

INDEX, VOLUME 66, 1981*

<i>Ab initio</i> MO calculations	819, 1237	Analyses, cont.	
Achondrite, oriented olivine	1233	eclogite	459
ACKERMAND, DIETRICH see		epidote, Cr	974
FRANZ, GERHARD	872	eugsterite	635
Acrofanite, new mineral (abstr)	1100	fayalite	95
Adularia, analyses	484	Fe dolomite	512
Aegirine, analyses	485	forsterite	498
Afghanite, structure	777	friedelite	1061
Ajoite, new data	201	garnet	463, 711, 743, 1027
AKIZUKI, MIZUHIKO: Investigation of phase transition of natural ZnS minerals by high resolution electron microscopy	1006	glasses, Na	547
: Origin of optical variation in analcime	403	graphitic sulfidic schists	916
Albite		greenalite	523
analyses	484	halloysite	1004
heat capacity	1202	heulandite	480
Aldermanite, new mineral (abstr)	1099	hypersthene	75, 337
Alforsite, new mineral	1050	ilmenite	95, 728, 978
Alkali diffusion, EPMA	547	iron formation	89, 511
Alkali feldspars, thermodynamic functions	1202	jonsomervilleite	834
Alkremite, Utah	741	kanoite	128
ALLARD, L.F. see GORDON, W.A.	127	kaolinite rock	1004
Almandine, analyses	57	karlite	875
Almosite, new mineral (abstr)	878	kornerupine	743
Alpine peridotite, Alps	443	kutnahorite	280
Alumopharmacosiderite, new mineral (abstr)	1099	kyanite	706
Amesite- $2H_2$, structure and ordering	185	lepidolite	1224
AMOURIC, MARC see MELLINI, MARCELLO	1073	leucite	669
Amphibole, analyses	94	lherzolite	448
Amphiboles, India	625	ludwigite	875
Analbite, heat capacity	1202	magnetite	95, 337, 729
Analcime, optical variation	403	margarite	215
Andalusite, analyses	706	meta-autunite	1070
Analyses, chemical		meta-kaolin nodule	1004
adularia	484	microcline	75
aegirine	485	minnesotaite	517
ajoite	203	muscovite	55, 75, 215, 710, 913
albite	484	Na amphibole	464
alforsite	1052	natroapophyllite	414
almandine	57, 96	olivine	337, 526, 665, 450, 978
amesite- $2H_2$	186	orthopyroxene	75, 337, 451, 526
amphibole	94, 627		729, 967
andalusite	706	parascholzite	848
antigorite	802	perovskite	670
apatite	347, 670	phlogopite	347, 668, 1158
axinite	429	plagioclase	75
bannisterite	1065	pleonaste	337
bartonite	371	potassic lavas	671
bayldonite	149	prehnite	913
biotite	56, 75, 96, 359, 710, 913	pyrophyllite- $1T_C$	351
biotite, Si-rich	587	pyroxenes	31, 92
brucite	802	pyroxmangite	281
Ca amphibole	465	riebeckite	517
calcite	504, 512	rhodonite	281
caryopilitite	1060	sapphirine, Be	1029
chlorite	60, 75, 711, 913	schallerite	1056
chloritoid	711	serpentine	347
chromite, Mn	1015	siderite	515
clinopyroxene	128, 337, 452, 666, 728	sillimanite	706
cordierite	60, 75, 711, 1030	spinel	670, 729, 743
corundum	743	staurolite	59, 712
Cr diopside	347	sterlinghillite	183
Cr spinel	347	stilpnomelane	516
dachiardite	481	surinamite	1026
diopside	498	taaffeite	1029
dolomite	347	talc	498, 501, 802
		theophrastite	1021
		titanomagnetite	754
		tivanite	867
		tremolite	498, 501
		wairakite	481
		winchite	627
		wonesite	102
		yugawaralite	481

*Prepared by Michael J. Holdaway and Nazlee Coburn, Southern Methodist University, Dallas, Texas.

Bartonite			
new mineral	369		
structure	376		
Basalt, olivine in vugs	980		
BAUER, J.F., and SCLAR, C.B.: The "IOA phase" in the system $MgO-SiO_2-H_2O$	576		
Bayldonite, formula and structure	148		
BEESON, M.H. see BARGAR, K.E.	473		
BENEKE, KLAUS and GERHARD LAGALY: Krautite, $Mn(HAsO_4)_2 \cdot H_2O$ - an intracrustalline reactive mineral	432		
BENNETT, C.E.G. and J. GRAHAM: New observations on natural pyrrhotites: magnetic transi- tion in hexagonal pyrrhotite	1254		
BENNETT, J.M. see SMITH, J.V.	777		
Bentonite, new mineral (abstr)	637		
BERG, J.H. and S.A. MORSE: Dispersion method for olivine, orthopyroxene and augite	985		
Bergenite, new data (abstr)	1102		
BERKLEY, J.L. AND KEIL, KLAUS: Olivine orientation in the ALHA77005 achondrite	1233		
Beryl, Malagasy	885		
Beryllium silicates, MO calculations	819		
BESANCON, J.R.: Rate of cation disordering in ortho- pyroxenes	965		
Bessmertnovite, new mineral (abstr)	878		
Biotite			
analyses	56, 75, 710, 913		
radiohaloes	358		
Si-rich, structure	586		
BISH, D.L.: Cation ordering in synthetic and natural Ni- Mg olivine	770		
and R.F. GIESE, JR.: Interlayer bonding of IIb chlorite	1216		
Bismutohauchecornite, new mineral (abstr)	436		
Blueschist, Alps	443		
BOETTCHER, A.L. see BOHLEN, S.R.	951		
see FARMER, G.L.	1154		
BOHLEN, S.R. and A.L. BOETTCHER: Experimental investigations and geological applications of orthopyroxene geo- barometry	951		
Boltwoodite, structure	612		
Book reviews	221, 440, 880, 1104		
Bond calculations	819, 1237		
Bond distances, oxyanions of Be, B, C, N	601		
Bornite, Cu-S bond	813		
Brabantite, new mineral (abstr)	878		
Brazil, pyrophyllite - $1\frac{1}{2}c$	350		
BROWN, P.E. see GORDON, W.A.	127		
Brucite, dissolution	801		
BRUSECK, P.R. see VEBLIN, D.R.	1107		
Buserite, intercalation by dodecylammonium chloride, synthesis	424		
BUTT, C.R.M. and J. GRAHAM: Sodian potassian hydroxian meta-autunite: first natural occurrence of an intermediate member of a predicted solid solution series	1068		
Ca amphibole, analyses	465		
Ca oxalate trihydrate	859		
CABRI, L.J.: New mineral names			
637, 1099, 1274			
Calcarious metamorphics, Scotland	491		
Calcite			
analyses	504, 512		
decarbonation equilibria	1135		
oolite	789		
California			
alforsite	1050		
baronite	369		
deposits on olivine	980		
santaclarite	154		
Calderite, new data (abstr)	1290		
CAMERON, MARYELLEN and J.J. PAPIKE: Structural and chemical variations in pyroxenes	1		
Cancrinite, structure	777		
Carbonates, North Carolina	278		
CARPENTER, M.A.: A "conditional spinodal" within the peris- terite miscibility gap of plagioclase feldspars	553		
Carpholite, Mg, structure	1080		
Carrollite, MO calculations	1250		
Caryopilite, crystal chemistry	1054		
Cathophorite, new mineral (abstr)	878		
Cation ordering, plagioclase	553		
CATTI, MICHELE, GIOVANNI FERRARIS and GABRIELLA IVALDI: The crystal structure of picro- pharmacolite, $Ca_4Mg(HAsO_4)_2$ $(AsO_4)_2 \cdot 11H_2O$	385		
Chabazite, structure	777		
CHAKOUMAKOS, B.C., R.J. HILL and G.V. GIBBS: A molecular orbital study of rings in silicates and siloxanes	1237		
Chalococite, low, structure	808		
Chalcopyrite, Cu-S bond	813		
CHAO, G.Y.: Ajoite, new data	201		
: New mineral names	217, 878		
Charnockite, origin	1164		
Chert nodules, metamorphic in dolostone	491		
Chlorite			
analyses	60, 75, 913		
IIb, interlayer bonding	1216		
Chloritoid, analyses	711		
Choloalite, new mineral (abstr)	1099		
CHRIST, C.L., memorial of	649		
Chromian diopside, kimberlite	347		
Chromian spinel, inclusion in Cr diopside	347		
Chromite, zoned Mn-rich	1013		
Chukhrovite-(Ce), new data (abstr)	879		
Chukhrovite, structure, synthesis	392		
CLARK, J.R. see CZAMANSKE, G.K.	369		
see EVANS H.T., JR.	376		
see GARRELS, R.M.	649		
CLARK, R.S., JR., review of the <i>Sciences of Minerals in the Age of Jefferson</i> (Greene and Burke)			
Classification, of pyroxenes	441		
CLEMENCY, C.V. see LIN, F.C.	2, 40		
Clinochalcomenite, new mineral (abstr)	801		
Clinopyroxene analyses	217		
	452, 666, 728		
Clinopyroxene, cont.			
