0.660	2101.162	.210	-0.000
160.	3199.405	11.620	-0.000	3207.139	-14.730	0.000	2101.316	.210	-0.000
161.	3210.625	11.060	0.000	3192.694	-14.260	-0.000	2101.454	.220	-0.000
162.	3221.317	10.500	0.000	3178.814	-13.760	-0.000	2101.594	.220	-0.000
163.	3231.472	9.940	0.000	3165.523	-13.230	-0.000	2101.736	.220	-0.000
164.	3241.085	9.370	0.000	3152.846	-12.660	-0.000	2101.879	.220	-0.000
165.	3250.148	8.800	0.000	3140.805	-12.060	-0.000	2102.021	.220	-0.000
166.	3258.655	8.230	0.000	3129.424	-11.430	-0.000	2102.162	.220	-0.000
167.	3266.600	7.650	0.000	3118.725	-10.770	-0.000	2102.300	.210	-0.000
168.	3273.978	7.060	0.000	3108.725	-10.070	-0.000	2102.434	.210	-0.000
169.	3280.784	6.490	0.000	3099.454	-9.350	-0.000	2102.563	.210	-0.000
170.	3287.014	5.910	0.000	3090.920	-8.600	-0.000	2102.686	.190	-0.000
171.	3292.663	5.330	0.000	3083.145	-7.820	-0.000	2102.801	.170	-0.000
172.	3297.727	4.740	0.000	3076.143	-7.020	-0.000	2102.907	.160	-0.000
173.	3302.203	4.150	0.000	3069.925	-6.190	-0.000	2103.004	.140	-0.000
174.	3306.080	3.560	0.000	3064.516	-5.350	-0.000	2103.090	.130	-0.000
175.	3309.360	2.970	0.000	3059.917	-4.490	-0.000	2103.165	.110	-0.000
176.	3312.076	2.380	0.000	3056.142	-3.610	-0.000	2103.227	.090	-0.000
177.	3314.175	1.780	0.000	3053.197	-2.720	-0.000	2103.276	.070	-0.000
178.	3315.676	1.200	0.000	3051.084	-1.820	-0.660	2103.312	.040	-0.000
179.	3316.576	.600	0.000	3049.821	-0.910	-0.000	2103.333	.020	-0.000
180.	3316.876	-0.000	0.000	3049.399	0.000	0.000	2103.340	-0.000	-0.000

Z-PLANE (XY-PLANE) TELLURIUM DIOXIDE											
	LNQVEL	LPMI12	LPMI13	FSRVEL	FSRMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13		
0.	3316.876	0.000	0.000	3049.399	0.000	0.000	2103.340	0.000	0.000	SSPMI12	SSPMI13
1.	3328.786	18.050	0.000	3038.670	-21.340	0.000	2103.340	-0.000	-0.000		
2.	3352.525	28.320	0.000	3010.162	-33.770	0.000	2103.340	0.000	0.000		
3.	3387.809	32.910	0.000	2978.396	-40.090	0.000	2103.340	0.000	0.000		
4.	3427.931	36.750	0.000	2924.003	-43.680	0.000	2103.340	0.000	0.000		
5.	3470.361	35.420	0.000	2873.516	-46.050	0.000	2103.340	0.000	0.000		
6.	3513.763	35.420	0.000	2820.376	-47.830	0.000	2103.340	0.000	0.000		
7.	3557.401	35.070	0.000	2765.372	-49.290	0.000	2103.340	0.000	0.000		
8.	3600.843	34.530	0.000	2708.216	-50.590	0.000	2103.340	-0.000	-0.000		
9.	3643.821	33.870	0.000	2650.107	-51.760	0.000	2103.340	0.000	0.000		
10.	3686.160	33.120	0.000	2590.693	-52.870	0.000	2103.340	0.000	0.000		
11.	3727.736	32.320	0.000	2530.706	-53.930	0.000	2103.340	0.000	0.000		
12.	3768.464	31.640	0.000	2469.652	-54.960	0.000	2103.340	0.000	0.000		
13.	3808.275	30.620	0.000	2407.308	-55.960	0.000	2103.340	-0.000	-0.000		
14.	3847.119	29.730	0.000	2345.245	-56.950	0.000	2103.340	0.000	0.000		
15.	3884.955	28.830	0.000	2282.823	-57.920	0.000	2103.340	-0.000	-0.000		
16.	3921.746	27.910	0.000	2218.199	-58.870	0.000	2103.340	0.000	0.000		
17.	3957.466	26.950	0.000	2153.825	-59.820	0.000	2103.340	-0.000	-0.000		
18.	3992.089	26.040	0.000	2088.954	-60.750	0.000	2103.340	0.000	0.000		
19.	4025.593	25.120	0.000	2023.637	-61.670	0.000	2103.340	0.000	0.000		
20.	4057.956	24.170	0.000	1957.926	-62.590	0.000	2103.340	-0.000	-0.000		
21.	4089.167	23.220	0.000	1891.882	-63.450	0.000	2103.340	0.000	0.000		
22.	4119.204	22.270	0.000	1825.557	-64.360	0.000	2103.340	-0.000	-0.000		
23.	4148.055	21.320	0.000	1759.016	-65.260	0.000	2103.340	0.000	0.000		
24.	4175.706	20.360	0.000	1692.330	-66.130	0.000	2103.340	-0.000	-0.000		
25.	4202.145	19.400	0.000	1625.571	-66.980	0.000	2103.340	0.000	0.000		
26.	4227.360	18.440	0.000	1558.822	-67.810	0.000	2103.340	-0.000	-0.000		
27.	4251.342	17.480	0.000	1492.177	-68.630	0.000	2103.340	0.000	0.000		
28.	4274.080	16.510	0.000	1425.744	-69.420	0.000	2103.340	-0.000	-0.000		
29.	4295.564	15.550	0.000	1359.643	-70.190	0.000	2103.340	0.000	0.000		
30.	4315.787	14.580	0.000	1294.017	-70.930	0.000	2103.340	-0.000	-0.000		
31.	4334.741	13.610	0.000	1229.031	-71.630	0.000	2103.340	0.000	0.000		
32.	4352.419	12.640	0.000	1164.883	-72.290	0.000	2103.340	-0.000	-0.000		
33.	4368.813	11.670	0.000	1101.805	-72.950	0.000	2103.340	0.000	0.000		
34.	4383.918	10.700	0.000	1040.080	-73.410	0.000	2103.340	-0.000	-0.000		
35.	4397.728	9.730	0.000	980.047	-73.850	0.000	2103.340	0.000	0.000		
36.	4410.237	8.760	0.000	922.121	-74.160	0.000	2103.340	-0.000	-0.000		
37.	4421.442	7.790	0.000	866.883	-74.500	0.000	2103.340	0.000	0.000		
38.	4431.339	6.810	0.000	814.701	-74.500	0.000	2103.340	-0.000	-0.000		
39.	4439.923	5.840	0.000	766.542	-73.750	0.000	2103.340	0.000	0.000		
40.	4447.191	4.870	0.000	723.180	-72.750	0.000	2103.340	-0.000	-0.000		
41.	4453.142	3.850	0.000	685.585	-70.800	0.000	2103.340	0.000	0.000		
42.	4457.773	2.920	0.000	654.802	-67.080	0.000	2103.340	-0.000	-0.000		
43.	4461.081	1.950	0.000	631.867	-59.460	0.000	2103.340	0.000	0.000		
44.	4463.067	.970	0.000	617.665	-41.560	0.000	2103.340	-0.000	-0.000		
45.	4463.729	0.000	0.000	612.883	0.000	0.000	2103.340	0.000	0.000		
46.	4463.067	-.970	0.000	617.685	41.560	0.000	2103.340	-0.000	-0.000		
47.	4461.081	-1.950	0.000	631.867	59.460	0.000	2103.340	0.000	0.000		
48.	4457.773	-2.920	0.000	654.802	67.080	0.000	2103.340	-0.000	-0.000		
49.	4453.142	-3.850	0.000	685.585	70.800	0.000	2103.340	0.000	0.000		

Z-PLANE (XY-PLANE) TELLURIUM DIOXIDE

BULK

	LMGVEL	LPHI12	LPHI13	F2R180	FSPR12	SSRVEL	SSPHI12	SSPHI13
50.	4447.191	-4.870	0.000	723.180	72.750	2103.340	0.000	0.000
51.	4439.923	-5.640	0.000	766.542	73.750	2103.340	-0.000	0.000
52.	4431.339	-6.610	0.000	814.701	74.200	2103.340	-0.000	0.000
53.	4421.442	-7.750	0.000	866.803	74.300	2103.340	0.000	0.000
54.	4410.237	-8.760	0.000	922.121	74.160	2103.340	0.000	0.000
55.	4397.728	-9.730	0.000	980.047	73.850	2103.340	0.000	0.000
56.	4383.918	-10.700	0.000	1040.040	73.410	2103.340	0.000	0.000
57.	4368.613	-11.670	0.000	1101.805	72.890	2103.340	0.000	0.000
58.	4352.419	-12.640	0.000	1164.883	72.290	2103.340	-0.000	0.000
59.	4334.741	-13.610	0.000	1229.031	71.630	2103.340	-0.000	0.000
60.	4315.787	-14.580	0.000	1294.017	70.930	2103.340	0.000	0.000
61.	4295.564	-15.550	0.000	1359.643	70.190	2103.340	0.000	0.000
62.	4274.080	-16.510	0.000	1425.744	69.420	2103.340	0.000	0.000
63.	4251.342	-17.480	0.000	1492.177	68.630	2103.340	0.000	0.000
64.	4227.360	-18.440	0.000	1558.822	67.810	2103.340	-0.000	0.000
65.	4202.145	-19.400	0.000	1625.571	66.960	2103.340	-0.000	0.000
66.	4175.706	-20.360	0.000	1692.330	66.130	2103.340	0.000	0.000
67.	4148.055	-21.320	0.000	1759.016	65.260	2103.340	0.000	0.000
68.	4119.204	-22.270	0.000	1825.557	64.380	2103.340	0.000	0.000
69.	4089.167	-23.220	0.000	1891.862	63.490	2103.340	0.000	0.000
70.	4057.956	-24.170	0.000	1957.926	62.590	2103.340	-0.000	0.000
71.	4025.593	-25.120	0.000	2023.637	61.670	2103.340	0.000	0.000
72.	3992.089	-26.060	0.000	2088.954	60.750	2103.340	-0.000	0.000
73.	3957.466	-26.990	0.000	2153.825	59.820	2103.340	0.000	0.000
74.	3921.746	-27.910	0.000	2218.199	58.870	2103.340	-0.000	0.000
75.	3884.955	-28.830	0.000	2282.023	57.920	2103.340	0.000	0.000
76.	3847.119	-29.730	0.000	2345.245	56.950	2103.340	-0.000	0.000
77.	3808.275	-30.620	0.000	2407.886	55.960	2103.340	0.000	0.000
78.	3768.464	-31.480	0.000	2469.952	54.960	2103.340	-0.000	0.000
79.	3727.736	-32.320	0.000	2530.708	53.930	2103.340	0.000	0.000
80.	3686.160	-33.120	0.000	2590.893	52.870	2103.340	0.000	0.000
81.	3643.621	-33.870	0.000	2650.107	51.760	2103.340	0.000	0.000
82.	3600.843	-34.530	0.000	2708.216	50.560	2103.340	0.000	0.000
83.	3557.401	-35.170	0.000	2765.032	49.290	2103.340	-0.000	0.000
84.	3513.763	-35.820	0.000	2820.276	47.830	2103.340	0.000	0.000
85.	3470.361	-36.420	0.000	2873.516	46.050	2103.340	-0.000	0.000
86.	3427.931	-36.950	0.000	2924.803	43.680	2103.340	0.000	0.000
87.	3387.809	-37.410	0.000	2970.396	40.050	2103.340	0.000	0.000
88.	3352.525	-37.820	0.000	3010.162	33.770	2103.340	0.000	0.000
89.	3326.708	-38.150	0.000	3038.670	21.340	2103.340	0.000	0.000
90.	3316.676	0.000	0.000	3049.395	-0.000	2103.340	0.000	0.000
91.	3326.706	18.050	0.000	3038.670	-21.340	2103.340	0.000	0.000
92.	3352.525	28.320	0.000	3010.162	-33.770	2103.340	0.000	0.000
93.	3367.809	32.910	0.000	2970.396	-40.090	2103.340	0.000	0.000
94.	3427.931	34.750	0.000	2924.803	-43.680	2103.340	0.000	0.000
95.	3470.361	35.420	0.000	2873.516	-46.050	2103.340	0.000	0.000
96.	3513.763	35.420	0.000	2820.276	-47.830	2103.340	0.000	0.000
97.	3557.401	35.070	0.000	2765.032	-49.290	2103.340	0.000	0.000
98.	3600.843	34.530	0.000	2708.216	-50.560	2103.340	-0.000	0.000
99.	3643.621	33.870	0.000	2650.107	-51.760	2103.340	0.000	0.000

Z-PLANE (XY-PLANE) TELLURIUM DIOXIDE

BULK

	LNGVEL	LPHI12	LPHI13	FSPVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
100.	3686.160	33.120	0.000	2590.893	-52.876	0.000	2103.340	-0.000	0.000
101.	3727.736	32.320	0.000	2530.708	-53.930	0.000	2103.340	0.000	0.000
102.	3768.464	31.480	0.000	2469.652	-54.960	0.000	2103.340	-0.000	0.000
103.	3808.275	30.620	0.000	2407.806	-55.960	0.000	2103.340	0.000	0.000
104.	3847.119	29.730	0.000	2345.245	-56.950	0.000	2103.340	0.000	0.000
105.	3884.955	28.830	0.000	2282.023	-57.920	0.000	2103.340	0.000	0.000
106.	3921.746	27.910	0.000	2218.199	-58.870	0.000	2103.340	0.000	0.000
107.	3957.466	26.990	0.000	2153.825	-59.820	0.000	2103.340	0.000	0.000
108.	3992.089	26.060	0.000	2088.954	-60.750	0.000	2103.340	0.000	0.000
109.	4025.593	25.120	0.000	2023.637	-61.670	0.000	2103.340	0.000	0.000
110.	4057.956	24.170	0.000	1957.928	-62.590	0.000	2103.340	0.000	0.000
111.	4089.167	23.220	0.000	1891.862	-63.490	0.000	2103.340	0.000	0.000
112.	4119.204	22.270	0.000	1825.557	-64.360	0.000	2103.340	-0.000	0.000
113.	4148.055	21.320	0.000	1759.016	-65.260	0.000	2103.340	0.000	0.000
114.	4175.706	20.360	0.000	1692.330	-66.130	0.000	2103.340	0.000	0.000
115.	4202.145	19.400	0.000	1625.571	-66.960	0.000	2103.340	0.000	0.000
116.	4227.360	18.440	0.000	1558.822	-67.810	0.000	2103.340	-0.000	0.000
117.	4251.342	17.480	0.000	1492.177	-68.630	0.000	2103.340	0.000	0.000
118.	4274.080	16.510	0.000	1425.744	-69.420	0.000	2103.340	0.000	0.000
119.	4295.564	15.550	0.000	1359.643	-70.190	0.000	2103.340	0.000	0.000
120.	4315.787	14.580	0.000	1294.017	-70.930	0.000	2103.340	-0.000	0.000
121.	4334.741	13.610	0.000	1229.031	-71.630	0.000	2103.340	0.000	0.000
122.	4352.419	12.640	0.000	1164.863	-72.290	0.000	2103.340	-0.000	0.000
123.	4368.813	11.670	0.000	1101.805	-72.890	0.000	2103.340	0.000	0.000
124.	4383.916	10.700	0.000	1040.080	-73.410	0.000	2103.340	0.000	0.000
125.	4397.728	9.730	0.000	980.047	-73.850	0.000	2103.340	-0.000	0.000
126.	4410.237	8.760	0.000	922.121	-74.160	0.000	2103.340	0.000	0.000
127.	4421.442	7.790	0.000	866.803	-74.300	0.000	2103.340	0.000	0.000
128.	4431.339	6.810	0.000	814.701	-74.200	0.000	2103.340	0.000	0.000
129.	4439.923	5.840	0.000	766.542	-73.750	0.000	2103.340	0.000	0.000
130.	4447.191	4.870	0.000	723.180	-72.750	0.000	2103.340	0.000	0.000
131.	4453.142	3.890	0.000	685.585	-70.800	0.000	2103.340	0.000	0.000
132.	4457.773	2.920	0.000	654.802	-67.080	0.000	2103.340	0.000	0.000
133.	4461.081	1.950	0.000	631.867	-54.460	0.000	2103.340	0.000	0.000
134.	4463.067	.970	0.000	617.685	-41.500	0.000	2103.340	-0.000	0.000
135.	4463.725	-0.000	0.000	612.683	0.000	0.000	2103.340	0.000	0.000
136.	4463.067	-.970	0.000	617.685	41.500	0.000	2103.340	-0.000	0.000
137.	4461.081	-1.950	0.000	631.867	54.460	0.000	2103.340	0.000	0.000
138.	4457.773	-2.920	0.000	654.802	67.080	0.000	2103.340	-0.000	0.000
139.	4453.142	-3.890	0.000	685.585	70.800	0.000	2103.340	0.000	0.000
140.	4447.191	-4.870	0.000	723.180	72.750	0.000	2103.340	0.000	0.000
141.	4439.923	-5.840	0.000	766.542	73.750	0.000	2103.340	0.000	0.000
142.	4431.335	-6.810	0.000	814.701	74.200	0.000	2103.340	-0.000	0.000
143.	4421.442	-7.750	0.000	866.803	74.300	0.000	2103.340	0.000	0.000
144.	4410.237	-8.760	0.000	922.121	74.160	0.000	2103.340	0.000	0.000
145.	4397.726	-9.730	0.000	980.047	73.850	0.000	2103.340	-0.000	0.000
146.	4383.916	-10.700	0.000	1040.080	73.410	0.000	2103.340	0.000	0.000
147.	4368.813	-11.670	0.000	1101.805	72.890	0.000	2103.340	0.000	0.000
148.	4352.419	-12.640	0.000	1164.863	72.290	0.000	2103.340	0.000	0.000
149.	4334.741	-13.610	0.000	1229.031	71.630	0.000	2103.340	0.000	0.000

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ROME AIR DEVELOPMENT CENTER GRIFFISS AFB NY F/G 20/1
MICROWAVE ACOUSTICS HANDBOOK. VOLUME 4. BULK WAVE VELOCITIES--ETC(U)
JUN 80 A J SLOBODNIK, R T DELMONICO
RADC-TR-80-190

F/G 20/1

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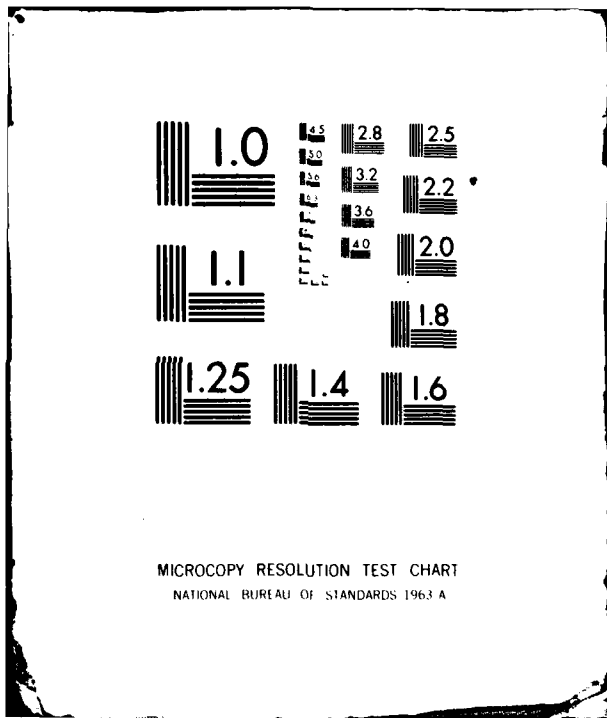
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS 1963 A

	Z-PLANE (XY-PLANE) TELLURIUM DIOXIDE						BULK					
	LINGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13	SSRVEL	SSPHI12	SSPHI13
150.	4315.787	-14.580	0.000	1294.017	70.930	0.000	2103.340	0.000	2103.340	0.000	0.000	
151.	4295.564	-15.550	0.000	1359.643	70.190	0.000	2103.340	0.000	2103.340	0.000	0.000	
152.	4274.880	-16.510	0.000	1425.744	69.420	0.000	2103.340	0.000	2103.340	0.000	0.000	
153.	4251.342	-17.460	0.000	1492.177	68.630	0.000	2103.340	0.000	2103.340	0.000	0.000	
154.	4227.360	-18.440	0.000	1558.822	67.810	0.000	2103.340	0.000	2103.340	0.000	0.000	
155.	4202.145	-19.400	0.000	1625.571	66.980	0.000	2103.340	0.000	2103.340	0.000	0.000	
156.	4175.706	-20.360	0.000	1692.330	66.130	0.000	2103.340	0.000	2103.340	0.000	0.000	
157.	4148.055	-21.320	0.000	1759.018	65.260	0.000	2103.340	0.000	2103.340	0.000	0.000	
158.	4119.204	-22.270	0.000	1825.557	64.380	0.000	2103.340	0.000	2103.340	0.000	0.000	
159.	4089.167	-23.220	0.000	1891.882	63.490	0.000	2103.340	0.000	2103.340	0.000	0.000	
160.	4057.958	-24.170	0.000	1957.926	62.590	0.000	2103.340	0.000	2103.340	0.000	0.000	
161.	4025.593	-25.120	0.000	2023.637	61.674	0.000	2103.340	0.000	2103.340	0.000	0.000	
162.	3992.089	-26.060	0.000	2088.954	60.750	0.000	2103.340	0.000	2103.340	0.000	0.000	
163.	3957.466	-26.990	0.000	2153.825	59.820	0.000	2103.340	0.000	2103.340	0.000	0.000	
164.	3921.746	-27.910	0.000	2218.199	58.870	0.000	2103.340	0.000	2103.340	0.000	0.000	
165.	3884.955	-28.830	0.000	2282.023	57.920	0.000	2103.340	0.000	2103.340	0.000	0.000	
166.	3847.119	-29.730	0.000	2345.245	56.950	0.000	2103.340	0.000	2103.340	0.000	0.000	
167.	3808.275	-30.620	0.000	2407.808	55.960	0.000	2103.340	0.000	2103.340	0.000	0.000	
168.	3768.464	-31.460	0.000	2469.652	54.960	0.000	2103.340	0.000	2103.340	0.000	0.000	
169.	3727.736	-32.320	0.000	2530.788	53.930	0.000	2103.340	0.000	2103.340	0.000	0.000	
170.	3686.160	-33.120	0.000	2590.093	52.870	0.000	2103.340	0.000	2103.340	0.000	0.000	
171.	3643.621	-33.870	0.000	2650.107	51.760	0.000	2103.340	0.000	2103.340	0.000	0.000	
172.	3600.843	-34.530	0.000	2708.216	50.580	0.000	2103.340	0.000	2103.340	0.000	0.000	
173.	3557.401	-35.070	0.000	2765.032	49.290	0.000	2103.340	0.000	2103.340	0.000	0.000	
174.	3513.763	-35.420	0.000	2820.278	47.830	0.000	2103.340	0.000	2103.340	0.000	0.000	
175.	3470.361	-35.420	0.000	2873.516	46.050	0.000	2103.340	0.000	2103.340	0.000	0.000	
176.	3427.931	-34.790	0.000	2924.803	43.660	0.000	2103.340	0.000	2103.340	0.000	0.000	
177.	3387.809	-32.910	0.000	2970.396	40.090	0.000	2103.340	0.000	2103.340	0.000	0.000	
178.	3352.525	-28.320	0.000	3010.162	33.770	0.000	2103.340	0.000	2103.340	0.000	0.000	
179.	3326.786	-18.050	0.000	3038.670	21.340	0.000	2103.340	0.000	2103.340	0.000	0.000	
180.	3316.876	0.000	0.000	3049.399	-0.000	0.000	2103.340	0.000	2103.340	0.000	0.000	

110-PLANE TELLURIUM DIOXIDE

	LMGVEL	LMW12	LMW13	FSRJEL	FSPM12	FSPM13	SSRJEL	SSPM12	SSPM13
0.	4874.211	-12.340	-0.000	2641.855	20.219	-0.000	1316.599	47.439	-0.000
1.	4868.974	-12.020	-0.000	2658.337	19.000	-0.000	1741.874	47.874	-0.000
2.	4846.058	-11.620	-0.000	2673.762	17.660	-0.000	1764.954	46.360	-0.000
3.	4831.864	-11.140	0.000	2688.018	16.220	-0.000	1791.801	45.520	-0.000
4.	4818.190	-10.560	-0.000	2700.933	14.620	-0.000	1446.765	43.920	-0.000
5.	4805.737	-9.910	-0.000	2712.575	12.910	-0.000	1464.844	43.120	-0.000
6.	1994.004	-9.140	-0.000	2722.660	11.070	-0.000	1488.634	42.380	-0.000
7.	1983.286	-8.330	0.000	2731.145	9.120	-0.000	1512.124	41.680	-0.000
8.	1973.658	-7.430	-0.000	2737.941	7.070	-0.000	1535.289	40.950	-0.000
9.	1965.231	-6.450	0.000	2742.966	4.920	-0.000	1558.125	39.810	-0.000
10.	1958.039	-5.420	0.000	2746.155	2.690	-0.000	1580.614	38.970	-0.000
11.	1952.145	-4.340	-0.000	2747.454	0.420	-0.000	1602.754	37.130	-0.000
12.	1947.504	-3.230	-0.000	2746.944	-1.090	-0.000	1624.522	37.270	-0.000
13.	1944.375	-2.110	-0.000	2744.300	-4.190	-0.000	1645.911	36.420	-0.000
14.	1942.516	-0.990	-0.000	2739.437	-6.460	-0.000	1665.900	35.560	-0.000
15.	1941.988	0.110	-0.000	2733.493	-8.680	-0.000	1684.144	34.700	-0.000
16.	1942.755	1.160	0.000	2725.299	-10.820	-0.000	1697.604	33.830	-0.000
17.	1944.754	2.170	0.000	2715.321	-12.870	-0.000	1727.457	32.950	-0.000
18.	1947.948	3.110	-0.000	2703.654	-14.900	-0.000	1745.793	32.090	-0.000
19.	1952.229	3.980	-0.000	2690.415	-16.610	-0.000	1765.491	31.220	-0.000
20.	1957.521	4.770	-0.000	2675.682	-18.200	-0.000	1784.144	30.340	-0.000
21.	1963.729	5.480	-0.000	2659.581	-19.460	-0.000	1802.137	29.460	-0.000
22.	1970.757	6.100	-0.000	2642.236	-21.240	-0.000	1819.670	28.540	-0.000
23.	1978.507	6.540	-0.000	2623.772	-22.510	-0.000	1836.720	27.590	-0.000
24.	1986.981	6.900	-0.000	2604.317	-23.650	-0.000	1853.115	26.610	-0.000
25.	1995.782	7.160	-0.000	2584.001	-24.660	-0.000	1868.415	25.620	-0.000
26.	2005.119	7.360	-0.000	2562.950	-25.540	-0.000	1882.024	24.640	-0.000
27.	2014.900	7.500	-0.000	2541.290	-26.300	-0.000	1894.034	23.640	-0.000
28.	2025.143	7.590	-0.000	2519.145	-26.940	-0.000	1904.741	22.640	-0.000
29.	2035.867	7.630	-0.000	2496.634	-27.470	-0.000	1914.474	21.640	-0.000
30.	2047.098	7.620	-0.000	2473.877	-27.890	-0.000	1922.874	20.640	-0.000
31.	2058.866	7.560	-0.000	2450.987	-28.100	-0.000	1929.610	19.640	-0.000
32.	2071.210	7.450	-0.000	2428.075	-28.370	-0.000	1934.674	18.640	-0.000
33.	2084.176	7.290	-0.000	2405.249	-28.450	-0.000	1938.014	17.640	-0.000
34.	2097.772	7.090	-0.000	2382.615	-28.420	-0.000	1939.696	16.640	-0.000
35.	2112.040	6.840	-0.000	2360.275	-28.280	-0.000	1939.696	15.640	-0.000
36.	2126.991	6.540	-0.000	2338.327	-28.020	-0.000	1937.801	14.640	-0.000
37.	2142.669	6.190	-0.000	2316.869	-27.550	-0.000	1934.145	13.640	-0.000
38.	2159.111	5.790	-0.000	2295.994	-26.970	-0.000	1928.874	12.640	-0.000
39.	2176.366	5.340	-0.000	2275.791	-26.290	-0.000	1921.927	11.640	-0.000
40.	2194.479	4.840	-0.000	2256.349	-25.400	-0.000	1912.415	10.640	-0.000
41.	2213.489	4.290	-0.000	2237.751	-24.300	-0.000	1900.814	9.640	-0.000
42.	2233.440	3.690	-0.000	2220.079	-22.920	-0.000	1887.145	8.640	-0.000
43.	2254.387	3.040	-0.000	2203.410	-21.270	-0.000	1871.643	7.640	-0.000
44.	2276.375	2.340	-0.000	2187.816	-20.400	-0.000	1854.463	6.640	-0.000
45.	2299.452	1.590	-0.000	2173.344	-20.060	-0.000	1835.874	5.640	-0.000
46.	2323.679	0.800	-0.000	2160.130	-18.500	-0.000	1815.215	4.640	-0.000
47.	2349.104	0.000	-0.000	2148.161	-15.790	-0.000	1792.610	3.640	-0.000
48.	2375.781	-0.810	-0.000	2137.516	-14.960	-0.000	1768.173	2.640	-0.000
49.	2403.669	-1.670	-0.000	2128.244	-12.900	-0.000	1741.874	1.640	-0.000

