

# INDEX, VOLUME 64, 1979\*

|  |                |   |                 |   |         |
|--|----------------|---|-----------------|---|---------|
| Agrillite, structure   | 563            | Analyses, cont.   |                 |   |         |
| AHLRICH, J.L. see VANSCOYOC, G.E.  | 219            | omphacite   | 103             | AUTIO, L.K. see CHERNOSKY, J.V.JR.  | 294     |
| AKIMOTO, S. see HORIUCHI, H.   | 593            | olivine   | 253,521,538,547 | Axinite, composition and properties   | 635     |
| Al <sub>2</sub> O <sub>3</sub> polymorphs, high-temperature  |                | orthopyroxene   | 538             |   |         |
| crystal chemistry  | 573            | paragonite  | 730             |   |         |
| ALBERTI, A.: Possible 4-connected frameworks with 4-4-1 unit found in heulandite, stilbite, brewsterite, and scapolite | 1188           | peristerite   | 1273            | Bahianite, new mineral (abstr)  | 464     |
| Albite   |                | perovskite  | 547             | BALDASARI, A. and J.A. SPEER: Witherite composition, physical properties, and genesis   | 742     |
| chess-board twinned  | 329            | phengite  | 334             | Baratovite, structure   | 383     |
| structural study   | 652            | phlogopite  | 257,521,547     | BARTON, P.B. JR., review of <i>Time- and Strata-Bound Ore Deposits</i> (Klemm and Schneider)  | 933     |
| Albite-anorthite, in metamorphic rocks   | 1294           | pimelite  | 618             | Bartonite, new mineral (abstr)  | 241     |
| Aleksite, new mineral (abstr)  | 652            | pseudoleucite   | 734             | Basalt-andesite-rhyolite-H <sub>2</sub> O, phase relationships  | 489     |
| Alkali feldspar  |                | pumpellyite   | 10              | Basaltic rocks, zeolite facies metamorphism   | 1       |
| coherent solvus  | 1063           | pyrite  | 137             | Basalts   |         |
| order-disorder paths   | 66             | pyroxenes   | 254,859,869     | classification  | 436     |
| Altmarkite, new mineral (abstr)  | 652            | rasvumite   | 777             | xenolith-bearing  | 249     |
| Amphibole  |                | rutile  | 146             | BASOVA, G.V. see KAZACHENKO, V.T.   | 432     |
| analyses   | 26,110         | schafarzikite   | 1233            | BASS, J.D. and C.B. SCLAR: The stability of trolleite and the Al <sub>2</sub> O <sub>3</sub> -AlPO <sub>4</sub> -H <sub>2</sub> O phase diagram | 1173    |
| composition in metamorphic rocks   | 1295           | schoderite  | 717             | BAUMINGER, E.R. see ROZENSON, I.  | 893     |
| Mössbauer spectra  | 109            | semenovite  | 205             | Bazirite, new mineral (abstr)   | 241     |
| Analbite-monalcite phase transition  | 409            | spinel  | 258,549         | BECKINSALE, R.D. see MATTHEWS, A.   | 232     |
| Analcime, crystallization from solution  | 172            | staurolite  | 740             | BENCE, A.E. see SCHWEITZER, E.L.  | 501     |
| Analyses, chemical   |                | stoiberite  | 942             | Berlinite, formation from trolleite   | 1175    |
| albite   | 331            | thadeuite   | 360             | BERNSTEIN, L.R.: Coloring mechanisms in celestite   | 160     |
| amphibole  | 26,110,257,538 | torreyite   | 952             | Bilibinskite, new mineral (abstr)   | 652     |
| apuanite   | 1233           | tourmaline, vanadian  | 789             | Biopyrroboles, order and disorder in  | 687     |
| armangite  | 749            | veatchite-A   | 364             |   |         |
| axinite  | 639            | versiliaite   | 1233            | Biotite   |         |
| basaltic glass   | 10             | vesuvianite   | 368             | barian-titanian   | 156     |
| basalts  | 3,259,506,954  | wairakite   | 368             | sulfidation of  | 304     |
| biotite  | 157,538,740    | witherite   | 743             | Biotite-pyrrhotite equilibria   | 312     |
| burckhardtite  | 355            | yttrioncolite   | 573             | BIRNIE, R.W. and J.M. HUGHES: Stoiberite, a new copper vanadate from El Salvador  | 941     |
| carrollite   | 137            | Andalusite, structure   | 573             | BISH, D.L. and R.S. HORSEY, R.E. NEWNHAM: Acentricity in the micas: an optical second harmonic study  | 1052    |
| cattierite   | 137            | ANDRAWES, F.F. and E.K. GIBSON, JR.: Release and analysis of gases from geological samples                | 453             | see BRINDLEY, G.W.  | 615     |