analyses, synthetic	227		
exsolution	127		
magma genesis	938		
REE partitioning	242		
Coesite, high-pressure structure	324		
Colorado, peridotite nodule	334		
Colquirite, new mineral (abstr)	879, 1099		
Combustion metamorphism	997		
Connecticut			
dickinsonite	1034		
fillowite	827		
Copper phosphate hydrate structure	169		
polymorphism	176		
Copper-sulfur bond lengths	807		
Cordierite, analyses			
	60, 75, 711, 1030		
Corundum, analyses	743		
Covellite, Cu-S bond	813		
Crete, Mg carpholite	1080		
Cristobalite, from combustion	997		
Crystal growth, diopside	223		
Crystal structure			
amesite- $2H_2$	185		
arrojadite	1034		
axinite	428		
β - Mg_2SiO_4	561		
baronite	376		
biotite, Si-rich	586		
boltwoodite	612		
Ca oxalate trihydrate	859		
carpholite	1080		
chalcoelite, low	808		
chukhrovite, synthetic	392		
clinopyroxene	128		
coesite, high pressure	324		
copper phosphate hydrate, QPM	169		
dickinsonite	1034		
diopside, high pressure	315		
dixenite	1263		
djurleite	808		
fillowite	827		
jagosite	852		
kanoite	128		
heulandite-Ca/ NH_4	309		
kanonaite	561		
lepidolite	1221		
liebenbergite (Ni-Mg olivine)	770		
natroapophyllite	416		
nukundomite, synthetic	398		
picrompharmacolite	385		
pseudomalachite polymorphs	176		
pyrophyllite- $1\frac{1}{2}c$	350		
pyroxenes	1		
santaclarite	154		
soddyite	621		
tivanite	868		
uranophane	612		
weeksite	620		
Crystals, largest	885		
Cyanophyllite, new mineral (abstr)			
	1274		
CZAMANSKE, G.K., R.C. ERD, B.F. LEONARD and J.L. CLARK:			
Bartonite, a new potassium iron sulfide mineral	369		
Czechoslovakia			
lepidolite	1221		
sphalerite	1006		

Decarbonation equilibria	1135	Eclogite, quartz	938	pentlandite and
DEGANELLO, SERGIO, A.R. KAMPF, and P.B. MOORE: The crystal structure of calcium		ECONOMOU, MARIA see MARCOPoulos,	1020	djerfisherite
oxalate trihydrate: $\text{Ca}(\text{H}_2\text{O})_3(\text{C}_2\text{O}_4)$	859	THEODOR		376
DE LA VEGA, S.E. see SWINNEA, J.S.	428	see PARASKEVOPOULOS,	1013	Exsolution, plagioclase
DEMAYO, B. see SEAL, M.	358	G.M.	663	553
DE PORTILLA, V.S., M.P. QUEVEDO and V.I. STEPANOV: The structure of bayldonite: chemical analysis differen-		EDGAR, A.D. see KUEHNER, S.M.	592	FARMER, G.L. and A.L. BOETTCHER:
tial thermal analysis, and IR spectroscopy	148	EHLMANN, A.J. see DEVERY, D.M.	218	Petrologic and crystal-
Desulfidation	908	Eifelite, new mineral (abstr)	647	chemical significance of
DEVERY, D.M. and A.J. EHLMANN: Morphological changes in a		EITEL, W.H., memorial of	437	some deep-seated
series of synthetic Mg-	592	Ekaterinita, new mineral (abstr)		phlogopites
calcites	1135	Electron densities, oxyanions	601	1154
Devolatilization equilibria		of Be, B, C, N		FARROW, C.M. see LEAKE, B.E.
Diamond, fluid inclusions	746	Electron microprobe, Na in		625
Dickinsonite, structure	1034	glasses	547	Faujasite
Differential thermal analysis, thermogravimetric analysis		Electron microscopy	479	777
ajoite	203	altered glass	1107	Fayalite
bayldonite	149	amphibole	1073	analyses
eugsterite	635	apuanite	1107	geobarometry
halloysite	1002	augite	107	95
kaolinite rock	1002	chlorite	1107	Fe dolomite, analyses
karlite	867	clinojimthompsonite	1107	512
meta-kaolain nodule	1002	clinopyroxene	132, 1107	FERRARI, GIOVANNI see
natroapophyllite	421	eugsterite	634	CATTI, MICHELE
phylllosilicate, 10R	578	halloysite	1003	Ferrarisite, new mineral
santaclarite	164	ilmenite in olivine	976	(abstr)
Diffusive transformation	763	kanoite	132	637
Diopside		Mg calcite	592	Ferroslite
analyses	498	meta-autunite	1069	geobarometry
composition melts	223	metakaolin	1003	phase equilibrium
high pressure structure	315	montmorillonite	479	thermodynamic data
Disordering rate, orthopyroxene	965	mullite	142	951
Dispersion method	985	obsidian	478	FERRY, J.M.: Petrology of
Displacive transformation	763	olivine, deposits on	980	graphitic sulfide-rich
Dissolution, kinetics	801	oolite	789	schists from south-central
Dixenite, crystal structure	1263	orthopyroxene	1107	Maine: an example of de-
Djurleite, structure	808	pyrbole	1107	sulfidation during prograde
Dolomite		pyroxenes	32	regional metamorphism
decarbonation equilibria	1135	schafarzikite	1073	908
inclusion in Cr diopside	347	spahalerite	1006	Fillowite, structure
oolite	789	spodumene	1107	827
Dorfmanite, new mineral (abstr)	217	stirlinghillite	183	FINGER, L.W. see HAZEN, R.M.