119-PLANET TELLURIUM OXIDE

	LNGVEL	LPMIL2	LPMIL3	FSPVEL	FSPMIL2	FSPMIL3	SSRVEL	SSPMIL2	SSPMIL3
50.	4195.973	2.210	-0.000	2120.368	-10.919	0.000	2096.827	4.380	0.000
51.	4198.510	1.750	-0.070	2113.984	-8.730	0.000	2099.266	3.398	0.000
52.	4200.654	1.290	-0.110	2109.863	-6.460	0.000	2101.166	2.480	0.000
53.	4201.881	0.820	-0.080	2105.668	-4.130	0.000	2102.865	1.598	0.000
54.	4202.587	0.350	-0.080	2103.346	-1.760	0.000	2103.183	0.678	0.000
55.	4202.589	-0.120	-0.080	2103.346	0.630	0.000	2104.820	-0.248	-0.000
56.	4202.229	-0.600	-0.080	2104.566	3.020	0.000	2102.876	-1.169	-0.000
57.	4201.165	-1.070	-0.090	2107.253	5.370	0.000	2101.951	-2.879	0.000
58.	4199.582	-1.570	-0.080	2111.475	7.670	0.000	2100.245	-2.968	0.000
59.	4197.244	-2.080	-0.080	2117.182	9.900	0.000	2098.660	-3.870	0.000
60.	4194.396	-2.600	-0.080	2124.457	12.020	0.000	2095.295	-4.770	0.000
61.	4191.866	-3.110	-0.080	2132.965	14.040	0.000	2091.957	-5.668	0.000
62.	4186.964	-3.600	-0.090	2142.968	15.960	0.000	2088.837	-6.590	0.000
63.	4182.398	-4.070	-0.080	2154.319	17.710	0.000	2083.536	-7.499	0.000
64.	4177.284	-4.520	-0.080	2166.965	19.360	0.000	2078.465	-8.480	0.000
65.	4171.633	-4.940	-0.080	2180.850	20.830	0.000	2072.824	-9.509	0.000
66.	4165.464	-5.350	-0.080	2195.911	22.180	0.000	2066.512	-10.619	0.000
67.	4159.795	-5.740	-0.080	2212.082	23.390	0.000	2059.833	-11.815	0.000
68.	4151.645	-6.120	-0.080	2229.290	24.460	0.000	2052.884	-13.100	0.000
69.	4144.039	-6.480	-0.080	2247.461	25.400	0.000	2044.569	-14.494	0.000
70.	4136.882	-6.820	-0.080	2266.514	26.200	0.000	2035.112	-15.999	0.000
71.	4127.561	-7.130	-0.080	2286.369	26.880	0.000	2023.889	-17.630	0.000
72.	4119.748	-7.430	-0.080	2306.938	27.430	0.000	2011.311	-19.390	0.000
73.	4109.997	-7.700	-0.080	2328.132	27.860	0.000	2007.385	-21.300	0.000
74.	4108.445	-7.930	-0.080	2349.861	28.170	0.000	1996.712	-23.370	0.000
75.	4098.834	-8.140	-0.080	2372.929	28.370	0.000	1985.494	-25.600	0.000
76.	4088.587	-8.310	-0.080	2398.436	28.450	0.000	1973.744	-28.000	0.000
77.	4079.414	-8.440	-0.080	2427.284	28.420	0.000	1961.461	-30.580	0.000
78.	4068.287	-8.530	-0.080	2460.168	28.290	0.000	1948.642	-33.370	0.000
79.	4049.944	-8.270	-0.080	2493.892	28.040	0.000	1935.312	-36.390	0.000
80.	4039.647	-8.260	-0.080	2495.917	27.680	0.000	1921.454	-39.660	0.000
81.	4029.583	-8.190	-0.080	2508.458	27.210	0.000	1907.097	-43.200	0.000
82.	4019.665	-8.060	-0.080	2530.490	26.620	0.000	1892.219	-46.990	0.000
83.	4009.650	-7.870	-0.080	2552.794	25.920	0.000	1876.866	-51.050	0.000
84.	4000.140	-7.610	-0.080	2574.148	25.090	0.000	1860.975	-55.400	0.000
85.	3991.022	-7.270	-0.080	2594.627	24.160	0.000	1844.624	-60.060	0.000
86.	3982.388	-6.860	-0.080	2614.785	23.070	0.000	1827.787	-65.060	0.000
87.	3974.331	-6.360	-0.080	2633.652	21.660	0.000	1810.471	-70.440	0.000
88.	3965.950	-5.780	-0.080	2651.542	20.420	0.000	1792.691	-76.190	0.000
89.	3958.342	-5.120	-0.080	2668.245	19.060	0.000	1774.455	-82.360	0.000
90.	3950.687	-4.360	-0.080	2683.699	17.620	0.000	1755.764	-89.000	0.000
91.	3943.837	-3.530	-0.080	2697.693	15.670	0.000	1736.634	-96.190	0.000
92.	3946.125	-2.620	-0.080	2710.824	13.000	0.000	1717.073	-104.000	0.000
93.	3943.553	-1.650	-0.080	2720.800	11.000	0.000	1697.084	-112.500	0.000
94.	3942.182	-0.610	-0.080	2729.881	9.200	0.000	1675.680	-121.700	0.000
95.	3942.183	0.470	-0.080	2737.871	7.520	0.000	1652.874	-131.600	0.000
96.	3943.330	1.580	-0.080	2742.431	5.270	0.000	1628.665	-142.200	0.000
97.	3945.981	2.780	-0.080	2745.883	2.970	0.000	1603.075	-153.600	0.000
98.	3949.025	3.820	-0.080	2747.488	0.670	0.000	1576.111	-165.800	0.000
99.	3955.093	4.910	-0.080	2747.084	-1.620	0.000	1547.786	-179.820	0.000

110-PLANE TELLUPIUM DIOXIDE

	LMGVEL	LMPII2	LMPII3	FSRVEL	FSPII2	FSPII3	SSRVEL	SSPII2	SSPII3
101.	3961.677	5.979	-0.910	2744.704	-3.879	0.000	1546.119	-40.259	0.000
101.	3969.534	6.979	-0.909	2740.574	-6.050	7.000	1523.895	-41.090	0.000
102.	3978.684	7.910	-0.930	2734.569	-8.160	0.000	1499.754	-41.810	0.000
107.	3988.813	8.787	-0.930	2726.474	-10.170	0.000	1476.119	-42.749	0.000
108.	4000.879	9.560	-0.900	2717.528	-12.060	0.000	1453.165	-43.560	0.000
108.	4012.309	10.269	-0.910	2706.640	-13.830	-0.000	1427.949	-44.350	0.000
109.	4025.400	10.867	-0.910	2694.309	-15.679	-0.000	1403.449	-45.140	0.000
107.	4039.275	11.400	0.000	2680.543	-16.999	-0.000	1374.703	-45.930	0.000
108.	4053.810	11.847	0.000	2665.756	-18.340	-0.000	1353.734	-46.710	0.000
109.	4069.913	12.200	-0.000	2649.759	-19.650	0.000	1328.854	-47.489	0.000
111.	4086.486	12.600	-0.000	2632.765	-20.900	-0.000	1298.177	-48.230	0.000
111.	4100.436	12.600	-0.000	2614.847	-22.130	-0.000	1277.624	-48.970	0.000
112.	4115.671	12.827	0.000	2594.212	-22.769	0.000	1251.927	-49.740	0.000
113.	4133.107	12.991	-0.000	2576.904	-23.574	0.000	1226.093	-50.420	0.000
114.	4149.562	12.900	-0.000	2557.019	-24.299	0.000	1200.164	-51.120	0.000
115.	4166.260	12.669	-0.000	2536.666	-24.900	0.000	1174.160	-51.800	0.000
115.	4182.622	12.760	-0.000	2515.885	-25.420	-0.000	1148.103	-52.480	0.000
117.	4199.305	12.620	-0.000	2494.932	-25.850	0.000	1122.027	-53.090	0.000
117.	4215.626	12.430	-0.000	2473.779	-26.199	-0.000	1095.944	-53.710	0.000
118.	4231.773	12.217	-0.000	2452.514	-26.440	-0.000	1069.969	-54.290	0.000
120.	4247.575	11.950	0.000	2431.244	-26.600	0.000	1044.914	-54.857	0.000
121.	4263.103	11.669	-0.000	2410.052	-26.679	-0.000	1019.212	-55.370	0.000
122.	4278.271	11.300	0.000	2389.021	-26.559	0.000	992.873	-55.850	0.000
123.	4293.043	11.000	-0.000	2368.224	-26.349	-0.000	967.144	-56.299	0.000
124.	4307.365	10.520	-0.000	2347.753	-26.150	0.000	941.985	-56.640	0.000
125.	4321.217	10.220	-0.000	2327.670	-25.860	0.000	917.463	-57.029	0.000
126.	4334.561	9.810	-0.000	2308.052	-25.670	0.000	892.677	-57.290	0.000
126.	4347.364	9.369	-0.000	2289.974	-25.190	0.000	868.657	-57.680	0.000
128.	4359.609	8.930	-0.000	2270.495	-24.610	0.000	845.185	-57.980	0.000
129.	4371.260	8.460	-0.000	2252.692	-23.730	0.000	822.204	-57.609	0.000
130.	4382.247	7.900	-0.000	2235.627	-23.140	0.000	799.935	-57.690	0.000
131.	4392.699	7.490	-0.000	2219.153	-22.250	-0.000	778.414	-57.249	0.000
132.	4402.447	5.990	-0.000	2203.459	-21.240	0.000	757.741	-56.829	0.000
133.	4411.523	5.470	0.000	2199.473	-20.130	0.000	738.004	-56.199	0.000
134.	4419.911	5.950	-0.000	2175.960	-18.910	0.000	719.319	-55.310	0.000
135.	4427.598	5.420	-0.000	2153.670	-17.580	-0.000	701.765	-54.120	0.000
135.	4434.569	4.890	-0.000	2132.052	-16.140	-0.000	685.447	-52.469	0.000
137.	4440.914	4.360	-0.000	2111.750	-14.590	0.000	670.574	-50.879	0.000
138.	4446.324	3.790	-0.000	2132.644	-12.950	0.000	655.324	-47.740	0.000
139.	4451.000	3.230	-0.000	2124.649	-11.210	0.000	645.629	-44.700	0.000
140.	4455.100	2.540	0.000	2117.919	-9.390	-0.000	635.205	-39.010	0.000
141.	4458.353	2.110	-0.000	2112.430	-7.490	-0.000	626.040	-36.070	0.000
142.	4460.844	1.560	0.000	2108.230	-5.730	-0.000	628.834	-26.950	0.000
143.	4462.567	.980	-0.000	2105.312	-3.570	-0.000	615.936	-17.910	0.000
144.	4463.529	.420	-0.000	2103.695	-1.500	-0.000	612.033	-7.974	-0.000
146.	4463.702	-.150	0.000	2103.386	0.540	0.000	612.054	2.040	-0.000
146.	4463.113	-.720	0.000	2104.746	2.080	0.000	614.564	13.309	0.000
147.	4461.793	-1.280	0.000	2106.691	4.600	0.000	618.065	22.980	0.000
148.	4459.624	-1.850	0.000	2108.292	6.870	0.000	623.589	30.659	0.000
149.	4456.738	-2.410	0.000	2115.174	8.480	0.000	631.044	37.270	0.000

110-PLANE TELLURIUM DIOXIDE

	LMGVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
150.	4453.076	-2.970	0.000	2121.314	10.167	0.000	640.332	42.329	0.000
151.	4448.666	-7.530	0.000	2128.699	12.140	0.000	551.365	46.253	0.000
152.	4437.507	-4.000	0.000	2137.237	13.830	0.000	664.047	49.290	0.000
153.	4430.608	-4.630	-0.000	2147.048	15.629	0.000	678.264	51.630	0.000
154.	4430.979	-5.170	0.000	2157.945	16.914	0.000	593.914	53.438	0.000
155.	4423.627	-5.700	0.000	2169.014	18.293	0.000	716.879	54.799	0.000
156.	4415.569	-5.230	0.000	2182.971	19.579	0.000	729.044	55.810	0.000
157.	4406.915	-6.760	0.000	2197.004	20.730	0.000	746.307	56.950	0.000
158.	4397.782	-7.250	0.000	2211.041	21.790	0.000	768.548	57.060	0.000
159.	4387.287	-7.750	0.000	2227.047	22.730	0.000	784.680	57.390	0.000
160.	4376.567	-8.243	0.000	2244.541	23.570	0.000	811.604	57.670	0.000
161.	4365.193	-9.719	0.000	2262.046	24.309	0.000	834.235	57.610	0.000
162.	4353.219	-9.179	0.000	2280.170	24.039	0.000	857.494	57.550	0.000
163.	4340.575	-7.510	0.000	2298.974	25.460	0.000	881.274	57.390	0.000
164.	4327.508	-10.030	0.000	2318.348	25.990	0.000	905.544	57.150	0.000
165.	4313.984	-10.467	0.000	2338.221	26.720	0.000	930.217	56.850	0.000
166.	4299.857	-10.020	-0.000	2358.529	26.867	0.000	955.234	56.440	0.000
167.	4285.297	-11.180	0.000	2379.172	26.619	0.000	980.543	56.050	0.000
168.	4270.310	-11.519	-0.000	2400.101	26.570	0.000	1006.087	55.600	0.000
169.	4254.966	-11.429	0.000	2421.227	26.549	0.000	1031.829	55.100	0.000
170.	4239.207	-12.000	0.000	2442.679	26.520	0.000	1057.697	54.550	0.000
171.	4223.295	-12.330	0.000	2463.748	26.329	0.000	1083.677	53.990	0.000
172.	4207.932	-12.549	0.000	2484.974	26.029	0.000	1109.677	53.380	0.000
173.	4190.622	-12.700	0.000	2506.065	25.549	0.000	1135.794	52.759	0.000
174.	4174.008	-12.029	-0.000	2526.926	25.160	0.000	1161.865	52.110	0.000
175.	4157.495	-12.490	0.000	2547.464	24.599	0.000	1187.907	51.449	0.000
176.	4140.911	-12.900	0.000	2567.505	24.920	0.000	1213.871	50.750	0.000
177.	4124.409	-12.860	0.000	2587.108	24.150	0.000	1239.751	50.060	0.000
178.	4108.050	-12.760	0.000	2606.172	22.240	0.000	1265.514	49.329	0.000
179.	4091.973	-12.590	0.000	2624.430	21.380	0.000	1291.144	48.599	0.000
180.	4075.211	-12.349	0.000	2641.855	20.219	0.000	1316.599	47.830	0.000

Z-PLANE (XY-PLANE) YAG

	LMGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
0.	4567.765	0.000	0.000	5027.397	0.000	0.000	5027.397	0.000	0.000
1.	4567.820	.040	0.000	5027.303	-1.120	0.000	5027.397	-0.000	0.000
2.	4567.987	.060	0.000	5027.019	-1.250	0.000	5027.397	-0.000	0.000
3.	4568.263	.130	0.000	5026.546	-1.370	0.000	5027.397	0.000	0.000
4.	4568.640	.170	0.000	5025.892	-1.490	0.000	5027.397	0.000	0.000
5.	4569.139	.210	0.000	5025.054	-1.610	0.000	5027.397	0.600	0.000
6.	4569.735	.250	0.000	5024.039	-1.720	0.000	5027.397	-0.600	0.000
7.	4570.431	.290	0.000	5022.851	-1.830	0.000	5027.397	0.600	0.000
8.	4571.225	.320	0.000	5021.496	-1.940	0.000	5027.397	-0.600	0.000
9.	4572.112	.360	0.000	5019.981	-1.040	0.000	5027.397	0.600	0.000
10.	4573.086	.350	0.000	5018.314	-1.140	0.000	5027.397	-0.600	0.000
11.	4574.146	.420	0.000	5016.503	-1.230	0.000	5027.397	0.000	0.000
12.	4575.287	.450	0.000	5014.557	-1.320	0.000	5027.397	-0.600	0.000
13.	4576.496	.480	0.000	5012.485	-1.400	0.000	5027.397	0.000	0.000
14.	4577.775	.500	0.000	5010.296	-1.470	0.000	5027.397	-0.600	0.000
15.	4579.113	.520	0.000	5008.007	-1.530	0.000	5027.397	0.000	0.000
16.	4580.505	.540	0.000	5005.622	-1.590	0.000	5027.397	-0.600	0.000
17.	4581.943	.560	0.000	5003.156	-1.640	0.000	5027.397	0.000	0.000
18.	4583.420	.570	0.000	5000.621	-1.680	0.000	5027.397	-0.600	0.000
19.	4584.930	.580	0.000	4998.029	-1.720	0.000	5027.397	0.000	0.000
20.	4586.464	.590	0.000	4995.393	-1.740	0.000	5027.397	-0.600	0.000
21.	4588.015	.600	0.000	4992.726	-1.760	0.000	5027.397	0.000	0.000
22.	4589.576	.600	0.000	4990.041	-1.770	0.000	5027.397	-0.600	0.000
23.	4591.130	.600	0.000	4987.351	-1.770	0.000	5027.397	0.000	0.000
24.	4592.695	.590	0.000	4984.660	-1.760	0.000	5027.397	-0.600	0.000
25.	4594.230	.550	0.000	4982.007	-1.740	0.000	5027.397	0.000	0.000
26.	4595.760	.560	0.000	4979.380	-1.720	0.000	5027.397	-0.600	0.000
27.	4597.254	.560	0.000	4976.800	-1.680	0.000	5027.397	0.000	0.000
28.	4598.713	.550	0.000	4974.278	-1.640	0.000	5027.397	-0.600	0.000
29.	4600.130	.530	0.000	4971.829	-1.590	0.000	5027.397	0.000	0.000
30.	4601.498	.510	0.000	4969.462	-1.530	0.000	5027.397	-0.600	0.000
31.	4602.810	.490	0.000	4967.190	-1.470	0.000	5027.397	0.000	0.000
32.	4604.061	.460	0.000	4965.023	-1.390	0.000	5027.397	-0.600	0.000
33.	4605.244	.440	0.000	4962.973	-1.320	0.000	5027.397	0.000	0.000
34.	4606.354	.410	0.000	4961.048	-1.230	0.000	5027.397	-0.600	0.000
35.	4607.385	.380	0.000	4959.258	-1.140	0.000	5027.397	0.000	0.000
36.	4608.333	.350	0.000	4957.612	-1.040	0.000	5027.397	-0.600	0.000
37.	4609.194	.310	0.000	4956.117	-940	0.000	5027.397	0.000	0.000
38.	4609.963	.280	0.000	4954.761	-830	0.000	5027.397	-0.600	0.000
39.	4610.637	.240	0.000	4953.610	-720	0.000	5027.397	0.000	0.000
40.	4611.212	.200	0.000	4952.610	-610	0.000	5027.397	-0.600	0.000
41.	4611.687	.160	0.000	4951.784	-490	0.000	5027.397	0.000	0.000
42.	4612.058	.120	0.000	4951.136	-370	0.000	5027.397	-0.600	0.000
43.	4612.325	.080	0.000	4950.675	-250	0.000	5027.397	0.000	0.000
44.	4612.485	.040	0.000	4950.396	-120	0.000	5027.397	-0.600	0.000
45.	4612.539	0.000	0.000	4950.302	0.000	0.000	5027.397	0.000	0.000
46.	4612.485	-0.040	0.000	4950.396	.120	0.000	5027.397	-0.600	0.000
47.	4612.325	-0.080	0.000	4950.675	.250	0.000	5027.397	0.000	0.000
48.	4612.058	-0.120	0.000	4951.136	.370	0.000	5027.397	-0.600	0.000
49.	4611.687	-0.160	0.000	4951.784	.490	0.000	5027.397	0.000	0.000

Z-PLANE (XY-PLANE) YAG

	LNLEVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
50.	8611.212	-1.280	0.000	4952.610	.610	0.000	5027.397	-0.000	0.000
51.	8610.637	-1.240	0.000	4953.610	.720	0.000	5027.397	0.000	0.000
52.	8609.963	-1.260	0.000	4954.761	.830	0.000	5027.397	0.000	0.000
53.	8609.194	-1.310	0.000	4956.117	.940	0.000	5027.397	-0.000	0.000
54.	8608.333	-1.358	0.000	4957.612	1.040	0.000	5027.397	-0.000	0.000
55.	8607.385	-1.388	0.000	4959.258	1.140	0.000	5027.397	0.000	0.000
56.	8606.354	-1.410	0.000	4961.046	1.230	0.000	5027.397	0.000	0.000
57.	8605.244	-1.440	0.000	4962.973	1.320	0.000	5027.397	0.000	0.000
58.	8604.061	-1.460	0.000	4965.023	1.390	0.000	5027.397	-0.000	0.000
59.	8602.810	-1.450	0.000	4967.190	1.470	0.000	5027.397	-0.000	0.000
60.	8601.498	-1.510	0.000	4969.462	1.530	0.000	5027.397	0.000	0.000
61.	8600.130	-1.530	0.000	4971.829	1.550	0.000	5027.397	0.000	0.000
62.	8598.713	-1.550	0.000	4974.278	1.640	0.000	5027.397	-0.000	0.000
63.	8597.254	-1.560	0.000	4976.800	1.660	0.000	5027.397	0.000	0.000
64.	8595.760	-1.580	0.000	4979.380	1.720	0.000	5027.397	0.000	0.000
65.	8594.238	-1.590	0.000	4982.007	1.740	0.000	5027.397	-0.000	0.000
66.	8592.695	-1.590	0.000	4984.666	1.760	0.000	5027.397	0.000	0.000
67.	8591.136	-1.600	0.000	4987.351	1.770	0.000	5027.397	0.000	0.000
68.	8589.576	-1.600	0.000	4990.041	1.770	0.000	5027.397	-0.000	0.000
69.	8588.015	-1.600	0.000	4992.726	1.760	0.000	5027.397	0.000	0.000
70.	8586.464	-1.550	0.000	4995.393	1.740	0.000	5027.397	-0.000	0.000
71.	8584.930	-1.580	0.000	4998.029	1.720	0.000	5027.397	0.000	0.000
72.	8583.420	-1.570	0.000	5000.621	1.660	0.000	5027.397	-0.000	0.000
73.	8581.943	-1.560	0.000	5003.156	1.640	0.000	5027.397	0.000	0.000
74.	8580.505	-1.540	0.000	5005.622	1.590	0.000	5027.397	-0.000	0.000
75.	8579.113	-1.520	0.000	5008.007	1.530	0.000	5027.397	0.000	0.000
76.	8577.775	-1.500	0.000	5010.296	1.470	0.000	5027.397	0.000	0.000
77.	8576.498	-1.480	0.000	5012.485	1.400	0.000	5027.397	0.000	0.000
78.	8575.287	-1.450	0.000	5014.557	1.320	0.000	5027.397	0.000	0.000
79.	8574.146	-1.428	0.000	5016.503	1.230	0.000	5027.397	0.000	0.000
80.	8573.066	-1.350	0.000	5018.314	1.140	0.000	5027.397	0.000	0.000
81.	8572.112	-1.360	0.000	5019.981	1.040	0.000	5027.397	0.000	0.000
82.	8571.225	-1.320	0.000	5021.496	.940	0.000	5027.397	-0.000	0.000
83.	8570.431	-1.250	0.000	5022.851	.830	0.000	5027.397	0.000	0.000
84.	8569.735	-1.230	0.000	5024.035	.720	0.000	5027.397	0.000	0.000
85.	8569.139	-1.210	0.000	5025.054	.610	0.000	5027.397	0.000	0.000
86.	8568.648	-1.170	0.000	5025.892	.490	0.000	5027.397	0.000	0.000
87.	8568.263	-1.130	0.000	5026.546	.370	0.000	5027.397	0.000	0.000
88.	8567.987	-1.060	0.000	5027.019	.250	0.000	5027.397	0.000	0.000
89.	8567.820	-1.040	0.000	5027.303	.120	0.000	5027.397	-0.000	0.000
90.	8567.765	0.000	0.000	5027.397	-0.000	0.000	5027.397	0.000	0.000
91.	8567.820	0.000	0.000	5027.303	-0.120	0.000	5027.397	0.000	0.000
92.	8567.987	0.080	0.000	5027.819	-0.250	0.000	5027.397	0.000	0.000
93.	8568.263	0.130	0.000	5026.546	-0.370	0.000	5027.397	0.000	0.000
94.	8568.648	0.178	0.000	5025.892	-0.490	0.000	5027.397	0.000	0.000
95.	8569.139	0.218	0.000	5025.054	-0.610	0.000	5027.397	0.000	0.000
96.	8569.735	0.250	0.000	5024.035	-0.720	0.000	5027.397	0.000	0.000
97.	8570.431	0.290	0.000	5022.851	-0.830	0.000	5027.397	0.000	0.000
98.	8571.225	0.320	0.000	5021.496	-0.940	0.000	5027.397	0.000	0.000
99.	8572.112	0.360	0.000	5019.981	-1.040	0.000	5027.397	0.000	0.000

Z-PLANE (XY-PLANE) YAG

	LNGVEL	LPMI12	LPMI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
188.	8523.806	.390	0.000	5018.314	-1.140	0.000	5027.397	0.000	0.000
189.	8574.146	.420	0.000	5016.503	-1.230	0.000	5027.397	-0.000	0.000
190.	8575.287	.450	0.000	5014.557	-1.320	0.000	5027.397	0.000	0.000
191.	8576.498	.480	0.000	5012.485	-1.400	0.000	5027.397	0.000	0.000
194.	8577.775	.500	0.000	5010.298	-1.470	0.000	5027.397	0.000	0.000
195.	8579.113	.520	0.000	5008.007	-1.530	0.000	5027.397	0.000	0.000
196.	8580.505	.540	0.000	5005.622	-1.590	0.000	5027.397	0.000	0.000
197.	8581.943	.560	0.000	5003.136	-1.640	0.000	5027.397	0.000	0.000
198.	8583.420	.570	0.000	5000.621	-1.660	0.000	5027.397	0.000	0.000
199.	8584.930	.580	0.000	4998.029	-1.720	0.000	5027.397	0.000	0.000
110.	8586.464	.590	0.000	4995.393	-1.740	0.000	5027.397	0.000	0.000
111.	8588.015	.600	0.000	4992.726	-1.760	0.000	5027.397	0.000	0.000
112.	8589.576	.610	0.000	4990.041	-1.770	0.000	5027.397	0.000	0.000
113.	8591.136	.620	0.000	4987.351	-1.770	0.000	5027.397	0.000	0.000
114.	8592.695	.630	0.000	4984.668	-1.760	0.000	5027.397	0.000	0.000
115.	8594.238	.640	0.000	4982.007	-1.740	0.000	5027.397	0.000	0.000
116.	8595.760	.650	0.000	4979.380	-1.720	0.000	5027.397	0.000	0.000
117.	8597.254	.660	0.000	4976.800	-1.680	0.000	5027.397	-0.000	0.000
118.	8598.713	.670	0.000	4974.276	-1.640	0.000	5027.397	-0.000	0.000
119.	8600.130	.680	0.000	4971.829	-1.590	0.000	5027.397	0.000	0.000
120.	8601.496	.690	0.000	4969.462	-1.530	0.000	5027.397	0.000	0.000
121.	8602.810	.700	0.000	4967.190	-1.470	0.000	5027.397	0.000	0.000
122.	8604.061	.710	0.000	4965.023	-1.390	0.000	5027.397	-0.000	0.000
123.	8605.244	.720	0.000	4962.973	-1.320	0.000	5027.397	0.000	0.000
124.	8606.354	.730	0.000	4961.046	-1.230	0.000	5027.397	0.000	0.000
125.	8607.385	.740	0.000	4959.256	-1.140	0.000	5027.397	0.000	0.000
126.	8608.333	.750	0.000	4957.612	-1.040	0.000	5027.397	0.000	0.000
127.	8609.194	.760	0.000	4956.117	-0.940	0.000	5027.397	0.000	0.000
128.	8609.963	.770	0.000	4954.781	-0.830	0.000	5027.397	0.000	0.000
129.	8610.637	.780	0.000	4953.610	-0.720	0.000	5027.397	0.000	0.000
130.	8611.212	.790	0.000	4952.610	-0.610	0.000	5027.397	0.000	0.000
131.	8611.667	.800	0.000	4951.784	-0.500	0.000	5027.397	0.000	0.000
132.	8612.056	.810	0.000	4951.136	-0.370	0.000	5027.397	0.000	0.000
133.	8612.325	.820	0.000	4950.675	-0.250	0.000	5027.397	-0.000	0.000
134.	8612.485	.830	0.000	4950.396	-0.120	0.000	5027.397	0.000	0.000
135.	8612.539	.840	0.000	4950.302	0.000	0.000	5027.397	-0.000	0.000
136.	8612.485	.850	0.000	4950.396	.120	0.000	5027.397	0.000	0.000
137.	8612.325	.860	0.000	4950.675	.250	0.000	5027.397	0.000	0.000
138.	8612.056	.870	0.000	4951.136	.370	0.000	5027.397	0.000	0.000
139.	8611.667	.880	0.000	4951.784	.490	0.000	5027.397	0.000	0.000
140.	8611.212	.890	0.000	4952.610	.610	0.000	5027.397	0.000	0.000
141.	8610.637	.900	0.000	4953.610	.720	0.000	5027.397	0.000	0.000
142.	8609.963	.910	0.000	4954.781	.830	0.000	5027.397	-0.000	0.000
143.	8609.194	.920	0.000	4956.117	.940	0.000	5027.397	0.000	0.000
144.	8608.333	.930	0.000	4957.612	1.040	0.000	5027.397	0.000	0.000
145.	8607.385	.940	0.000	4959.256	1.140	0.000	5027.397	0.000	0.000
146.	8606.354	.950	0.000	4961.046	1.230	0.000	5027.397	-0.000	0.000
147.	8605.244	.960	0.000	4962.973	1.320	0.000	5027.397	0.000	0.000
148.	8604.061	.970	0.000	4965.023	1.390	0.000	5027.397	0.000	0.000
149.	8602.810	.980	0.000	4967.190	1.470	0.000	5027.397	0.000	0.000

Z-PLANE (XY-PLANE) YAG

	LANGVEL	LPMI12	LPMI13	FSPVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
150.	8601.496	-510	0.000	4969.462	1.530	0.000	5027.397	0.000	0.000
151.	8600.130	-530	0.000	4971.829	1.290	0.000	5027.397	0.000	0.000
152.	8598.713	-550	0.000	4974.278	1.640	0.000	5027.397	0.000	0.000
153.	8597.254	-560	0.000	4976.800	1.680	0.000	5027.397	0.000	0.000
154.	8595.760	-580	0.000	4979.380	1.720	0.000	5027.397	0.000	0.000
155.	8594.238	-590	0.000	4982.007	1.740	0.000	5027.397	0.000	0.000
156.	8592.695	-590	0.000	4984.660	1.760	0.000	5027.397	0.000	0.000
157.	8591.138	-600	0.000	4987.351	1.770	0.000	5027.397	0.000	0.000
158.	8589.576	-600	0.000	4990.041	1.770	0.000	5027.397	0.000	0.000
159.	8588.015	-600	0.000	4992.726	1.760	0.000	5027.397	0.000	0.000
160.	8586.464	-590	0.000	4995.393	1.740	0.000	5027.397	0.000	0.000
161.	8584.930	-580	0.000	4998.029	1.720	0.000	5027.397	0.000	0.000
162.	8583.420	-570	0.000	5000.621	1.660	0.000	5027.397	0.000	0.000
163.	8581.943	-560	0.000	5003.156	1.640	0.000	5027.397	0.000	0.000
164.	8580.505	-540	0.000	5005.622	1.590	0.000	5027.397	0.000	0.000
165.	8579.113	-520	0.000	5008.007	1.530	0.000	5027.397	0.000	0.000
166.	8577.775	-500	0.000	5010.296	1.470	0.000	5027.397	0.000	0.000
167.	8576.498	-460	0.000	5012.465	1.400	0.000	5027.397	0.000	0.000
168.	8575.287	-450	0.000	5014.557	1.320	0.000	5027.397	0.000	0.000
169.	8574.146	-420	0.000	5016.503	1.230	0.000	5027.397	0.000	0.000
170.	8573.088	-390	0.000	5018.314	1.140	0.000	5027.397	0.000	0.000
171.	8572.112	-360	0.000	5019.961	1.040	0.000	5027.397	0.000	0.000
172.	8571.225	-320	0.000	5021.496	.940	0.000	5027.397	0.000	0.000
173.	8570.431	-290	0.000	5022.851	.830	0.000	5027.397	0.000	0.000
174.	8569.735	-250	0.000	5024.039	.720	0.000	5027.397	0.000	0.000
175.	8569.139	-210	0.000	5025.054	.610	0.000	5027.397	0.000	0.000
176.	8568.646	-170	0.000	5025.892	.496	0.000	5027.397	0.000	0.000
177.	8568.263	-130	0.000	5026.546	.376	0.000	5027.397	0.000	0.000
178.	8567.987	-100	0.000	5027.019	.250	0.000	5027.397	0.000	0.000
179.	8567.720	-040	0.000	5027.303	.120	0.000	5027.397	0.000	0.000
180.	8567.465	0.000	0.000	5027.397	-0.000	0.000	5027.397	0.000	0.000