| celestite  | 161            | Anorthite   |                 | BLENCOE, J.G.: The use of thermodynamic excess functions in the Nernst distribution law: discussion   | 1122    |
| chevkinite   | 722            | thermodynamics of melting   | 77              | BLOSS, P.D., review of <i>Microscope Photometry</i> (Filler)  | 934     |
| clinohypersthene   | 133            | high-T heat capacity  | 86              | BLOUNT, A.M. and A.H. VASSILIOU: A new method of reducing preferred orientation in diffractometer samples                                       | 922     |
| clinopyroxene  | 25,505,521,538 | Antarctica, garnet  | 269             | Boehmite, exsolution in corundum  | 1300    |
| chlorite   | 334            | Anthophyllite   |                 | BOETTCHER, A.L.: Experimental determination of univariant equilibria using divariant solid-solution assemblages: a discussion                   | 926     |
| clintonite   | 521            | stability   | 294,809         | Bogdanovite, new mineral (abstr)  | 1329    |
| cordierite   | 740            | transmission electron microscopy  | 687             | Bohdanowiczite, new mineral (abstr)   | 1333    |
| cryptoperthite   | 1273           | Apatite, free energy  | 626             | Bokite, Nevada  | 720     |
| cuproartinite  | 889            | APPELO, C.A.J.: Layer deformation and crystal energy of micas and related minerals II                     | 424             | Bolivia, ferridravite   | 945     |
| cuprohydromagnesite  | 888            | Apuanite, new mineral   | 1230            | Boyleite, new mineral (abstr)   | 241,464 |
| davidite   | 1012           | ARAKI, T. see KEEGAN, T.D.  | 1243            | Brazil, pseudoleucite   | 733     |
| desautelsite   | 129            | see MOORE, P.B.   | 390,587,748     | Brenkite, new mineral (abstr)   | 241     |
| diaspore   | 1081           | ARCULUS, R.J.: Implications of pressure-dependent compressibilities of silicate melts                     | 1075            | Brewsterite, structure  | 1188    |
| djerfisherite  | 778            | : Silica activity and the classification of alkalic and tholeiitic basalts                                | 436             | BRINDLEY, G.W., review of <i>Clays and Clay Minerals of Japan</i> (Sudo and Shimoda)  | 660     |
| eclogites  | 20             | Arizona   |                 |   |         |
| ellisite   | 701            | basalts, xenolith-bearing   | 249             |   |         |
| ferridravite   | 947            | davidite  | 1010            |   |         |
| gageite  | 1057           | Arkansas  |                 |   |         |
| garnets  | 23,271,548,740 | diamond   | 1059            |   |         |
| hercynite, zincian   | 737            | schoderite  | 713             |   |         |
| hornblende   | 960            | Armangite, structure  | 748             |   |         |
| hypersthene  | 133            | ARNDT, N.T. and M.E. FLEET: Stable and metastable pyroxene crystallization in layered komatite lava flows | 856             |   |         |
| ilmenite   | 146,258        | Arsenopalladinite, new data (abstr)   | 658             |   |         |
| kaersutite   | 257            | Arsenuranospathite, new mineral (abstr)   | 465             |   |         |
| kerolite   | 618            | Augelite, free energy   | 626             |   |         |
| K-feldspar   | 913            | Australia   |                 |   |         |
| kolicite   | 709            | buchite   | 131             |   |         |
| ktenasite  | 447            | clinohypersthene  | 131             |   |         |
| lamprophyres   | 990            | hypersthene   | 131             |   |         |
| lawsonbauerite   | 952            | K-feldspar megacrysts   | 906             |   |         |
| magnetite  | 258            | nigerite-24R  | 1255            |   |         |
| magnussonite   | 391            |   |                 |   |         |
| margarite  | 730            |   |                 |   |         |
| metarodrigites   | 20             |   |                 |   |         |
| montmorillonites   | 832            |   |                 |   |         |
| muscovite  | 730            |   |                 |   |         |
| nigerite-24R   | 1257           |   |                 |   |         |

- BRINDLEY, G.W., cont.  