DOWNS, J.W. and G.V. GIBBS: The		talc	1107	see OHASHI, YOSHIKAZU
role of the BeOSi bond in the		tremolite	1107	154
structures of berylliosilicate		uralite	1107	FLEISCHER, MICHAEL: New
minerals		versiliaite	1073	mineral names
DUNN, P.J., review of <i>A Manual</i>		wurtzite	1006	214, 436, 637, 878, 1099, 1274
of New Mineral Names, 1892-		zeolites	479	FLÖRKE, O.W., H.G. MIELKE,
1978 (Embrey and Fuller)		Zn staurolite	933	JÜRGEN WICHERT and HOLGER
: Sterlinghillite, a new		Enstatite, melting equilibria	1164	KULKE: Quartz with rhombo-
hydrated manganese arsenate		Enumeration, of zeoliths	777	hedral cleavage from
mineral from Ogdensburg,		Epidote, Cr in amphibolite	974	Madagascar
New Jersey		ERD, R.C. see CZAMANSKE, G.K.	369	596
, P.B. LEAVENS, J.A. NORBERG		Erionite, structure	777	Fluid-rock ratios
and R.A. RAMIK: Bannisterite:	440	ERNST, W.G.: Petrogenesis of		908
new chemical data and		eclogites and peridotites		FORLAND, K.A. and M.E. WAGNER:
empirical formulae		from the Western and Ligurian		A simple method of pre-
, D.R. PEACOR, J.A. NELEN		Alps	443	paring glasses from rock
and J.A. NORBERG: Crystal-		: Presentation of the		powders
chemical data for schallerite,		Mineralogical Society of		1086
caryopilitite and friedelite		America Award for 1980 to		Forsterite
from Franklin and Sterling	182	Susan Werner Kieffer	643	analyses
Hill, New Jersey		ESSENE, E.J., review of <i>Optical</i>		analyses, synthetic
see STURMAN, B.D.		Mineralogy: The Nonopaque		227
	1963	Minerals (Phillips and		FOSTER, C.T., JR.: A thermo-
		Giffen)		dynamic model of mineral
		see GORDON, W.A.	880	segregations in the lower
		see NEWBERRY, N.G.	127	sillimanite zone near
		see WINTER, G.A.	1050	Rangeley, Maine
	1054	Eugsterite, new mineral	278	260
	843	EVANS, H.T.: Cooper coordina-	632	Framework silicates, classi-
		tion in low chalcocite and		777
		djurleite and other copper-		Francis, C.A.: New mineral
		rich sulfides		names
		and J.R. CLARK: The	807	217, 878
		crystal structure of bartonite,		FRANZ, GERHARD, DIETRICH
		a potassium iron sulfide, and		ACKERMUND and EDDIE KOCH:
		its relationship to		Karlite, $\text{Mg}_7(\text{BO}_3)_3(\text{OH}, \text{Cl})_5$,
				a new borate mineral and
				associated ludwigite from
				the Eastern Alps
				872
				FRAZIER, A.W. see MATHEW, M.
				392
				FREE, ROBERT: Memorial of
				Roger G.J. Strens
				1095
				FRENCH, B.M., review of
				<i>Planetary Geology</i> (Guest,
				Butterworth, Murray and
				O'Donnell)
				440
				Friedelite, crystal chemistry
				1054

Gabbro, pyroxene-oxide intergrowths	723	Greece, cont.	
Gaitite, new mineral (abstr)	1274	theophorite	1020
Garnet analyses	463, 711, 743, 1027	Greenalite, analyses	523
magma genesis	938	Greenland, ilmenite in olivines	976
REE partitioning	242	Greenschist, Alps	443
GARRELS, R.M. and J.R. CLARK: Memorial of Charles L. Christ 1916-1980	649	GRAPES, R.H.: Chromian epidote and zoisite in kyanite amphibolite, Southern Alps, New Zealand	974
GARRISON, J.R., JR. and L.A. TAYLOR: Petrogenesis of pyroxene-oxide intergrowths from kimberlite and cumulate rocks: co-precipitation or exsolution?	723	Gregoryite, new mineral (abstr)	879
Geerite, new mineral (abstr)	1274	Greigite, MO calculations	1250
Georgia, quartz cell dimensions	204	GREW, E.S.: Surinamite, taaffeite, and beryllian sapphirine from pegmatites in granulite-facies rocks of Casey Bay, Enderby Land, Antarctica	1022
Geothermometry, geobarometry calc-silicate rock	491	GREY, I.E. and E.H. NICKEL: Tivanite, a new oxyhydroxide mineral from Western Australia, and its structural relationship to rutile and diasporite	866
eclogites	443	GRIFFEN, D.T.: Synthetic Fe/Zn staurolites and the ionic radius of IVZn^{2+}	932
fayalite	951	GUGGENHEIM, STEPHEN: Cation ordering in lepidolite	1221
ferrosilite	951	see JUNG, H.L.	350
gabbro	723	GUNDERSON, S.H. and H.-R. WENK: Heterogeneous microstructures in oolitic carbonates	789
kimberlites	723	GUPTA, ABHA, D.K. SWANSON, J.A. TOSSELL and G.V. GIBBS: Calculation of bond distances, one-electron energies and electron density distributions in first-row tetrahedral hydroxy and oxyanions	601
magnetite-ilmenite	1189	HALL, M.G. and G.E. Lloyd: The SEM examination of geological samples with a semiconductor back-scattered electron detector	362
Mn deposit	279, 281	Halloysite, from kaolinite	997
pelitic schists	62, 79, 82, 702	HARRISON, W.J.: Partitioning of REE between minerals and coexisting melts during partial melting of a garnet Herzolite	242
peridotite nodule	334	Hauchecornite redefined, new mineral (abstr)	436
peridotites	443, 723	HAZEN, R.M., L.W. FINGER, and D. VELDE: Crystal structure of a silica- and alkali-rich trioctahedral mica	586
GIARDINI, A.A. see MELTON, C.E.	746	see SPEAR, F.S.	100
GIBBS, G.V. see DOWNS, J.W.	819	Heat capacity	
— see CHAKOUMAKOS, B.C.	1237	albite, analbite	1202
— see GUPTA, ABHA	601	microcline, high sanidine	1202
GIESE, R.F., JR. see BISH, D.L.	1216	Hedenbergite, phase equilibria	1175
GILBERT, M.C., Secretary: Proceedings of the Sixty-first Annual Meeting of the Mineralogical Society of America in Atlanta, Georgia	652	Hematite, on olivine	980
Gittinsite, new mineral (abstr)	1274	Hematolite, compared with dixenite	1263
Glass, rock EPMA	1086	HEMINGWAY, B.S., K.M. KRUPKA and R.A. ROBIE: Heat capacities of the alkali feldspars between 350 and 1000 K from differential scanning calorimetry, the thermodynamic functions of the alkali feldspars from 298.15 to 1400 K, and the reaction	
Glasses, analyses of Na	547	quartz + jadeite = analbite	1202
Glushinskite, new data (abstr)	439		
Gmelinite, structure	777		
GOLDSMITH, J.R.: The join $\text{CaAl}_2\text{Si}_2\text{O}_9\text{-H}_2\text{O}$ (anorthite-water) at elevated pressures and temperatures	1183		
GOLE, M.J. and CORNELIS KLEIN: High-grade metamorphic Archean banded iron-formations, Western Australia: assemblages with coexisting pyroxenes + fayalite	87		
— see KLEIN, CORNELIS	507		
Goosecreekite, new mineral (abstr)	1275		
GORDON, W.A., D.R. PEACOR, P.E. BROWN, E.J. ESSENCE and L.F. ALLARD: Exsolution relationships in a clinopyroxene of average composition $\text{Ca}_0.43\text{Mn}_{0.69}\text{Mg}_{0.82}\text{Si}_2\text{O}_6$	127		
GRAHAM, J. see BENNETT, C.E.G.	1254		