111-PLANE YAG

BULK

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
0.	0.000	-0.000	0.000	5027.397	0.000	0.000	4950.302	0.000	0.000
1.	0.000	0.000	0.000	5027.351	0.060	-0.060	4950.349	0.060	-0.060
2.	0.000	0.000	0.060	5027.210	-0.120	-0.120	4950.430	0.120	-0.120
3.	0.000	0.000	0.090	5026.977	-0.180	-0.180	4950.723	0.180	-0.180
4.	0.000	0.000	0.120	5026.651	-0.240	-0.240	4951.046	0.240	-0.240
5.	0.000	0.000	0.140	5026.235	-0.300	-0.300	4951.465	0.300	-0.300
6.	0.000	0.000	0.170	5025.729	-0.360	-0.360	4951.970	0.360	-0.360
7.	0.000	0.000	0.200	5025.136	-0.420	-0.420	4952.563	0.420	-0.420
8.	0.000	0.000	0.230	5024.458	-0.470	-0.470	4953.241	0.470	-0.470
9.	0.000	0.000	0.250	5023.698	-0.520	-0.520	4954.002	0.520	-0.520
10.	0.000	0.000	0.280	5022.856	-0.570	-0.570	4954.842	0.570	-0.570
11.	0.000	0.000	0.300	5021.942	-0.620	-0.620	4955.757	0.620	-0.620
12.	0.000	0.000	0.330	5020.955	-0.670	-0.670	4956.744	0.670	-0.670
13.	0.000	0.000	0.350	5019.900	-0.710	-0.710	4957.799	0.710	-0.710
14.	0.000	0.000	0.370	5018.784	-0.750	-0.750	4958.915	0.750	-0.750
15.	0.000	0.000	0.390	5017.610	-0.790	-0.790	4960.086	0.790	-0.790
16.	0.000	0.000	0.410	5016.387	-0.820	-0.820	4961.311	0.820	-0.820
17.	0.000	0.000	0.430	5015.122	-0.840	-0.840	4962.576	0.840	-0.840
18.	0.000	0.000	0.450	5013.822	-0.860	-0.860	4963.876	0.860	-0.860
19.	0.000	0.000	0.470	5012.499	-0.870	-0.870	4965.200	0.870	-0.870
20.	0.000	0.000	0.480	5011.162	-0.880	-0.880	4966.536	0.880	-0.880
21.	0.000	0.000	0.500	5009.826	-0.870	-0.870	4967.872	0.870	-0.870
22.	0.000	0.000	0.510	5008.506	-0.850	-0.850	4969.190	0.850	-0.850
23.	0.000	0.000	0.520	5007.226	-0.820	-0.820	4970.472	0.820	-0.820
24.	0.000	0.000	0.530	5006.005	-0.770	-0.770	4971.693	0.770	-0.770
25.	0.000	0.000	0.540	5004.873	-0.710	-0.710	4972.824	0.710	-0.710
26.	0.000	0.000	0.540	5003.865	-0.610	-0.610	4973.832	0.610	-0.610
27.	0.000	0.000	0.550	5003.018	-0.490	-0.490	4974.679	0.490	-0.490
28.	0.000	0.000	0.550	5002.374	-0.350	-0.350	4975.323	0.350	-0.350
29.	0.000	0.000	0.550	5001.965	-0.160	-0.160	4975.728	0.160	-0.160
30.	0.000	0.000	0.560	5001.831	0.000	0.000	4975.866	0.000	0.000
31.	0.000	0.000	0.550	5001.969	0.180	0.180	4975.728	0.180	0.180
32.	0.000	0.000	0.550	5002.374	0.350	0.350	4975.323	0.350	0.350
33.	0.000	0.000	0.550	5003.018	0.490	0.490	4974.679	0.490	0.490
34.	0.000	0.000	0.540	5003.865	0.610	0.610	4973.832	0.610	0.610
35.	0.000	0.000	0.540	5004.873	0.710	0.710	4972.824	0.710	0.710
36.	0.000	0.000	0.530	5006.005	0.770	0.770	4971.693	0.770	0.770
37.	0.000	0.000	0.520	5007.226	0.820	0.820	4970.472	0.820	0.820
38.	0.000	0.000	0.510	5008.506	0.850	0.850	4969.190	0.850	0.850
39.	0.000	0.000	0.500	5009.826	0.870	0.870	4967.872	0.870	0.870
40.	0.000	0.000	0.480	5011.162	0.880	0.880	4966.536	0.880	0.880
41.	0.000	0.000	0.470	5012.499	0.870	0.870	4965.200	0.870	0.870
42.	0.000	0.000	0.450	5013.822	0.860	0.860	4963.876	0.860	0.860
43.	0.000	0.000	0.430	5015.122	0.840	0.840	4962.576	0.840	0.840
44.	0.000	0.000	0.410	5016.387	0.820	0.820	4961.311	0.820	0.820
45.	0.000	0.000	0.390	5017.610	0.790	0.790	4960.086	0.790	0.790
46.	0.000	0.000	0.370	5018.784	0.750	0.750	4958.915	0.750	0.750
47.	0.000	0.000	0.350	5019.900	0.710	0.710	4957.799	0.710	0.710
48.	0.000	0.000	0.330	5020.955	0.670	0.670	4956.744	0.670	0.670
49.	0.000	0.000	0.300	5021.942	0.620	0.620	4955.757	0.620	0.620

111-PLANE YAG

BULK

	LNGWEL	LPHI12	LPHI13	FSRWEL	FSPMI12	FSPMI13	SSRWEL	SSPMI12	SSPHI13
58.	8612.577	-0.000	.280	5022.858	.570	-1.410	4954.042	-1.590	-1.410
59.	8612.571	-0.000	.250	5023.836	.520	-1.360	4954.002	-1.530	-1.360
52.	8612.564	-0.000	.230	5024.858	.470	-1.340	4953.241	-1.490	-1.340
53.	8612.559	-0.000	.200	5025.136	.420	-1.300	4952.563	-1.420	-1.300
54.	8612.554	-0.000	.170	5025.729	.360	-1.260	4951.970	-1.360	-1.260
55.	8612.549	-0.000	.140	5026.235	.300	-1.210	4951.465	-1.310	-1.210
56.	8612.544	-0.000	.120	5026.651	.240	-1.170	4951.046	-1.250	-1.170
57.	8612.543	-0.000	.090	5026.977	.180	-1.130	4950.723	-1.190	-1.130
58.	8612.540	-0.000	.060	5027.210	.120	-1.090	4950.490	-1.120	-1.090
59.	8612.539	-0.000	.030	5027.351	.060	-1.040	4950.345	-1.060	-1.040
60.	8612.539	0.000	0.000	5027.397	-0.060	0.000	4950.302	-0.860	-0.840
61.	8612.539	0.000	-0.030	5027.351	-0.060	0.090	4950.345	-0.660	-0.640
62.	8612.540	0.000	-0.060	5027.210	-0.120	0.130	4950.490	-0.460	-0.440
63.	8612.543	0.000	-0.090	5026.977	-0.160	0.170	4950.723	-0.260	-0.240
64.	8612.545	0.000	-0.120	5026.651	-0.200	0.210	4951.046	-0.060	-0.040
65.	8612.545	0.000	-0.140	5026.235	-0.240	0.260	4951.465	.120	.110
66.	8612.545	0.000	-0.170	5025.729	-0.280	0.300	4951.970	.360	.210
67.	8612.549	0.000	-0.200	5025.136	-0.320	0.340	4952.563	.420	.260
68.	8612.554	0.000	-0.230	5024.456	-0.360	0.360	4953.241	.480	.340
69.	8612.561	0.000	-0.250	5023.898	-0.400	0.380	4954.002	.530	.360
70.	8612.577	0.000	-0.280	5022.858	-0.440	0.410	4954.842	.580	.410
71.	8612.595	0.000	-0.300	5021.942	-0.480	0.450	4955.757	.630	.450
72.	8612.592	0.000	-0.330	5020.955	-0.520	0.490	4956.744	.680	.490
73.	8612.600	0.000	-0.350	5019.900	-0.560	0.520	4957.739	.720	.520
74.	8612.608	0.000	-0.370	5018.784	-0.600	0.550	4958.745	.760	.550
75.	8612.616	0.000	-0.390	5017.610	-0.640	0.590	4960.088	.790	.590
76.	8612.624	0.000	-0.410	5016.387	-0.680	0.620	4961.511	.820	.620
77.	8612.632	0.000	-0.430	5015.122	-0.720	0.640	4962.576	.850	.640
78.	8612.640	0.000	-0.450	5013.822	-0.760	0.670	4963.076	.870	.670
79.	8612.647	0.000	-0.470	5012.499	-0.800	0.690	4965.200	.880	.690
80.	8612.655	0.000	-0.480	5011.162	-0.840	0.720	4968.536	.880	.720
81.	8612.661	0.000	-0.500	5009.826	-0.880	0.740	4967.672	.860	.740
82.	8612.666	0.000	-0.510	5008.506	-0.920	0.760	4969.190	.860	.760
83.	8612.673	0.000	-0.520	5007.226	-0.960	0.770	4970.472	.830	.770
84.	8612.679	0.000	-0.530	5006.005	-1.000	0.790	4971.693	.780	.790
85.	8612.683	0.000	-0.540	5004.873	-1.040	0.800	4972.824	.710	.800
86.	8612.687	0.000	-0.540	5003.655	-1.080	0.810	4973.832	.620	.810
87.	8612.689	0.000	-0.550	5003.318	-1.120	0.820	4974.679	.540	.820
88.	8612.692	0.000	-0.550	5002.374	-1.160	0.830	4975.323	.450	.830
89.	8612.693	0.000	-0.550	5001.969	-1.200	0.830	4975.728	.350	.830
90.	8612.693	-0.000	-0.560	5001.831	0.000	0.830	4975.866	.180	.830
91.	8612.693	-0.000	-0.550	5001.969	.160	0.830	4975.728	-0.080	.820
92.	8612.692	-0.000	-0.550	5002.374	.350	0.830	4975.323	-0.160	.820
93.	8612.689	-0.000	-0.550	5003.318	.490	0.820	4974.679	-0.260	.820
94.	8612.687	-0.000	-0.540	5003.655	.610	0.810	4973.832	-0.350	.810
95.	8612.683	-0.000	-0.540	5004.873	.710	0.800	4972.824	-0.420	.800
96.	8612.679	-0.000	-0.530	5006.005	.770	0.790	4971.693	-0.480	.790
97.	8612.673	-0.000	-0.520	5007.226	.820	0.780	4970.472	-0.530	.780
98.	8612.668	-0.000	-0.510	5008.506	.850	0.760	4969.190	-0.560	.760
99.	8612.661	-0.000	-0.500	5009.826	.870	0.740	4967.672	-0.580	.740

111-PLANE YAG

	LSPH12	LSPH13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
100.	0.000	-0.480	5011.162	0.860	0.720	4966.536	-0.660	0.120
101.	-0.000	-0.470	5012.899	0.870	0.650	4965.200	-0.880	0.690
102.	-0.000	-0.450	5013.822	0.860	0.670	4963.876	-0.670	0.670
103.	-0.000	-0.430	5015.122	0.840	0.640	4962.376	-0.650	0.640
104.	-0.000	-0.410	5016.387	0.820	0.620	4961.311	-0.620	0.620
105.	-0.000	-0.390	5017.610	0.780	0.590	4960.088	-0.750	0.520
106.	-0.000	-0.370	5018.784	0.750	0.550	4958.915	-0.760	0.520
107.	-0.000	-0.350	5019.900	0.710	0.520	4957.739	-0.720	0.520
108.	-0.000	-0.330	5020.955	0.670	0.490	4956.744	-0.680	0.490
109.	-0.000	-0.300	5021.942	0.620	0.450	4955.757	-0.630	0.450
110.	-0.000	-0.280	5022.856	0.570	0.410	4954.842	-0.580	0.410
111.	-0.000	-0.250	5023.696	0.520	0.380	4954.002	-0.530	0.380
112.	-0.000	-0.230	5024.458	0.470	0.340	4953.241	-0.480	0.340
113.	-0.000	-0.200	5025.136	0.420	0.300	4952.563	-0.430	0.300
114.	-0.000	-0.170	5025.729	0.360	0.260	4951.970	-0.380	0.260
115.	-0.000	-0.140	5026.235	0.300	0.210	4951.465	-0.330	0.210
116.	-0.000	-0.120	5026.651	0.240	0.170	4951.046	-0.280	0.170
117.	-0.000	-0.090	5026.977	0.180	0.130	4950.723	-0.230	0.130
118.	-0.000	-0.060	5027.210	0.120	0.090	4950.490	-0.180	0.090
119.	-0.000	-0.030	5027.351	0.060	0.040	4950.349	-0.130	0.040
120.	-0.000	0.000	5027.397	0.000	0.000	4950.302	0.000	0.000
121.	0.000	0.030	5027.351	-0.060	-0.040	4950.349	0.060	0.000
122.	0.000	0.060	5027.210	-0.120	-0.090	4950.490	0.120	0.000
123.	0.000	0.090	5026.977	-0.180	-0.130	4950.723	0.180	0.000
124.	0.000	0.120	5026.651	-0.240	-0.170	4951.046	0.240	0.000
125.	0.000	0.140	5026.235	-0.300	-0.210	4951.465	0.300	0.000
126.	0.000	0.170	5025.729	-0.360	-0.260	4951.970	0.360	0.000
127.	0.000	0.200	5025.136	-0.420	-0.300	4952.563	0.420	0.000
128.	0.000	0.230	5024.458	-0.470	-0.340	4953.241	0.470	0.000
129.	0.000	0.250	5023.696	-0.520	-0.380	4954.002	0.520	0.000
130.	0.000	0.260	5022.856	-0.570	-0.410	4954.842	0.570	0.000
131.	0.000	0.260	5021.942	-0.620	-0.450	4955.757	0.620	0.000
132.	0.000	0.230	5020.955	-0.670	-0.490	4956.744	0.670	0.000
133.	0.000	0.190	5019.900	-0.710	-0.520	4957.739	0.710	0.000
134.	0.000	0.150	5018.784	-0.750	-0.550	4958.915	0.750	0.000
135.	0.000	0.110	5017.610	-0.780	-0.590	4960.088	0.780	0.000
136.	0.000	0.080	5016.387	-0.820	-0.610	4961.311	0.820	0.000
137.	0.000	0.040	5015.122	-0.840	-0.640	4962.376	0.840	0.000
138.	0.000	0.000	5013.822	-0.860	-0.670	4963.876	0.860	0.000
139.	0.000	0.470	5012.856	-0.870	-0.690	4965.200	0.870	0.000
140.	0.000	0.480	5011.162	-0.880	-0.720	4966.536	0.880	0.000
141.	0.000	0.500	5009.826	-0.890	-0.740	4967.472	0.890	0.000
142.	0.000	0.510	5008.506	-0.900	-0.760	4968.190	0.900	0.000
143.	0.000	0.520	5007.226	-0.920	-0.770	4970.472	0.920	0.000
144.	0.000	0.530	5006.005	-0.930	-0.790	4971.693	0.930	0.000
145.	0.000	0.540	5004.873	-0.940	-0.800	4972.824	0.940	0.000
146.	0.000	0.540	5003.665	-0.950	-0.810	4973.832	0.950	0.000
147.	0.000	0.550	5002.374	-0.960	-0.820	4974.679	0.960	0.000
148.	0.000	0.550	5001.069	-0.960	-0.820	4975.323	0.960	0.000
149.	0.000	0.550	5000.000	-0.960	-0.820	4975.728	0.960	0.000

	111-PLANE YAG				BULK			
	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
150.	0.000	.560	5001.831	-0.000	-.630	4375.866	-0.000	-0.630
151.	-0.000	.550	5001.969	.160	-.830	4375.728	-.160	-.820
152.	-0.000	.550	5002.374	.350	-.830	4375.323	-.350	-.820
153.	-0.000	.550	5003.018	.490	-.820	4374.879	-.490	-.820
154.	-0.000	.540	5003.865	.610	-.820	4373.824	-.610	-.820
155.	-0.000	.540	5004.873	.710	-.800	4372.824	-.710	-.800
156.	-0.000	.530	5006.005	.770	-.790	4371.813	-.770	-.790
157.	-0.000	.520	5007.226	.820	-.770	4370.472	-.820	-.770
158.	-0.000	.510	5008.508	.850	-.760	4369.190	-.850	-.760
159.	-0.000	.500	5009.826	.870	-.760	4367.872	-.870	-.760
160.	-0.000	.490	5011.182	.880	-.720	4366.236	-.880	-.720
161.	-0.000	.470	5012.699	.870	-.690	4365.200	-.880	-.690
162.	-0.000	.450	5013.822	.860	-.670	4363.876	-.870	-.670
163.	-0.000	.430	5015.122	.840	-.640	4362.576	-.850	-.640
164.	-0.000	.410	5016.387	.820	-.620	4361.311	-.820	-.620
165.	-0.000	.390	5017.610	.790	-.590	4360.086	-.790	-.590
166.	-0.000	.370	5018.784	.750	-.550	4358.915	-.760	-.550
167.	-0.000	.350	5019.900	.710	-.520	4357.799	-.720	-.520
168.	-0.000	.330	5020.955	.670	-.490	4356.744	-.680	-.490
169.	-0.000	.300	5021.942	.620	-.450	4355.757	-.630	-.450
170.	-0.000	.280	5022.858	.570	-.410	4354.842	-.580	-.410
171.	-0.000	.250	5023.696	.520	-.380	4354.002	-.530	-.380
172.	-0.000	.230	5024.456	.470	-.340	4353.241	-.480	-.340
173.	-0.000	.200	5025.136	.420	-.300	4352.563	-.420	-.300
174.	-0.000	.170	5025.729	.360	-.260	4351.970	-.360	-.260
175.	-0.000	.140	5026.235	.300	-.210	4351.465	-.310	-.210
176.	-0.000	.120	5026.651	.240	-.170	4351.046	-.260	-.170
177.	-0.000	.090	5026.977	.180	-.130	4350.723	-.210	-.130
178.	-0.000	.060	5027.210	.120	-.090	4350.490	-.120	-.090
179.	-0.000	.030	5027.351	.060	-.040	4350.349	-.060	-.040
180.	0.000	-0.000	5027.397	-0.000	-0.000	4350.302	0.000	-0.000

11G-FLAME YAG

	LAGVEL	LPII12	LPII13	FSSVEL	FSP112	FSP113	SSRVEL	SSP112	SSP113
0.	827.432	6.000	-0.000	4976.326	-0.840	0.000	4976.333	.840	-0.000
1.	827.376	-0.070	-0.000	4974.917	-0.777	-0.600	4977.412	.650	0.000
2.	827.265	-0.060	0.000	4973.815	-0.690	0.000	4978.705	.060	0.000
3.	827.079	-0.050	-0.000	4972.823	-0.610	-0.000	4980.011	.060	-0.000
4.	826.814	-0.120	0.000	4971.972	-0.530	0.000	4981.327	.070	-0.000
5.	826.470	-0.150	-0.000	4971.241	-0.440	-0.000	4982.651	.060	-0.000
6.	826.046	-0.180	-0.000	4970.662	-0.350	-0.000	4983.984	.060	0.000
7.	825.540	-0.210	-0.000	4970.179	-0.260	-0.000	4985.322	.060	0.000
8.	824.982	-0.240	-0.000	4969.861	-0.170	-0.000	4986.664	.060	-0.000
9.	824.287	-0.270	-0.000	4969.667	-0.080	-0.000	4988.009	.060	-0.000
10.	823.533	-0.300	0.000	4969.614	.010	-0.000	4989.354	.060	-0.000
11.	822.702	-0.330	0.000	4969.705	.110	-0.000	4990.699	.060	-0.000
12.	821.792	-0.360	-0.000	4969.936	.210	-0.000	4992.041	.060	0.000
13.	820.805	-0.390	-0.000	4970.305	.300	-0.000	4993.376	.060	0.000
14.	819.741	-0.420	-0.000	4970.811	.380	-0.000	4994.712	.070	0.000
15.	818.607	-0.450	-0.000	4971.452	.470	-0.000	4996.037	.070	0.000
16.	817.395	-0.470	0.000	4972.224	.550	0.000	4997.352	.060	-0.000
17.	816.117	-0.500	-0.000	4973.123	.640	-0.000	4998.655	.060	-0.000
18.	814.777	-0.520	0.000	4974.146	.710	-0.000	4999.953	.060	0.000
19.	813.375	-0.550	-0.000	4975.289	.790	-0.000	5001.232	.060	0.000
20.	811.915	-0.570	-0.000	4976.547	.860	-0.000	5002.497	.060	0.000
21.	810.402	-0.590	-0.000	4977.905	.930	-0.000	5003.746	.060	0.000
22.	808.842	-0.600	0.000	4979.367	1.000	-0.000	5004.975	.060	-0.000
23.	807.237	-0.620	-0.000	4980.923	1.050	-0.000	5006.184	.070	0.000
24.	805.586	-0.650	-0.000	4982.566	1.110	-0.000	5007.374	.070	0.000
25.	803.921	-0.680	0.000	4984.286	1.160	-0.000	5008.543	.060	0.000
26.	802.210	-0.700	-0.000	4986.076	1.200	-0.000	5009.693	.060	0.000
27.	800.465	-0.720	-0.000	4987.929	1.240	-0.000	5010.800	.060	0.000
28.	800.755	-0.740	0.000	4989.841	1.270	-0.000	5011.860	.060	-0.000
29.	800.002	-0.760	-0.000	4991.774	1.290	-0.000	5012.952	.060	-0.000
30.	800.226	-0.780	-0.000	4993.729	1.310	-0.000	5013.984	.060	0.000
31.	800.504	-0.800	0.000	4995.702	1.320	-0.000	5014.967	.060	-0.000
32.	800.744	-0.820	0.000	4997.780	1.330	-0.000	5015.957	.060	0.000
33.	800.940	-0.850	-0.000	4999.860	1.330	0.000	5016.894	.060	0.000
34.	801.090	-0.880	0.000	5001.941	1.320	-0.000	5017.790	.060	0.000
35.	801.195	-0.900	0.000	5004.015	1.300	-0.000	5018.666	.060	-0.000
36.	801.256	-0.920	-0.000	5006.075	1.280	-0.000	5019.498	.060	0.000
37.	801.272	-0.950	-0.000	5008.125	1.250	-0.000	5020.292	.060	0.000
38.	801.242	-0.980	-0.000	5010.160	1.200	-0.000	5021.050	.060	0.000
39.	801.165	-1.000	0.000	5012.171	1.150	-0.000	5021.767	.060	0.000
40.	801.042	-1.020	0.000	5014.155	1.100	-0.000	5022.445	.060	0.000
41.	800.875	-1.050	-0.000	5016.109	1.040	-0.000	5023.082	.060	0.000
42.	800.675	-1.080	-0.000	5018.026	0.970	-0.000	5023.678	.060	0.000
43.	800.442	-1.100	-0.000	5019.900	0.900	-0.000	5024.231	.060	-0.000
44.	800.175	-1.120	-0.000	5021.735	0.820	-0.000	5024.742	.060	0.000
45.	800.861	-1.150	0.000	5023.526	0.740	-0.000	5025.209	.060	0.000
46.	800.594	-1.180	-0.000	5025.266	0.660	-0.000	5025.632	.060	0.000
47.	800.282	-1.200	0.000	5026.955	0.580	-0.000	5026.011	.060	0.000
48.	800.024	-1.250	-0.000	5028.595	0.500	-0.000	5026.345	.060	0.000
49.	800.572	-1.240	0.000	5029.280	0.520	-0.000	5026.633	.060	0.000

110-PLANE YAC

LAGVEL	LFI-112	LFI-113	FSPVEL	FSP-112	FSP-113	SRVEL	SSP-112	SSP-113
50.	8565.002	0.000	5025.031	.426	-0.000	5025.031	0.000	0.000
51.	8566.577	-0.200	5025.467	.340	-0.000	5025.467	0.000	0.000
52.	8568.100	-0.100	5025.655	.250	-0.000	5025.655	0.000	0.000
53.	8569.700	-0.000	5027.182	.100	-0.000	5027.182	0.000	0.000
54.	8567.700	-0.000	5027.300	.000	-0.000	5027.300	0.000	0.000
55.	8567.700	.000	5027.300	-.000	-0.000	5027.300	0.000	0.000
56.	8567.854	.050	5027.282	-.060	-0.000	5027.360	0.000	0.000
57.	8568.040	.100	5027.082	-.220	-0.000	5027.270	0.000	0.000
58.	8568.355	.100	5025.600	-.300	-0.000	5027.140	0.000	0.000
59.	8569.700	.100	5025.100	-.350	-0.000	5026.575	0.000	0.000
60.	8568.200	.200	5025.440	-.400	-0.000	5026.530	0.000	0.000
61.	8568.610	.200	5025.651	-.520	-0.000	5026.407	0.000	0.000
62.	8570.640	.300	5025.712	-.550	-0.000	5026.174	0.000	0.000
63.	8571.471	.300	5025.655	-.720	-0.000	5025.617	0.000	0.000
64.	8572.303	.300	5021.466	-.800	-0.000	5025.414	0.000	0.000
65.	8573.400	.400	5020.201	-.800	-0.000	5024.968	0.000	0.000
66.	8574.531	.400	5019.800	-.900	-0.000	5024.578	0.000	0.000
67.	8575.654	.400	5019.317	-1.000	-0.000	5023.944	0.000	0.000
68.	8576.950	.500	5015.732	-1.070	-0.000	5023.369	0.000	0.000
69.	8578.257	.500	5014.054	-1.150	-0.000	5022.751	0.000	0.000
70.	8579.703	.500	5012.330	-1.170	-0.000	5022.092	0.000	0.000
71.	8581.170	.570	5010.500	-1.200	-0.000	5021.393	0.000	0.000
72.	8582.654	.500	5008.640	-1.200	-0.000	5020.554	0.000	0.000
73.	8584.200	.500	5006.730	-1.270	-0.000	5019.878	0.000	0.000
74.	8585.800	.500	5004.775	-1.350	-0.000	5019.262	0.000	0.000
75.	8587.545	.500	5002.765	-1.330	-0.000	5018.612	0.000	0.000
76.	8589.424	.500	5000.700	-1.330	-0.000	5017.925	0.000	0.000
77.	8591.440	.500	4998.714	-1.330	-0.000	5017.203	0.000	0.000
78.	8593.600	.500	4996.713	-1.330	-0.000	5016.449	0.000	0.000
79.	8595.900	.500	4994.670	-1.330	-0.000	5015.561	0.000	0.000
80.	8598.310	.500	4992.500	-1.330	-0.000	5014.542	0.000	0.000
81.	8600.820	.500	4990.215	-1.330	-0.000	5013.396	0.000	0.000
82.	8603.450	.500	4987.820	-1.250	-0.000	5012.125	0.000	0.000
83.	8606.200	.500	4985.320	-1.250	-0.000	5010.728	0.000	0.000
84.	8609.070	.500	4982.715	-1.180	-0.000	5009.203	0.000	0.000
85.	8612.070	.500	4980.000	-1.100	-0.000	5007.554	0.000	0.000
86.	8615.190	.500	4977.175	-1.000	-0.000	5005.789	0.000	0.000
87.	8618.440	.500	4974.250	-.850	-0.000	5003.915	0.000	0.000
88.	8621.820	.500	4971.225	-.650	-0.000	5001.932	0.000	0.000
89.	8625.340	.500	4968.100	-.400	-0.000	5000.839	0.000	0.000
90.	8629.000	.500	4964.875	-.100	-0.000	5000.559	0.000	0.000
91.	8632.800	.500	4961.550	.150	-0.000	4999.999	0.000	0.000
92.	8636.740	.500	4958.125	.400	-0.000	4999.150	0.000	0.000
93.	8640.820	.500	4954.600	.600	-0.000	4997.921	0.000	0.000
94.	8645.040	.500	4951.075	.700	-0.000	4996.321	0.000	0.000
95.	8649.500	.500	4947.550	.700	-0.000	4994.371	0.000	0.000
96.	8654.100	.500	4944.025	.650	-0.000	4992.071	0.000	0.000
97.	8658.850	.500	4940.500	.550	-0.000	4989.471	0.000	0.000
98.	8663.750	.500	4937.075	.400	-0.000	4986.571	0.000	0.000
99.	8668.800	.500	4933.750	.200	-0.000	4983.371	0.000	0.000
100.	8673.900	.500	4930.525	.000	-0.000	4979.871	0.000	0.000
101.	8679.150	.500	4927.400	-.200	-0.000	4976.071	0.000	0.000
102.	8684.550	.500	4924.375	-.400	-0.000	4971.971	0.000	0.000
103.	8690.100	.500	4921.450	-.600	-0.000	4967.571	0.000	0.000
104.	8695.800	.500	4918.625	-.800	-0.000	4962.871	0.000	0.000
105.	8701.650	.500	4915.900	-1.000	-0.000	4957.871	0.000	0.000
106.	8707.650	.500	4913.275	-1.200	-0.000	4952.571	0.000	0.000
107.	8713.800	.500	4910.750	-1.400	-0.000	4946.871	0.000	0.000
108.	8720.100	.500	4908.325	-1.600	-0.000	4940.771	0.000	0.000
109.	8726.550	.500	4906.000	-1.800	-0.000	4934.271	0.000	0.000
110.	8733.150	.500	4903.775	-2.000	-0.000	4927.371	0.000	0.000
111.	8740.000	.500	4901.650	-2.200	-0.000	4919.971	0.000	0.000
112.	8747.000	.500	4899.625	-2.400	-0.000	4912.171	0.000	0.000
113.	8754.150	.500	4897.700	-2.600	-0.000	4903.971	0.000	0.000
114.	8761.450	.500	4895.875	-2.800	-0.000	4895.371	0.000	0.000
115.	8768.900	.500	4894.150	-3.000	-0.000	4886.371	0.000	0.000
116.	8776.500	.500	4892.525	-3.200	-0.000	4876.971	0.000	0.000
117.	8784.250	.500	4891.000	-3.400	-0.000	4867.171	0.000	0.000
118.	8792.150	.500	4889.575	-3.600	-0.000	4857.071	0.000	0.000
119.	8800.200	.500	4888.250	-3.800	-0.000	4846.671	0.000	0.000
120.	8808.400	.500	4887.025	-4.000	-0.000	4835.971	0.000	0.000
121.	8816.750	.500	4885.900	-4.200	-0.000	4824.971	0.000	0.000
122.	8825.250	.500	4884.875	-4.400	-0.000	4813.671	0.000	0.000
123.	8833.900	.500	4883.950	-4.600	-0.000	4802.071	0.000	0.000
124.	8842.700	.500	4883.125	-4.800	-0.000	4790.171	0.000	0.000
125.	8851.650	.500	4882.400	-5.000	-0.000	4778.071	0.000	0.000
126.	8860.750	.500	4881.775	-5.200	-0.000	4765.771	0.000	0.000
127.	8870.000	.500	4881.250	-5.400	-0.000	4753.271	0.000	0.000
128.	8879.400	.500	4880.825	-5.600	-0.000	4740.571	0.000	0.000
129.	8888.950	.500	4880.500	-5.800	-0.000	4727.671	0.000	0.000
130.	8898.650	.500	4880.275	-6.000	-0.000	4714.571	0.000	0.000
131.	8908.500	.500	4880.150	-6.200	-0.000	4701.271	0.000	0.000
132.	8918.500	.500	4880.125	-6.400	-0.000	4687.771	0.000	0.000
133.	8928.650	.500	4880.200	-6.600	-0.000	4674.071	0.000	0.000
134.	8938.950	.500	4880.375	-6.800	-0.000	4660.171	0.000	0.000
135.	8949.400	.500	4880.650	-7.000	-0.000	4646.071	0.000	0.000
136.	8960.000	.500	4881.025	-7.200	-0.000	4631.771	0.000	0.000
137.	8970.750	.500	4881.500	-7.400	-0.000	4617.271	0.000	0.000
138.	8981.650	.500	4882.075	-7.600	-0.000	4602.571	0.000	0.000
139.	8992.700	.500	4882.750	-7.800	-0.000	4587.671	0.000	0.000
140.	9003.900	.500	4883.525	-8.000	-0.000	4572.571	0.000	0.000
141.	9015.250	.500	4884.400	-8.200	-0.000	4557.271	0.000	0.000
142.	9026.750	.500	4885.375	-8.400	-0.000	4541.771	0.000	0.000
143.	9038.400	.500	4886.450	-8.600	-0.000	4526.071	0.000	0.000
144.	9050.200	.500	4887.625	-8.800	-0.000	4510.171	0.000	0.000
145.	9062.150	.500	4888.900	-9.000	-0.000	4494.071	0.000	0.000
146.	9074.250	.500	4890.275	-9.200	-0.000	4477.771	0.000	0.000
147.	9086.500	.500	4891.750	-9.400	-0.000	4461.271	0.000	0.000
148.	9098.900	.500	4893.325	-9.600	-0.000	4444.571	0.000	0.000
149.	9111.450	.500	4894.900	-9.800	-0.000	4427.671	0.000	0.000
150.	9124.150	.500	4896.575	-10.000	-0.000	4410.571	0.000	0.000