review of *Genese des Kaolins*  
(Störr) 938  
\_\_\_\_\_, and D.L. BISH, H.-M. WAN:  
Compositions, structures, and  
properties of nickel-containing  
minerals in the kerolite-  
pimelite series 615  
\_\_\_\_\_, and S. YAMANAKA: A study of  
hydroxy-chromium montmorillon-  
ites 830  
\_\_\_\_\_, and S. KIKKAWA: A crystal-  
chemical study of Mg,Al and  
Ni,Al hydroxy-perchlorates and  
hydroxy-carbonates 836  
BROWN, F.H. see ROGERS, R.J. 169  
BROWN, G.E. JR. see  
HOCHHELLA, M.F. JR. 337  
Buchite, Australia 131  
Burckhardtite, new mineral 355  
BURNS, R.G. see FLEISCHER, M. 1329  
BUSECK, P.R. see VEBLEN, D.R. 687  
Bushveld Complex, Ti-bearing  
oxides 140  
BUTLER, J.C.: Trends in ternary  
petrologic variation diagrams-  
fact or fantasy? 1115
- CABRI, L.J. see FLEISCHER, M. 1329  
California  
albite 329  
chevkinite 721  
djerfisherite 776  
hercynite, zincian 736  
hungchaoite 369  
margarite 728  
paragonite 728  
pyroxenes in ophiolite 865  
rasvumite 776  
tourmaline, vanadian 789  
vesuvianite 367
- CAMERON, E.N.: Titanium-bearing  
oxide minerals of the Bushveld  
Complex 140  
Campbell, I., memorial of 669  
Canavesite, new mineral (abstr) 652  
Cannizzarite, new data (abstr) 244  
CARPENTER, M.A.: Ompacites from  
Greece, Turkey, and Guatemala 102  
Carronite, Katanga 136  
CATTI, M. and M. FRANCHINI-ANGELA:  
Krautite: crystal structure,  
hydrogen bonding and relations  
with haidingerite and pharma-  
colite 1248  
Cattierite, Katanga 136  
Celestite, coloring mechanisms in 160  
Černýite, new mineral (abstr) 653  
Cesbronite, new mineral (abstr) 653  
Chabourneite, new mineral (abstr) 242  
Chalcophanite, magnesium analogue 1227  
Chalcothallite, new data (abstr) 658  
Changbaiter, new mineral (abstr) 242  
CHAO, G.Y. see FLEISCHER, M. 241,464,652,1329
- Chemical analyses, see Analyses,  
chemical
- CHENEY, J.T. see GUIDOTTI, C.V. 728  
CHERNOSKY, J.V. JR. and L.K. AUTIO:  
The stability of anthophyllite  
in the presence of quartz 294  
CHERRY, M.E. and L.T. TREMBATH:  
Order-disorder paths of alkali  
feldspars 66
- Chesterite, transmission electron  
microscopy 687  
CHESTERMAN, C.W.: Memorial of Ian  
Campbell 669  
Chevkinite, California 721  
CHIPMAN, D.W. see WEAVER, J.S. 604  
Chlormanasseite, new mineral  
(abstr) 1329  
Chromite, in Bushveld Complex 140  
Chrompyroaurite, new mineral  
(abstr) 1329  
CHUBAROV, V.M. see KAZACHENKO, V.T. 432
- Chubutite, reviewed 1303  
CLARK, C.O. and C.P. POOLE, JR.,  
H.A. FARACH: Variable-tempera-  
ture electron spin resonance  
of turquoise 449  
Clinohypersthene, Australia 131  
Clinopyroxene  
analyses 25  
coherent solvus 1063  
from deep-sea basalts 501  
Clintonite, in marble 519  
Cobalt-cobalt oxide buffer 224  
Cobalt-frobergite, new mineral  
(abstr) 242  
Coesite-quartz equilibrium 604  
Coesite-stishovite equilibrium 604  
COONS, W.E. and J.R. HOLLOWAY:  
Cobaltous oxide as a chemical  
analogue for ferrous iron in  
experimental petrology 1097  
Corderite, high-temperature  
crystal chemistry 337  
Corundum  
boehmite exsolution in 1300  
high-T heat capacity 86  
CRAIG, J.R., review of *Atlas des  
Mineraux Metalliques* (Picot and  
Johan) 937  
\_\_\_\_\_, and D.J. VAUGHAN: Cobalt-  
bearing sulfide assemblages  
from the Shinkolobwe deposit 136  
\_\_\_\_\_, see TSO, J.L. 304
- Crandallite, free energy 626  
CRESSEY, G. see SCHMID, R. 929  
Cristobalite, heat capacity 1018  
CROOK, W.W. III: Yttromicrolite,  
a new mineral, and a redefini-  
tion of hjelmite 890  
\_\_\_\_\_, and S.G. OSWALD: New data  
on cerian vesuvianite 367  
\_\_\_\_\_, see OSWALD, S.G. 886  
Cryptoperthites, composition 1272  
Crystal structure  
apuanite 1235  
armangite 748  
baratovite 383  
Cu<sub>2</sub>S 1265  
davidite 1010  
hilgardite 187  
köttigite 376  
krautite 1248  
magnussonite 390  
microcline 402  
nickel and iron silicate spinels 1002  
nigerite-24R 1265  
schafarzikite 1235  
semenovite 202  
senegalite 1243  
tourmaline 788  
versiliaite 1235  
wairakite 993  
zircon 196  
Cuproartinite, new mineral 886
- Cuprohydromagnesite, new mineral 886  
Cu<sub>2</sub>S, structure 1265  
Czamanske, G.K. and R.C. ERD,  
M.N. SOKOLOVA, M.G. DOBROVOL'-  