— see BUTT, C.R.M.	1068		
GRAMBLING, J.A.: Kyanite, andalusite, sillimanite, and related mineral assemblages in the Truchas Peaks region, New Mexico	702		
Granulite facies	951		
geobarometry	1164		
melting			
Greece			
Mn chromite	1013		
		HERVIG, R.L. and J.V. SMITH: Dolomite-apatite inclusion in chrome-diopside crystal, Bellbank Kimberlite, South Africa	346
		see STEELE, I.M.	526
		Heulandite analyses	480
		Ca/NH_4 , thermal stability	309
		High sanidine, heat capacity	1202
		HILL, R.J.: Mineralogical Society of America Kraus-Glass Crystallographic Research Award for 1980	646
		see CHAKOUMAKOS, B.C.	1237
		HOERSCH, A.L.: Progressive metamorphism of the chert-bearing Durness limestone in the Beinn an Dubhaich aureole, Isle of Skye, Scotland: A reexamination	491
		HOLDWAY, M.J. see NOVAK, J.M.	51
		HORIUCHI, HIROYUKI and HIRASHI SAWAMOTO: $\beta\text{-MgSiO}_4$: Single-crystal X-ray diffraction study	568
		HSU, L.C.: Phase relations of some tungstate minerals under hydrothermal conditions	298
		HURST, V.J. and S.P. STORCH: Regional variation in the cell dimensions of metamorphic quartz	204
		HUTCHEON, I.D. see STEELE, I.M.	526
		Hydration reactions, serpentinization	290
		Hydrogen bonding, chlorite	1216
		Hydrothermal alteration, Yellowstone	473
		Hyperssthene analyses	75, 337
		synthetic disordering	965
		Ilmenite analyses	95, 728
		exsolution in olivine	976
		Ilmenite-hematite, phase relations	1189
		India diamond inclusions	746
		winchite	625
		Infrared spectra	
		bayldonite	149
		halloysite	1002
		kaolinite	197
		kaolinite rock	1002
		karlite	876
		ludwigite	876
		metakaolin nodule	1002
		natroapophyllite	421
		phylllosilicate, 10 Å	582
		serpentine, Al	197
		Intergrowths, pyroxene-oxide	723
		Interlayer bonding, OH vs F	1216
		Ion microprobe, olivine, orthopyroxene	526
		Iron formation, Australia	87, 507
		Iron-titanium oxides, phase relations	1189
		Italy, biotite, Si-rich	586
		IVALDI, GABRIELLA see CATTI, MICHELE	385

JACOBS, G.K. and D.M. KERRICK:	KROLL, HERBERT and H.-U.	
Devolatilization equilibria in H_2O-CO_2 and H_2O-CO_2-NaCl fluids: an experimental and thermodynamic evalua- tion at elevated pressures and temperatures	BAMBAUER: Diffusive and displacive transformation in plagioclase and ternary feldspar series	763
Jadeite, phase relations	KRUPTA, K.M. see HEMINGWAY, B.S.	1202
Jagoite, structure	KUEHNER, S.M., A.D. EDGAR and M. ARIMA: Petrogenesis of the	1135
Jamesite, new mineral (abstr)	ultrapotassic rocks from the	1202
Japan	Leucite Hills, Wyoming	852
analcime	663	1275
lepidolite	KULKE, HOLGER see FLÖRKE, O.W.	403
natroapophyllite	596	1221
Johnsomervilleite, new mineral (abstr)	Kulkeite, new mineral (abstr)	410,416
Jungite (correction), new data (abstr)	KULLERUD, G., review of <i>Geo-</i> <i>chemistry of Hydrothermal</i> <i>Ore Deposits, Second Edition</i> (Barnes, Ed.)	437
Kalborsite, new mineral (abstr)	KUO, L.-C. see KIRKPATRICK, R.J.	1280
KAMPF, A.R. see DEGANELLO, SERGIO	KUSHIRO, IKUO see MYSEN, B.O.	879
Kanoite, exsolution	KUTINA, JAN: review of <i>Resources</i> <i>Minerals. Mineral Resources</i> (Guillemin and Lagny, Eds.)	859
Kanovaite, structure	Kutnahorite, analyses	127
Kaolinite	Kuznetsovite, new mineral (abstr)	561
infrared spectra	Kyanite	196
clayrock	amphibolite	997
Karlite, new mineral	analyses	872
KATAGAS, C. see BALTTATZIS, EMM.	phase equilibria	213
KATO, TOSHIO see MIURA, YASUNORI	LABOTKA, T.C., J.J. PAPIKE, D.T. VANIMAN and G.B. MOREY:	416
KEIL, KLAUS see BERKLEY, J.L.	Petrology of contact meta- morphosed argillite from the	1233
Keithconnite, new mineral (abstr)	Rove Formation, Gunflint	1275
Kentucky, kimberlite, peridotite	Trail, Minnesota	723
Kenya, eugsterite	LAGALY, GERHARD see BENEKE, KLAUS	632
KERRICK, D.M. see JACOBS, G.K.	Lanthanite-(Nd), new mineral (abstr)	1102
Khademite, new data (abstr)	Largest crystals	644
KIEFFER, S.W.: Acceptance of	LEAKE, B.E., C.M. FARROW and V.K. NAYAK: Further studies	1154
the Mineralogical Society of America Award for 1980	on winchite from the type	723
Kimberlite	locality	801
phlogopite	LEAVENS, P.B. see DUNN, P.J.	1275
pyroxene-oxide intergrowths	LEE, J.H. and STEPHEN	1102
Kinetics, dissolution	GUGGENHEIM: Single crystal	1154
Kingsmountite, new mineral (abstr)	X-ray refinement of pyro- philite- T_c	223
KIRKPATRICK, R.J., L.-C. KUO	LEONARD, B.F. see CZAMANSKE, G.K.	398
and JOHN MELCHIOR: Crystal	Lepidolite, structure, ordering	369
growth in incongruently- melting compositions:	Leucite, analyses	350
programmed cooling experi- ments with diopside	LEVIER, LOUISE and C.T. PREWITT:	669
KITAKAZE, ARASHI see SUGAKI, ASAHIKO	High-pressure crystal struc- ture and compressibility of	507
KLEIN, CORNELIS and M.J. GOLE:	coesite	87
Mineralogy and petrology of	and : High	324
parts of the Marra Mamba	pressure structural study	315
Iron Formation, Hamersley	of diopside	647
Basin, Western Australia	Levyne, structure	872
see GOLE, M.J.	Lherzolite, Alps	218
KNELLER, W.A.: Memorial of	Liebenbergite, cation ordering	743
Wilhelm Hermann Julius	Liguria, eclogites, peridotites	743
Eitel	Limestone, oolite	743
KOCH, EDDIE see GRANZ, GERHARD	LIN, F.-C. and C.V. CLEMENCY:	642
Kolymite, new mineral (abstr)	The dissolution kinetics of	169,176
Kornerupine, analyses	brucite, antigorite, talc,	437
KORZHINSKII, D.S.: Acceptance	and phlogopite at room	432
of the Roebling Medal of the	temperature and pressure	432
Mineralogical Society of	LINDSLEY, D.H.: Some experiments	801
America for 1980	pertaining to the magnetite- ulvöspinel miscibility gap	759
KOSTINER, EDWARD see SHOEMAKER, G.L.	MATSUEDA, HIRAHARU, YASUNORI	392
Kovdorskite, new mineral (abstr)	MIURA and JOHN RUCKLIDGE:	437
Krautite, alkylamine inter- calation, synthesis	Natropophyllite, a new	432
	orthorhombic sodium analog	
	of apophyllite I. Descrip-	
	: The formation of	
	pigeonite on the join	
	edenbergite-ferrosilite	
	at 11.5 and 15 kbar: ex-	
	periments and a solution	
	model	1175
	see SPENCER, K.J.	1189
	Lingaituku, new mineral (abstr)	878
	Linnaeite, MO calculations	1250
	Liotite, structure	777
	Liquification residue,	1258
	pyrrhotite	362
	Lloyd, G.E. see HALL, M.G.	980
	Lloyd, J.M.: Vapor deposits	
	on olivine in vugs in a ba-	
	salt: an SEM application	
	LOUGHNAN, F.C. and F.I.	