110-PLANE YAG

LAGVEL	LP+I12	FP+I12	FSRVEL	FP+I12	SSRVEL	SSP+I12	SSP+I12
100.	-120	-0.000	496.622	1.370	498.644	-0.000	-0.000
101.	-120	-0.000	496.746	1.370	498.768	-0.000	-0.000
102.	-120	0.000	497.007	1.320	499.029	-0.000	-0.000
103.	-150	0.000	497.406	1.310	499.428	-0.000	-0.000
104.	-160	0.000	497.842	1.260	499.864	-0.000	-0.000
105.	-170	0.000	497.611	1.250	499.633	-0.000	-0.000
106.	-180	0.000	497.410	1.200	499.432	-0.000	-0.000
107.	-170	0.000	497.335	1.250	499.357	-0.000	-0.000
108.	-160	0.000	497.482	1.300	499.504	-0.000	-0.000
109.	-150	0.000	497.846	1.350	499.868	-0.000	-0.000
110.	-140	0.000	497.621	1.400	499.643	-0.000	-0.000
111.	-130	0.000	497.800	1.450	499.822	-0.000	-0.000
112.	-120	0.000	497.678	1.500	499.700	-0.000	-0.000
113.	-110	0.000	497.847	1.550	499.869	-0.000	-0.000
114.	-100	0.000	497.636	1.600	499.658	-0.000	-0.000
115.	-120	0.000	497.627	1.650	499.649	-0.000	-0.000
116.	-150	0.000	496.622	1.700	498.644	-0.000	-0.000
117.	-170	0.000	496.777	1.750	498.799	-0.000	-0.000
118.	-190	0.000	497.186	1.800	499.208	-0.000	-0.000
119.	-200	0.000	497.824	1.850	499.846	-0.000	-0.000
120.	-210	0.000	497.656	1.900	499.678	-0.000	-0.000
121.	-220	0.000	497.656	1.950	499.678	-0.000	-0.000
122.	-230	0.000	497.656	2.000	499.678	-0.000	-0.000
123.	-240	0.000	497.656	2.050	499.678	-0.000	-0.000
124.	-250	0.000	497.656	2.100	499.678	-0.000	-0.000
125.	-260	0.000	497.656	2.150	499.678	-0.000	-0.000
126.	-270	0.000	497.656	2.200	499.678	-0.000	-0.000
127.	-280	0.000	497.656	2.250	499.678	-0.000	-0.000
128.	-290	0.000	497.656	2.300	499.678	-0.000	-0.000
129.	-300	0.000	497.656	2.350	499.678	-0.000	-0.000
130.	-310	0.000	497.656	2.400	499.678	-0.000	-0.000
131.	-320	0.000	497.656	2.450	499.678	-0.000	-0.000
132.	-330	0.000	497.656	2.500	499.678	-0.000	-0.000
133.	-340	0.000	497.656	2.550	499.678	-0.000	-0.000
134.	-350	0.000	497.656	2.600	499.678	-0.000	-0.000
135.	-360	0.000	497.656	2.650	499.678	-0.000	-0.000
136.	-370	0.000	497.656	2.700	499.678	-0.000	-0.000
137.	-380	0.000	497.656	2.750	499.678	-0.000	-0.000
138.	-390	0.000	497.656	2.800	499.678	-0.000	-0.000
139.	-400	0.000	497.656	2.850	499.678	-0.000	-0.000
140.	-410	0.000	497.656	2.900	499.678	-0.000	-0.000
141.	-420	0.000	497.656	2.950	499.678	-0.000	-0.000
142.	-430	0.000	497.656	3.000	499.678	-0.000	-0.000
143.	-440	0.000	497.656	3.050	499.678	-0.000	-0.000
144.	-450	0.000	497.656	3.100	499.678	-0.000	-0.000
145.	-460	0.000	497.656	3.150	499.678	-0.000	-0.000
146.	-470	0.000	497.656	3.200	499.678	-0.000	-0.000
147.	-480	0.000	497.656	3.250	499.678	-0.000	-0.000
148.	-490	0.000	497.656	3.300	499.678	-0.000	-0.000
149.	-500	0.000	497.656	3.350	499.678	-0.000	-0.000

110-PLANF YAG

	LAGUEL	LF+112	LF+113	FSEVEL	FSP+112	FSP+113	SSRVEL	SSP+112	SSP+113
180.	8632287	.110	0.000	525.472	-470	0.000	4950.956	.160	0.000
181.	8632288	.110	0.000	524.464	-460	0.000	4951.227	.160	0.000
182.	8632289	.110	0.000	523.456	-450	0.000	4951.500	.220	0.000
183.	8632290	.110	0.000	522.448	-440	0.000	4951.907	.260	0.000
184.	8632291	.110	0.000	521.440	-430	0.000	4952.316	.260	0.000
185.	8632292	.110	0.000	520.432	-420	0.000	4952.766	.320	0.000
186.	8632293	.110	0.000	519.424	-410	0.000	4953.266	.340	0.000
187.	8632294	.110	0.000	518.416	-400	0.000	4953.807	.370	0.000
188.	8632295	.110	0.000	517.408	-390	0.000	4954.391	.400	0.000
189.	8632296	.110	0.000	516.400	-380	0.000	4955.017	.420	0.000
190.	8632297	.110	0.000	515.392	-370	0.000	4955.686	.460	0.000
191.	8632298	.110	0.000	514.384	-360	0.000	4956.392	.480	0.000
192.	8632299	.110	0.000	513.376	-350	0.000	4957.141	.510	0.000
193.	8632300	.110	0.000	512.368	-340	0.000	4957.928	.520	0.000
194.	8632301	.110	0.000	511.360	-330	0.000	4958.752	.560	0.000
195.	8632302	.110	0.000	510.352	-320	0.000	4959.614	.580	0.000
196.	8632303	.110	0.000	509.344	-310	0.000	4960.511	.610	0.000
197.	8632304	.110	0.000	508.336	-300	0.000	4961.447	.630	0.000
198.	8632305	.110	0.000	507.328	-290	0.000	4962.406	.650	0.000
199.	8632306	.110	0.000	506.320	-280	0.000	4963.406	.670	0.000
200.	8632307	.110	0.000	505.312	-270	0.000	4964.434	.680	0.000
171.	8624374	.110	0.000	499.304	-260	0.000	4965.497	.710	0.000
172.	8624375	.110	0.000	498.296	-250	0.000	4966.580	.730	0.000
173.	8624376	.110	0.000	497.288	-240	0.000	4967.694	.740	0.000
174.	8624377	.110	0.000	496.280	-230	0.000	4968.834	.760	0.000
175.	8624378	.110	0.000	495.272	-220	0.000	4969.998	.780	0.000
176.	8624379	.110	0.000	494.264	-210	0.000	4971.185	.790	0.000
177.	8624380	.110	0.000	493.256	-200	0.000	4972.394	.800	0.000
178.	8624381	.110	0.000	492.248	-190	0.000	4973.622	.820	0.000
179.	8624382	.110	0.000	491.240	-180	0.000	4974.869	.830	0.000
180.	8624383	.110	0.000	490.232	-170	0.000	4976.133	.840	0.000

BULK

Z-PLANE (XY-PLANE) YTTRIUM GALLIUM GARNET

	LNGVEL	LPMI12	LPMI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
0.	7000.831	0.000	0.000	4061.275	0.000	0.000	4061.275	0.000	0.000
1.	7000.971	.130	0.000	4061.031	-3.390	0.000	4061.275	0.000	0.000
2.	7001.390	.260	0.000	4060.301	-7.790	0.000	4061.275	0.000	0.000
3.	7002.085	.390	0.000	4059.068	-1.170	0.000	4061.275	-0.000	0.000
4.	7003.053	.510	0.000	4057.399	-1.560	0.000	4061.275	0.000	0.000
5.	7004.208	.630	0.000	4055.242	-1.930	0.000	4061.275	0.000	0.000
6.	7005.763	.750	0.000	4052.629	-2.300	0.000	4061.275	0.000	0.000
7.	7007.530	.870	0.000	4049.574	-2.650	0.000	4061.275	0.000	0.000
8.	7009.516	.960	0.000	4046.091	-2.990	0.000	4061.275	0.000	0.000
9.	7091.730	1.000	0.000	4042.199	-3.320	0.000	4061.275	0.000	0.000
10.	7094.176	1.100	0.000	4037.919	-3.630	0.000	4061.275	0.000	0.000
11.	7096.820	1.270	0.000	4033.271	-3.920	0.000	4061.275	0.000	0.000
12.	7099.654	1.350	0.000	4028.260	-4.190	0.000	4061.275	0.000	0.000
13.	7102.663	1.430	0.000	4022.971	-4.450	0.000	4061.275	0.000	0.000
14.	7105.832	1.500	0.000	4017.371	-4.660	0.000	4061.275	0.000	0.000
15.	7109.144	1.560	0.000	4011.506	-4.890	0.000	4061.275	0.000	0.000
16.	7112.500	1.610	0.000	4005.412	-5.070	0.000	4061.275	0.000	0.000
17.	7115.124	1.660	0.000	3999.113	-5.230	0.000	4061.275	0.000	0.000
18.	7119.756	1.690	0.000	3992.642	-5.370	0.000	4061.275	0.000	0.000
19.	7123.454	1.720	0.000	3986.032	-5.480	0.000	4061.275	0.000	0.000
20.	7127.214	1.740	0.000	3979.315	-5.560	0.000	4061.275	0.000	0.000
21.	7131.001	1.750	0.000	3972.524	-5.620	0.000	4061.275	0.000	0.000
22.	7134.802	1.750	0.000	3965.693	-5.640	0.000	4061.275	0.000	0.000
23.	7138.599	1.740	0.000	3958.854	-5.650	0.000	4061.275	0.000	0.000
24.	7142.373	1.730	0.000	3952.041	-5.620	0.000	4061.275	0.000	0.000
25.	7146.107	1.700	0.000	3945.266	-5.570	0.000	4061.275	0.000	0.000
26.	7149.781	1.670	0.000	3938.623	-5.490	0.000	4061.275	-0.000	0.000
27.	7153.380	1.630	0.000	3932.083	-5.360	0.000	4061.275	0.000	0.000
28.	7156.886	1.580	0.000	3925.656	-5.250	0.000	4061.275	0.000	0.000
29.	7160.284	1.530	0.000	3919.497	-5.090	0.000	4061.275	0.000	0.000
30.	7163.558	1.470	0.000	3913.510	-4.910	0.000	4061.275	0.000	0.000
31.	7166.693	1.400	0.000	3907.767	-4.700	0.000	4061.275	0.000	0.000
32.	7169.675	1.330	0.000	3902.293	-4.460	0.000	4061.275	-0.000	0.000
33.	7172.491	1.250	0.000	3897.114	-4.220	0.000	4061.275	0.000	0.000
34.	7175.156	1.160	0.000	3892.256	-3.950	0.000	4061.275	0.000	0.000
35.	7177.576	1.070	0.000	3887.740	-3.660	0.000	4061.275	0.000	0.000
36.	7179.823	.960	0.000	3883.569	-3.350	0.000	4061.275	0.000	0.000
37.	7181.861	.860	0.000	3879.620	-3.020	0.000	4061.275	0.000	0.000
38.	7183.679	.760	0.000	3876.453	-2.680	0.000	4061.275	0.000	0.000
39.	7185.270	.670	0.000	3873.502	-2.320	0.000	4061.275	0.000	0.000
40.	7186.625	.570	0.000	3870.881	-1.950	0.000	4061.275	0.000	0.000
41.	7187.746	.460	0.000	3868.603	-1.570	0.000	4061.275	0.000	0.000
42.	7188.623	.340	0.000	3867.276	-1.150	0.000	4061.275	0.000	0.000
43.	7189.251	.230	0.000	3866.109	-.790	0.000	4061.275	0.000	0.000
44.	7189.629	.120	0.000	3865.406	-.400	0.000	4061.275	0.000	0.000
45.	7189.755	0.000	0.000	3865.172	.000	0.000	4061.275	0.000	0.000
46.	7189.629	-.120	0.000	3865.406	.400	0.000	4061.275	-0.000	0.000
47.	7189.251	-.230	0.000	3866.109	.790	0.000	4061.275	-0.000	0.000
48.	7188.623	-.340	0.000	3867.276	1.190	0.000	4061.275	-0.000	0.000
49.	7187.746	-.460	0.000	3868.603	1.570	0.000	4061.275	0.000	0.000

Z-PLANE (XY-PLANE) YTTRIUM GALLIUM GARNET

BULK

	LANGVEL	LPHI12	LPHI13	FSPVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
50.	7106.629	-1.570	0.000	3870.981	1.950	0.000	4061.275	-0.000	0.000
51.	7105.270	-0.570	0.000	3873.502	2.320	0.000	4061.275	0.000	0.000
52.	7103.879	-0.780	0.000	3876.953	2.660	0.000	4061.275	0.000	0.000
53.	7101.861	-0.860	0.000	3879.820	3.020	0.000	4061.275	-0.000	0.000
54.	7175.623	-0.900	0.000	3883.589	3.350	0.000	4061.275	-0.000	0.000
55.	7177.576	-1.070	0.000	3887.740	3.660	0.000	4061.275	0.000	0.000
56.	7175.128	-1.168	0.000	3892.256	3.950	0.000	4061.275	0.000	0.000
57.	7172.491	-1.250	0.000	3897.114	4.220	0.000	4061.275	0.000	0.000
58.	7169.875	-1.330	0.000	3902.293	4.480	0.000	4061.275	0.000	0.000
59.	7166.693	-1.480	0.000	3907.767	4.780	0.000	4061.275	-0.000	0.000
60.	7163.550	-1.470	0.000	3913.510	4.910	0.000	4061.275	0.000	0.000
61.	7160.284	-1.530	0.000	3919.497	5.090	0.000	4061.275	-0.000	0.000
62.	7156.866	-1.560	0.000	3925.646	5.250	0.000	4061.275	0.000	0.000
63.	7153.380	-1.630	0.000	3932.063	5.360	0.000	4061.275	0.000	0.000
64.	7149.781	-1.678	0.000	3938.823	5.490	0.000	4061.275	0.000	0.000
65.	7146.107	-1.700	0.000	3945.286	5.570	0.000	4061.275	0.000	0.000
66.	7142.373	-1.738	0.000	3952.041	5.620	0.000	4061.275	0.000	0.000
67.	7138.595	-1.740	0.000	3958.854	5.650	0.000	4061.275	0.000	0.000
68.	7134.802	-1.750	0.000	3965.693	5.640	0.000	4061.275	0.000	0.000
69.	7131.001	-1.750	0.000	3972.524	5.620	0.000	4061.275	0.000	0.000
70.	7127.214	-1.740	0.000	3979.315	5.560	0.000	4061.275	0.000	0.000
71.	7123.455	-1.720	0.000	3986.032	5.460	0.000	4061.275	-0.000	0.000
72.	7119.756	-1.690	0.000	3992.642	5.370	0.000	4061.275	0.000	0.000
73.	7116.124	-1.660	0.000	3999.113	5.230	0.000	4061.275	0.000	0.000
74.	7112.580	-1.610	0.000	4005.412	5.070	0.000	4061.275	0.000	0.000
75.	7109.144	-1.560	0.000	4011.506	4.890	0.000	4061.275	0.000	0.000
76.	7105.832	-1.500	0.000	4017.371	4.680	0.000	4061.275	0.000	0.000
77.	7102.663	-1.430	0.000	4022.971	4.450	0.000	4061.275	0.000	0.000
78.	7099.654	-1.350	0.000	4028.280	4.190	0.000	4061.275	0.000	0.000
79.	7096.820	-1.270	0.000	4033.271	3.920	0.000	4061.275	0.000	0.000
80.	7094.176	-1.180	0.000	4037.919	3.630	0.000	4061.275	0.000	0.000
81.	7091.736	-1.080	0.000	4042.199	3.320	0.000	4061.275	0.000	0.000
82.	7089.518	-0.960	0.000	4046.091	2.990	0.000	4061.275	0.000	0.000
83.	7087.530	-0.870	0.000	4049.574	2.650	0.000	4061.275	0.000	0.000
84.	7085.783	-0.750	0.000	4052.629	2.300	0.000	4061.275	0.000	0.000
85.	7084.268	-0.630	0.000	4055.242	1.930	0.000	4061.275	-0.000	0.000
86.	7083.053	-0.510	0.000	4057.399	1.560	0.000	4061.275	0.000	0.000
87.	7082.085	-0.390	0.000	4059.086	1.170	0.000	4061.275	0.000	0.000
88.	7081.350	-0.260	0.000	4060.301	0.790	0.000	4061.275	-0.000	0.000
89.	7080.971	-0.130	0.000	4061.031	0.390	0.000	4061.275	0.000	0.000
90.	7080.831	0.000	0.000	4061.275	-0.000	0.000	4061.275	0.000	0.000
91.	7080.971	0.130	0.000	4061.031	-0.390	0.000	4061.275	0.000	0.000
92.	7081.350	0.260	0.000	4060.301	-0.790	0.000	4061.275	-0.000	0.000
93.	7082.085	0.390	0.000	4059.086	-1.170	0.000	4061.275	-0.000	0.000
94.	7083.053	0.510	0.000	4057.399	-1.560	0.000	4061.275	-0.000	0.000
95.	7084.268	0.630	0.000	4055.242	-1.930	0.000	4061.275	0.000	0.000
96.	7085.783	0.750	0.000	4052.629	-2.300	0.000	4061.275	0.000	0.000
97.	7087.530	0.870	0.000	4049.574	-2.650	0.000	4061.275	0.000	0.000
98.	7089.518	0.960	0.000	4046.091	-2.990	0.000	4061.275	0.000	0.000
99.	7091.736	1.080	0.000	4042.199	-3.320	0.000	4061.275	0.000	0.000

Z-PLANE (XY-PLANE) YTTRIUM GALLIUM GARNET

BULK

	LRCVEL	LPHI12	LPHI13	FSRVEL	FSRPHI12	FSPH13	SSRVEL	SSPHI12	SSPHI13
100.	7894.176	1.160	0.000	4037.919	-3.630	0.000	4061.275	0.000	0.000
101.	7896.820	1.270	0.000	4033.271	-3.920	0.000	4061.275	-0.000	0.000
102.	7899.654	1.350	0.000	4028.280	-4.190	0.000	4061.275	0.000	0.000
103.	7102.663	1.430	0.000	4022.971	-4.450	0.000	4061.275	-0.000	0.000
104.	7105.432	1.500	0.000	4017.371	-4.680	0.000	4061.275	0.000	0.000
105.	7108.144	1.560	0.000	4011.504	-4.890	0.000	4061.275	-0.000	0.000
106.	7110.980	1.610	0.000	4005.412	-5.070	0.000	4061.275	0.000	0.000
107.	7113.124	1.660	0.000	3999.113	-5.230	0.000	4061.275	-0.000	0.000
108.	7115.756	1.690	0.000	3992.642	-5.370	0.000	4061.275	0.000	0.000
109.	7118.459	1.720	0.000	3986.032	-5.480	0.000	4061.275	-0.000	0.000
110.	7121.214	1.740	0.000	3979.315	-5.560	0.000	4061.275	0.000	0.000
111.	7124.081	1.750	0.000	3972.524	-5.620	0.000	4061.275	-0.000	0.000
112.	7126.802	1.750	0.000	3965.693	-5.640	0.000	4061.275	0.000	0.000
113.	7129.599	1.740	0.000	3958.854	-5.650	0.000	4061.275	-0.000	0.000
114.	7132.373	1.730	0.000	3952.041	-5.620	0.000	4061.275	0.000	0.000
115.	7144.107	1.700	0.000	3945.286	-5.570	0.000	4061.275	-0.000	0.000
116.	7144.781	1.670	0.000	3938.623	-5.490	0.000	4061.275	0.000	0.000
117.	7153.340	1.630	0.000	3932.083	-5.380	0.000	4061.275	-0.000	0.000
118.	7158.886	1.568	0.000	3925.696	-5.250	0.000	4061.275	0.000	0.000
119.	7160.284	1.530	0.000	3919.497	-5.090	0.000	4061.275	-0.000	0.000
120.	7163.956	1.470	0.000	3913.510	-4.910	0.000	4061.275	0.000	0.000
121.	7166.693	1.400	0.000	3907.767	-4.710	0.000	4061.275	-0.000	0.000
122.	7169.675	1.330	0.000	3902.293	-4.480	0.000	4061.275	0.000	0.000
123.	7172.491	1.250	0.000	3897.114	-4.220	0.000	4061.275	-0.000	0.000
124.	7175.126	1.160	0.000	3892.256	-3.950	0.000	4061.275	0.000	0.000
125.	7177.976	1.070	0.000	3887.740	-3.660	0.000	4061.275	-0.000	0.000
126.	7179.823	.980	0.000	3883.589	-3.350	0.000	4061.275	0.000	0.000
127.	7181.861	.890	0.000	3879.820	-3.020	0.000	4061.275	-0.000	0.000
128.	7183.679	.790	0.000	3876.453	-2.680	0.000	4061.275	0.000	0.000
129.	7185.270	.670	0.000	3873.502	-2.320	0.000	4061.275	-0.000	0.000
130.	7186.629	.570	0.000	3870.981	-1.950	0.000	4061.275	0.000	0.000
131.	7187.746	.468	0.000	3868.903	-1.570	0.000	4061.275	-0.000	0.000
132.	7188.623	.340	0.000	3867.276	-1.190	0.000	4061.275	0.000	0.000
133.	7189.251	.230	0.000	3866.109	-.790	0.000	4061.275	-0.000	0.000
134.	7189.629	.120	0.000	3865.406	0.000	0.000	4061.275	0.000	0.000
135.	7189.755	-.100	0.000	3865.172	.400	0.000	4061.275	-0.000	0.000
136.	7189.629	-.230	0.000	3865.005	.790	0.000	4061.275	0.000	0.000
137.	7189.251	-.340	0.000	3865.109	1.190	0.000	4061.275	-0.000	0.000
138.	7188.623	-.468	0.000	3867.276	1.570	0.000	4061.275	0.000	0.000
139.	7187.746	-.570	0.000	3868.903	1.950	0.000	4061.275	-0.000	0.000
140.	7186.629	-.670	0.000	3870.981	2.320	0.000	4061.275	0.000	0.000
141.	7185.270	-.790	0.000	3873.502	2.680	0.000	4061.275	-0.000	0.000
142.	7183.679	-.980	0.000	3876.453	2.950	0.000	4061.275	0.000	0.000
143.	7181.861	-.890	0.000	3879.820	3.020	0.000	4061.275	-0.000	0.000
144.	7179.823	-.980	0.000	3883.589	3.350	0.000	4061.275	0.000	0.000
145.	7177.976	-1.070	0.000	3887.740	3.660	0.000	4061.275	-0.000	0.000
146.	7175.126	-1.160	0.000	3892.256	3.950	0.000	4061.275	0.000	0.000
147.	7172.491	-1.250	0.000	3897.114	4.220	0.000	4061.275	-0.000	0.000
148.	7169.675	-1.330	0.000	3902.293	4.480	0.000	4061.275	0.000	0.000
149.	7166.693	-1.400	0.000	3907.767	4.700	0.000	4061.275	-0.000	0.000

Z-PLANE (XY-PLANE) YTTRIUM GALLIUM GARNET									
	LPH12	LPH13	FSPVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13	BULK
150.	-1.470	0.000	393.510	4.910	0.000	4061.275	0.000	0.000	SSPH13
151.	-1.530	0.000	3919.497	5.090	0.000	4061.275	0.000	0.000	0.000
152.	-1.560	0.000	3925.696	5.250	0.000	4061.275	0.000	0.000	0.000
153.	-1.630	0.000	3932.083	5.380	0.000	4061.275	0.000	0.000	0.000
154.	-1.670	0.000	3938.623	5.490	0.000	4061.275	0.000	0.000	0.000
155.	-1.700	0.000	3945.246	5.570	0.000	4061.275	0.000	0.000	0.000
156.	-1.730	0.000	3952.041	5.620	0.000	4061.275	0.000	0.000	0.000
157.	-1.740	0.000	3958.894	5.650	0.000	4061.275	0.000	0.000	0.000
158.	-1.750	0.000	3965.693	5.640	0.000	4061.275	0.000	0.000	0.000
159.	-1.750	0.000	3972.524	5.620	0.000	4061.275	0.000	0.000	0.000
160.	-1.740	0.000	3979.315	5.560	0.000	4061.275	0.000	0.000	0.000
161.	-1.720	0.000	3986.032	5.480	0.000	4061.275	0.000	0.000	0.000
162.	-1.690	0.000	3992.682	5.370	0.000	4061.275	0.000	0.000	0.000
163.	-1.660	0.000	3999.113	5.230	0.000	4061.275	0.000	0.000	0.000
164.	-1.610	0.000	4005.412	5.070	0.000	4061.275	0.000	0.000	0.000
165.	-1.560	0.000	4011.502	4.890	0.000	4061.275	0.000	0.000	0.000
166.	-1.500	0.000	4017.371	4.660	0.000	4061.275	0.000	0.000	0.000
167.	-1.430	0.000	4022.971	4.450	0.000	4061.275	0.000	0.000	0.000
168.	-1.350	0.000	4028.250	4.190	0.000	4061.275	0.000	0.000	0.000
169.	-1.270	0.000	4033.271	3.920	0.000	4061.275	0.000	0.000	0.000
170.	-1.190	0.000	4037.919	3.630	0.000	4061.275	0.000	0.000	0.000
171.	-1.100	0.000	4042.199	3.320	0.000	4061.275	0.000	0.000	0.000
172.	-0.900	0.000	4046.091	2.990	0.000	4061.275	0.000	0.000	0.000
173.	-0.870	0.000	4049.574	2.650	0.000	4061.275	0.000	0.000	0.000
174.	-0.750	0.000	4052.629	2.300	0.000	4061.275	0.000	0.000	0.000
175.	-0.630	0.000	4055.262	1.930	0.000	4061.275	0.000	0.000	0.000
176.	-0.510	0.000	4057.399	1.560	0.000	4061.275	0.000	0.000	0.000
177.	-0.390	0.000	4059.066	1.170	0.000	4061.275	0.000	0.000	0.000
178.	-0.260	0.000	4060.301	0.790	0.000	4061.275	0.000	0.000	0.000
179.	-0.130	0.000	4061.031	0.390	0.000	4061.275	0.000	0.000	0.000
180.	0.000	0.000	4061.275	-0.000	0.000	4061.275	0.000	0.000	0.000

	111-PLANE YTTRIUM GALLIUM GARNET									
	LNGVEL	LPM12	LPM13	FSRVEL	FSPM12	FSPM13	SSRVEL	SSPM12	SSPM13	
0.		-0.000	0.000	4061.275	-0.000	0.000	3682.172	0.000	0.000	SSPM13
1.	7189.755	0.000	0.000	4061.157	-0.190	-0.140	3862.291	0.000	0.000	
2.	7189.750	0.010	0.170	4060.002	-0.360	-0.270	3865.647	4.000	-1.140	
3.	7189.780	0.010	0.250	4060.213	-0.570	-0.400	3866.240	6.000	-1.200	
4.	7189.799	0.010	0.330	4059.592	-0.760	-0.540	3867.067	8.000	-1.320	
5.	7189.824	0.010	0.410	4058.340	-0.940	-0.670	3868.124	9.990	-1.450	
6.	7189.853	0.010	0.490	4057.064	-1.120	-0.800	3869.409	11.000	-1.620	
7.	7189.887	0.020	0.570	4055.566	-1.300	-0.930	3870.915	1.370	-1.800	
8.	7189.925	0.020	0.650	4053.854	-1.470	-1.050	3872.637	1.290	-1.950	
9.	7189.967	0.020	0.720	4051.935	-1.640	-1.140	3874.568	1.720	-2.100	
10.	7190.012	0.020	0.790	4049.815	-1.800	-1.240	3876.700	1.690	-2.250	
11.	7190.060	0.020	0.870	4047.504	-1.950	-1.410	3879.023	2.040	-2.400	
12.	7190.111	0.020	0.930	4045.013	-2.090	-1.520	3881.528	2.190	-2.550	
13.	7190.163	0.020	1.000	4042.352	-2.220	-1.630	3884.202	2.330	-2.700	
14.	7190.216	0.020	1.060	4039.536	-2.350	-1.740	3887.332	2.450	-2.850	
15.	7190.276	0.020	1.120	4036.576	-2.460	-1.830	3890.005	2.560	-3.000	
16.	7190.324	0.020	1.180	4033.494	-2.550	-1.930	3893.102	2.660	-3.150	
17.	7190.377	0.020	1.230	4030.305	-2.630	-2.020	3896.306	2.740	-3.300	
18.	7190.429	0.020	1.290	4027.032	-2.690	-2.100	3899.593	2.790	-3.450	
19.	7190.479	0.020	1.330	4023.699	-2.730	-2.160	3902.935	2.830	-3.600	
20.	7190.527	0.020	1.380	4020.336	-2.750	-2.260	3906.315	2.840	-3.750	
21.	7190.573	0.020	1.420	4016.976	-2.730	-2.320	3909.685	2.810	-3.900	
22.	7190.614	0.020	1.450	4013.666	-2.660	-2.360	3913.008	2.750	-4.050	
23.	7190.653	0.020	1.480	4010.450	-2.560	-2.440	3916.234	2.650	-4.200	
24.	7190.686	0.010	1.510	4007.390	-2.440	-2.450	3919.303	2.480	-4.350	
25.	7190.716	0.010	1.530	4004.558	-2.280	-2.530	3922.142	2.280	-4.500	
26.	7190.740	0.010	1.550	4002.040	-1.910	-2.560	3924.667	1.990	-4.650	
27.	7190.760	0.010	1.570	3999.924	-1.540	-2.540	3926.783	1.570	-4.800	
28.	7190.773	0.010	1.580	3998.328	-1.060	-2.510	3928.390	1.100	-4.950	
29.	7190.782	0.000	1.590	3997.320	-0.560	-2.620	3929.598	0.570	-5.100	
30.	7190.785	-0.000	1.590	3996.976	0.000	-2.630	3929.742	0.000	-5.250	
31.	7190.782	-0.000	1.590	3997.320	0.560	-2.620	3929.396	-0.570	-5.400	
32.	7190.773	-0.010	1.580	3996.326	1.060	-2.610	3928.590	-1.100	-5.550	
33.	7190.760	-0.010	1.570	3995.929	1.540	-2.590	3926.783	-1.570	-5.700	
34.	7190.740	-0.010	1.550	3995.040	1.910	-2.560	3924.667	-1.990	-5.850	
35.	7190.716	-0.010	1.530	4004.556	2.280	-2.530	3922.142	-2.260	-6.000	
36.	7190.686	-0.010	1.510	4007.390	2.440	-2.450	3919.303	-2.440	-6.150	
37.	7190.653	-0.020	1.480	4010.450	2.560	-2.440	3916.234	-2.600	-6.300	
38.	7190.614	-0.020	1.450	4013.666	2.600	-2.320	3913.008	-2.750	-6.450	
39.	7190.573	-0.020	1.420	4016.976	2.730	-2.320	3909.685	-2.810	-6.600	
40.	7190.527	-0.020	1.380	4020.336	2.750	-2.260	3906.315	-2.840	-6.750	
41.	7190.479	-0.020	1.330	4023.699	2.730	-2.160	3902.935	-2.830	-6.900	
42.	7190.429	-0.020	1.290	4027.032	2.690	-2.100	3899.593	-2.790	-7.050	
43.	7190.377	-0.020	1.230	4030.305	2.630	-2.020	3896.306	-2.740	-7.200	
44.	7190.324	-0.020	1.180	4033.494	2.550	-1.930	3893.102	-2.600	-7.350	
45.	7190.270	-0.020	1.120	4036.576	2.460	-1.830	3890.005	-2.560	-7.500	
46.	7190.216	-0.020	1.060	4039.536	2.350	-1.740	3887.332	-2.450	-7.650	
47.	7190.163	-0.020	1.000	4042.352	2.220	-1.630	3884.202	-2.330	-7.800	
48.	7190.111	-0.020	0.930	4045.013	2.090	-1.520	3881.528	-2.190	-7.950	
49.	7190.060	-0.020	0.870	4047.504	1.950	-1.410	3879.023	-2.040	-8.100	