SKAYA, M.T. DMITRIEVA: New  
data on rasvumite and djer-  
fisherite 776  
Dachiardite, Na-analogue (abstr) 244  
DAHL, P.S.: Comparative geother-  
mometry in Precambrian meta-  
morphic rocks from southwestern  
Montana 1280  
DAL NEGRO, A. see MAZZI, F. 202  
Davidite, crystal structure 1010  
DAY, H.W. and H. HALBACH: The  
stability field of antho-  
phyllite 809  
Decarbonation reactions 288  
Dehrnite, discredited mineral  
(abstr) 466  
DESAUTELS, P.E.: Memorial of  
Leo Neal Yedlin 674  
Desautelsite, new mineral 127  
Deweyite, new data (abstr) 244  
Diamonds, inclusions in 1059  
Diaspore, thermodynamic data 1080  
DICKSON, F.W. and A.S. RADTKE,  
J.A. PETERSON: Ellisite, a new  
mineral from the Carlin gold  
deposit 701  
\_\_\_\_\_, see SEYFRIED, W.E. JR. 646  
Differential thermal analysis  
Cs-dioctahedral mica 1186  
hungchaoite 374  
irradiated materials 1131  
veatchite-A 362  
Djerfisherite, new data 776  
DMITRIEVA, M.T. see CZAMANSKE, G.K. 776  
DOBROVOL'SKAYA, M.G. see  
CZAMANSKE, G.K. 776  
Donnayite, new mineral (abstr) 653  
Droogmansite = kasolite (abstr) 1334  
DUFFY, C. and H.J. GREENWOOD:  
Phase equilibria in the system  
MgO-MgF<sub>2</sub>-SiO<sub>2</sub>-H<sub>2</sub>O 1156  
DUNN, P.J.: The chemical composi-  
tion of gageite 1056  
\_\_\_\_\_, and D.R. PEACOR, T.D. PALMER:  
Desautelsite, a new mineral of  
the pyroaurite group 127  
\_\_\_\_\_, and B.D. STURMAN:  
Kolicite, a new manganese zinc  
silicate arsenate 708  
\_\_\_\_\_, and \_\_\_\_\_: Lawson-  
bauerite, a new mineral, and  
new data for torreyite 949  
\_\_\_\_\_, and \_\_\_\_\_: Paulmoore-  
ite, a new lead arsenite 352  
\_\_\_\_\_, see VALENCA, K. 945
- EBERL, D.: Synthesis of pyro-  
phyllite polytypes and mixed  
layers 1091  
EBERLEIN, G.D. see ERD, R.C. 369  
Eclogite-metarodingite suite,  
Switzerland 15  
EDGAR, A.D. see VALENCA, J.G. 733

- EGGLER, D.H. and A.A.KADIK: The system  $\text{NaAlSi}_3\text{O}_8\text{-H}_2\text{O-CO}_2$  to 20 kbar pressure 1 1036  
 \_\_\_\_\_, and I.KUSHIRO, J.R.  
 HOLLOWAY: Free energies of decarbonation reactions at mantle pressures 288  
 EGGLETON, R.A.: The ordering path for igneous K-feldspar megacrysts 906  
 ELLIS, D.E. and P.J. WYLLIE: Carbonation, hydration, and melting relations in the system  $\text{MgO-H}_2\text{O-CO}_2$  32  
 \_\_\_\_\_: Hydration and melting in the system  $\text{MgO-SiO}_2\text{-H}_2\text{O}$  41  
 Ellisite, new mineral 701  
 El Salvador, stoiberite 941  
 Emelusite, new mineral (abstr) 242  
 ERD, R.C. and J.F. MCALLISTER, G.D. EBERLEIN: New data on hungchaoite 369  
 \_\_\_\_\_, see CZAMANSKE, G.K. 776  
 Errata 1334  
 Eskimoite, new mineral (abstr) 243  
 ESSENE, E.J. see PERKINS, D. III 1080  
 Ethiopia, mitridatite 169  
 EVANS, B.W. and V. TROMMSDORFF, W. RICHTER: Petrology of an eclogite-metarodngite suite at Cima di Gagnone, Ticino, Switzerland 15  
 EVANS, S.H. JR. and W.P. NASH: Petrogenesis of xenolith-bearing basalts from south-eastern Arizona 249  
 EWING, R.C. see HAAKER, R.F. 1131  
 \_\_\_\_\_, see MANSKER, W.L. 156  
 FARACH, H.A. see CLARK, C.O. 449  
 FAUST, G.T.: Memorial of Marjorie Hooker 670  
 \_\_\_\_\_, review of *Structural Clay Products* (Brownell) 933  
 FEININGER, T., review of *Recursos Minerales de Colombia* (Angulo) 1335  
 Ferridravite, new mineral 945  
 FERRY, J.M.: A map of chemical potential differences within an outcrop 966  
 Fersmanite, new data (abstr) 658  
 FINGER, L.W. and R.M. HAZEN, T.YAGI: Crystal structures and electron densities of nickel and iron silicate spinels 1002  
 \_\_\_\_\_, see HAZEN, R.M. 196  
 FLAMINI, A. and G. GRAZIANI, G. PAGLIUCA: Synthesis of fluoborite 229  
 FLEET, M.E. see ARNDT, N.T. 856  
 FLEISCHER, M.: New mineral names 241,464,652,1329  
 \_\_\_\_\_, review of *The Mineralogy of Pennsylvania* (Smith) 935  
 Fluoborite, synthesis 229  
 FOIT, F.F. JR. and P.E. ROSENBERG: The structure of vanadium-bearing tourmaline 788  
 \_\_\_\_\_, see ROSENBERG, P.E. 180  
 Forsterite, calcium content 824  
 Framework silicates, classification 551  
 FRANCHINI-ANGELA, M. see CATTI, M. 1248  
 Franklinite, cation distribution 599  
 Free energy  