	ROBERTS: The natural con-	
	version of ordered kaolinite	
	to halloysite (10A) at Burn-	
	ing Mountain near Wingen,	
	New South Wales	997
	Ludwigite, Austria	872
	Macquartite, new mineral (abstr)	638
	Madagascar	358
	biotite radiohaloes	596
	quartz	
	Magnetic transition,	1254
	pyrrhotite	
	Magnetite, analyses	95,337,729
	Magnetite-ulvöspinel,	751,759
	miscibility gap	
	Maine	
	pelitic schists	51,260
	sulfidic schists	908
	Malagasy, beryl	885
	Manganese deposit,	278
	metamorphosed	424
	Manganese hydrous oxide	
	Mantle xenoliths, phlogopite	1154
	MARCOPOULOS, THEODOR and MARIA	
	ECOMOU: Theophrastite,	
	$Ni(OH)_2$, a new mineral	
	from northern Greece	1020
	Margarite, pseudomorphs	213
	MARTINEZ, G. see VELDE, B.	196
	MASON, BRIAN, review of <i>Atlas</i>	
	of Rock-Forming Minerals	
	in Thin Section (Mackenzie	
	and Guilford)	221
	—, review of <i>Global Tec-</i>	
	<i>tonics and Metallogenesis</i> ,	
	<i>Volume 1, Nos. 1 & 2</i>	
	(Kutina, Ed.)	221
	—, review of <i>Glossary of</i>	
	<i>Mineral Species</i>	
	(Fleischer)	221
	—, review of <i>Klockmanns</i>	
	<i>Lehrbuch der Mineralogie</i>	
	(Ramdohr and Strunz)	881
	Mass spectrometry, diamond	
	inclusions	746
	MATHEW, M., S. TAKAGI, K.R.	
	WAERSTAD and A.W. FRAZIER:	
	The crystal structure of	
	synthetic chukrovite,	
	$Ca_4AlSi(SO_4)F_3 \cdot 12H_2O$	
	MATSUEDA, HIRAHARU, YASUNORI	
	MIURA and JOHN RUCKLIDGE:	
	Natropophyllite, a new	
	orthorhombic sodium analog	
	of apophyllite I. Descrip-	

- tion, occurrence and nomenclature 410
 see MIURA, YASUNORI 416
- McCONNELL, J.D.C.: Time-temperature study of the intensity of satellite reflections in nepheline 990
- McGillite new mineral (abstr) 1276
 relation to friedelite 1061
- Mcguinessite, new mineral (abstr) 1276
- MELCHIOR, JOHN see KIRKPATRICK, R.J. 223
- MELLINI, MARCELLO and STEFANO MERLINO: The crystal structure of jagoite, MARC AMOURIC, ALAIN BARONNETT and GENEVIEVE MERCUIOT: Microstructures and nonstoichiometry in schafarzikite-like minerals see MOORE, P.B. 1073
- Melting experiments, CO_2 1034
- MELTON, C.E. and A.A. GIARDINI: The nature and significance of occluded fluids in three Indian diamonds 746
- Memorials Charles L. Christ 649
 Wilhelm Hermann Julius Eitel 647
 Philip Moore Orville 1092
 Roger G.J. Strens 1095
- Fredrik William Houlder Zachariasen 1097
- MERCURIOT, GENEVIEVE see MELLINI, MARCELLO
- MERLINO, STEFANO see MELLINI, MARCELLO
- see MOORE, PAUL B.
- Meta-autunite, Na, K, OH 1073
- Metakaolin, from kaolinite 1068
- Metavivianite, new data (abstr) 997
- Meteorite, Antarctica 1103
- Mexico, axinite 1233
- Mg calcite, synthetic morphology 428
- Mica, trioctahedral, structure 592
- Microcline analyses 586
 heat capacity 75
- Microscope technique, for RI 1202
- MIELKE, H.G. see FLÖRKE, O.W.
- Mineral segregations, pelitic 596
- Minnesota, pelitic schists 260
- Minnesota, analyses 70
- MIURA, YASUNORI, TOSHIO KATO, JOHN RUCKLIDGE and HIROHARU MATSUEDA: Natroapophyllite, a new orthorhombic sodium analog of apophyllite II. Crystal structure 416
 see MATSUEDA, HIROHARU
- Mixed-volatile equilibria 1135
- MIZOTA, TADATO see SUGAKI, ASAHICO 398
- Mn carbonate, analyses 280
- Modified spinel, $\beta\text{-Mg}_2\text{SiO}_4$ 568
- Molecular orbital calculations 819, 1237, 1250
- MOORE, P.B.: Memorial of Fredrik William Houlder Zachariasen 1097
- , TAKAHARU ARAKI, STEFANO MERLINO, MARCELLO MELLINI and P.F. ZANAZZI: The arrojadite-dickinsonite series, $\text{KNa}_4\text{Ca}(\text{Fe}, \text{Mn})_4\text{Al}_2$
- $(\text{OH})_2(\text{PO}_4)_12$: crystal structure and crystal chemistry 1034
 see ARAKI, TAKAHARU 827, 1263
 see DEGANELLO, SERGIO 859
- MOREY, G.B. see LABOTKA, T.C. 70
- Morozevitzite, new mineral (abstr) 437
- MORSE, S.A. see BERG, J.H. 985
- MORTIER, W.J. and J. R. PEARCE: Thermal stability of the heulandite-type framework: crystal structure of the calcium/ammonium form dehydrated at 483 K 309
- MOSELEY, DAVID: Ilmenite exsolution in olivine 976
- Mossbauer spectroscopy, biotite 359
- Mullite from kaolinite 997
 twinning and superstructure 142
- Muscovite analyses 55, 75, 710, 913
- MYSEN, B.O., F.J. RYERSON and DAVID VIRGO: The structural role of phosphorus in silicate melts 106
 , DAVID VIRGO and IKUO KUSHIRO: The structural role of aluminum in silicate melts--a Raman spectroscopic study at 1-atmosphere 678
- Na amphibole, analyses 464
- Nacaphite, new mineral (abstr) 218
- Nagashimalite, new mineral (abstr) 638
- NAKAJIMA, YOSHIHARU and P.H. RIBBE: Twinning and superstructure of Al-rich mullite 142
- Natrophosphate, new data 1223
 (abstr) 879
- Natropoaphyllite new mineral 410
 structure 416
- NAYAK, V.K. see LEAKE, B.E. 625
- NELEN, J.A. see DUNN, P.J. 1054
- Nepheline order-disorder 990
 satellite reflections 990
- NEWBERRY, N.G., E.J. ESSENE and D.R. PEACOR: Aiforsite, a new member of the apatite group: the barium analogue of chlorapatite 1050
- New mineral names 217, 436, 637, 878, 1099, 1274
- New minerals acrofanite (abstr) 1100
 aldermanite (abstr) 1099
 alfsosite 1050
 albomosite (abstr) 878
 alumopharmacosiderite (abstr) 1099
 arsenohauchecornite (abstr) 436
 ashanite (abstr) 217
 balyakinitite (abstr) 436
 bartonite 369
 bentorite (abstr) 637
 bessmertnovite (abstr) 878
 bismutohauchecornite (abstr) 436
 brabanite (abstr) 878
 cathophorite (abstr) 878
 choloalite (abstr) 1099
 clinochalcomenite (abstr) 217
- New minerals, cont. colquiriite (abstr) 879, 1099
 cyanophyllite (abstr) 1274
 dorfmanite (abstr) 217
 eifelite (abstr) 218
 ekaterinitite (abstr) 437
 eugsterite 632
 ferrarisite (abstr) 637
 gaitite (abstr) 1274