BULK

111-PLANE YTTRIUM GALLIUM GARNET

	LPM112	LPM113	FSRVEL	FSPM112	FSPM113	SSRVEL	SSPM112	SSPM113
50.	7190.012	-0.020	4049.815	1.800	-2.290	3876.700	-1.890	-1.326
51.	7189.967	-0.020	4051.935	1.040	-1.170	3874.568	-1.720	-1.200
52.	7189.925	-0.020	4053.054	1.470	-1.050	3872.637	-1.550	-1.000
53.	7189.887	-0.020	4055.566	1.330	-0.930	3874.915	-1.374	-0.800
54.	7189.853	-0.010	4057.084	1.120	-0.800	3869.449	-1.180	-0.820
55.	7189.824	-0.010	4058.340	0.940	-0.670	3866.124	-0.990	-0.500
56.	7189.795	-0.010	4059.392	0.760	-0.540	3867.067	-0.800	-0.500
57.	7189.780	-0.010	4060.213	0.570	-0.400	3866.240	-0.600	-0.200
58.	7189.766	-0.010	4060.602	0.360	-0.270	3865.847	-0.400	-0.200
59.	7189.750	-0.000	4061.157	0.190	-0.140	3865.291	-0.200	-0.100
60.	7189.755	0.000	4061.275	-0.000	0.000	3865.172	-0.000	-0.000
61.	7189.758	-0.000	4061.157	-0.190	0.140	3865.291	0.200	0.100
62.	7189.766	0.010	4060.802	-0.380	0.270	3865.647	0.400	0.200
63.	7189.780	0.010	4060.213	-0.570	0.400	3866.240	0.600	0.400
64.	7189.799	0.010	4059.392	-0.760	0.540	3867.067	0.800	0.500
65.	7189.824	0.010	4058.340	-0.940	0.670	3868.124	0.990	0.600
66.	7189.853	0.010	4057.084	-1.120	0.800	3869.449	1.180	0.800
67.	7189.887	0.020	4055.566	-1.330	0.930	3872.637	1.370	0.900
68.	7189.925	0.020	4053.054	-1.470	1.050	3874.568	1.550	1.000
69.	7189.967	0.020	4051.935	-1.640	1.170	3874.915	1.720	1.200
70.	7190.012	0.020	4049.815	-1.800	1.250	3.76.700	1.890	1.320
71.	7190.060	0.020	4047.504	-1.950	1.410	3874.023	2.040	1.400
72.	7190.111	0.020	4045.013	-2.090	1.520	3881.528	2.190	1.500
73.	7190.163	0.020	4042.352	-2.220	1.630	3884.202	2.330	1.600
74.	7190.216	0.020	4039.536	-2.350	1.740	3887.032	2.450	1.700
75.	7190.270	0.020	4036.576	-2.460	1.830	3891.005	2.560	1.800
76.	7190.324	0.020	4033.494	-2.550	1.900	3893.102	2.650	1.900
77.	7190.377	0.020	4030.305	-2.630	2.020	3896.306	2.740	2.000
78.	7190.429	0.020	4027.032	-2.690	2.100	3899.593	2.790	2.100
79.	7190.479	0.020	4023.695	-2.730	2.160	3902.939	2.830	2.200
80.	7190.527	0.020	4020.336	-2.750	2.260	3906.315	2.840	2.200
81.	7190.573	0.020	4016.977	-2.730	2.320	3909.885	2.810	2.300
82.	7190.619	0.020	4013.665	-2.680	2.380	3913.008	2.750	2.400
83.	7190.653	0.020	4010.450	-2.630	2.440	3916.234	2.680	2.400
84.	7190.687	0.010	4007.390	-2.420	2.490	3919.533	2.460	2.400
85.	7190.716	0.010	4004.556	-2.200	2.530	3922.142	2.280	2.500
86.	7190.740	0.010	4002.040	-1.910	2.560	3924.667	1.990	2.550
87.	7190.760	0.010	3999.929	-1.540	2.590	3926.763	1.570	2.600
88.	7190.774	0.010	3998.326	-1.060	2.610	3928.390	1.100	2.650
89.	7190.782	0.000	3997.320	-0.560	2.620	3929.398	0.570	2.680
90.	7190.785	-0.000	3996.976	0.560	2.630	3929.742	-0.570	2.690
91.	7190.782	-0.000	3997.320	1.060	2.610	3928.390	-1.100	2.650
92.	7190.774	-0.010	3998.326	1.540	2.590	3926.763	-1.570	2.600
93.	7190.760	-0.010	3999.929	1.910	2.560	3924.667	-1.990	2.550
94.	7190.740	-0.010	4002.040	2.200	2.530	3922.142	-2.280	2.520
95.	7190.716	-0.010	4004.556	2.420	2.490	3919.533	-2.460	2.400
96.	7190.687	-0.010	4007.390	2.580	2.440	3916.234	-2.680	2.400
97.	7190.653	-0.020	4010.450	2.680	2.380	3913.008	-2.750	2.400
98.	7190.615	-0.020	4013.665	2.630	2.300	3909.885	-2.790	2.390
99.	7190.573	-0.020	4016.977	2.730	2.260	3906.306	-2.810	2.330

111-PLANE YTTRIUM GALLIUM GARNET

BULK

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
100.	7190.527	-0.20	-1.380	4030.336	2.750	2.820	3906.315	-2.640	2.210
101.	7190.475	-0.20	-1.330	4323.639	2.730	2.810	3922.339	-2.630	2.200
102.	7190.429	-0.20	-1.290	4027.032	2.690	2.800	3899.593	-2.620	2.130
103.	7190.377	-0.20	-1.230	4030.305	2.630	2.820	3896.306	-2.740	2.040
104.	7190.324	-0.20	-1.180	4033.494	2.550	1.930	3893.102	-2.660	1.900
105.	7190.270	-0.20	-1.120	4036.576	2.460	1.830	3890.005	-2.560	1.860
106.	7190.216	-0.20	-1.060	4039.536	2.350	1.740	3887.032	-2.450	1.760
107.	7190.163	-0.20	-1.000	4042.352	2.220	1.630	3884.202	-2.330	1.660
108.	7190.111	-0.20	-0.936	4045.013	2.090	1.520	3881.528	-2.190	1.520
109.	7190.060	-0.20	-0.870	4047.504	1.950	1.410	3879.023	-2.040	1.440
110.	7190.012	-0.20	-0.790	4049.815	1.800	1.290	3876.700	-1.890	1.320
111.	7189.967	-0.20	-0.720	4051.935	1.640	1.170	3874.568	-1.720	1.200
112.	7189.925	-0.20	-0.650	4053.854	1.470	1.050	3872.637	-1.550	1.080
113.	7189.887	-0.20	-0.570	4055.566	1.300	0.930	3870.915	-1.370	0.920
114.	7189.853	-0.20	-0.490	4057.064	1.120	0.800	3869.389	-1.180	0.820
115.	7189.824	-0.10	-0.410	4058.346	0.940	0.670	3868.024	-0.990	0.690
116.	7189.799	-0.10	-0.330	4059.392	0.760	0.540	3867.067	-0.800	0.520
117.	7189.770	-0.10	-0.250	4060.213	0.570	0.400	3866.240	-0.600	0.410
118.	7189.746	-0.10	-0.170	4060.802	0.380	0.270	3865.647	-0.400	0.250
119.	7189.728	-0.10	-0.080	4061.157	0.190	0.140	3865.241	-0.200	0.140
120.	7189.715	-0.000	0.000	4061.275	0.000	0.000	3865.072	0.000	0.000
121.	7189.708	0.000	0.000	4061.357	-0.190	-0.140	3865.291	0.000	-0.140
122.	7189.706	0.10	0.170	4060.802	-0.380	-0.270	3865.647	0.000	-0.270
123.	7189.700	0.10	0.250	4060.213	-0.570	-0.400	3866.240	0.000	-0.400
124.	7189.700	0.10	0.330	4059.392	-0.760	-0.540	3867.067	0.000	-0.540
125.	7189.824	0.10	0.410	4058.340	-0.940	-0.670	3868.024	0.000	-0.670
126.	7189.853	0.10	0.490	4057.064	-1.120	-0.800	3869.389	0.000	-0.800
127.	7189.887	0.20	0.570	4055.566	-1.300	-0.930	3870.915	0.000	-0.930
128.	7189.925	0.20	0.650	4053.854	-1.470	-1.050	3872.637	0.000	-1.050
129.	7189.967	0.20	0.720	4051.935	-1.640	-1.170	3874.568	0.000	-1.170
130.	7190.012	0.20	0.790	4049.815	-1.800	-1.290	3876.700	0.000	-1.290
131.	7190.060	0.20	0.870	4047.504	-1.950	-1.410	3879.023	0.000	-1.410
132.	7190.111	0.20	0.930	4045.013	-2.090	-1.520	3881.526	0.000	-1.520
133.	7190.163	0.20	1.000	4042.352	-2.220	-1.630	3884.202	0.000	-1.630
134.	7190.216	0.20	1.060	4039.536	-2.350	-1.740	3887.032	0.000	-1.740
135.	7190.270	0.20	1.120	4036.576	-2.460	-1.830	3890.005	0.000	-1.830
136.	7190.324	0.20	1.180	4033.494	-2.550	-1.930	3893.102	0.000	-1.930
137.	7190.377	0.20	1.230	4030.305	-2.630	-2.040	3896.306	0.000	-2.040
138.	7190.429	0.20	1.290	4027.032	-2.690	-2.130	3899.593	0.000	-2.130
139.	7190.475	0.20	1.330	4023.699	-2.730	-2.190	3902.334	0.000	-2.190
140.	7190.527	0.20	1.380	4020.336	-2.750	-2.220	3905.005	0.000	-2.220
141.	7190.573	0.20	1.420	4016.976	-2.730	-2.200	3907.666	0.000	-2.200
142.	7190.614	0.20	1.450	4013.666	-2.660	-2.130	3910.303	0.000	-2.130
143.	7190.653	0.20	1.480	4010.450	-2.560	-2.040	3913.008	0.000	-2.040
144.	7190.666	0.10	1.510	4007.350	-2.420	-1.930	3915.763	0.000	-1.930
145.	7190.716	0.10	1.530	4004.550	-2.260	-1.810	3918.567	0.000	-1.810
146.	7190.740	0.10	1.550	4002.040	-2.100	-1.690	3921.422	0.000	-1.690
147.	7190.760	0.10	1.570	3999.329	-1.940	-1.570	3924.326	0.000	-1.570
148.	7190.773	0.10	1.580	3998.326	-1.800	-1.460	3927.269	0.000	-1.460
149.	7190.782	0.000	1.590	3997.320	-1.660	-1.350	3930.248	0.000	-1.350

111-PLANE YTTRIUM GALLIUM GARNET

BULK

	LNGVEL	LPMI12	LPMI13	FSRWEL	FSPMI2	FSPMI3	SRWEL	SMPMI2	SMPMI3
150.	7190.785	0.000	1.590	3996.976	-0.000	-2.630	3929.782	-0.000	-2.600
151.	7190.782	-0.000	1.590	3997.320	.560	-2.620	3929.398	-1.170	-2.530
152.	7190.773	-0.010	1.590	3998.326	1.080	-2.610	3929.390	-1.100	-2.500
153.	7190.760	-0.010	1.570	3995.929	1.540	-2.550	3929.703	-1.570	-2.510
154.	7190.740	-0.010	1.550	4032.040	1.910	-2.550	3929.667	-1.550	-2.510
155.	7189.716	-0.010	1.530	4004.556	2.260	-2.530	3922.182	-2.260	-2.500
156.	7190.686	-0.010	1.510	4007.390	2.420	-2.490	3913.303	-2.420	-2.400
157.	7190.653	-0.020	1.480	4010.450	2.660	-2.440	3910.234	-2.660	-2.400
158.	7190.614	-0.020	1.450	4013.666	2.860	-2.360	3913.008	-2.860	-2.330
159.	7190.573	-0.020	1.420	4016.976	2.730	-2.320	3907.005	-2.730	-2.330
160.	7190.527	-0.020	1.380	4020.336	2.750	-2.260	3905.315	-2.750	-2.210
161.	7190.479	-0.020	1.330	4023.695	2.730	-2.260	3902.939	-2.630	-2.200
162.	7189.424	-0.020	1.290	4027.032	2.690	-2.100	3099.593	-2.490	-2.130
163.	7190.377	-0.020	1.230	4030.305	2.630	-2.120	3099.306	-2.710	-2.090
164.	7190.324	-0.020	1.180	4033.494	2.550	-1.930	3893.102	-2.600	-1.960
165.	7190.270	-0.020	1.120	4036.576	2.460	-1.630	3901.005	-2.560	-1.960
166.	7190.216	-0.020	1.060	4039.536	2.350	-1.740	3007.032	-2.420	-1.700
167.	7190.163	-0.020	1.000	4042.352	2.220	-1.450	3004.202	-2.330	-1.600
168.	7190.111	-0.020	.930	4045.013	2.090	-1.150	3881.528	-2.190	-1.500
169.	7190.060	-0.020	.870	4047.504	1.950	-1.410	3075.123	-2.040	-1.440
170.	7190.012	-0.020	.790	4049.815	1.800	-1.250	3076.700	-1.750	-1.320
171.	7189.967	-0.020	.720	4051.935	1.640	-1.170	3074.568	-1.700	-1.200
172.	7189.925	-0.020	.650	4053.854	1.470	-1.150	3072.637	-1.550	-1.060
173.	7189.887	-0.020	.570	4055.566	1.300	-0.930	3071.915	-1.370	-0.930
174.	7189.853	-0.010	.490	4057.064	1.120	-0.600	3069.409	-1.160	-0.620
175.	7189.824	-0.010	.410	4058.340	.940	-0.670	3069.124	-0.940	-0.500
176.	7189.799	-0.010	.330	4059.392	.760	-0.540	3067.067	-0.760	-0.380
177.	7189.769	-0.010	.250	4060.213	.570	-0.400	3886.240	-0.600	-0.260
178.	7189.766	-0.010	.170	4060.802	.380	-0.270	3065.647	-0.400	-0.140
179.	7189.758	-0.000	.090	4061.157	.190	-0.140	3065.291	-0.200	-0.140
180.	7189.755	0.000	-0.000	4061.275	-0.000	-0.000	3065.172	0.000	0.000

110-PLANE YTTRIUM GALLIUM GARNET

	LPMI12	LPMI13	FSPVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
0.	0.000	0.000	3931.626	2.710	-0.000	3931.625	-2.710	-0.000
1.	-0.080	-0.000	3934.896	2.740	0.000	3928.512	-2.490	-0.000
2.	-1.160	-0.000	3938.200	2.761	0.000	3925.680	-2.244	0.000
3.	-2.240	-0.000	3941.534	2.790	0.000	3923.146	-1.999	-0.000
4.	-3.320	-0.000	3944.892	2.800	0.000	3920.522	-1.730	-0.000
5.	-4.410	-0.000	3948.272	2.820	0.000	3919.018	-1.460	-0.000
6.	-5.500	-0.000	3951.665	2.830	-0.000	3917.444	-1.160	-0.000
7.	-6.590	-0.000	3955.076	2.830	0.000	3916.207	-0.899	-0.000
8.	-7.680	-0.000	3958.495	2.830	0.000	3915.315	-0.600	-0.000
9.	-8.770	-0.000	3961.917	2.830	0.000	3914.770	-0.310	-0.000
10.	-9.850	-0.000	3965.335	2.830	0.000	3914.577	-0.010	-0.000
11.	-10.940	-0.000	3968.757	2.820	0.000	3914.736	0.260	-0.000
12.	-12.020	-0.000	3972.167	2.810	0.000	3915.247	0.580	-0.000
13.	-13.110	-0.000	3975.564	2.800	0.000	3916.106	0.870	-0.000
14.	-14.190	-0.000	3978.945	2.780	-0.000	3917.316	1.160	-0.000
15.	-15.270	-0.000	3982.306	2.760	-0.000	3918.804	1.440	-0.000
16.	-16.350	-0.000	3985.642	2.730	0.000	3920.747	1.710	-0.000
17.	-17.420	-0.000	3988.949	2.710	0.000	3922.956	1.960	-0.000
18.	-18.490	-0.000	3992.224	2.680	0.000	3925.474	2.240	-0.000
19.	-19.560	-0.000	3995.463	2.640	0.000	3928.307	2.480	-0.000
20.	-20.630	-0.000	3998.661	2.610	-0.000	3931.425	2.720	-0.000
21.	-21.700	-0.000	4001.815	2.570	0.000	3934.820	2.940	-0.000
22.	-22.770	-0.000	4004.922	2.520	-0.000	3938.475	3.150	-0.000
23.	-23.840	-0.000	4007.977	2.460	-0.000	3942.373	3.340	-0.000
24.	-24.910	-0.000	4010.977	2.430	0.000	3946.496	3.510	-0.000
25.	-25.980	-0.000	4013.910	2.380	-0.000	3950.823	3.670	-0.000
26.	-27.050	-0.000	4016.798	2.330	0.000	3955.336	3.810	-0.000
27.	-28.120	-0.000	4019.612	2.270	0.000	3960.011	3.930	-0.000
28.	-29.190	-0.000	4022.357	2.210	0.000	3964.827	4.030	-0.000
29.	-30.260	-0.000	4025.030	2.150	0.000	3969.760	4.110	-0.000
30.	-31.330	-0.000	4027.624	2.090	0.000	3974.786	4.180	-0.000
31.	-32.400	-0.000	4030.145	2.020	-0.000	3979.880	4.220	-0.000
32.	-33.470	-0.000	4032.589	1.950	0.000	3985.019	4.240	-0.000
33.	-34.540	-0.000	4034.944	1.880	0.000	3990.176	4.240	-0.000
34.	-35.610	-0.000	4037.214	1.810	-0.000	3995.326	4.210	-0.000
35.	-36.680	-0.000	4039.394	1.730	0.000	4000.443	4.170	-0.000
36.	-37.750	-0.000	4041.482	1.660	-0.000	4005.493	4.110	-0.000
37.	-38.820	-0.000	4043.477	1.580	0.000	4010.478	4.030	-0.000
38.	-39.890	-0.000	4045.375	1.500	-0.000	4015.346	3.920	-0.000
39.	-40.960	-0.000	4047.175	1.420	0.000	4020.080	3.800	-0.000
40.	-42.030	-0.000	4048.874	1.340	-0.000	4024.687	3.660	-0.000
41.	-43.100	-0.000	4050.471	1.250	0.000	4029.054	3.500	-0.000
42.	-44.170	-0.000	4051.963	1.170	0.000	4033.247	3.320	-0.000
43.	-45.240	-0.000	4053.350	1.080	0.000	4037.216	3.130	-0.000
44.	-46.310	-0.000	4054.625	0.990	-0.000	4040.840	2.920	-0.000
45.	-47.380	-0.000	4055.799	0.900	0.000	4044.000	2.690	-0.000
46.	-48.450	-0.000	4056.858	0.810	0.000	4047.577	2.440	-0.000
47.	-49.520	-0.000	4057.806	0.720	0.000	4050.455	2.210	-0.000
48.	-50.590	-0.000	4058.641	0.630	0.000	4053.014	1.940	-0.000
49.	-51.660	-0.000	4059.363	0.540	-0.000	4055.225	1.670	-0.000

BULK

110-PLANE YTTRIUM GALLIUM GARNET

	LPH12	LPH13	FSRVEL	FSPH12	FSPH13	SRVEL	SSPH12	SSPH13
50.	-1.600	0.000	4059.970	.440	0.000	4057.452	1.350	0.000
51.	-1.400	0.000	4060.462	.350	0.000	4056.700	1.110	0.000
52.	-1.350	0.000	4060.835	.260	0.000	4059.090	.620	0.000
53.	-1.220	0.000	4061.095	.160	-0.000	4060.710	.520	0.000
54.	-1.100	0.000	4061.243	.070	-0.000	4061.175	.670	0.000
55.	.030	0.000	4061.262	-.020	-0.000	4061.271	-.520	-0.000
56.	.160	0.000	4061.132	-.120	-0.000	4060.375	-.360	-0.000
57.	.250	0.000	4060.976	-.210	0.000	4060.326	-.460	-0.000
58.	.420	0.000	4060.695	-.310	0.000	4059.306	-.570	-0.000
59.	.550	0.000	4060.217	-.400	0.000	4057.927	-1.260	-0.000
60.	.670	0.000	4059.664	-.450	0.000	4056.193	-1.540	-0.000
61.	.750	0.000	4058.996	-.500	0.000	4054.116	-1.820	-0.000
62.	.900	-0.000	4058.214	-.600	0.000	4051.705	-2.500	-0.000
63.	1.020	0.000	4057.320	-.770	-0.000	4048.373	-2.340	-0.000
64.	1.120	-0.000	4056.333	-.860	-0.000	4045.935	-2.560	-0.000
65.	1.220	0.000	4055.195	-.950	-0.000	4042.607	-2.810	-0.000
66.	1.320	0.000	4053.967	-1.040	0.000	4039.006	-3.030	-0.000
67.	1.410	0.000	4052.631	-1.130	0.000	4035.150	-3.230	-0.000
68.	1.500	-0.000	4051.189	-1.210	0.000	4031.060	-3.420	-0.000
69.	1.570	0.000	4049.641	-1.300	0.000	4026.756	-3.580	-0.000
70.	1.640	0.000	4047.990	-1.380	-0.000	4022.261	-3.740	-0.000
71.	1.710	0.000	4046.237	-1.460	0.000	4017.596	-3.870	-0.000
72.	1.760	0.000	4044.385	-1.540	-0.000	4012.791	-3.980	-0.000
73.	1.810	0.000	4042.436	-1.620	-0.000	4007.663	-4.070	-0.000
74.	1.860	0.000	4040.391	-1.700	0.000	4002.040	-4.140	-0.000
75.	1.890	0.000	4038.254	-1.770	-0.000	3997.747	-4.200	-0.000
76.	1.920	0.000	4036.026	-1.850	0.000	3992.809	-4.250	-0.000
77.	1.940	0.000	4033.711	-1.920	0.000	3987.452	-4.290	-0.000
78.	1.950	-0.000	4031.311	-1.990	-0.000	3982.302	-4.320	-0.000
79.	1.950	0.000	4028.826	-2.050	0.000	3977.163	-4.340	-0.000
80.	1.950	0.000	4026.266	-2.120	-0.000	3972.122	-4.350	-0.000
81.	1.940	0.000	4023.628	-2.180	0.000	3967.142	-4.360	-0.000
82.	1.930	0.000	4020.916	-2.240	-0.000	3962.260	-4.360	-0.000
83.	1.910	0.000	4018.134	-2.300	-0.000	3957.524	-4.350	-0.000
84.	1.880	0.000	4015.289	-2.350	0.000	3952.932	-4.340	-0.000
85.	1.840	-0.000	4012.373	-2.410	-0.000	3948.514	-4.320	-0.000
86.	1.800	0.000	4009.400	-2.460	0.000	3944.292	-4.290	-0.000
87.	1.760	0.000	4006.370	-2.500	0.000	3940.265	-4.240	-0.000
88.	1.720	0.000	4003.288	-2.550	-0.000	3936.444	-4.190	-0.000
89.	1.650	0.000	4000.156	-2.590	0.000	3932.994	-4.130	-0.000
90.	1.590	0.000	3996.976	-2.630	-0.000	3929.743	-4.070	-0.000
91.	1.520	0.000	3993.758	-2.660	0.000	3926.777	-4.000	-0.000
92.	1.450	0.000	3990.499	-2.690	0.000	3924.106	-3.920	-0.000
93.	1.380	0.000	3987.207	-2.720	-0.000	3921.750	-3.840	-0.000
94.	1.310	0.000	3983.864	-2.750	0.000	3919.712	-3.750	-0.000
95.	1.230	-0.000	3980.534	-2.770	-0.000	3918.005	-3.660	-0.000
96.	1.150	0.000	3977.163	-2.790	0.000	3916.635	-3.570	-0.000
97.	1.060	0.000	3973.712	-2.800	0.000	3915.610	-3.470	-0.000
98.	.980	0.000	3970.368	-2.820	0.000	3914.933	-3.370	-0.000
99.	.890	-0.000	3966.993	-2.830	-0.000	3914.606	-3.260	-0.000

110-PLANE YTTRIUM GALLIUM GARNET

	LNGVEL	LPHI12	LPHI13	FSPH12	FSPH13	SSPH12	SSPH13
100.	7217.467	.600	-0.000	3933.533	0.000	3214.635	-0.000
101.	7219.160	.720	0.000	3960.110	0.000	3915.014	-0.000
102.	7220.640	.630	0.000	3956.690	0.000	3915.743	-0.000
103.	7221.927	.540	0.000	3953.276	0.000	3916.018	-0.000
104.	7223.021	.450	0.000	3949.873	0.000	3916.233	-0.000
105.	7223.923	.370	0.000	3946.465	0.000	3916.463	-0.000
106.	7224.637	.260	0.000	3943.116	0.000	3922.057	-0.000
107.	7225.165	.200	0.000	3939.770	0.000	3924.446	-0.000
108.	7225.511	.120	0.000	3936.452	-0.000	3927.139	-0.000
109.	7225.675	.040	0.000	3933.165	-0.000	3930.122	-0.000
110.	7225.674	-.040	0.000	3929.913	-0.000	3933.362	-0.000
111.	7225.503	-.110	0.000	3926.701	0.000	3936.903	-0.000
112.	7225.172	-.190	-0.000	3923.532	0.000	3940.066	0.000
113.	7224.688	-.250	-0.000	3920.412	0.000	3944.656	0.000
114.	7224.060	-.320	0.000	3917.342	-0.000	3946.856	0.000
115.	7223.296	-.360	0.000	3914.326	0.000	3953.241	0.000
116.	7222.404	-.430	0.000	3911.373	0.000	3957.792	0.000
117.	7221.355	-.460	0.000	3908.462	0.000	3962.468	0.000
118.	7220.276	-.530	0.000	3905.656	0.000	3967.306	-0.000
119.	7219.064	-.576	0.000	3902.901	0.000	3972.524	-0.000
120.	7217.763	-.610	-0.000	3900.219	0.000	3977.218	0.000
121.	7216.388	-.640	0.000	3897.615	0.000	3982.264	0.000
122.	7214.946	-.670	0.000	3895.051	0.000	3987.330	0.000
123.	7213.457	-.680	-0.000	3892.651	0.000	3992.416	-0.000
124.	7211.926	-.760	0.000	3890.297	-0.000	3997.474	-0.000
125.	7210.366	-.710	-0.000	3888.033	0.000	4002.466	-0.000
126.	7208.790	-.720	0.000	3885.862	0.000	4007.431	-0.000
127.	7207.205	-.720	0.000	3883.787	0.000	4012.283	-0.000
128.	7205.636	-.710	0.000	3881.810	0.000	4017.117	-0.000
129.	7204.083	-.700	0.000	3879.933	0.000	4021.816	-0.000
130.	7202.559	-.690	-0.000	3878.160	0.000	4026.452	-0.000
131.	7201.076	-.660	-0.000	3876.492	-0.000	4030.306	-0.000
132.	7199.645	-.640	-0.000	3874.932	0.000	4034.357	-0.000
133.	7198.283	-.610	0.000	3873.462	0.000	4038.185	-0.000
134.	7196.990	-.570	0.000	3872.143	0.000	4041.772	-0.000
135.	7195.760	-.530	0.000	3870.916	-0.000	4045.099	0.000
136.	7194.661	-.490	0.000	3869.807	-0.000	4048.152	-0.000
137.	7193.640	-.440	-0.000	3868.813	0.000	4050.914	-0.000
138.	7192.727	-.390	-0.000	3867.937	0.000	4053.372	-0.000
139.	7191.926	-.340	0.000	3867.180	0.000	4055.515	0.000
140.	7191.244	-.290	0.000	3866.542	0.000	4057.331	-0.000
141.	7190.686	-.230	-0.000	3866.025	-0.000	4058.812	-0.000
142.	7190.256	-.170	0.000	3865.630	0.000	4059.951	-0.000
143.	7189.957	-.110	0.000	3865.356	0.000	4060.741	-0.000
144.	7189.791	-.050	0.000	3865.205	0.000	4061.179	-0.000
145.	7189.759	.020	0.000	3865.176	0.000	4061.263	-0.000
146.	7189.862	.080	0.000	3865.269	0.000	4061.992	-0.000
147.	7190.099	.140	0.000	3865.485	0.000	4062.367	-0.000
148.	7190.467	.200	0.000	3865.823	0.000	4062.593	-0.000
149.	7190.965	.260	0.000	3866.283	0.000	4062.673	-1.210

110-PLANE YTTRIUM GALLIUM GARNET

BULK

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPMI12	FSFMI13	SSRVEL	SSPHI12	SSFMI13
150.	7191.585	.310	0.000	3866.664	.544	0.000	4026.414	-1.480	0.000
151.	7192.334	.370	0.000	3867.565	.650	0.000	4056.424	-1.740	0.000
152.	7193.195	.420	0.000	3868.385	.750	0.000	4052.113	-2.000	0.000
153.	7194.166	.470	0.000	3869.323	.850	0.000	4043.492	-2.250	0.000
154.	7195.240	.510	0.000	3870.375	.940	0.000	4040.575	-2.400	0.000
155.	7196.406	.550	0.000	3871.550	1.040	0.000	4043.375	-2.710	0.000
156.	7197.663	.590	0.000	3872.836	1.140	0.000	4038.504	-2.520	0.000
157.	7198.996	.620	0.000	3874.234	1.230	0.000	4036.193	-3.120	0.000
158.	7200.396	.650	0.000	3875.742	1.320	0.000	4032.245	-3.300	0.000
159.	7201.854	.680	0.000	3877.355	1.410	-0.000	4028.084	-3.470	0.000
160.	7203.359	.690	0.000	3879.083	1.500	0.000	4023.731	-3.620	0.000
161.	7204.900	.710	0.000	3880.911	1.590	0.000	4019.207	-3.750	0.000
162.	7206.465	.720	0.000	3882.841	1.670	-0.000	4014.534	-3.870	0.000
163.	7208.044	.720	0.000	3884.871	1.760	0.000	4009.734	-3.970	0.000
164.	7209.623	.720	0.000	3886.997	1.840	0.000	4004.830	-4.050	0.000
165.	7211.152	.710	0.000	3889.217	1.910	0.000	3999.867	-4.110	0.000
166.	7212.739	.700	0.000	3891.529	1.990	0.000	3994.807	-4.150	0.000
167.	7214.250	.680	0.000	3893.929	2.060	0.000	3989.736	-4.170	0.000
168.	7215.716	.650	0.000	3896.413	2.130	0.000	3984.657	-4.170	0.000
169.	7217.123	.620	0.000	3898.980	2.190	0.000	3979.575	-4.150	0.000
170.	7218.460	.590	0.000	3901.626	2.260	0.000	3974.573	-4.120	0.000
171.	7219.716	.550	0.000	3904.347	2.320	-0.000	3969.617	-4.060	0.000
172.	7220.860	.510	0.000	3907.139	2.370	0.000	3964.749	-3.950	0.000
173.	7221.942	.460	-0.000	3910.000	2.430	-0.000	3959.992	-3.800	0.000
174.	7222.890	.400	0.000	3912.926	2.480	0.000	3955.370	-3.770	0.000
175.	7223.716	.350	-0.000	3915.913	2.530	0.000	3950.904	-3.640	0.000
176.	7224.409	.280	-0.000	3918.956	2.570	0.000	3946.615	-3.400	0.000
177.	7224.962	.220	0.000	3922.053	2.610	0.000	3942.524	-3.310	0.000
178.	7225.366	.150	0.000	3925.200	2.650	0.000	3938.650	-3.130	0.000
179.	7225.614	.080	0.000	3928.392	2.680	-0.000	3935.013	-2.930	0.000
180.	7225.698	0.000	0.000	3931.625	2.710	0.000	3931.626	-2.710	0.000