 decarbonation reactions 288  
 phosphate minerals 626  
 FREEBORN, W.P. see KOMARNENI, S. 650  
 Friedrichite, new mineral (abstr) 654  
 Frigidite, discredited (abstr) 1334  
 FRONDEL, C.: Crystalline silicate hydrates from leached silicates 799  
 FUDALI, R.F., review of *Geochemistry* (Brownlow) 935  
 Gabbro  
 Oregon 527  
 South Carolina 531  
 Wisconsin 844  
 Gageite, chemical composition 1056  
 GAINES, R.V. and P.B. LEAVENS, J.A. NELEN: Burckhardtite, a new mineral 355  
 GALLI, E. see TAKEUCHI, Y. 993  
 Garavellite, new mineral (abstr) 1329  
 Garnet  
 analyses 23  
 analyses, X-ray data 270  
 Garnet peridotite, trace-element partitioning 274  
 Gases, from geological samples 453  
 GATEHOUSE, B.M. and I.E. GREY, P.R. KELLY: The crystal structure of davidite 1012  
 \_\_\_\_\_, see GREY, I.E. 1255  
 Genkinite, new mineral 654  
 Geobarometry, of metamorphosed calc-silicates and pelites 874  
 Georgeite, new mineral (abstr) 1330  
 Geothermometry, of metamorphic rocks 874,1280  
 GHENT, E.D. and D.B. ROBBINS, M.Z. STOUT: Geothermometry, geobarometry, and fluid compositions of metamorphosed calc-silicates and pelites 874  
 GHOSE, S. and C. WAN: Agrellite: a layer structure with silicate tubes 563  
 \_\_\_\_\_: Hilgardite, a piezoelectric zeolite-type pentaborate 187  
 \_\_\_\_\_, see WINTER, J.K. 409,573  
 GIARDINI, A.A. see PANTALEO, N.S. 1059  
 GIBBS, G.V. see HOCELLA, M.F. JR. 337  
 GIBSON, E.K. JR. see ANDRAWES, F.F. 453  
 GILBERT, M.C. see TSO, J.L. 304  
 GILLIES, D.G. see KOISHI, Y. 211  
 GLAZNER, A.F. and D.B. MCINTYRE: Computer-aided X-ray diffraction identification of minerals in mixtures 902  
 GOGINENI, S.V. see PANTALEO, N.S. 1059  
 GOLDMAN, D.S.: A reevaluation of the Mössbauer spectroscopy of calcic amphiboles 109  
 GORDON, P.C. see SEYFRIED, W.E. JR. 646  
 GRAZIANI, G. see FLAMINI, A. 229  
 GRAY, D.R. see HENSEN, B.J. 131  
 Greece, omphacite 102  
 GREEN, D.H. see JAUQUES, A.L. 1312  
 GREENWOOD, H.J. see DUFFY, C. 1156  
 GREW, E.S.: Al-Si disorder of K-feldspar in crustal xenoliths 912  
 GREY, I.E. and B.M. GATEHOUSE: The crystal structure of nigerite-24R 1255  
 \_\_\_\_\_, see GATEHOUSE, B.M. 1012  
 Graphite, new data (abstr) 1333  
 Grossular, high-T heat capacity 86  
 Guatemala, omphacite 102  
 GUIDOTTI, C.V. and J.L. POST, J.T. CHENEY: Margarite pseudomorphs after chiastolite 728  
 GUNTER, W.D. see MYERS, J. 224  
 HAAKER, R.F. and R.C. EWING: Differential thermal analysis of some irradiated materials: discussion 1131  
 HAGA, N. see TAKEUCHI, Y. 993  
 HALBACH, H. see DAY, H.W. 809  
 HARKER, R.I., review of *Natural Zeolites: Occurrences, Properties, Use* (Sand and Mumpton eds.) 938  
 HAZEN, R.M. and L.W. FINGER: Crystal structure and compressibility of zircon 196  
 \_\_\_\_\_, see FINGER, L.W. 1002  
 Heat capacity  
 of minerals 86  
 tridymite and cristobalite 1018  
 HELLER-KALLAI, L. see ROZENSON, I. 893  
 HELZ, R.T.: alkali exchange between hornblende and melt 953  
 Hematite-ilmenite, coherent solvus 1063  
 HEMINGWAY, B.S. see KRUPKA, K.M. 86  
 HENSEN, B.J. and D.R. GRAY: Clino-hypersthene and hypersthene from a coal fire buchite 131  
 Hawaii  
 barian-titanian biotite 156  
 Salt Lake Crater xenoliths 962  
 Hercynite, zinc-rich 736  
 Heulandite, structure 1188  
 Hilgardite, structure 187  
 HILL, R.J.: The crystal structure of köttigite 376  
 Hjelmitte, redefinition 890  
 HOCELLA, M.F. JR. and G.E. BROWN, JR., F.K. ROSS, G.V. GIBBS: High-temperature crystal chemistry of cordierites 337  
 HOGARTH, D.D. see FLEISCHER, M. 1329  
 HOLLOWAY, J.R. see COONS, W.E. 1097  
 \_\_\_\_\_, see EGGLER, D.H. 288  
 HOLST, N.B.: The use of thermodynamic excess functions in the Nernst distribution law: reply 1129  
 Hooker, M., memorial of 670  
 HORIUCHI, H. and N. MORIMOTO, K. YAMAMOTO, S. AKIMOTO: Crystal structure of  $2\text{Mg}_2\text{SiO}_4 \cdot 3\text{Mg}(\text{OH})_2$  593  
 Hornblende, alkali exchange with melt 953  
 HORSEY, R.S. see BISH, D.L. 1052  
 HOVIS, G.L.: A solution calorimetric investigation of Na-K mixing in sanidine-analbite: corrections 925  
 \_\_\_\_\_, see THOMPSON, J.B. JR. 57  
 HUEBNER, J.S.: Acceptance of the Mineralogical Society of America Award 666  