 geerite (abstr) 1274
 gittinsite (abstr) 1274
 goosecreekite (abstr) 1275
 gregoryite (abstr) 879
 hauchecornite (abstr) 436
 jamesite (abstr) 1275
 johnsomervilleite (abstr) 437
 kalborsite (abstr) 879
 karlite 872
 keithconnite (abstr) 1275
 kingsmountite (abstr) 1275
 kolymitite (abstr) 218
 kovdorskite (abstr) 437
 kulkeite (abstr) 218
 kuznetsovite (abstr) 1100
 lanthanate-(Nd) (abstr) 637
 lingaitukuang (abstr) 878
 macquartite (abstr) 638
 mcgillite (abstr) 1276
 mcguinessite (abstr) 1276
 morozevitzite (abstr) 437
 nacaphite (abstr) 218
 nagashimalite (abstr) 638
 natroapophyllite 410
 o'danielite (abstr) 218, 1276
 olgite (abstr) 438
 olympite (abstr) 438
 paralstonite (abstr) 219
 paranatrolite (abstr) 1276
 parareagar (abstr) 1277
 parascholzite 843
 petarasite (abstr) 1277
 polkovicite (abstr) 437
 putoranite (abstr) 638
 roaldite (abstr) 1100
 rokuhnite (abstr) 219
 sabinaite (abstr) 1277
 sacrofanite (abstr) 1100
 saneroite (abstr) 1277
 santaclarite 154
 schieffelinite (abstr) 219
 sergeevite (abstr) 1100
 shabynite (abstr) 1101
 shahovite (abstr) 1101
 sodium phlogopite (abstr) 219, 639
- spionkopite (abstr) 1279
 sterlinghillite 182
 stibiobetafite (abstr) 1278
 stibivanie (abstr) 1278
 suessite (abstr) 1101
 tancoite (abstr) 1278
 taneyamalite (abstr) 1101
 telluropalladinite (abstr) 1275
 tellurohauchecornite (abstr) 436
 thalfenite (abstr) 219
 theophrastite 1020
 tisinalite (abstr) 219
 tivanite 866
 tugarinovite (abstr) 438
 viitaniemite (abstr) 1102
 wonesite 100
 yarrowite (abstr) 1279
- New Hampshire, arrojadite 1034
- New Jersey bannisterite 1063

New Jersey, cont.				
schallerite, etc.	1054	Orthopyroxene, cont.		
sterlinghillite	182	dispersion	986	POLLACK, S.S. and C.A. SPITLER:
New Mexico, pelitic schists	702	ion microprobe analyses	526	Iron content of pyrrhotites
New York		REE partitioning	242	produced in continuous
clinopyroxene exsolution	127	synthetic disordering	965	liquefaction units
ferrosilite	951	ORVILLE, P.M. memorial of	1092	1258
New Zealand, Cr epidote	974	Oxyanions of Be, B, C, N, bond		Potassic volcanics, Wyoming
NICKEL, E.H. see GREY, I.E.	866	distances	601	663
NIELSEN, C.H. and HARALDUR		PABST, ADOLF: New mineral names		Prehnite, analyses
SIGURDSSON: Quantitative		217,436,1099		913
methods for electron micro-		PADOVANI, E.R. and R.J. TRACY:		PREWITT, C.T. see LEVIEN,
probe analysis of sodium		A pyrope-spinel (alkremite)		LOUISE
in natural and synthetic		xenolith from Moses Rock		315,324
glasses	547	Dike: first known North		PRICE, G.D.: Subsolidus phase
NORBERG, J.A. see DUNN, P.J.	1054,1063	American occurrence	741	relations in the titanomagnetite solid solution
North Carolina, Mn deposit	278	PAPIKE, J.J. see CAMERON,		series
NOVAK, J.M. and M.J. HOLDAWAY:		MARYELLEN	1	751
Metamorphic petrology,		see LABOTKA, T.C.	70	Pseudomalachite, third
mineral equilibria, and		Paralstonite, new mineral	219	polymorph
polymetamorphism in the		(abstr)		169
Augusta quadrangle, south-		Paranatrolite, new mineral	1276	Putoranite, new mineral (abstr)
central Maine	51	(abstr)	1277	1107
Nukundamite, structure, synthesis	398	Pararealgar, new mineral		Pyroboles, in pyroxene
Oblique observation, for RI	1089	(abstr)		908
Oboyerite, new data (abstr)	220	Parascholzite, new mineral	843	Pyroxenoids, North Carolina
O'Danielite, new mineral (abstr)	218,1276	(abstr)		278
Offretite, structure	777	PARASKEVOPOULOS, G.M. and		Pyroxmangite, analyses
OHASHI, YOSHIKAZU and L.W.		MARIA ECONOMOU: Zoned Mn-rich chromite from podiform		908
FINGER: The crystal structure of santaclarite, CaMn ₄ -[Si ₅ O ₁₄ (OH)](OH)·H ₂ O: the role of hydrogen atoms in the pyroxenoid structure	154	type chromite ore in serpentinites of northern Greece	1013	Pyrrhotite
Olgite, new mineral (abstr)	438	PATERSON, E.: Intercalation of synthetic buserite by dodecylammonium chloride	424	graphitic schists
Olivine		PEACOR, D.R. see DUNN, P.J.	1954	magnetic transition
analyses	337,450,665	see GORDON, W.A.	127	X-ray data
dispersion	986	see NEWBERRY, N.G.	1050	
hematite deposits	980	see WINTER, G.A.	278	
ilmenite exolution	976	PEARCE, J.R. see MORTIER, W.J.	309	
ion microprobe analyses	526	Pegmatite		
Ni-Mg ordering	770	arrojadite	1034	Quartz
oriented in achondrite	1233	fillowite	827	regional variation in cell dimensions
REE partitioning	242	surinamite, etc.	1022	rhombohedral cleavage
Olympite, new mineral (abstr)	438	Pelitic schists		QUEVEDO, M.P. see DE PORTILLA, V.S.
Oolite, microstructure	789	Maine	51,260	204
Optical properties		Minnesota	70	296
ajosite	202	New Mexico	702	148
alforsite	1052	Peridotite		
augite	987	Colorado	334	Radiohaloes, biotite
bartonite	374	pyroxene-oxide intergrowths	723	Raman spectroscopy
eugsterite	635	Peristerite, conditional		358
karlite	847	spinodal	553	AI in silicate melts
meta-autunite	1069	Perovskite, analyses	670	106
natroapophyllite	412	Petasite, new mineral (abstr)	1277	spodumene and melts
nukundamite, synthetic	400	Petrofabric analysis, olivine	1233	242
olivine	986	Pharaohnite, discredited		RAMIK, R.A. see DUNN, P.J.
orthopyroxene	986	mineral (abstr)	220	Rare earth elements
parascholzite	847	Phlogopite		eclogite
phlogopite	1159	analyses	668	460
pyroxmangite	282	dissolution	801	Iherzolite
rhodonite	282	inclusion in Cr diopside	347	449
scholzite	847	melting equilibria	1164	melt and Iherzolite
sterlinghillite	184	reverse pleochroism	1154	242
theophrastite	1021	Phyllosilicate, 10 Å, synthesis	576	Refractive indices, measurement
tivanite	867	Picropharmacolite, structure	385	1089
wonesite	100	Pigeonite, phase equilibria	1175	RENDON-DIAZMIRON, L.E. see SWINNEA, J.S.