Z-PLANE (XY-PLANE) YIG

BULK

	LNGVEL	LPMI12	LPMI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
0.	7213.246	0.000	0.000	3844.160	0.000	0.000	3844.160	0.000	0.000
1.	7213.183	-0.60	0.000	3844.160	-0.000	0.000	3844.283	.210	0.000
2.	7212.986	-1.20	0.000	3844.160	0.000	0.000	3844.651	.420	0.000
3.	7212.680	-1.80	0.000	3844.160	0.000	0.000	3845.263	.630	0.000
4.	7212.206	-2.40	0.000	3844.160	0.000	0.000	3846.115	.830	0.000
5.	7211.625	-3.00	0.000	3844.160	0.000	0.000	3847.204	1.030	0.000
6.	7210.920	-3.60	0.000	3844.160	0.000	0.000	3848.525	1.220	0.000
7.	7210.095	-4.20	0.000	3844.160	0.000	0.000	3850.071	1.410	0.000
8.	7209.153	-4.80	0.000	3844.160	0.000	0.000	3851.834	1.590	0.000
9.	7208.096	-5.40	0.000	3844.160	0.000	0.000	3853.807	1.770	0.000
10.	7206.936	-6.00	0.000	3844.160	0.000	0.000	3855.990	1.930	0.000
11.	7205.672	-6.60	0.000	3844.160	0.000	0.000	3858.382	2.090	0.000
12.	7204.311	-7.20	0.000	3844.160	0.000	0.000	3860.982	2.230	0.000
13.	7202.860	-7.80	0.000	3844.160	0.000	0.000	3863.799	2.370	0.000
14.	7201.325	-8.40	0.000	3844.160	0.000	0.000	3866.849	2.490	0.000
15.	7199.714	-9.00	0.000	3844.160	0.000	0.000	3869.447	2.600	0.000
16.	7198.035	-9.60	0.000	3844.160	0.000	0.000	3872.571	2.690	0.000
17.	7196.294	-10.20	0.000	3844.160	0.000	0.000	3875.005	2.700	0.000
18.	7194.500	-10.80	0.000	3844.160	0.000	0.000	3877.133	2.700	0.000
19.	7192.663	-11.40	0.000	3844.160	0.000	0.000	3879.500	2.690	0.000
20.	7190.789	-12.00	0.000	3844.160	0.000	0.000	3882.500	2.670	0.000
21.	7188.889	-12.60	0.000	3844.160	0.000	0.000	3886.006	2.650	0.000
22.	7186.972	-13.20	0.000	3844.160	0.000	0.000	3889.522	2.600	0.000
23.	7185.047	-13.80	0.000	3844.160	0.000	0.000	3893.383	2.590	0.000
24.	7183.123	-14.40	0.000	3844.160	0.000	0.000	3896.615	2.590	0.000
25.	7181.210	-15.00	0.000	3844.160	0.000	0.000	3900.151	2.570	0.000
26.	7179.316	-15.60	0.000	3844.160	0.000	0.000	3903.603	2.540	0.000
27.	7177.453	-16.20	0.000	3844.160	0.000	0.000	3907.184	2.500	0.000
28.	7175.627	-16.80	0.000	3844.160	0.000	0.000	3910.906	2.600	0.000
29.	7173.850	-17.40	0.000	3844.160	0.000	0.000	3913.934	2.770	0.000
30.	7172.129	-18.00	0.000	3844.160	0.000	0.000	3917.191	2.680	0.000
31.	7170.474	-18.60	0.000	3844.160	0.000	0.000	3920.341	2.590	0.000
32.	7168.893	-19.20	0.000	3844.160	0.000	0.000	3923.367	2.480	0.000
33.	7167.393	-19.80	0.000	3844.160	0.000	0.000	3926.256	2.350	0.000
34.	7165.983	-20.40	0.000	3844.160	0.000	0.000	3929.993	2.220	0.000
35.	7164.670	-21.00	0.000	3844.160	0.000	0.000	3933.564	2.070	0.000
36.	7163.460	-21.60	0.000	3844.160	0.000	0.000	3937.957	1.920	0.000
37.	7162.360	-22.20	0.000	3844.160	0.000	0.000	3942.150	1.750	0.000
38.	7161.375	-22.80	0.000	3844.160	0.000	0.000	3946.141	1.580	0.000
39.	7160.511	-23.40	0.000	3844.160	0.000	0.000	3950.931	1.400	0.000
40.	7159.772	-24.00	0.000	3844.160	0.000	0.000	3956.521	1.210	0.000
41.	7159.162	-24.60	0.000	3844.160	0.000	0.000	3962.003	1.020	0.000
42.	7158.685	-25.20	0.000	3844.160	0.000	0.000	3967.368	.820	0.000
43.	7158.342	-25.80	0.000	3844.160	0.000	0.000	3972.610	.620	0.000
44.	7158.135	-26.40	0.000	3844.160	0.000	0.000	3977.730	.420	0.000
45.	7158.066	-27.00	0.000	3844.160	0.000	0.000	3982.735	.210	0.000
46.	7158.135	-27.60	0.000	3844.160	0.000	0.000	3987.620	0.000	0.000
47.	7158.362	-28.20	0.000	3844.160	0.000	0.000	3992.380	.210	0.000
48.	7158.685	-28.80	0.000	3844.160	0.000	0.000	3997.010	.420	0.000
49.	7159.162	-29.40	0.000	3844.160	0.000	0.000	4001.510	.620	0.000

Z-PLANE (XY-PLANE) YIG

	LNQVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
50.	7159.772	.310	0.000	3844.160	-0.000	0.000	3942.063	-1.020	0.000
51.	7160.511	.370	0.000	3844.160	0.000	0.000	3941.221	-1.210	0.000
52.	7161.375	.420	0.000	3844.160	0.000	0.000	3943.951	-1.500	0.000
53.	7162.360	.480	0.000	3844.160	0.000	0.000	3938.181	-1.580	0.000
54.	7163.460	.530	0.000	3844.160	0.000	0.000	3936.160	-1.750	0.000
55.	7164.670	.580	0.000	3844.160	0.000	0.000	3933.957	-1.920	0.000
56.	7165.983	.620	0.000	3844.160	0.000	0.000	3931.564	-2.170	0.000
57.	7167.393	.670	0.000	3844.160	0.000	0.000	3928.993	-2.320	0.000
58.	7168.893	.710	0.000	3844.160	-0.000	0.000	3926.256	-2.350	0.000
59.	7170.474	.740	0.000	3844.160	0.000	0.000	3923.367	-2.460	0.000
60.	7172.129	.770	0.000	3844.160	0.000	0.000	3920.341	-2.590	0.000
61.	7173.850	.800	0.000	3844.160	0.000	0.000	3917.191	-2.680	0.000
62.	7175.627	.820	0.000	3844.160	-0.000	0.000	3913.934	-2.770	0.000
63.	7177.453	.840	0.000	3844.160	0.000	0.000	3910.566	-2.840	0.000
64.	7179.316	.860	0.000	3844.160	0.000	0.000	3907.164	-2.900	0.000
65.	7181.210	.870	0.000	3844.160	0.000	0.000	3903.683	-2.940	0.000
66.	7183.123	.880	0.000	3844.160	0.000	0.000	3900.181	-2.970	0.000
67.	7185.047	.890	0.000	3844.160	0.000	0.000	3896.615	-2.990	0.000
68.	7186.972	.900	0.000	3844.160	0.000	0.000	3893.063	-2.990	0.000
69.	7188.885	.910	0.000	3844.160	-0.000	0.000	3889.522	-2.980	0.000
70.	7190.789	.920	0.000	3844.160	-0.000	0.000	3886.008	-2.960	0.000
71.	7192.663	.930	0.000	3844.160	-0.000	0.000	3882.540	-2.940	0.000
72.	7194.500	.930	0.000	3844.160	0.000	0.000	3879.133	-2.920	0.000
73.	7196.294	.940	0.000	3844.160	0.000	0.000	3875.805	-2.900	0.000
74.	7198.035	.940	0.000	3844.160	0.000	0.000	3872.571	-2.890	0.000
75.	7199.714	.950	0.000	3844.160	-0.000	0.000	3869.447	-2.880	0.000
76.	7201.325	.960	0.000	3844.160	0.000	0.000	3866.446	-2.890	0.000
77.	7202.860	.960	0.000	3844.160	0.000	0.000	3863.569	-2.910	0.000
78.	7204.311	.960	0.000	3844.160	-0.000	0.000	3860.842	-2.920	0.000
79.	7205.672	.960	0.000	3844.160	-0.000	0.000	3858.342	-2.990	0.000
80.	7206.936	.950	0.000	3844.160	0.000	0.000	3855.980	-1.950	0.000
81.	7208.096	.950	0.000	3844.160	0.000	0.000	3853.607	-1.770	0.000
82.	7209.153	.940	0.000	3844.160	0.000	0.000	3851.834	-1.590	0.000
83.	7210.095	.940	0.000	3844.160	0.000	0.000	3850.071	-1.410	0.000
84.	7210.920	.930	0.000	3844.160	-0.000	0.000	3848.525	-1.220	0.000
85.	7211.629	.920	0.000	3844.160	-0.000	0.000	3847.204	-1.030	0.000
86.	7212.206	.920	0.000	3844.160	-0.000	0.000	3846.115	-0.850	0.000
87.	7212.660	.910	0.000	3844.160	-0.000	0.000	3845.263	-0.630	0.000
88.	7212.986	.910	0.000	3844.160	0.000	0.000	3844.651	-0.420	0.000
89.	7213.183	.900	0.000	3844.160	0.000	0.000	3844.283	-0.210	0.000
90.	7213.246	.900	0.000	3844.160	0.000	0.000	3844.160	0.000	0.000
91.	7213.183	.900	0.000	3844.160	0.000	0.000	3844.283	.210	0.000
92.	7212.986	.910	0.000	3844.160	0.000	0.000	3844.651	.420	0.000
93.	7212.660	.910	0.000	3844.160	0.000	0.000	3845.263	.630	0.000
94.	7212.206	.920	0.000	3844.160	0.000	0.000	3846.115	.830	0.000
95.	7211.625	.930	0.000	3844.160	0.000	0.000	3847.204	1.030	0.000
96.	7210.920	.940	0.000	3844.160	0.000	0.000	3848.525	1.220	0.000
97.	7210.095	.950	0.000	3844.160	-0.000	0.000	3850.071	1.410	0.000
98.	7209.153	.960	0.000	3844.160	-0.000	0.000	3851.834	1.590	0.000
99.	7208.096	.960	0.000	3844.160	-0.000	0.000	3853.607	1.770	0.000

Z-PLANE (XY-PLANE) YIG

BULK

	LNGVEL	LPMI12	LPMI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
100.	7206.936	-0.550	0.000	3844.160	0.000	0.000	3855.900	1.730	0.000
101.	7205.672	-0.600	0.000	3844.160	-0.000	0.000	3856.342	2.090	0.000
102.	7204.311	-0.640	0.000	3844.160	0.000	0.000	3860.682	2.230	0.000
103.	7202.060	-0.660	0.000	3844.160	0.000	0.000	3863.569	2.370	0.000
104.	7201.325	-0.720	0.000	3844.160	-0.000	0.000	3866.448	2.590	0.000
105.	7199.714	-0.750	0.000	3844.160	0.000	0.000	3869.447	2.600	0.000
106.	7198.035	-0.780	0.000	3844.160	0.000	0.000	3872.571	2.690	0.000
107.	7196.294	-0.810	0.000	3844.160	-0.000	0.000	3875.695	2.780	0.000
108.	7194.500	-0.830	0.000	3844.160	0.000	0.000	3879.133	2.650	0.000
109.	7192.663	-0.850	0.000	3844.160	0.000	0.000	3882.540	2.510	0.000
110.	7190.765	-0.860	0.000	3844.160	0.000	0.000	3886.080	2.550	0.000
111.	7188.889	-0.870	0.000	3844.160	0.000	0.000	3889.522	2.580	0.000
112.	7186.972	-0.880	0.000	3844.160	0.000	0.000	3893.063	2.590	0.000
113.	7185.047	-0.880	0.000	3844.160	0.000	0.000	3896.615	2.590	0.000
114.	7183.123	-0.880	0.000	3844.160	-0.000	0.000	3900.161	2.590	0.000
115.	7181.210	-0.870	0.000	3844.160	-0.000	0.000	3903.683	2.540	0.000
116.	7179.316	-0.860	0.000	3844.160	0.000	0.000	3907.164	2.500	0.000
117.	7177.453	-0.840	0.000	3844.160	0.000	0.000	3910.506	2.840	0.000
118.	7175.627	-0.820	0.000	3844.160	-0.000	0.000	3913.734	2.770	0.000
119.	7173.850	-0.800	0.000	3844.160	0.000	0.000	3917.191	2.680	0.000
120.	7172.129	-0.770	0.000	3844.160	0.000	0.000	3920.341	2.590	0.000
121.	7170.474	-0.740	0.000	3844.160	0.000	0.000	3923.367	2.400	0.000
122.	7168.693	-0.710	0.000	3844.160	0.000	0.000	3926.256	2.350	0.000
123.	7167.393	-0.670	0.000	3844.160	0.000	0.000	3928.993	2.220	0.000
124.	7165.983	-0.620	0.000	3844.160	-0.000	0.000	3931.564	2.070	0.000
125.	7164.670	-0.560	0.000	3844.160	0.000	0.000	3933.957	1.920	0.000
126.	7163.460	-0.530	0.000	3844.160	0.000	0.000	3936.160	1.750	0.000
127.	7162.360	-0.480	0.000	3844.160	0.000	0.000	3938.161	1.560	0.000
128.	7161.375	-0.420	0.000	3844.160	-0.000	0.000	3939.951	1.430	0.000
129.	7160.511	-0.370	0.000	3844.160	0.000	0.000	3941.521	1.210	0.000
130.	7159.772	-0.310	0.000	3844.160	0.000	0.000	3942.863	1.020	0.000
131.	7159.162	-0.250	0.000	3844.160	0.000	0.000	3943.971	0.820	0.000
132.	7158.685	-0.190	0.000	3844.160	0.000	0.000	3944.936	0.620	0.000
133.	7158.342	-0.130	0.000	3844.160	-0.000	0.000	3945.760	0.420	0.000
134.	7158.135	-0.060	0.000	3844.160	0.000	0.000	3945.460	0.210	0.000
135.	7158.066	-0.040	0.000	3844.160	0.000	0.000	3945.960	0.000	0.000
136.	7158.135	0.000	0.000	3844.160	-0.000	0.000	3945.835	0.000	0.000
137.	7158.342	0.130	0.000	3844.160	0.000	0.000	3945.460	0.000	0.000
138.	7158.685	0.190	0.000	3844.160	0.000	0.000	3944.936	0.000	0.000
139.	7159.162	0.250	0.000	3844.160	-0.000	0.000	3944.038	0.000	0.000
140.	7159.772	0.310	0.000	3844.160	0.000	0.000	3943.971	0.000	0.000
141.	7160.511	0.370	0.000	3844.160	0.000	0.000	3942.863	0.000	0.000
142.	7161.375	0.420	0.000	3844.160	0.000	0.000	3941.521	0.000	0.000
143.	7162.360	0.460	0.000	3844.160	-0.000	0.000	3939.951	0.000	0.000
144.	7163.460	0.530	0.000	3844.160	0.000	0.000	3938.161	0.000	0.000
145.	7164.670	0.580	0.000	3844.160	0.000	0.000	3936.160	0.000	0.000
146.	7165.983	0.620	0.000	3844.160	0.000	0.000	3933.957	0.000	0.000
147.	7167.393	0.670	0.000	3844.160	0.000	0.000	3931.564	0.000	0.000
148.	7168.893	0.710	0.000	3844.160	0.000	0.000	3928.993	0.000	0.000
149.	7170.474	0.740	0.000	3844.160	-0.000	0.000	3926.256	0.000	0.000
							3923.367	-2.400	0.000

Z-PLANE (XY-PLANE) YIG									
	LPMI12	LPMI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13	
158.	7172.129	.770	3844.160	-0.000	0.000	3923.341	-2.554	0.000	SSFMI13
151.	7173.850	.600	3844.160	0.000	0.000	3917.141	-2.668	0.000	0.000
152.	7175.627	.820	3844.160	0.000	0.000	3913.934	-2.770	0.000	0.000
153.	7177.453	.640	3844.160	0.000	0.000	3910.566	-2.840	0.000	0.000
154.	7179.316	.860	3844.160	0.000	0.000	3907.164	-2.900	0.000	0.000
155.	7181.210	.670	3844.160	0.000	0.000	3903.663	-2.943	0.000	0.000
156.	7183.123	.890	3844.160	0.000	0.000	3900.161	-2.970	0.000	0.000
157.	7185.047	.880	3844.160	0.000	0.000	3896.615	-2.990	0.000	0.000
158.	7186.972	.690	3844.160	0.000	0.000	3893.063	-2.990	0.000	0.000
159.	7188.899	.910	3844.160	0.000	0.000	3889.522	-2.990	0.000	0.000
160.	7190.829	.660	3844.160	0.000	0.000	3886.006	-2.990	0.000	0.000
161.	7192.663	.850	3844.160	0.000	0.000	3882.540	-2.990	0.000	0.000
162.	7194.500	.630	3844.160	0.000	0.000	3879.133	-2.990	0.000	0.000
163.	7196.294	.810	3844.160	0.000	0.000	3875.685	-2.990	0.000	0.000
164.	7198.035	.790	3844.160	0.000	0.000	3872.271	-2.990	0.000	0.000
165.	7199.714	.750	3844.160	0.000	0.000	3868.847	-2.990	0.000	0.000
166.	7201.325	.720	3844.160	0.000	0.000	3865.446	-2.990	0.000	0.000
167.	7202.860	.680	3844.160	0.000	0.000	3862.059	-2.990	0.000	0.000
168.	7204.311	.640	3844.160	0.000	0.000	3858.692	-2.990	0.000	0.000
169.	7205.672	.600	3844.160	0.000	0.000	3855.342	-2.990	0.000	0.000
170.	7206.936	.550	3844.160	0.000	0.000	3852.007	-2.990	0.000	0.000
171.	7208.096	.510	3844.160	0.000	0.000	3848.684	-2.990	0.000	0.000
172.	7209.153	.450	3844.160	0.000	0.000	3845.371	-2.990	0.000	0.000
173.	7210.095	.400	3844.160	0.000	0.000	3842.066	-2.990	0.000	0.000
174.	7210.920	.350	3844.160	0.000	0.000	3838.769	-2.990	0.000	0.000
175.	7211.625	.290	3844.160	0.000	0.000	3835.480	-2.990	0.000	0.000
176.	7212.206	.240	3844.160	0.000	0.000	3832.198	-2.990	0.000	0.000
177.	7212.660	.180	3844.160	0.000	0.000	3828.923	-2.990	0.000	0.000
178.	7212.986	.120	3844.160	0.000	0.000	3825.654	-2.990	0.000	0.000
179.	7213.183	.060	3844.160	0.000	0.000	3822.391	-2.990	0.000	0.000
180.	7213.248	-0.000	3844.160	0.000	0.000	3819.134	-2.990	0.000	0.000

111-PLANE YIG

	LNGVEL	LPMI12	LPMI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
0.	7158.066	-0.000	0.000	3945.960	0.000	0.000	3844.160	-0.000	0.000
1.	7158.067	0.000	-0.00	3945.898	-0.00	0.070	3844.222	0.110	0.000
2.	7158.069	0.000	-0.00	3945.712	-0.00	0.150	3844.409	0.210	0.150
3.	7158.073	0.000	-0.00	3945.402	-0.00	0.220	3844.720	0.320	0.230
4.	7158.078	0.000	-0.00	3944.971	-0.00	0.290	3845.153	0.420	0.300
5.	7158.084	0.000	-0.00	3944.418	-0.00	0.370	3845.707	0.520	0.370
6.	7158.092	0.000	-0.00	3943.748	-0.00	0.440	3846.361	0.620	0.440
7.	7158.101	0.000	-0.00	3942.961	-0.00	0.510	3847.171	0.720	0.520
8.	7158.111	0.000	-0.00	3942.061	-0.00	0.560	3848.074	0.820	0.560
9.	7158.122	0.010	-0.00	3941.052	-0.00	0.600	3849.087	0.910	0.600
10.	7158.134	0.010	-0.00	3939.937	-0.00	0.710	3850.206	1.000	0.600
11.	7158.147	0.010	-0.00	3938.721	-0.00	0.770	3851.426	1.080	0.700
12.	7158.160	0.010	-0.00	3937.410	-0.00	0.830	3852.742	1.160	0.800
13.	7158.174	0.010	-0.00	3936.009	-0.00	0.890	3854.148	1.230	0.900
14.	7158.188	0.010	-0.00	3934.525	-0.00	0.950	3855.637	1.300	0.900
15.	7158.202	0.010	-0.00	3932.965	-0.00	1.000	3857.201	1.360	1.010
16.	7158.216	0.010	-0.00	3931.336	-0.00	1.050	3858.833	1.410	1.010
17.	7158.230	0.010	-0.00	3929.654	-0.00	1.100	3860.523	1.460	1.100
18.	7158.244	0.010	-0.00	3927.922	-0.00	1.150	3862.259	1.500	1.100
19.	7158.257	0.010	-0.00	3926.157	-0.00	1.190	3864.026	1.540	1.200
20.	7158.270	0.010	-0.00	3924.374	-0.00	1.230	3865.817	1.570	1.200
21.	7158.282	0.000	-0.00	3922.565	-0.00	1.270	3867.606	1.600	1.200
22.	7158.293	0.000	-0.00	3920.624	-0.00	1.300	3869.374	1.630	1.200
23.	7158.303	0.000	-0.00	3919.106	-0.00	1.330	3871.095	1.660	1.300
24.	7158.312	0.000	-0.00	3917.466	-0.00	1.360	3872.739	1.690	1.300
25.	7158.320	0.000	-0.00	3915.983	-0.00	1.380	3874.265	1.720	1.300
26.	7158.326	0.000	-0.00	3914.562	-0.00	1.400	3875.669	1.750	1.300
27.	7158.331	0.000	-0.00	3913.436	-0.00	1.420	3876.775	1.780	1.300
28.	7158.335	0.000	-0.00	3912.562	-0.00	1.440	3877.650	1.810	1.400
29.	7158.337	0.000	-0.00	3912.012	-0.00	1.430	3878.202	1.820	1.400
30.	7158.338	0.000	-0.00	3911.824	-0.000	1.430	3878.590	1.820	1.400
31.	7158.337	-0.000	-0.00	3912.012	0.000	1.420	3878.202	-0.000	1.400
32.	7158.335	-0.000	-0.00	3912.562	0.000	1.420	3877.650	-0.000	1.400
33.	7158.331	-0.000	-0.00	3913.436	0.000	1.410	3876.775	-0.000	1.400
34.	7158.326	-0.000	-0.00	3914.562	0.000	1.400	3875.626	-0.000	1.300
35.	7158.320	-0.000	-0.00	3915.983	0.000	1.380	3874.265	-0.000	1.300
36.	7158.312	-0.000	-0.00	3917.466	0.000	1.360	3872.739	-0.000	1.300
37.	7158.303	-0.000	-0.00	3919.106	0.000	1.330	3871.095	-0.000	1.300
38.	7158.293	-0.000	-0.00	3920.624	0.000	1.300	3869.374	-0.000	1.300
39.	7158.282	-0.010	-0.00	3922.565	0.000	1.270	3867.606	-0.000	1.200
40.	7158.270	-0.010	-0.00	3924.374	0.000	1.230	3865.817	-0.000	1.200
41.	7158.257	-0.010	-0.00	3926.157	0.000	1.190	3864.026	-0.000	1.200
42.	7158.244	-0.010	-0.00	3927.922	0.000	1.150	3862.259	-0.000	1.100
43.	7158.230	-0.010	-0.00	3929.654	0.000	1.100	3860.523	-0.000	1.100
44.	7158.216	-0.010	-0.00	3931.338	0.000	1.060	3858.833	-0.000	1.000
45.	7158.202	-0.010	-0.00	3932.965	0.000	1.000	3857.201	-0.000	1.010
46.	7158.188	-0.010	-0.00	3934.525	0.000	0.950	3855.637	-0.000	0.900
47.	7158.174	-0.010	-0.00	3936.009	0.000	0.890	3854.148	-0.000	0.900
48.	7158.160	-0.010	-0.00	3937.410	0.000	0.830	3852.742	-0.000	0.800
49.	7158.147	-0.010	-0.00	3938.721	0.000	0.770	3851.426	-0.000	0.700

111-PLANE YIG

BULK

	LNGWEL	LPM12	LPM13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
50.	7156.134	-0.010	-0.420	3939.937	0.970	0.710	3950.206	-1.000	0.720
51.	7156.122	-0.010	-0.380	3941.052	0.990	0.640	3963.087	-0.910	0.800
52.	7156.111	-0.000	-0.340	3942.061	0.800	0.560	3966.074	-0.820	0.820
53.	7156.101	-0.000	-0.300	3942.961	0.700	0.510	3947.171	-0.720	0.840
54.	7156.092	-0.000	-0.260	3943.746	0.610	0.440	3946.381	-0.620	0.860
55.	7156.084	-0.000	-0.220	3944.416	0.510	0.370	3945.707	-0.520	0.880
56.	7156.076	-0.000	-0.180	3944.971	0.410	0.290	3945.153	-0.420	0.900
57.	7156.073	-0.000	-0.130	3945.602	0.310	0.220	3944.720	-0.320	0.920
58.	7156.069	-0.000	-0.090	3945.742	0.210	0.150	3944.409	-0.210	0.940
59.	7156.067	-0.000	-0.040	3945.896	0.100	0.070	3944.222	-0.110	0.960
60.	7156.066	-0.000	-0.000	3945.960	0.000	0.000	3944.160	0.000	0.980
61.	7156.067	0.000	0.040	3945.996	-0.100	-0.070	3944.222	0.110	0.980
62.	7156.069	0.000	0.090	3945.712	-0.210	-0.150	3944.409	0.210	0.980
63.	7156.073	0.000	0.130	3945.402	-0.310	-0.220	3944.720	0.320	0.980
64.	7156.076	0.000	0.180	3944.971	-0.410	-0.290	3945.153	0.420	0.980
65.	7156.084	0.000	0.220	3944.416	-0.510	-0.370	3945.707	0.520	0.980
66.	7156.092	0.000	0.260	3943.746	-0.610	-0.440	3946.381	0.620	0.980
67.	7156.101	0.000	0.300	3942.961	-0.700	-0.510	3947.171	0.720	0.980
68.	7156.111	0.000	0.340	3942.061	-0.800	-0.560	3948.074	0.820	0.980
69.	7156.122	0.010	0.380	3941.052	-0.900	-0.640	3949.087	0.910	0.980
70.	7156.134	0.010	0.420	3939.937	-0.970	-0.710	3950.206	1.000	0.980
71.	7156.147	0.010	0.460	3938.721	-1.050	-0.770	3951.426	1.060	0.980
72.	7156.160	0.010	0.500	3937.410	-1.130	-0.830	3952.742	1.160	0.980
73.	7156.174	0.010	0.530	3936.005	-1.200	-0.890	3954.146	1.230	0.980
74.	7156.186	0.010	0.570	3934.525	-1.270	-0.950	3955.637	1.300	0.980
75.	7156.202	0.010	0.600	3932.965	-1.330	-1.000	3957.201	1.360	0.980
76.	7156.216	0.010	0.630	3931.336	-1.360	-1.060	3958.933	1.410	0.980
77.	7156.230	0.010	0.660	3929.654	-1.430	-1.100	3960.823	1.460	0.980
78.	7156.244	0.010	0.680	3927.922	-1.460	-1.150	3962.859	1.490	0.980
79.	7156.257	0.010	0.710	3926.157	-1.490	-1.190	3964.028	1.510	0.980
80.	7156.270	0.010	0.730	3924.374	-1.500	-1.230	3965.317	1.520	0.980
81.	7156.282	0.010	0.750	3922.589	-1.490	-1.270	3967.066	1.510	0.980
82.	7156.293	0.000	0.770	3920.824	-1.460	-1.300	3969.374	1.480	0.980
83.	7156.303	0.000	0.790	3919.106	-1.410	-1.330	3971.045	1.430	0.980
84.	7156.312	0.000	0.800	3917.466	-1.330	-1.360	3972.739	1.350	0.980
85.	7156.320	0.000	0.820	3915.943	-1.220	-1.360	3974.265	1.230	0.980
86.	7156.326	0.000	0.830	3914.582	-1.060	-1.400	3975.628	1.070	0.980
87.	7156.331	0.000	0.830	3913.436	-0.850	-1.410	3976.775	0.810	0.980
88.	7156.335	0.000	0.840	3912.562	-0.600	-1.420	3977.951	0.610	0.980
89.	7156.337	0.000	0.840	3912.032	-0.310	-1.430	3979.202	0.320	0.980
90.	7156.336	-0.000	0.850	3911.824	0.000	-1.430	3979.590	0.000	0.980
91.	7156.337	-0.000	0.860	3912.012	0.310	-1.430	3979.202	-0.320	0.980
92.	7156.335	-0.000	0.860	3912.562	0.600	-1.420	3977.951	-0.610	0.980
93.	7156.331	-0.000	0.830	3913.436	0.850	-1.410	3976.775	-0.810	0.980
94.	7156.326	-0.000	0.830	3914.582	1.060	-1.400	3975.628	-1.070	0.980
95.	7156.320	-0.000	0.820	3915.943	1.220	-1.360	3974.265	-1.230	0.980
96.	7156.312	-0.000	0.800	3917.466	1.330	-1.360	3972.739	-1.350	0.980
97.	7156.303	-0.000	0.790	3919.106	1.410	-1.330	3971.045	-1.430	0.980
98.	7156.293	-0.000	0.770	3920.824	1.460	-1.300	3969.374	-1.480	0.980
99.	7156.282	-0.010	0.750	3922.589	1.490	-1.270	3967.066	-1.510	0.980

111-PLANE YIG

BULK

	LNGVEL	LPHI10	LPHI11	FSRVEL	FSPM12	FSPM13	SSRVEL	SSPM12	SSPM13
188.	7158.270	-0.010	0.730	3924.374	1.500	-1.230	3862.817	-1.520	-1.240
189.	7158.287	-0.010	0.710	3926.157	1.490	-1.190	3864.028	-1.510	-1.200
190.	7158.244	-0.010	0.680	3927.922	1.460	-1.150	3862.259	-1.490	-1.160
191.	7158.230	-0.010	0.660	3929.654	1.430	-1.100	3860.523	-1.460	-1.110
192.	7158.216	-0.010	0.630	3931.338	1.380	-1.060	3858.833	-1.410	-1.070
193.	7158.202	-0.010	0.600	3932.965	1.330	-1.000	3857.201	-1.360	-1.010
194.	7158.188	-0.010	0.570	3934.525	1.270	-0.950	3855.637	-1.300	-0.960
195.	7158.174	-0.010	0.530	3936.009	1.200	-0.890	3854.148	-1.230	-0.900
196.	7158.160	-0.010	0.500	3937.410	1.130	-0.830	3852.742	-1.160	-0.840
197.	7158.147	-0.010	0.460	3938.721	1.050	-0.770	3851.426	-1.090	-0.780
198.	7158.134	-0.010	0.420	3939.937	0.970	-0.710	3850.206	-1.000	-0.720
199.	7158.122	-0.010	0.380	3941.052	0.890	-0.640	3849.074	-0.920	-0.650
200.	7158.111	-0.000	0.340	3942.061	0.800	-0.560	3848.074	-0.820	-0.570
201.	7158.101	-0.000	0.300	3942.961	0.700	-0.480	3847.171	-0.720	-0.490
202.	7158.092	-0.000	0.260	3943.746	0.610	-0.400	3846.361	-0.620	-0.410
203.	7158.084	-0.000	0.220	3944.416	0.510	-0.320	3845.707	-0.520	-0.330
204.	7158.078	-0.000	0.180	3944.971	0.410	-0.250	3845.153	-0.420	-0.260
205.	7158.073	-0.000	0.130	3945.402	0.310	-0.200	3844.720	-0.320	-0.210
206.	7158.069	-0.000	0.090	3945.712	0.210	-0.150	3844.409	-0.210	-0.160
207.	7158.067	-0.000	0.040	3945.698	0.100	-0.070	3844.222	-0.110	-0.080
208.	7158.066	0.000	-0.000	3945.960	-0.000	0.000	3844.160	-0.000	-0.000
209.	7158.067	0.000	-0.040	3945.896	-0.100	0.070	3844.222	-0.110	-0.080
210.	7158.069	0.000	-0.090	3945.712	-0.210	0.150	3844.409	-0.210	-0.160
211.	7158.073	0.000	-0.130	3945.402	-0.310	0.200	3844.720	-0.320	-0.210
212.	7158.078	0.000	-0.180	3944.971	-0.410	0.250	3845.153	-0.420	-0.260
213.	7158.084	0.000	-0.220	3944.416	-0.510	0.300	3845.707	-0.520	-0.330
214.	7158.092	0.000	-0.260	3943.746	-0.610	0.400	3846.361	-0.620	-0.410
215.	7158.101	0.000	-0.300	3942.961	-0.700	0.510	3847.171	-0.720	-0.520
216.	7158.111	0.000	-0.340	3942.061	-0.800	0.610	3848.074	-0.820	-0.620
217.	7158.122	0.010	-0.380	3941.052	-0.890	0.640	3849.074	-0.920	-0.650
218.	7158.134	0.010	-0.420	3939.937	-0.970	0.710	3850.206	-1.000	-0.720
219.	7158.147	0.010	-0.460	3938.721	-1.050	0.770	3851.426	-1.090	-0.780
220.	7158.160	0.010	-0.500	3937.410	-1.130	0.830	3852.742	-1.160	-0.840
221.	7158.174	0.010	-0.530	3936.009	-1.200	0.890	3854.148	-1.230	-0.900
222.	7158.188	0.010	-0.570	3934.525	-1.270	0.950	3855.637	-1.300	-0.960
223.	7158.202	0.010	-0.600	3932.965	-1.330	1.000	3857.201	-1.360	-1.010
224.	7158.216	0.010	-0.630	3931.336	-1.380	1.060	3858.833	-1.410	-1.070
225.	7158.230	0.010	-0.660	3929.654	-1.430	1.100	3860.523	-1.460	-1.110
226.	7158.244	0.010	-0.680	3927.922	-1.460	1.150	3862.259	-1.490	-1.160
227.	7158.257	0.010	-0.710	3926.157	-1.490	1.190	3864.028	-1.510	-1.200
228.	7158.270	0.010	-0.730	3924.374	-1.500	1.230	3865.837	-1.520	-1.240
229.	7158.282	0.010	-0.750	3922.589	-1.490	1.270	3867.606	-1.510	-1.270
230.	7158.293	0.000	-0.770	3920.824	-1.460	1.300	3869.374	-1.490	-1.310
231.	7158.303	0.000	-0.790	3919.106	-1.410	1.330	3871.095	-1.430	-1.350
232.	7158.312	0.000	-0.800	3917.466	-1.330	1.360	3872.739	-1.360	-1.390
233.	7158.320	0.000	-0.820	3915.943	-1.220	1.380	3874.265	-1.230	-1.300
234.	7158.326	0.000	-0.830	3914.502	-1.100	1.400	3875.824	-1.070	-1.350
235.	7158.331	0.000	-0.830	3913.436	-0.850	1.420	3876.775	-0.860	-1.410
236.	7158.335	0.000	-0.840	3912.962	-0.600	1.440	3877.650	-0.610	-1.420
237.	7158.337	0.000	-0.840	3912.012	-0.310	1.430	3878.202	-0.320	-1.420