 \_\_\_\_\_, see ROSS, M. 1133  
 HUGHES, J.M. see BIRNIE, R.W. 941  
 Humite group, Ti,F,OH content 1027  
 Hungchaoite, new data 369  
 Hydrodresserite, new mineral (abstr) 654



|  |         |                                     |           |  |      |
|--|---------|-------------------------------------|-----------|--|------|
| Metarodringites, chemical analyses   | 20      | Nernst distribution law             | 1122,1129 | New minerals, cont.  |      |
| Mexico   |         | Nevada                              |           | stibiopearcite (abstr)   | 243  |
| burckhardtite  | 357     | bokite                              | 720       | stoiberite   | 941  |
| chalcophanite  | 1227    | cuproartinite                       | 886       | synchysite-(Nd) (abstr)  | 658  |
| MEYER, C.E. see VENNUM, W.R.   | 268     | cuprohydromagnesite                 | 886       | tetrakalsilite (abstr)   | 658  |
| MEYER, H.O.A., review of <i>Geologie</i>   |         | ellisite                            | 701       | thadeuite  | 359  |
| <i>du Diamont</i> (Bardet)   | 932     | metahewittite                       | 720       | tlapallite (abstr)   | 465  |
| Micas  |         | schoderite                          | 713       | treasurite (abstr)   | 243  |
| acentricity in   | 1052    | NEWBERRY, R.J.J.: Polytypism in     |           | tucekite (abstr)   | 465  |
| Cs-dioctahedral  | 1184    | molybdenite                         | 758,768   | unnamed BaCa(CO <sub>3</sub> ) <sub>3</sub> (abstr)                          | 1332 |
| erroneous analyses   | 1311    | New Jersey                          |           | unnamed Ca carbonate-  |      |
| lattice deformation and  |         | kolicite, new mineral               | 708       | silicate (abstr)   | 658  |
| crystal energy   | 424     | lawsonbauerite, new mineral         | 949       | unnamed CaMn <sub>4</sub> Si <sub>5</sub> O <sub>15</sub> ·2H <sub>2</sub> O | 244  |
| NMR study  | 119     | New Mexico, K-feldspar in xenoliths | 912       | unnamed CaZrSi <sub>7</sub> O <sub>27</sub> (abstr)                          | 1332 |
| Millisite, free energy   | 626     | New minerals                        |           | unnamed Hg-Pb amalgam (abstr)  | 652  |
| Mineral identification in mixtures   | 902     | aleksite (abstr)                    | 652       | unnamed NaFe <sub>2</sub> (OH) (abstr)                                       | 241  |
| Mineralogical Society of America   |         | altmarkite (abstr)                  | 652       | unnamed palladium arsenide   |      |
| list of former officers  | 682     | apuanite                            | 1230      | (abstr)  | 1333 |
| list of officers and committees  | 685     | arsenuranospathite (abstr)          | 465       | unnamed tellurides (abstr)   | 1332 |
| proceedings, 59th annual   |         | bahianite (abstr)                   | 464       | uranospathite (abstr)  | 465  |
| meeting  | 676     | bartonite (abstr)                   | 241       | versiliaite  | 1230 |
| Mineralogical Society of America   |         | bazirite (abstr)                    | 241       | vikingite (abstr)  | 243  |
| Award  |         | bilibinskite (abstr)                | 652       | welshite (abstr)   | 244  |
| Presentation by D.B. Stewart   | 665     | bogdanovite (abstr)                 | 1329      | whiteite (abstr)   | 465  |
| Acceptance by J.S. Huebner   | 666     | boyleite (abstr)                    | 241,464   | wollastonite-7T (abstr)  | 658  |
| Minerals, new see New minerals   |         | brenkite (abstr)                    | 241       | xiangjiangite (abstr)  | 466  |
| MITCHELL, R.H. see PLATT, R.G.   | 546     | burckhardtite                       | 355       | ytromicrolite  | 890  |
| Mitridatite, Ethiopia  | 169     | canavesite (abstr)                  | 652       | NEWNHAM, R.E. see BISH, D.L.   | 1052 |
| MIURA, Y. and J.C. RUCKLIDGE: Ion  |         | černýite (abstr)                    | 653       | NEWTON, M.G. see PANTALEO, N.S.  | 1059 |
| microprobe analyses of exsolu-   |         | cesbronite (abstr)                  | 653       | New York, zincian Hercynite  | 736  |