Optical spectra		Plagioclase		428
biotite	358	analyses	75	Reviews
phlogopite	1160	conditional spinodal	553	221,440,880,1104
Orthopyroxene		transformations	763	Barnes, H.L. (Ed.): <i>Geochemistry of Hydrothermal Ore Deposits, Second Edition</i>
analyses	337,451,729	Pleonaste, analyses	337	(Kullerud)
		Polkovicite, new mineral (abstr)	437	1104

Reviews, cont.			
Guest et al., cont.:			
<i>Planetary Geology</i> (French)	770	SEAL, M., E.R. VANCE, and B.	South Africa, cont.
Guillemin, Cl. and Ph. Lagny (Eds.): <i>Resources Minérales</i> .		DEMAYO: Optical spectra of giant radiohaloes in	liebenbergite
Mineral Resources (Kutina)	1104	Madagascan biotite	770
Kutina, Jan (Ed.): <i>Global</i> <i>Tectonics and Metallogeny</i> (Mason)	221	Secondary ion analyses	phlogopite
MacKenzie, W.S. and C. <i>Guilford: Atlas of Rock-</i> <i>Forming Minerals in Thin</i> <i>Section</i> (Mason)	221	SEKINE, TOSHIMORI, P.J. WYLLIE and D.R. BAKER: Phase re-	South Dakota, arrojadite
Nassau, Kurt: <i>Gems Made by</i> <i>Man</i> (Sinkankas)	880	relationships at 30 kbar for	1034
Phillips, W.R. and D.T. <i>Griffen: Optical Mineralogy:</i> <i>The Nonopaque Minerals</i> (Essene)	881	quartz eclogite composition	DOUGLAS RUMBLE III: Wonesite:
Ramdohr, Paul and Hugo Strunz: <i>Klockmanns Lehrbuch der</i> <i>Mineralogie</i> (Mason)	881	in CaO-MgO-Al ₂ O ₃ -SiO ₂ -H ₂ O	a new rock-forming silicate
Rhodonite, analyses	281	with implications for sub-	from the Post Pond, Vermont
RIBBE, P.H. see NAKAJIMA, YOSHIHARU		daction zone magmas	100
RICKWOOD, P.C.: The largest crystals	142	Sengierite, new data (abstr)	SPENCER, K.J. and D.H. LINDSLEY:
Riebekite, analyses	885	Serpentine, Al, infrared spectra	A solution model for coexist-
RIEDER, MILAN see WEISS, ZDENEK	517	Serpentinization, hydration	ing iron-titanium oxides
Roaldite, new mineral (abstr)	561	reactions	1189
ROBERTS, F.I. see LOUGHNAN, F.C.	1100	Shabynite, new mineral (abstr)	Sphalerite, phase transition
ROBIE, R.A. see HEMINGWAY, B.S.	997	Shahovite, new mineral (abstr)	1006
Rock EPMA, using glass	1202	SHARMA, S.K. and BRUNO SIMONS:	Spinel, analyses
RODEN, M.F. see SMITH, DOUGLAS	1086	Raman study of crystalline	670, 729, 743
Rokuhnite, new mineral (abstr)	334	polymorphs and glasses of	Spionkopite, new mineral
ROUSE, R.C. see STURMAN, B.D.	219	spodumene composition quench-	(abstr)
RUCKLIDGE, JOHN see MIURA, YASUNORI	843	ed from various pressures	1279
see MATSUEDA, HIROHARU		Sheet silicates, in pyroxenes	SPITLER, C.A. see POLLACK,
RUMBLE, DOUGLAS III see SPEAR, F.S.		SHIMA, HIROMI see SUGAKA, ASAHIKO	S.S.
RYERSON, F.J. see MYSEN, B.O.	106	SHOEMAKER, G.L., J.B. ANDERSON and EDWARD KÖSTINER: The	1258
Rylolite, hydrothermal altera-	473	crystal structure of a	Spodumene, Raman spectra
		third polymorph of	118
Sabinaita, new mineral (abstr)	1277	Cu ₅ (PO ₄) ₂ (OH) ₄	SHARMA, S.K. and BRUNO SIMONS:
Sacrofanite, new mineral (abstr)	1100	Siderite, analyses	Raman study of crystalline
Saneroite, new mineral (abstr)	1277	SIGURDSSON, HARALDUR see	polymorphs and glasses of
SANFORD, R.F.: Mineralogical and chemical effects of hydration reactions and applications to serpentini-		NIELSEN, C.H.	spodumene composition
Santaclarite, new mineral	290	Silica minerals, hydrothermal	118
Sapphirine, Be, analyses	154	alteration	Sheet silicates, in pyroxenes
Satellite reflections, nepheline	1027	Siilicate melts	1107
SAWAMOTO, HIROSHI see HORIUCHI, HIROYUKI	990	Al-bearing, Raman spectra	SHIMA, HIROMI see SUGAKA, ASAHIKO
Scanning electron microscope, BSE	568	diopside crystallization	ASAHIKO
Schafarzikite, microstructure	362	P in	398
Schallerite, crystal chemistry	1073	REE partitioning	Siderite, analyses
Schieffelinite, new mineral (abstr)	1054	spodumene composition	515
Schmeiderite=Schmiederite, new data (abstr)	219	Silicate rings, MO calculations	547
Scholzite, new data	220	Sillimanite, analyses	473
SCLAR, C.B. see BAUER, J.F.	847	Siloxane rings, MO calculations	706
Scotland	576	SIMONS, BRUNO see SHARMA, S.K.	1237
calcareous metamorphics		SINKAKAS, JOHN, review of	118
margarite pseudomorphs		<i>Gems made by Man</i> (Nassau)	880
		SKINNER, B.J.: Memorial of	1092
		Philip Moore Orville	1092
		SMITH, D.K. see STOHL, F.V.	610
		SMITH, DOUGLAS and M.F. RODEN:	
		Geothermometry and kinetics	
		in a two-spinel peridotite	
		nodule, Colorado Plateau	334
		SMITH, J.V. see HERVIG, R.L.	346
		——— see STEELE, I.M.	526
		——— and J. MICHAEL BENNETT:	
		Enumeration of 4-connected	
		3-dimensional nets and classi-	
		fication of framework silicates:	
		the infinite set of ABC-6 nets;	
		the Archimedean and σ -	
		related nets	777
		Sodalite, structure	777
		Soddyite, structure	621
		Sodium-phlogopite, new mineral	219, 639
		(abstr)	
		Solid solution model, Fe-Ti	
		oxides	1189
		South Africa	
		inclusions in Cr diopside	346

Systems, cont.		Unit-cell data, cont.		VANCE, E.R. see SEAL, M.	358
FeO-MgO-SiO ₂	951	carpholite	1081	VAN HILLEN, DICK: Refractive	
FeWO ₄ -ZnWO ₄	301	chukrovite, synthetic	393	indices of minerals through	
MgO-SiO ₂ -H ₂ O	576	clinopyroxene	128	the microscope: a simpler	
MnWO ₄ -ZnWO ₄	301	coesite, high pressure	330	method of oblique	
SiO ₂ -CaO-Na ₂ O-Al ₂ O ₃	678	copper phosphate hydrate QPM	170	observation	1089
SiO ₂ -CaSiO ₃ -Mg ₂ SiO ₄	223	dickinsonite	1036	VANIMAN, D.T. see LABOTKA, T.C.	70
Taaffeite, analyses, X-ray		dioptase, high-pressure	318	VAUGHAN, D.J. and J.A. TOSSELL:	
data	1028	dixenite	1263	Electronic structure of	
TAKAGI, S. see MATHEW, M.	392	fillowite	828	thiospinel minerals: results	
Talc		heulandite-Ca/NH ₄	310	from MO calculations	1250
analyses	498, 501	jagoite	852	VEBLEN, D.R. and P.R. BUSECK:	
dissolution	801	kanoite	128	Hydrous pyroboles and sheet	
hydrous	576	karlite	561	silicates in pyroxenes and	
Tancoite, new mineral (abstr)	1278	lepidolite	874	uralites: intergrowth micro-	
Taneyamalite, new mineral		liebenbergite (Ni-Mg olivine)	1224	structures and reaction	
(abstr)	1101	meta-autunite	770	mechanisms	1107
TAYLOR, L.A. see GARRISON,		mullite, Al synthetic	1070	VELDE, B. and G. MARTINEZ:	
J.R., JR.	723	natroapophyllite	143	Effect of pressure on OH-	
Telargpalite, new data (abstr)	1103	nukundamite, synthetic	414	stretching frequencies in	
Tellurohauchecornite, new		parascholzite	393	kaolinite and ordered	
mineral (abstr)	436	phylosilicate, 10 Å	847	aluminous serpentine	196
Tellurppardinite, new		picropharmacolite	579	VELDE, D. see HAZEN, R.M.	586
mineral (abstr)	1275	plagioclase	386	VERGOUWEN, LIDEKE:	
Ternary feldspar, trans-		pseudomalachite polymorphs	764	Eugsterite, a new salt	
formations	763	pyrophyllite-1 α	176	mineral	632
Tetrahedrite, Cu-S bond	813	quartz	351	Vermont, wonesite	100
TETTENHORST, RODNEY, review of		santaclarite	204	Versiliaite, microstructure	1073
Crystal Structures of Clay		scholzite	155	Viitaniemiite, new mineral	
Minerals and their X-ray		taaffeite	847	(abstr)	1102
Identification (Brindley		ternary feldspar	1028	VIRGO, DAVID see MYSEN, B.O.	