	111-PLANE YIG				BULK			
	LPMI12	LPMI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
150.	-0.000	-0.850	3911.824	0.800	1.430	3676.390	4.000	1.420
151.	-0.000	-0.840	3912.012	.310	1.430	3676.202	-.320	1.420
152.	-0.000	-0.840	3912.562	.800	1.420	3677.650	-.610	1.420
153.	-0.000	-0.830	3913.436	.850	1.440	3676.775	-.660	1.410
154.	-0.000	-0.830	3914.582	1.060	1.400	3675.628	-1.070	1.390
155.	-0.000	-0.820	3915.943	1.220	1.360	3674.265	-1.230	1.300
156.	-0.000	-0.800	3917.466	1.330	1.360	3672.739	-1.350	1.350
157.	-0.000	-0.790	3919.106	1.410	1.330	3671.095	-1.430	1.330
158.	-0.000	-0.770	3920.824	1.460	1.300	3669.374	-1.480	1.310
159.	-0.010	-0.750	3922.569	1.490	1.270	3667.606	-1.510	1.270
160.	-0.010	-0.730	3924.374	1.500	1.230	3665.817	-1.520	1.240
161.	-0.010	-0.710	3926.157	1.490	1.190	3664.028	-1.510	1.200
162.	-0.010	-0.660	3927.922	1.460	1.150	3662.259	-1.490	1.190
163.	-0.010	-0.660	3929.654	1.430	1.100	3660.523	-1.460	1.110
164.	-0.010	-0.630	3931.336	1.360	1.060	3658.833	-1.410	1.070
165.	-0.010	-0.600	3932.965	1.350	1.000	3657.201	-1.360	1.010
166.	-0.010	-0.570	3934.525	1.270	.950	3655.637	-1.300	.960
167.	-0.010	-0.530	3936.009	1.200	.850	3654.148	-1.230	.900
168.	-0.010	-0.500	3937.410	1.130	.830	3652.742	-1.160	.940
169.	-0.010	-0.460	3938.721	1.050	.770	3651.426	-1.100	.970
170.	-0.010	-0.420	3939.937	.970	.710	3650.206	-1.000	.920
171.	-0.010	-0.380	3941.052	.890	.640	3649.087	-.910	.850
172.	-0.000	-0.340	3942.061	.800	.560	3648.074	-.820	.800
173.	-0.000	-0.300	3942.961	.700	.510	3647.171	-.720	.750
174.	-0.000	-0.260	3943.748	.610	.440	3646.361	-.620	.700
175.	-0.000	-0.220	3944.416	.510	.370	3645.707	-.520	.650
176.	-0.000	-0.180	3944.971	.410	.250	3645.153	-.420	.600
177.	-0.000	-0.130	3945.402	.310	.220	3644.720	-.320	.550
178.	-0.000	-0.090	3945.712	.210	.150	3644.409	-.210	.500
179.	-0.000	-0.040	3945.898	.100	.070	3644.222	-.110	.450
180.	0.000	-0.000	3945.960	0.000	0.000	3644.160	0.000	-0.000

110-PLANE YIG

BULK

	LNQVEL	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
0.	7139.577	-0.000	-0.000	3912.321	1.400	0.000	3912.320	-1.400	-0.000
1.	7139.624	.040	-0.000	3913.913	1.276	-0.000	3910.643	-1.420	-0.000
2.	7139.765	.050	-0.000	3915.351	1.140	0.000	3908.946	-1.430	-0.000
3.	7140.004	.130	-0.000	3916.627	1.000	0.000	3907.232	-1.450	-0.000
4.	7140.342	.160	-0.000	3917.734	.860	-0.000	3905.502	-1.460	-0.000
5.	7140.783	.230	-0.000	3918.666	.710	0.000	3903.759	-1.470	-0.000
6.	7141.327	.270	-0.000	3919.423	.560	0.000	3902.005	-1.480	-0.000
7.	7141.975	.320	-0.000	3919.997	.400	-0.000	3900.243	-1.490	-0.000
8.	7142.727	.370	-0.000	3920.386	.250	0.000	3898.473	-1.450	0.000
9.	7143.584	.420	-0.000	3920.588	.090	0.000	3896.700	-1.500	-0.000
10.	7144.545	.460	-0.000	3920.603	-.070	-0.000	3894.923	-1.500	-0.000
11.	7145.606	.510	-0.000	3920.430	-.220	-0.000	3893.147	-1.500	-0.000
12.	7146.771	.560	0.000	3920.071	-.360	0.000	3891.372	-1.500	-0.000
13.	7148.033	.600	0.000	3919.528	-.530	0.000	3889.602	-1.490	-0.000
14.	7149.390	.640	-0.000	3918.803	-.680	0.000	3887.836	-1.490	-0.000
15.	7150.835	.650	-0.000	3917.900	-.830	0.000	3886.082	-1.480	-0.000
16.	7152.377	.730	-0.000	3916.823	-.970	-0.000	3884.336	-1.470	-0.000
17.	7153.999	.760	0.000	3915.579	-1.110	0.000	3882.604	-1.460	-0.000
18.	7155.781	.800	-0.000	3914.172	-1.250	0.000	3880.886	-1.450	-0.000
19.	7157.476	.830	-0.000	3912.611	-1.370	-0.000	3879.186	-1.430	-0.000
20.	7159.321	.860	-0.000	3910.903	-1.490	0.000	3877.504	-1.410	-0.000
21.	7161.226	.850	-0.000	3909.057	-1.610	-0.000	3875.843	-1.400	-0.000
22.	7163.192	.910	-0.000	3907.081	-1.710	0.000	3874.206	-1.380	-0.000
23.	7165.206	.930	-0.000	3904.986	-1.810	-0.000	3872.594	-1.360	-0.000
24.	7167.263	.950	-0.000	3902.782	-1.900	0.000	3871.009	-1.330	-0.000
25.	7169.358	.970	-0.000	3900.479	-1.980	0.000	3869.452	-1.310	-0.000
26.	7171.476	.980	-0.000	3898.090	-2.040	-0.000	3867.928	-1.280	-0.000
27.	7173.622	.980	-0.000	3895.625	-2.100	0.000	3866.436	-1.250	-0.000
28.	7175.779	.950	0.000	3893.097	-2.150	-0.000	3864.980	-1.220	-0.000
29.	7177.942	.990	0.000	3890.517	-2.190	0.000	3863.559	-1.190	0.000
30.	7180.104	.940	-0.000	3887.900	-2.220	-0.000	3862.178	-1.160	-0.000
31.	7182.256	.980	-0.000	3885.256	-2.240	0.000	3860.836	-1.120	-0.000
32.	7184.391	.970	-0.000	3882.600	-2.250	-0.000	3859.536	-1.090	-0.000
33.	7186.500	.960	-0.000	3879.944	-2.240	-0.000	3858.280	-1.050	-0.000
34.	7188.577	.940	-0.000	3877.300	-2.230	0.000	3857.069	-1.010	-0.000
35.	7190.613	.920	0.000	3874.662	-2.200	0.000	3855.904	-.970	-0.000
36.	7192.601	.900	0.000	3872.102	-2.170	-0.000	3854.787	-.930	-0.000
37.	7194.534	.870	-0.000	3869.572	-2.120	-0.000	3853.720	-.890	-0.000
38.	7196.485	.840	-0.000	3867.105	-2.060	0.000	3852.703	-.860	-0.000
39.	7198.207	.800	-0.000	3864.712	-2.000	0.000	3851.739	-.800	-0.000
40.	7199.932	.770	-0.000	3862.405	-1.920	-0.000	3850.829	-.720	-0.000
41.	7201.576	.730	0.000	3860.195	-1.840	0.000	3849.971	-.710	-0.000
42.	7203.131	.690	-0.000	3858.092	-1.740	0.000	3849.170	-.660	0.000
43.	7204.592	.640	-0.000	3856.106	-1.640	0.000	3848.425	-.610	-0.000
44.	7205.954	.600	-0.000	3854.246	-1.530	0.000	3847.737	-.560	0.000
45.	7207.212	.550	-0.000	3852.522	-1.410	-0.000	3847.106	-.510	-0.000
46.	7208.361	.500	-0.000	3850.942	-1.280	-0.000	3846.536	-.460	-0.000
47.	7209.396	.450	-0.000	3849.513	-1.150	-0.000	3846.029	-.410	-0.000
48.	7210.315	.350	-0.000	3848.242	-1.020	0.000	3845.578	-.360	-0.000
49.	7211.113	.340	-0.000	3847.134	-.870	0.000	3845.190	-.310	-0.000

110-PLANE YIG

	LNQVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
50.	7211.708	.260	-0.000	3846.136	-7.730	-0.000	3844.863	-2.250	-0.000
51.	7212.337	.220	-0.000	3845.431	-5.580	0.000	3844.597	-2.200	-0.000
52.	7212.758	.160	-0.000	3844.843	-4.430	0.000	3844.595	-1.150	-0.000
53.	7213.051	.100	-0.000	3844.435	-2.270	0.000	3844.254	-0.850	-0.000
54.	7213.213	.040	-0.000	3844.205	-0.040	0.000	3844.177	-0.040	-0.000
55.	7213.244	-.020	-0.000	3844.166	.010	0.000	3844.162	.010	-0.000
56.	7213.143	-.060	-0.000	3844.306	.070	0.000	3844.210	.070	-0.000
57.	7212.913	-.130	-0.000	3844.628	.350	0.000	3844.321	.120	-0.000
58.	7212.552	-.150	-0.000	3845.131	.510	0.000	3844.934	.170	-0.000
59.	7212.063	-.250	-0.000	3845.813	.660	0.000	3844.730	.230	-0.000
60.	7211.447	-.310	-0.000	3846.670	.810	0.000	3845.028	.260	-0.000
61.	7210.707	-.370	-0.000	3847.696	.950	0.000	3845.387	.330	-0.000
62.	7209.844	-.420	-0.000	3848.893	1.090	0.000	3845.808	.350	-0.000
63.	7208.864	-.470	-0.000	3850.248	1.220	0.000	3846.290	.440	-0.000
64.	7207.768	-.520	-0.000	3851.758	1.350	0.000	3846.832	.490	-0.000
65.	7206.561	-.570	-0.000	3853.415	1.470	0.000	3847.433	.540	-0.000
66.	7205.246	-.620	-0.000	3855.212	1.590	0.000	3848.093	.590	-0.000
67.	7203.833	-.670	-0.000	3857.139	1.690	0.000	3848.811	.640	-0.000
68.	7202.321	-.710	-0.000	3859.188	1.790	0.000	3849.586	.680	-0.000
69.	7200.719	-.750	-0.000	3861.349	1.880	0.000	3850.416	.730	-0.000
70.	7199.031	-.790	-0.000	3863.612	1.960	0.000	3851.302	.780	-0.000
71.	7197.265	-.820	-0.000	3865.966	2.030	0.000	3852.242	.820	-0.000
72.	7195.426	-.850	-0.000	3868.399	2.090	0.000	3853.234	.870	-0.000
73.	7193.521	-.880	-0.000	3870.901	2.150	0.000	3854.277	.910	-0.000
74.	7191.556	-.910	-0.000	3873.459	2.190	0.000	3855.371	.950	-0.000
75.	7189.544	-.930	-0.000	3876.061	2.220	0.000	3856.513	.990	-0.000
76.	7187.465	-.950	-0.000	3878.694	2.240	0.000	3857.702	1.030	-0.000
77.	7185.390	-.960	-0.000	3881.346	2.250	0.000	3858.938	1.070	-0.000
78.	7183.266	-.960	-0.000	3884.003	2.240	0.000	3860.217	1.110	-0.000
79.	7181.121	-.960	-0.000	3886.654	2.230	0.000	3861.539	1.140	-0.000
80.	7178.963	-.950	-0.000	3889.286	2.210	-0.000	3862.902	1.160	-0.000
81.	7176.800	-.950	-0.000	3891.885	2.170	0.000	3864.305	1.210	-0.000
82.	7174.639	-.950	-0.000	3894.439	2.130	0.000	3865.744	1.240	-0.000
83.	7172.488	-.960	-0.000	3896.935	2.070	0.000	3867.220	1.270	-0.000
84.	7170.355	-.970	-0.000	3899.362	2.010	0.000	3868.729	1.290	-0.000
85.	7168.247	-.970	-0.000	3901.717	1.930	0.000	3870.271	1.320	-0.000
86.	7166.172	-.960	-0.000	3903.959	1.850	0.000	3871.842	1.340	-0.000
87.	7164.137	-.950	-0.000	3906.107	1.760	0.000	3873.442	1.370	-0.000
88.	7162.146	-.950	-0.000	3908.140	1.660	0.000	3875.067	1.390	-0.000
89.	7160.213	-.870	-0.000	3910.045	1.550	0.000	3876.717	1.410	-0.000
90.	7158.339	-.850	-0.000	3911.823	1.430	0.000	3878.389	1.420	-0.000
91.	7156.520	-.810	-0.000	3913.454	1.310	0.000	3880.081	1.440	-0.000
92.	7154.793	-.780	-0.000	3914.935	1.180	0.000	3881.791	1.450	-0.000
93.	7153.133	-.740	-0.000	3916.256	1.040	0.000	3883.517	1.460	-0.000
94.	7151.554	-.700	-0.000	3917.413	.906	0.000	3885.257	1.470	-0.000
95.	7150.063	-.660	-0.000	3918.399	.750	0.000	3887.006	1.460	-0.000
96.	7148.662	-.620	-0.000	3919.208	.600	0.000	3888.768	1.490	-0.000
97.	7147.354	-.580	-0.000	3919.838	.450	0.000	3890.536	1.490	-0.000
98.	7146.144	-.530	-0.000	3920.244	.300	-0.000	3892.309	1.500	-0.000
99.	7145.034	-.490	-0.000	3920.545	.140	0.000	3894.085	1.500	0.000

110-PLANE YIG

BULK

	LMGVEL	LPM112	LPM113	FSRVEL	FSPM112	FSPM113	SSRVEL	SSPM112	SSPM113
100.	7144.025	-0.440	0.000	3920.616	-0.020	0.000	3095.861	1.500	0.000
101.	7143.119	-0.390	0.000	3920.504	-0.170	0.000	3697.637	1.490	0.000
102.	7142.317	-0.340	0.000	3920.203	-0.330	0.000	3699.408	1.480	0.000
103.	7141.620	-0.300	0.000	3919.717	-0.480	0.000	3901.174	1.460	0.000
104.	7141.027	-0.250	0.000	3919.047	-0.640	0.000	3902.932	1.470	0.000
105.	7140.536	-0.200	0.000	3918.197	-0.790	0.000	3904.681	1.450	0.000
106.	7140.151	-0.150	0.000	3917.171	-0.930	0.000	3906.417	1.450	0.000
107.	7139.865	-0.110	0.000	3915.974	-1.070	0.000	3908.139	1.440	0.000
108.	7139.678	-0.060	0.000	3914.611	-1.210	0.000	3909.845	1.420	0.000
109.	7139.586	-0.020	0.000	3913.091	-1.340	0.000	3911.532	1.410	0.000
110.	7139.590	0.020	0.000	3911.419	-1.460	0.000	3913.199	1.390	0.000
111.	7139.682	0.060	0.000	3909.605	-1.580	0.000	3914.844	1.370	0.000
112.	7139.860	0.100	0.000	3907.657	-1.690	0.000	3916.464	1.350	0.000
113.	7140.119	0.140	0.000	3905.585	-1.790	0.000	3918.056	1.320	0.000
114.	7140.455	0.170	0.000	3903.398	-1.880	0.000	3919.624	1.300	0.000
115.	7140.863	0.200	0.000	3901.109	-1.970	0.000	3921.160	1.270	0.000
116.	7141.338	0.230	0.000	3898.728	-2.040	0.000	3922.664	1.240	0.000
117.	7141.873	0.260	0.000	3896.266	-2.100	0.000	3924.134	1.220	0.000
118.	7142.464	0.280	0.000	3893.737	-2.150	0.000	3925.569	1.190	0.000
119.	7143.104	0.300	0.000	3891.152	-2.200	0.000	3926.987	1.150	0.000
120.	7143.780	0.320	0.000	3888.524	-2.230	0.000	3928.326	1.120	0.000
121.	7144.509	0.340	0.000	3885.866	-2.250	0.000	3929.645	1.080	0.000
122.	7145.261	0.350	0.000	3883.191	-2.260	0.000	3930.921	1.050	0.000
123.	7146.038	0.360	0.000	3880.513	-2.260	0.000	3932.154	1.010	0.000
124.	7146.832	0.370	0.000	3877.844	-2.250	0.000	3933.343	0.970	0.000
125.	7147.639	0.370	0.000	3875.196	-2.230	0.000	3934.494	0.930	0.000
126.	7148.452	0.370	0.000	3872.587	-2.140	0.000	3935.574	0.890	0.000
127.	7149.264	0.370	0.000	3870.025	-2.150	0.000	3936.624	0.850	0.000
128.	7150.070	0.370	0.000	3867.524	-2.090	0.000	3937.616	0.810	0.000
129.	7150.863	0.360	0.000	3865.095	-2.030	0.000	3938.562	0.760	0.000
130.	7151.636	0.350	0.000	3862.752	-1.950	0.000	3939.453	0.720	0.000
131.	7152.390	0.340	0.000	3860.505	-1.870	0.000	3940.290	0.680	0.000
132.	7153.113	0.320	0.000	3858.369	-1.770	0.000	3941.073	0.630	0.000
133.	7153.803	0.310	0.000	3856.345	-1.670	0.000	3941.800	0.580	0.000
134.	7154.453	0.290	0.000	3854.451	-1.560	0.000	3942.471	0.540	0.000
135.	7155.061	0.270	0.000	3852.694	-1.440	0.000	3943.085	0.490	0.000
136.	7155.622	0.250	0.000	3851.083	-1.310	0.000	3943.641	0.440	0.000
137.	7156.132	0.220	0.000	3849.625	-1.180	0.000	3944.139	0.390	0.000
138.	7156.588	0.200	0.000	3848.328	-1.040	0.000	3944.577	0.340	0.000
139.	7156.987	0.170	0.000	3847.198	-0.890	0.000	3944.956	0.290	0.000
140.	7157.326	0.140	0.000	3846.240	-0.740	0.000	3945.275	0.240	0.000
141.	7157.604	0.110	0.000	3845.456	-0.590	0.000	3945.533	0.190	0.000
142.	7157.817	0.080	0.000	3844.856	-0.430	0.000	3945.731	0.140	0.000
143.	7157.966	0.050	0.000	3844.441	-0.280	0.000	3945.868	0.090	0.000
144.	7158.046	0.020	0.000	3844.210	-0.120	0.000	3945.943	0.040	0.000
145.	7158.064	-0.010	0.000	3844.166	0.040	0.000	3945.956	-0.010	0.000
146.	7158.013	-0.040	0.000	3844.309	0.200	0.000	3945.911	-0.060	0.000
147.	7157.895	-0.070	0.000	3844.636	0.360	0.000	3945.803	-0.120	0.000
148.	7157.713	-0.100	0.000	3845.152	0.520	0.000	3945.634	-0.170	0.000
149.	7157.465	-0.130	0.000	3845.849	0.670	0.000	3945.404	-0.220	0.000

	110-PLANE YIG				BULK			
	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
150.	-160	0.000	3846.724	.820	0.000	3942.114	-.270	0.000
151.	-160	0.000	3847.773	.970	0.000	3944.763	-.320	0.000
152.	-210	0.000	3848.933	1.110	0.000	3944.353	-.370	-0.000
153.	-230	0.000	3850.375	1.250	0.000	3943.683	-.420	0.000
154.	-260	0.000	3851.915	1.380	0.000	3943.353	-.460	0.000
155.	-260	0.000	3853.604	1.500	0.000	3942.766	-.510	0.000
156.	-300	0.000	3855.434	1.620	0.000	3942.124	-.560	0.000
157.	-320	0.000	3857.397	1.720	0.000	3941.423	-.610	0.000
158.	-330	0.000	3859.482	1.820	0.000	3940.667	-.650	0.000
159.	-350	0.000	3861.679	1.910	0.000	3939.852	-.700	0.000
160.	-360	0.000	3863.976	1.990	0.000	3938.989	-.740	0.000
161.	-360	0.000	3866.366	2.060	0.000	3938.070	-.780	0.000
162.	-370	0.000	3868.836	2.120	0.000	3937.100	-.830	0.000
163.	-370	0.000	3871.371	2.170	0.000	3936.076	-.870	0.000
164.	-370	0.000	3873.961	2.210	0.000	3935.007	-.910	0.000
165.	-370	0.000	3876.592	2.240	0.000	3933.887	-.950	0.000
166.	-370	0.000	3879.251	2.260	0.000	3932.721	-.990	0.000
167.	-360	0.000	3881.927	2.260	0.000	3931.509	-1.030	0.000
168.	-350	0.000	3884.605	2.260	0.000	3930.253	-1.070	0.000
169.	-330	0.000	3887.272	2.240	0.000	3928.954	-1.100	0.000
170.	-310	0.000	3889.916	2.220	0.000	3927.614	-1.140	0.000
171.	-290	0.000	3892.523	2.180	0.000	3926.234	-1.170	0.000
172.	-270	-0.000	3895.080	2.130	0.000	3924.816	-1.200	0.000
173.	-250	0.000	3897.575	2.070	0.000	3923.352	-1.230	0.000
174.	-220	-0.000	3899.996	2.000	0.000	3921.844	-1.260	0.000
175.	-190	0.000	3902.330	1.920	0.000	3920.293	-1.290	0.000
176.	-150	-0.000	3904.566	1.840	0.000	3918.601	-1.310	0.000
177.	-120	0.000	3906.694	1.740	0.000	3917.220	-1.340	0.000
178.	-80	-0.000	3908.702	1.630	0.000	3915.612	-1.360	0.000
179.	-60	-0.000	3910.540	1.520	0.000	3913.878	-1.380	0.000
180.	-0.000	0.000	3912.320	1.400	0.000	3912.321	-1.400	0.000

X-PLANE (YZ-PLANE) ZINC OXIDE (SMITH)

	LANGVEL	LPMI12	LPMI11	FSRDEL	FSPMI12	FSPMI13	SSRDEL	SSPMI12	SSPMI13
0.	5882.690	0.000	0.000	2829.153	0.000	0.000	2884.296	0.000	0.000
1.	5882.650	-0.040	0.000	2829.176	-0.030	-0.000	2884.275	-0.059	0.000
2.	5882.528	-0.090	0.000	2829.217	-0.070	-0.000	2884.210	-0.100	0.000
3.	5882.322	-0.140	0.000	2829.297	-0.120	-0.000	2884.192	-0.150	0.000
4.	5882.024	-0.190	0.000	2829.435	-0.200	-0.000	2883.952	-0.200	0.000
5.	5881.629	-0.240	0.000	2829.655	-0.310	-0.000	2883.754	-0.250	0.000
6.	5881.124	-0.300	0.000	2829.988	-0.470	-0.000	2883.527	-0.300	0.000
7.	5880.580	-0.370	0.000	2830.471	-0.660	-0.000	2883.264	-0.350	0.000
8.	5879.743	-0.450	0.000	2831.145	-0.910	-0.000	2882.924	-0.400	0.000
9.	5878.838	-0.530	0.000	2832.057	-1.210	-0.000	2882.563	-0.450	0.000
10.	5877.771	-0.620	0.000	2833.257	-1.540	-0.000	2882.167	-0.500	0.000
11.	5876.525	-0.720	0.000	2834.797	-2.000	-0.000	2881.717	-0.540	0.000
12.	5875.085	-0.830	0.000	2836.731	-2.490	-0.000	2881.233	-0.590	0.000
13.	5873.434	-0.950	0.000	2839.115	-3.030	-0.000	2880.711	-0.640	0.000
14.	5871.557	-1.080	0.000	2842.002	-3.640	-0.000	2880.144	-0.680	0.000
15.	5869.440	-1.210	0.000	2845.447	-4.310	-0.000	2879.543	-0.730	0.000
16.	5867.069	-1.350	0.000	2849.500	-5.020	-0.000	2798.911	-0.770	0.000
17.	5864.432	-1.500	0.000	2854.207	-5.790	-0.000	2798.236	-0.810	0.000
18.	5861.519	-1.650	0.000	2859.613	-6.590	-0.000	2797.526	-0.850	0.000
19.	5858.323	-1.810	0.000	2865.754	-7.430	-0.000	2796.780	-0.900	0.000
20.	5854.839	-1.970	0.000	2872.652	-8.280	-0.000	2796.000	-0.940	0.000
21.	5851.065	-2.130	0.000	2880.359	-9.150	-0.000	2795.187	-0.970	0.000
22.	5847.002	-2.280	0.000	2888.867	-10.020	-0.000	2794.341	-1.010	0.000
23.	5842.655	-2.440	0.000	2900.178	-10.880	-0.000	2793.464	-1.050	0.000
24.	5838.032	-2.580	0.000	2908.304	-11.720	-0.000	2792.565	-1.080	0.000
25.	5833.146	-2.770	0.000	2919.224	-12.520	-0.000	2791.629	-1.120	0.000
26.	5828.014	-2.960	0.000	2930.929	-13.290	-0.000	2790.655	-1.150	0.000
27.	5822.657	-3.170	0.000	2943.375	-14.000	-0.000	2789.662	-1.180	0.000
28.	5817.100	-3.380	0.000	2956.522	-14.640	-0.000	2788.645	-1.210	0.000
29.	5811.373	-3.600	0.000	2970.319	-15.220	-0.000	2787.507	-1.240	0.000
30.	5805.511	-3.830	0.000	2984.703	-15.740	-0.000	2786.336	-1.270	0.000
31.	5899.554	-3.270	0.000	2994.501	-16.120	-0.000	2785.144	-1.290	0.000
32.	5893.546	-3.220	0.000	3014.932	-16.430	-0.000	2784.833	-1.320	0.000
33.	5887.535	-3.280	0.000	3036.604	-16.640	-0.000	2783.521	-1.340	0.000
34.	5881.574	-3.240	0.000	3046.519	-16.750	-0.000	2782.264	-1.360	0.000
35.	5875.721	-3.170	0.000	3062.571	-16.750	-0.000	2780.901	-1.380	0.000
36.	5870.034	-3.070	0.000	3078.647	-16.630	-0.000	2779.727	-1.390	0.000
37.	5864.580	-2.920	0.000	3094.628	-16.400	-0.000	2778.531	-1.420	0.000
38.	5859.425	-2.740	0.000	3110.391	-16.040	-0.000	2777.375	-1.430	0.000
39.	5854.617	-2.520	0.000	3125.809	-15.570	-0.000	2776.109	-1.440	0.000
40.	5850.280	-2.260	0.000	3140.755	-14.980	-0.000	2774.883	-1.450	0.000
41.	5846.444	-1.970	0.000	3155.097	-14.260	-0.000	2773.649	-1.450	0.000
42.	5843.189	-1.630	0.000	3168.709	-13.430	-0.000	2772.508	-1.470	0.000
43.	5840.580	-1.250	0.000	3181.453	-12.470	-0.000	2771.163	-1.480	0.000
44.	5838.648	-0.960	0.000	3193.237	-11.410	-0.000	2769.913	-1.490	0.000
45.	5837.577	-0.790	0.000	3203.914	-10.230	-0.000	2768.862	-1.480	0.000
46.	5837.386	-0.680	-0.000	3213.342	-8.950	-0.000	2767.910	-1.460	0.000
47.	5837.929	-0.600	-0.000	3221.539	-7.570	-0.000	2767.159	-1.440	0.000
48.	5839.498	-1.130	-0.000	3230.295	-6.110	-0.000	2766.611	-1.430	0.000
49.	5842.029	-1.680	-0.000	3233.567	-4.570	-0.000	2763.665	-1.470	0.000

X-PLANE (17-PLANE) ZINC OXTDF (SMIT4)