| tion lamellae in peristerites  |         | chabourneite (abstr)                | 242       | NICKEL, E.H. see ROBINSON, B.W.  | 1322 |
| and cryptoperthites  | 1272    | changbaiite (abstr)                 | 242       | Nickel partitioning, between   |      |
| Molybdenite  |         | chlormanasseite (abstr)             | 1329      | olivine and silicate melt  | 1107 |
| polytypism in  | 758,768 | chrompyroaurite (abstr)             | 1329      | Nickel silicate spinels, structure   |      |
| rhenium in   | 769     | cobalt-frobergite (abstr)           | 242       | Nigerite-24R, structure  | 1255 |
| Montana  |         | cuprohydromagnesite                 | 886       | Nuclear magnetic resonance,  |      |
| clintonite   | 519     | cuproartinite                       | 886       | franklinite  | 599  |
| metamorphic rocks  | 1280    | dachiardite, Na-analogue (abstr)    | 244       | NYSTROM, P.G. JR. see  |      |
| Montdorite, new mineral (abstr)  | 1331    | desautelsite                        | 127       | McSWEEN, H.Y. JR.  | 531  |
| Montmarillonites, hydroxy-   |         | donnayite (abstr)                   | 653       | OKAMURA, F.P. see WINTER, J.K.   | 409  |
| chromium   | 830     | ellisite                            | 701       | Olivine  |      |
| MOORE, D.E. and J.G. LIU:  |         | emeleusite (abstr)                  | 242       | analyses   | 253  |
| Chessboard-twinned albite from   |         | eskimoite (abstr)                   | 243       | Ni partitioning with melt  | 1107 |
| Franciscan metaconglomerates   | 329     | ferridravite                        | 945       | OLMSTEAD, J.F.: Crystallization  |      |
| MOORE, P.B.: Memorial of Jun Ito   | 672     | friedrichite (abstr)                | 654       | history and textures of the  |      |
| _____, see KEEGAN, T.D.  | 1293    | garavellite (abstr)                 | 1329      | Rearing Pond gabbro, north-  |      |
| _____, and T. ARAKI: Magnussonite,   |         | genkinite (abstr)                   | 654       | western Wisconsin  | 844  |
| manganese arsenite, a fluorite   |         | georgeite (abstr)                   | 1330      | OLSEN, E. and C.F. LEWIS:  |      |
| derivative structure   | 390     | hydrodresserite (abstr)             | 654       | Ktenasite from Creede  | 446  |
| _____, _____: Crystal structure  |         | jixianite (abstr)                   | 1330      | Omeite, new mineral (abstr)  | 464  |
| of synthetic (NH <sub>4</sub> ) <sub>8</sub> Fe <sub>3</sub> (PO <sub>4</sub> ) <sub>6</sub> · |         | jokokuite (abstr)                   | 655       | Omphacite, cation ordering   | 102  |
| 6H <sub>2</sub> O  | 587     | kanonaite (abstr)                   | 655       | Ophiolite, East Taiwan   | 1    |
| _____, _____: Armangite, a fluor-  |         | keckite (abstr)                     | 1330      | Optical properties   |      |
| ite derivative structure   | 748     | kidwellite (abstr)                  | 242       | axinite  | 639  |
| MORIMOTO, N. see HORIUCHI, H.  | 593     | kleberite (abstr)                   | 655       | burckhardtite  | 355  |
| Mössbauer spectra  |         | klemanite (abstr)                   | 1331      | clinohypersthene   | 132  |
| calcic amphiboles  | 109     | kolicite                            | 708       | cuproartinite  | 886  |
| phyllosilicates  | 893     | lawsonbauerite                      | 945       | cuprohydromagnesite  | 886  |
| Muscovite, high-T heat capacity  | 86      | manganhumite (abstr)                | 243       | desautelsite   | 127  |
| Muscovite-chlorite intergrowths  | 151     | marićite (abstr)                    | 655       | ferridravite   | 945  |
| MYERS, J. and W.D. GUNTER: Measure-  |         | montdorite (abstr)                  | 1331      | garnet   | 270  |
| ment of oxygen fugacity  | 224     | omeite (abstr)                      | 464       | hungchaoite  | 369  |
| MYSEN, B.O.: Nickel partitioning   |         | orthobrannerite (abstr)             | 656       | kolicite   | 709  |
| between olivine and silicate   |         | ourayite (abstr)                    | 243       | lawsonbauerite   | 949  |