and Brown, Eds.)	881	theophrastite	764	106, 678	
Textures, igneous experimental	223	tivanite	1021	VISWANATHAN, KRISHNAMOORTHY:	
Thalfenite, new mineral		uranophane	867	The crystal structure of	
(abstr)	219	wonesite	613	a Mg-rich carpholite	1080
Theophrastite, new mineral	1020	Zn staurolite	102	WAERSTAD, K.R. see MATHEW, M.	392
Thiospinel, MO calculations	1250	Unnamed minerals	934	WAGNER, MARY EMMA see FOLAND,	
Tholeiite, oceanic genesis	938	α -MnSiO ₃ (abstr)	220	K.A.	1086
THOMPSON, J.B., JR.: Presenta-		alloys (abstr)	639	Wairakite, analyses	481
tion of the Roebling Medal		arsenate	218	Weddellite, unit cell data	862
of the Mineralogical		As ₂ Se ₃ (abstr)	1279	Weeksite, structure	620
Society of America for		Bi ₂ Te (abstr)	438	WEICHERT, JURGEN see FLÖRKE,	
1980 to Dmitrii Sergeevich		Cu mineral (abstr)	439	O.W.	596
Korzhinskii	640	GeS ₂ (abstr)	1279	WENDLANDT, R.F.: Influence of	
Tisinalite, new mineral (abstr)	219	HgI ₂ (abstr)	1102	CO_2 on melting of model	
Titanomagnetite		iridium sulfides (abstr)	1289	granulite facies assemblages:	
phase relations	1189	K analogue of macdonaldite	220	a model for the genesis of	
subsolidus relations	651, 759	(abstr)	1279	charnockites	1164
Tivanite, new mineral	866	KAlF ₄ (abstr)	1279	WENK, H.-R. see GUNDERSON,	
TOSSELL, J.A. see GUPTA, ABHA	601	KAl(SO ₄) ₂ (abstr)	220	S.H.	789
see VAUGHAN, D.J.	1250	lead minerals (abstr)		WEISS, ZDENEK, S.W. BAILEY and	
Trace elements		(Mn,Ca) ₆ (V,As)Si ₅ O ₁₈ (OH)	1279	MILAN RIEDER: Refinement	
olivine, orthopyroxene	526	(abstr)	1279	of the crystal structure of	
potassic rocks	672	(NH ₄)Al(SO ₄) ₂ (abstr)	1279	kanonait, $(\text{Mn}^{3+}, \text{Al})[6](\text{Al}, \text{Mn}^{3+})[5]_0[\text{SiO}_4]$	561
TRACY, R.J. see PADOVANI, E.R.	741	palladium bismuth chloride	1102	West Germany, parascholzite	843
Tremolite, analyses	498, 501	(abstr)	439	Western Alps, eclogites,	
Tridymite, from combustion	997	palladium copper sulfo-	1280	peridotites	443
Tugarinovite, new mineral		telluride (abstr)	1280	Whewellite, unit cell data	862
(abstr)	438	Sn-Cu-Pb mineral (abstr)	1280	Winchite, India	625
Tungstate minerals, phase		sulfides and sulfosalts	436	WINTER, G.A., E.J. ESSENE and	
relations	298	(abstr)	622	D.R. PEACOR: Carbonates and	
Turkey, eugsterite	632	sulfate of Cu and Mn (abstr)	1107	pyroxenoids from the	
Unit-cell data		telurites	612	manganese deposit near Bald	
ajoite	186	uranyl silicate	610	Knob, North Carolina	278
alforsite		Uralites, microstructures	185	Wisconsin, oolite	789
amesite-2H ₂	1051	Uranophane, structure	185	Wonesite, new mineral	100
arrojadite	1036	Uranyl silicates, crystal	148	Wurtzite, phase transition	1006
axinite	428	structure	741	WYLLIE, P.J. see SEKINE,	
β -Mg ₂ SiO ₄	568	U.S.S.R.		TOSHIMORI	938
bartonite	373	amesite-2H ₂		Wyoming, ultrapotassic	
biotite, Si-rich	587	bayldonite		volcanics	663
boltwoodite	613	Utah, pyrope-spinel xenolith			
Ca oxalate trihydrate	860				

Xenolith, pyrope-spinel	741
X-ray diffraction data	
ajoite	202
alforsite	1051
arrojadite	1048
bartonite	373
boltwoodite	615
clay minerals	483
chukhrovite, synthetic	393
dickinsonite	1048
dixenite	1272
eugsterite	635
fillowite	841
kanonaite	561
meta-autunite	1071
natroapophyllite	415
new uranyl silicate	623
parascholzite	846
phyllosilicate, 10 Å	579
pyrrhotite, synthetic	1258
scholzite	846
soddyite	621
stirlinghillite	184
surinamite	1026
taaffeite	1028
theophrastite	1021
tivanite	867
Yarrowite, new mineral (abstr)	1279
Yellowstone, hydrothermal	
alteration	473
Yugawaralite, analysis	481
ZACHARIASEN, F.W.H., memorial of	1097
ZANAZZI, P.F. see MOORE, P.B.	1034
Zeolite	
A, structure	777
losod, structure	777
rho, structure	777
TMA-E(AB), structure	777
ZK5	777
Zeolite facies, iron formation	507
Zeolites, alteration of	
rhyolite	473
Zn radius in staurolite	935
Zoisite	
Cr in amphibolite	974
magma genesis	938
phase equilibria	1183