	LMVEL	LMH12	LMH11	FSRVEL	FSPH12	FSPH11	SSPVEL	SSPH12	SSPH11
50.	5945.574	7.259	-0.078	3217.299	2.969	2.969	2752.627	-1.479	0.000
51.	5950.143	7.809	-0.008	3239.403	1.310	1.310	2751.194	-1.467	0.000
52.	5955.748	3.379	-0.078	3239.872	-0.379	-0.379	2759.972	-1.450	0.000
53.	5962.385	7.930	-0.000	3238.668	-2.079	-2.079	2758.752	-1.448	0.000
54.	5970.061	6.680	-0.078	3235.742	-3.740	-3.740	2757.557	-1.420	0.000
55.	5978.944	5.813	-0.000	3231.219	-5.470	-5.470	2756.767	-1.410	0.000
56.	5988.709	5.510	-0.000	3224.999	-7.130	-7.130	2755.195	-1.399	0.000
57.	5998.443	5.999	-0.000	3217.157	-8.759	-8.759	2754.034	-1.379	0.000
58.	6010.242	6.420	-0.000	3207.741	-10.319	-10.319	2752.896	-1.350	0.000
59.	6022.444	6.833	-0.000	3196.614	-11.800	-11.800	2751.774	-1.333	0.000
60.	6035.382	7.191	-0.077	3184.450	-13.229	-13.229	2750.677	-1.309	0.000
61.	6048.979	7.500	-0.000	3170.746	-14.557	-14.557	2749.599	-1.299	0.000
62.	6063.155	7.777	-0.000	3155.746	-15.789	-15.789	2748.534	-1.259	0.000
63.	6077.827	7.990	-0.000	3139.646	-16.919	-16.919	2747.501	-1.220	0.000
64.	6092.906	8.160	-0.000	3122.488	-17.930	-17.930	2746.504	-1.199	0.000
65.	6109.303	8.293	-0.000	3104.417	-18.850	-18.850	2745.517	-1.169	0.000
66.	6123.927	8.363	-0.000	3085.544	-19.684	-19.684	2744.560	-1.129	0.000
67.	6139.689	8.390	-0.000	3066.717	-20.432	-20.432	2743.636	-1.099	0.000
68.	6154.498	8.370	-0.000	3045.952	-21.080	-21.080	2742.747	-1.059	0.000
69.	6171.265	8.308	-0.000	3025.407	-21.630	-21.630	2741.891	-1.010	0.000
70.	6185.904	8.199	-0.000	3004.797	-22.080	-22.080	2741.051	-0.979	0.000
71.	6202.332	8.040	-0.000	2983.960	-22.430	-22.430	2740.256	-0.939	0.000
72.	6217.467	7.853	-0.000	2963.155	-22.680	-22.680	2739.504	-0.899	0.000
73.	6232.232	7.620	-0.000	2942.511	-22.840	-22.840	2738.769	-0.859	0.000
74.	6244.552	7.450	-0.000	2922.166	-22.910	-22.910	2738.079	-0.819	0.000
75.	6264.354	7.244	-0.000	2902.254	-22.890	-22.890	2737.427	-0.759	0.000
76.	6273.583	6.739	-0.000	2882.908	-22.710	-22.710	2736.817	-0.719	0.000
77.	6285.154	5.379	-0.000	2864.257	-22.070	-22.070	2735.234	-0.678	0.000
78.	6299.045	5.987	-0.000	2846.425	-19.280	-19.280	2733.707	-0.629	0.000
79.	6309.121	5.570	-0.000	2829.531	-15.360	-15.360	2732.204	-0.579	0.000
80.	6319.694	5.130	-0.000	2813.691	-11.280	-11.280	2730.754	-0.529	0.000
81.	6329.968	4.580	-0.000	2799.010	-6.960	-6.960	2729.341	-0.479	0.000
82.	6337.553	4.200	-0.000	2785.508	-1.710	-1.710	2727.971	-0.429	0.000
83.	6345.213	3.710	-0.000	2773.514	11.210	11.210	2726.642	-0.379	0.000
84.	6351.915	3.210	-0.000	2762.882	-11.590	-11.590	2725.357	-0.329	0.000
85.	6357.633	2.691	-0.000	2753.754	-9.860	-9.860	2724.115	-0.269	0.000
86.	6362.364	2.170	-0.000	2746.197	-8.020	-8.020	2722.917	-0.219	0.000
87.	6365.026	1.650	-0.000	2740.264	-6.090	-6.090	2721.757	-0.169	0.000
88.	6368.668	1.090	-0.000	2735.996	-4.100	-4.100	2720.659	-0.119	0.000
89.	6370.256	0.550	-0.000	2733.423	-2.060	-2.060	2719.605	-0.069	0.000
90.	6370.707	-0.000	-0.000	2732.563	0.000	0.000	2718.595	0.000	0.000
91.	6370.256	-1.550	-0.000	2733.423	2.064	2.064	2717.629	0.050	0.000
92.	6368.668	-1.090	-0.000	2735.996	4.104	4.104	2716.707	0.100	0.000
93.	6365.026	-1.650	-0.000	2740.264	6.090	6.090	2715.829	0.150	0.000
94.	6357.633	-2.170	-0.000	2746.197	8.020	8.020	2715.017	0.200	0.000
95.	6351.915	-2.691	-0.000	2753.754	9.860	9.860	2714.315	0.250	0.000
96.	6345.213	-3.210	-0.000	2762.882	11.590	11.590	2713.707	0.300	0.000
97.	6337.553	-3.710	-0.000	2773.514	13.210	13.210	2713.184	0.350	0.000
98.	6329.968	-4.200	-0.000	2785.508	14.710	14.710	2712.707	0.400	0.000
99.	6328.968	-4.680	-0.000	2799.010	16.060	16.060	2712.274	0.450	0.000

X-PLANE (YZ-PLANE) ZINC OXIDE (SMITH)

	LMDEL	LMH12	LMH13	FSRVEL	FSPH12	FSPH13	SSPVEL	SSPH12	SSPH13
106.	6319.494	-5.130	-0.00E	2913.691	17.260	0.000	2734.754	.520	0.000
107.	6309.171	-5.570	-0.00E	2829.871	18.360	0.000	2735.204	.570	0.000
108.	6286.645	-5.960	-0.00E	2806.625	19.260	0.000	2736.701	.620	0.000
109.	6286.164	-6.370	-0.00E	2804.257	20.070	0.000	2736.234	.670	0.000
104.	6271.583	-6.730	-0.00E	2942.904	20.710	0.000	2735.813	.710	0.000
105.	6268.358	-7.060	-0.00E	2902.254	21.200	0.000	2737.427	.760	0.000
106.	6266.552	-7.360	-0.00E	2922.166	21.560	0.000	2738.079	.800	0.000
107.	6232.232	-7.620	-0.00E	2942.511	21.780	0.000	2738.769	.850	0.000
108.	6217.667	-7.850	-0.00E	2953.155	21.860	0.000	2739.494	.890	0.000
109.	6202.332	-8.048	-0.00E	2983.960	21.810	0.000	2740.255	.940	0.000
110.	6186.986	-8.190	-0.00E	3004.747	21.630	0.000	2741.051	.970	0.000
111.	6171.255	-8.300	-0.00E	3025.497	21.320	0.000	2741.881	1.010	0.000
112.	6155.494	-8.370	-0.00E	3045.952	20.840	0.000	2742.743	1.050	0.000
113.	6139.589	-8.390	-0.00E	3066.013	20.320	0.000	2743.636	1.090	0.000
114.	6123.327	-8.360	-0.00E	3085.544	19.840	0.000	2744.560	1.120	0.000
115.	6109.303	-8.290	-0.00E	3104.413	19.490	0.000	2745.517	1.150	0.000
116.	6092.906	-8.140	-0.00E	3122.484	17.840	0.000	2746.694	1.180	0.000
117.	6077.427	-7.990	-0.00E	3139.646	15.910	0.000	2747.981	1.220	0.000
118.	6063.155	-7.770	-0.00E	3155.766	15.780	0.000	2749.374	1.250	0.000
119.	6048.979	-7.500	-0.00E	3170.735	14.550	0.000	2749.692	1.280	0.000
120.	6035.382	-7.190	-0.00E	3184.650	13.270	0.000	2750.572	1.300	0.000
121.	6022.444	-6.830	-0.00E	3196.614	11.800	0.000	2751.774	1.330	0.000
122.	6010.242	-6.420	-0.00E	3207.741	10.310	0.000	2752.895	1.350	0.000
123.	6000.843	-5.960	-0.00E	3217.157	8.750	0.000	2754.034	1.370	0.000
124.	6000.389	-5.510	-0.00E	3224.999	7.170	0.000	2755.195	1.390	0.000
125.	6000.594	-5.010	-0.00E	3231.219	5.670	0.000	2756.363	1.410	0.000
126.	6000.841	-4.480	-0.00E	3234.792	3.780	0.000	2757.557	1.420	0.000
127.	6002.395	-3.930	-0.00E	3236.668	2.070	0.000	2758.759	1.440	0.000
128.	6005.744	-3.170	-0.00E	3239.872	.370	0.000	2759.972	1.460	0.000
129.	6005.143	-2.800	-0.00E	3239.403	-1.310	-0.000	2761.194	1.450	0.000
130.	6005.573	-2.240	-0.00E	3237.244	-2.960	-0.000	2762.427	1.470	0.000
131.	6002.829	-1.680	-0.00E	3233.567	-4.670	-0.000	2763.665	1.470	0.000
132.	6000.600	-1.130	-0.00E	3228.245	-6.110	-0.000	2764.911	1.440	0.000
133.	6000.629	-0.600	-0.00E	3221.514	-7.570	-0.000	2766.159	1.440	0.000
134.	6000.786	-0.190	-0.00E	3213.342	-8.950	-0.000	2767.419	1.440	0.000
135.	6000.577	.190	0.00E	3203.914	-10.230	-0.000	2768.667	1.440	0.000
136.	6000.688	.440	0.00E	3193.217	-11.410	-0.000	2769.917	1.440	0.000
137.	6000.580	1.250	0.00E	3181.653	-12.670	-0.000	2771.163	1.440	0.000
138.	6000.189	1.630	0.00E	3168.704	-13.870	-0.000	2772.408	1.470	0.000
139.	6000.448	1.970	0.00E	3155.097	-14.260	-0.000	2773.643	1.470	0.000
140.	6000.291	2.260	0.00E	3140.755	-14.980	-0.000	2774.887	1.460	0.000
141.	6000.637	2.620	0.00E	3125.609	-15.570	-0.000	2776.109	1.460	0.000
142.	6000.425	2.920	0.00E	3110.191	-16.040	-0.000	2777.225	1.470	0.000
143.	6000.590	3.200	0.00E	3094.628	-16.400	-0.000	2778.230	1.420	0.000
144.	6000.834	3.470	0.00E	3078.647	-16.530	-0.000	2779.122	1.440	0.000
145.	6000.721	3.170	0.00E	3062.571	-16.550	-0.000	2780.001	1.380	0.000
146.	6001.574	3.240	0.00E	3046.519	-16.750	-0.000	2781.064	1.360	0.000
147.	6000.535	3.290	0.00E	3030.604	-16.640	-0.000	2783.211	1.340	0.000
148.	6000.546	3.290	0.00E	3014.972	-16.430	-0.000	2784.333	1.320	0.000
149.	6000.554	3.270	0.00E	2999.601	-16.120	-0.000	2785.444	1.290	0.000

X-PLANE (Y-Z PLANE) ZINC OXIDE (SMITH)

	LMGVEL	LPHI12	LPHI11	FSRWEL	FSRWEL	FSPH12	FSPH13	SSRWEL	SSPH12	SSPH13
150.	5005.911	3.239	0.000	2884.783	-15.710	-0.000	-0.000	2786.536	1.270	0.000
151.	5011.173	3.160	0.000	2970.719	-15.224	-0.000	-0.000	2787.609	1.269	0.000
152.	5017.100	3.080	0.000	2856.522	-14.640	-0.000	-0.000	2788.645	1.210	0.000
153.	5022.657	2.973	0.000	2943.375	-14.000	-0.000	-0.000	2789.862	1.190	0.000
154.	5028.014	2.960	0.000	2930.929	-13.290	-0.000	-0.000	2790.855	1.159	0.000
155.	5033.165	2.730	0.000	2919.224	-12.520	-0.000	-0.000	2791.621	1.120	0.000
156.	5039.032	2.540	0.000	2908.304	-11.720	-0.000	-0.000	2792.555	1.040	0.000
157.	5042.655	2.440	0.000	2898.174	-10.860	-0.000	-0.000	2793.464	1.050	0.000
158.	5047.062	2.280	0.000	2888.862	-10.020	-0.000	-0.000	2794.341	1.010	0.000
159.	5051.065	2.170	0.000	2880.359	-9.150	-0.000	-0.000	2795.187	0.970	0.000
160.	5054.839	1.970	0.000	2872.662	-8.240	-0.000	-0.000	2795.800	0.940	0.000
161.	5058.323	1.810	0.000	2865.764	-7.430	-0.000	-0.000	2796.780	0.900	0.000
162.	5061.519	1.650	0.000	2859.617	-6.590	-0.000	-0.000	2797.524	0.850	0.000
163.	5064.432	1.500	0.000	2854.207	-5.790	-0.000	-0.000	2798.234	0.810	0.000
164.	5067.069	1.351	0.000	2849.500	-5.024	-0.000	-0.000	2798.911	0.770	0.000
165.	5069.440	1.210	0.000	2845.447	-4.310	-0.000	-0.000	2799.549	0.730	0.000
166.	5071.557	1.099	0.000	2842.002	-3.640	-0.000	-0.000	2800.149	0.690	0.000
167.	5073.434	0.950	0.000	2839.115	-3.030	-0.000	-0.000	2800.711	0.650	0.000
168.	5075.085	0.835	0.000	2836.731	-2.460	-0.000	-0.000	2801.233	0.610	0.000
169.	5076.525	0.720	0.000	2834.797	-2.000	-0.000	-0.000	2801.717	0.540	0.000
170.	5077.771	0.620	0.000	2833.257	-1.640	-0.000	-0.000	2802.169	0.500	0.000
171.	5078.819	0.533	0.000	2832.057	-1.210	-0.000	-0.000	2802.563	0.500	0.000
172.	5079.748	0.450	0.000	2831.145	-0.910	-0.000	-0.000	2802.924	0.400	0.000
173.	5080.580	0.370	0.000	2830.471	-0.660	-0.000	-0.000	2803.244	0.350	0.000
174.	5081.324	0.301	0.000	2829.884	-0.470	-0.000	-0.000	2803.522	0.300	0.000
175.	5081.629	0.240	0.000	2829.656	-0.314	-0.000	-0.000	2803.764	0.250	0.000
176.	5082.024	0.190	0.000	2829.835	-0.209	-0.000	-0.000	2803.959	0.200	0.000
177.	5082.322	0.140	0.000	2829.297	-0.124	-0.000	-0.000	2804.102	0.150	0.000
178.	5082.528	0.090	0.000	2829.217	-0.070	-0.000	-0.000	2804.210	0.100	0.000
179.	5082.550	0.040	0.000	2829.176	-0.030	-0.000	-0.000	2804.275	0.050	0.000
180.	5082.500	-0.000	-0.000	2829.153	0.000	-0.000	-0.000	2804.295	-0.000	-0.000

X-PLANE (YZ-PLANE) ZINC OXIDE (JAFFE AND BERLINCOURT, BATEMAN)

	LMGVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
0.	6880.447	0.000	0.000	2883.391	0.000	-0.000	2799.009	0.000	0.000
1.	6880.463	.020	-0.000	2883.286	-0.230	0.000	2799.000	-0.643	0.000
2.	6880.505	.030	-0.000	2882.983	-0.460	0.000	2796.942	-0.699	0.000
3.	6880.581	.040	-0.000	2882.489	-0.660	0.000	2796.647	-1.130	0.000
4.	6880.671	.050	-0.000	2881.826	-0.940	0.000	2796.713	-1.160	0.000
5.	6880.767	.050	-0.000	2881.824	-0.900	0.000	2796.541	-1.220	0.000
6.	6880.856	.040	-0.000	2880.119	-1.070	0.000	2796.332	-1.270	0.000
7.	6880.922	.030	-0.000	2879.154	-1.120	0.000	2796.005	-1.310	0.000
8.	6880.945	-0.060	0.000	2878.176	-1.100	0.000	2797.000	-0.860	0.000
9.	6880.905	-0.040	0.000	2877.246	-1.010	0.000	2797.479	-4.03	0.000
10.	6880.779	-0.090	0.000	2876.422	-0.860	0.000	2797.122	-4.40	0.000
11.	6880.545	-0.160	0.000	2875.766	-0.830	0.000	2796.728	-4.80	0.000
12.	6880.178	-0.240	0.000	2875.345	-0.820	0.000	2796.299	-5.20	0.000
13.	6879.653	-0.330	0.000	2875.228	.070	0.000	2795.634	-5.70	0.000
14.	6878.946	-0.440	0.000	2875.485	.530	-0.000	2795.335	-6.10	0.000
15.	6878.032	-0.550	0.000	2876.185	1.060	-0.000	2794.802	-6.50	0.000
16.	6876.819	-0.660	0.000	2877.395	1.700	-0.000	2794.236	-6.80	0.000
17.	6875.493	-0.830	0.000	2879.182	2.390	-0.000	2793.637	-7.20	0.000
18.	6873.828	-0.960	0.000	2881.605	3.140	-0.000	2793.006	-7.60	0.000
19.	6871.868	-1.140	0.000	2884.723	3.966	-0.000	2792.364	-8.00	0.000
20.	6869.603	-1.310	0.000	2888.586	4.820	-0.000	2791.651	-8.30	0.000
21.	6867.020	-1.450	0.000	2893.236	5.720	-0.000	2790.929	-8.70	0.000
22.	6864.107	-1.670	0.000	2898.717	6.650	-0.000	2790.178	-9.10	0.000
23.	6860.859	-1.850	0.000	2905.050	7.600	-0.000	2789.400	-9.50	0.000
24.	6857.273	-2.030	0.000	2912.257	8.560	-0.000	2788.594	-9.90	0.000
25.	6853.351	-2.220	0.000	2920.347	9.500	-0.000	2787.762	-10.30	0.000
26.	6849.096	-2.350	0.000	2929.316	10.430	-0.000	2786.905	-10.70	0.000
27.	6844.524	-2.570	0.000	2939.159	11.440	-0.000	2786.025	-11.10	0.000
28.	6839.645	-2.730	0.000	2949.847	12.410	-0.000	2785.121	-11.50	0.000
29.	6834.480	-2.880	0.000	2961.348	12.960	-0.000	2784.196	-11.90	0.000
30.	6829.055	-3.020	0.000	2973.616	13.680	-0.000	2783.250	-12.30	0.000
31.	6823.396	-3.140	0.000	2986.595	14.330	-0.000	2782.264	-12.70	0.000
32.	6817.546	-3.240	0.000	3000.218	14.890	-0.000	2781.300	-13.10	0.000
33.	6811.536	-3.310	0.000	3014.407	15.350	-0.000	2780.298	-13.50	0.000
34.	6805.419	-3.360	0.000	3029.075	15.720	-0.000	2779.281	-13.90	0.000
35.	5995.241	-3.360	0.000	3044.124	15.370	-0.000	2778.249	-14.30	0.000
36.	5993.474	-3.370	0.000	3059.449	16.110	-0.000	2777.233	-14.70	0.000
37.	5988.931	-3.330	0.000	3074.935	16.140	-0.000	2776.145	-15.10	0.000
38.	5986.922	-3.250	0.000	3090.462	16.040	-0.000	2775.075	-15.50	0.000
39.	5975.100	-3.130	0.000	3105.903	15.910	-0.000	2773.936	-15.90	0.000
40.	5965.535	-2.970	0.000	3121.126	15.660	-0.000	2772.809	-16.30	0.000
41.	5964.311	-2.770	0.000	3135.996	14.990	-0.000	2771.684	-16.70	0.000
42.	5959.474	-2.530	0.000	3150.380	14.370	-0.000	2770.714	-17.10	0.000
43.	5955.129	-2.250	0.000	3164.135	13.630	-0.000	2769.609	-17.50	0.000
44.	5951.362	-1.920	0.000	3177.126	12.770	-0.000	2768.500	-17.90	0.000
45.	5948.166	-1.550	0.000	3189.219	11.770	-0.000	2767.391	-18.30	0.000
46.	5945.739	-1.140	0.000	3200.244	10.660	-0.000	2766.280	-18.70	0.000
47.	5944.064	-0.708	0.000	3210.196	9.420	-0.000	2765.171	-19.10	0.000
48.	5943.226	-0.220	0.000	3220.840	8.060	-0.000	2764.064	-19.50	0.000
49.	5943.281	.250	-0.000	3226.109	6.630	-0.000	2762.960	-19.90	0.000

X-PLANE (YZ-PLANE) ZINC OXIDE (JAFFE AND BERLINCOURT, BATEMAN)

	LPHI12	LPHI13	FSRVEL	FSPHI12	FSPHI13	SSRVEL	SSPHI12	SSPHI13
50.	594.281	-0.000	3231.906	5.180	-0.000	2/61.861	-1.300	0.000
51.	594.285	-0.000	3236.149	3.490	-0.000	2760.769	-1.290	0.000
52.	594.284	-0.000	3236.766	1.610	-0.000	2757.605	-1.280	0.000
53.	595.295	-0.000	3239.707	.090	-0.000	2756.605	-1.270	0.000
54.	595.379	-0.000	3238.930	-1.670	0.000	2757.544	-1.260	0.000
55.	596.502	-0.000	3236.413	-3.430	0.000	2756.490	-1.250	0.000
56.	597.653	-0.000	3232.151	-5.200	0.000	2755.449	-1.230	0.000
57.	597.886	-0.000	3226.195	-6.940	0.000	2754.422	-1.210	0.000
58.	598.924	-0.000	3218.454	-8.640	0.000	2753.411	-1.200	0.000
59.	599.960	-0.000	3209.092	-10.300	0.000	2752.417	-1.180	0.000
60.	600.856	-0.000	3198.126	-11.660	0.000	2751.440	-1.150	0.000
61.	602.544	-0.000	3185.637	-13.340	0.000	2750.483	-1.130	0.000
62.	603.952	-0.000	3171.705	-14.790	0.000	2749.546	-1.110	0.000
63.	604.997	-0.000	3156.432	-16.110	0.000	2748.630	-1.080	0.000
64.	606.595	-0.000	3139.926	-17.310	0.000	2747.737	-1.050	0.000
65.	607.655	-0.000	3122.315	-18.400	0.000	2746.868	-1.020	0.000
66.	609.003	-0.000	3103.720	-19.370	0.000	2746.024	-0.990	0.000
67.	610.706	-0.000	3084.274	-20.210	0.000	2745.205	-0.960	0.000
68.	611.657	-0.000	3064.134	-20.920	0.000	2744.414	-0.930	0.000
69.	613.631	-0.000	3043.432	-21.510	0.000	2743.650	-0.900	0.000
70.	614.585	-0.000	3022.322	-21.950	0.000	2742.915	-0.860	0.000
71.	616.344	-0.000	3000.957	-22.260	0.000	2742.210	-0.830	0.000
72.	617.891	-0.000	2979.491	-22.430	0.000	2741.536	-0.790	0.000
73.	6192.467	-0.000	2958.074	-22.480	0.000	2740.893	-0.750	0.000
74.	6206.480	-0.000	2936.875	-22.320	0.000	2740.282	-0.710	0.000
75.	6220.050	-0.000	2916.033	-22.050	0.000	2739.705	-0.670	0.000
76.	6233.102	-0.000	2895.702	-21.620	0.000	2739.161	-0.630	0.000
77.	6245.564	-0.000	2876.030	-21.030	0.000	2738.652	-0.590	0.000
78.	6257.370	-0.000	2857.160	-20.260	0.000	2738.177	-0.550	0.000
79.	6268.460	-0.000	2839.230	-19.360	0.000	2737.739	-0.500	0.000
80.	6278.775	-0.000	2822.372	-18.290	0.000	2737.337	-0.460	0.000
81.	6288.284	-0.000	2806.710	-17.050	0.000	2736.971	-0.420	0.000
82.	6296.881	-0.000	2792.361	-15.650	0.000	2736.643	-0.370	0.000
83.	6304.582	-0.000	2779.432	-14.100	0.000	2736.352	-0.330	0.000
84.	6311.331	-0.000	2766.021	-12.400	0.000	2736.100	-0.290	0.000
85.	6317.096	-0.000	2752.213	-10.570	0.000	2735.885	-0.250	0.000
86.	6321.850	-0.000	2738.084	-8.610	0.000	2735.710	-0.210	0.000
87.	6325.571	-0.000	2743.656	-6.550	0.000	2735.573	-0.160	0.000
88.	6328.240	-0.000	2739.097	-4.410	0.000	2735.475	-0.110	0.000
89.	6329.847	-0.000	2736.323	-2.220	0.000	2735.416	-0.050	0.000
90.	6330.303	-0.000	2735.337	0.000	0.000	2735.397	0.000	0.000
91.	6329.647	-0.000	2736.323	2.220	0.000	2735.416	0.000	0.000
92.	6328.240	-0.000	2739.097	4.410	0.000	2735.475	0.000	0.000
93.	6325.571	-0.000	2743.656	6.550	0.000	2735.573	0.000	0.000
94.	6321.850	-0.000	2750.084	8.610	0.000	2735.710	0.000	0.000
95.	6317.096	-0.000	2758.213	10.570	0.000	2735.885	0.000	0.000
96.	6311.331	-0.000	2768.021	12.400	0.000	2736.100	0.000	0.000
97.	6304.562	-0.000	2779.432	14.100	0.000	2736.352	0.000	0.000
98.	6296.881	-0.000	2792.361	15.650	0.000	2736.643	0.000	0.000
99.	6288.284	-0.000	2806.710	17.050	0.000	2736.971	0.000	0.000

X-PLANE (YZ-PLANE) ZINC OXIDE (JAFFE AND BERLINCOURT, BATEMAN)

	LMGVEL	LPMI12	LPMI13	FSRVEL	FSPMI12	FSPMI13	SSRVEL	SSPMI12	SSPMI13
100.	6276.775	-5.170	-0.000	2622.372	16.250	0.000	2737.337	460	0.000
101.	6266.460	-5.550	-0.000	2839.230	19.361	0.000	2737.737	500	0.000
102.	6257.370	-5.950	-0.000	2857.160	20.260	0.000	2736.177	520	0.000
103.	6245.564	-6.360	-0.000	2876.030	21.030	0.000	2736.652	540	0.000
104.	6233.102	-6.690	-0.000	2895.702	21.620	0.000	2735.161	630	0.000
105.	6220.050	-7.000	-0.000	2916.033	22.050	0.000	2735.705	670	0.000
106.	6206.460	-7.260	-0.000	2936.875	22.320	0.000	2740.202	710	0.000
107.	6192.467	-7.450	-0.000	2956.079	22.450	0.000	2740.893	750	0.000
108.	6178.091	-7.670	-0.000	2979.491	22.430	0.000	2741.536	790	0.000
109.	6163.634	-7.820	-0.000	3000.957	22.260	0.000	2742.210	830	0.000
110.	6146.565	-7.910	-0.000	3022.322	21.950	0.000	2742.915	860	0.000
111.	6133.631	-7.960	-0.000	3043.432	21.510	0.000	2743.650	900	0.000
112.	6118.667	-7.960	-0.000	3064.134	20.920	0.000	2744.414	930	0.000
113.	6103.766	-7.910	-0.000	3084.274	20.210	0.000	2745.205	960	0.000
114.	6089.083	-7.610	-0.000	3103.720	19.370	0.000	2746.024	990	0.000
115.	6074.655	-7.660	-0.000	3122.315	16.400	0.000	2746.966	1020	0.000
116.	6060.595	-7.460	-0.000	3139.928	17.310	0.000	2747.737	1050	0.000
117.	6046.997	-7.200	-0.000	3156.432	16.110	0.000	2748.630	1080	0.000
118.	6033.952	-6.900	-0.000	3171.705	14.750	0.000	2749.546	1110	0.000
119.	6021.544	-6.510	-0.000	3185.637	13.360	0.000	2750.483	1130	0.000
120.	6009.656	-6.150	-0.000	3198.128	11.880	0.000	2751.440	1150	0.000
121.	5998.960	-5.710	-0.000	3209.092	10.300	0.000	2752.417	1160	0.000
122.	5988.524	-5.240	-0.000	3218.494	8.640	0.000	2753.411	1170	0.000
123.	5979.886	-4.730	-0.000	3226.155	6.940	0.000	2754.422	1180	0.000
124.	5971.653	-4.200	-0.000	3232.151	5.200	0.000	2755.449	1190	0.000
125.	5964.502	-3.650	-0.000	3236.413	3.430	0.000	2756.496	1200	0.000
126.	5958.379	-3.080	-0.000	3238.930	1.670	0.000	2757.544	1210	0.000
127.	5953.299	-2.510	-0.000	3239.707	-0.090	-0.000	2758.609	1220	0.000
128.	5949.264	-1.940	-0.000	3238.766	-1.610	-0.000	2759.680	1230	0.000
129.	5946.265	-1.410	-0.000	3236.149	-3.490	-0.000	2760.769	1240	0.000
130.	5944.261	-0.820	-0.000	3231.906	-5.100	-0.000	2761.861	1250	0.000
131.	5943.261	-0.250	-0.000	3226.109	-6.630	-0.000	2762.960	1260	0.000
132.	5943.226	.220	0.000	3218.640	-8.080	-0.000	2764.064	1270	0.000
133.	5944.064	.700	0.000	3210.196	-9.420	-0.000	2765.171	1280	0.000
134.	5945.739	1.140	0.000	3200.264	-10.660	-0.000	2766.280	1290	0.000
135.	5948.188	1.550	0.000	3189.219	-11.770	-0.000	2767.391	1300	0.000
136.	5951.342	1.920	0.000	3177.126	-12.770	-0.000	2768.500	1310	0.000
137.	5955.129	2.250	0.000	3164.135	-13.630	-0.000	2769.609	1320	0.000
138.	5959.474	2.530	0.000	3150.340	-14.370	-0.000	2770.714	1330	0.000
139.	5964.301	2.770	0.000	3135.998	-14.960	-0.000	2771.814	1340	0.000
140.	5969.535	2.970	0.000	3121.126	-15.460	-0.000	2772.909	1350	0.000
141.	5975.100	3.130	0.000	3105.903	-15.810	-0.000	2773.996	1360	0.000
142.	5980.922	3.250	0.000	3090.462	-16.040	-0.000	2775.075	1370	0.000
143.	5986.931	3.330	0.000	3074.935	-16.140	-0.000	2776.145	1380	0.000
144.	5993.054	3.370	0.000	3059.444	-16.110	-0.000	2777.203	1390	0.000
145.	5999.241	3.360	0.000	3044.124	-15.970	-0.000	2778.249	1400	0.000
146.	6005.419	3.360	0.000	3029.075	-15.720	-0.000	2779.281	1410	0.000
147.	6011.536	3.310	0.000	3014.407	-15.350	-0.000	2780.296	1420	0.000
148.	6017.546	3.240	0.000	3000.216	-14.890	-0.000	2781.300	1430	0.000
149.	6023.398	3.140	0.000	2986.595	-14.330	-0.000	2782.264	1440	0.000

X-PLANE (YZ-PLANE) ZINC OXIDE (JAFFE AND BERLINCOURT, BATEMAN)

	LNGVEL	LPHI12	LPHI13	FSRVEL	FSPH12	FSPH13	SSRVEL	SSPH12	SSPH13
150.	6029.055	3.020	0.000	2973.616	-13.660	-0.000	2783.250	1.130	0.000
151.	6034.480	2.880	0.000	2961.346	-12.960	-0.000	2784.396	1.100	0.000
152.	6039.645	2.730	0.000	2949.847	-12.170	-0.000	2785.121	1.000	0.000
153.	6044.524	2.570	0.000	2939.159	-11.440	-0.000	2786.025	1.050	0.000
154.	6049.090	2.350	0.000	2929.316	-10.830	-0.000	2786.705	1.020	0.000
155.	6053.351	2.220	0.000	2920.347	-9.560	-0.000	2787.762	.990	0.000
156.	6057.273	2.030	0.000	2912.257	-9.560	-0.000	2788.294	.960	0.000
157.	6060.859	1.850	0.000	2905.050	-7.600	-0.000	2789.400	.930	0.000
158.	6064.107	1.670	0.000	2898.717	-6.650	-0.000	2790.176	.900	0.000
159.	6067.020	1.450	0.000	2893.238	-5.720	-0.000	2790.929	.870	0.000
160.	6069.603	1.310	0.000	2888.586	-4.820	-0.000	2791.651	.830	0.000
161.	6071.866	1.140	0.000	2884.723	-3.560	-0.000	2792.344	.800	0.000
162.	6073.826	.960	0.000	2881.605	-3.140	-0.000	2793.006	.760	0.000
163.	6075.493	.830	0.000	2879.182	-2.350	-0.000	2793.637	.720	0.000
164.	6076.889	.680	0.000	2877.395	-1.700	-0.000	2794.236	.680	0.000
165.	6078.032	.550	0.000	2876.185	-1.050	-0.000	2794.802	.650	0.000
166.	6078.966	.440	0.000	2875.485	-.530	-0.000	2795.335	.610	0.000
167.	6079.653	.330	0.000	2875.226	-.070	-0.000	2795.834	.570	0.000
168.	6080.178	.240	0.000	2875.345	.350	0.000	2796.299	.520	0.000
169.	6080.545	.160	0.000	2875.766	.630	0.000	2796.720	.460	0.000
170.	6080.779	.050	0.000	2876.422	.660	0.000	2797.122	.440	0.000
171.	6080.905	.040	0.000	2877.246	1.010	0.000	2797.479	.400	0.000
172.	6080.945	.000	0.000	2878.178	1.120	0.000	2798.085	.360	0.000
173.	6080.922	-.030	-0.000	2879.154	1.070	0.000	2798.332	.310	0.000
174.	6080.856	-.040	-0.000	2880.119	1.070	0.000	2798.541	.270	0.000
175.	6080.767	-.050	-0.000	2881.024	.960	0.000	2798.713	.220	0.000
176.	6080.671	-.050	-0.000	2881.826	.840	0.000	2798.847	.180	0.000
177.	6080.581	-.040	-0.000	2882.489	.660	0.000	2798.942	.130	0.000
178.	6080.509	-.030	-0.000	2882.983	.460	0.000	2799.000	.090	0.000
179.	6080.463	-.020	-0.000	2883.266	.230	0.000	2799.000	.040	0.000
180.	6080.447	-0.000	-0.000	2883.391	-0.000	0.000	2799.015	-0.000	0.000