| melt   | 1107    | palladium arsenostannide            |           | paulmooreite   | 352  |
| _____: Trace-element partitioning  |         | (abstr)                             | 1333      | penikisite (abstr)   | 657  |
| between garnet peridotite min-   |         | parakeldyshite (abstr)              | 656       | phurcalite (abstr)   | 243  |
| erals and water-rich vapor   | 274     | paulmooreite                        | 352       | platarsite (abstr)   | 657  |
| _____, see SHARMA, S.K.  | 779     | penikisite (abstr)                  | 657       | quitite (abstr)  | 1331 |
| NAHON, D. see VIEILLARD, P.  | 626     | rajite (abstr)                      | 1331      | rojite (abstr)   | 1331 |
| NASH, W.P. see EVANS, S.H. JR.   | 249     | sabatierite (abstr)                 | 1331      | satterlyite (abstr)  | 657  |
| NELEN, J.A. see GAINES, R.V.   | 355     | sasaite (abstr)                     | 464       | sidorenkite (abstr)  | 1332 |
| Nepheline-kalsilite, coherent  |         | satterlyite (abstr)                 | 657       | faldspars  | 66   |
| solvus   | 1063    | sidorenkite (abstr)                 | 1332      | ORLANDI, P. see MELLINI, M.  | 1230 |

- Orthobrannerite, new mineral (abstr) 656
- OSWALD, S.G. and W.W. CROOK, III: Cuprohydromagnesite and cuproartinite, two new minerals from Gabbs, Nevada 886
- \_\_\_\_\_, see CROOK, W.W. III 367
- Ourayite, new mineral (abstr) 243
- Oxygen fugacity, measurement 224
- Oxygen isotope systematics 232
- PABST, A.: Schoderite, a new locality and a redescription 713
- \_\_\_\_\_, review of *Manual of the Mineralogy of Great Britain and Ireland* (Greg and Lettsom) 660
- \_\_\_\_\_, review of *Fortschritte auf dem Gebiet der Kristalchemie der Silicate* (Liebau) 934
- \_\_\_\_\_, see FLEISCHER, M. 241,464,1329
- PAGLIUCA, G. see FLAMINI, A. 229
- PALMER, T.D. see DUNN, P.J. 127
- Palygorskite, dehydration and dehydroxylation 215
- PANTALEO, N.S. and M.G. NEWTON, S.V. GOGINENI, C.E. MELTON, A.A. GIARDINI: Mineral inclusions in four Arkansas diamonds 1059
- PAPIKE, J.J. see SCHWEITZER, E.L. 501
- Parakeldyshite, new mineral (abstr) 656
- Paulmooreite, new mineral 352
- PEACOR, D.R. see DUNN, P.J. 127,352,708,949
- \_\_\_\_\_, see ISAACS, A. 359
- Pegmatites, K-feldspar in 49
- Penikisite, new mineral (abstr) 657
- Periclase, high-T heat capacity 86
- Peridotite
- high-pressure melting 1312
- melting of 470
- Peridotite-CO<sub>2</sub>-H<sub>2</sub>O system 472
- Peristerites, composition 1272
- PERKINS, D. III and E.J. ESSENE, E.F. WESTRUM, JR., V.J. WALL: New thermodynamic data for diaspore 1080
- PETERSEN, O.V. see MAZZI, F. 202
- PETERSON, J.A. see DICKSON, F.W. 701
- Petrological variation diagrams 1115
- PETTIJOHN, F.J., review of *Carbonate Facies in Geologic History* (Wilson) 1336
- Phlogopite, analyses 257
- Phosphatic sediments, Senegal 626
- Phurcalite, new mineral (abstr) 243
- Phyllosilicates, Mössbauer spectra 893
- Piemontite, synthesis and stability 317
- Pimelite-kerolite series 615
- Plagioclase
- superstructure variation 71
- twinned fourlings 917
- Platarsite, new mineral (abstr) 657
- PLATT, R.G. and R.H. MITCHELL: The Marathon Dikes. I. Zirconium-rich titanian garnets and manganese magnesian ulvöspinel-magnetite spinels 546
- POOLE, C.P. JR. see CLARK, C.O. 449
- Portugal, thadeuite 359
- POST, J.L. see GUIDOTTI, C.V. 728
- POTTER, R.M. and G.R. ROSSMAN: The tetravalent manganese oxides 1199
- \_\_\_\_\_, \_\_\_\_\_: A magnesium analogue of chalcophanite 1227
- \_\_\_\_\_, \_\_\_\_\_: Mineralogy of manganese dendrites and coatings 1219
- PREWITT, C.T. see KING, H.E. JR. 1265
- \_\_\_\_\_, see LEVIEN, L. 805
- Pseudoleucite, Brazil 733
- Pumpellyite, chemistry 4
- Pyriboles, order and disorder in 687
- Pyrope, compression of 805
- Pyrophyllite
- high-T heat capacity 86
- synthesis 1091
- Pyroxene
- analyses 254
- in ophiolite 865
- temperature-composition relationships 1133
- Pyroxene crystallization, in komatiite 856
- Pyrrhotite-biotite equilibria 312
- Quartz-coesite equilibrium 604
- Quartz-water, oxygen isotope equilibration 232
- Queitite, new mineral (abstr) 1331
- RADTKE, A.S. see DICKSON, F.W. 701
- Rajite, new mineral (abstr) 1331
- Raman spectroscopy, jadeite glass 779
- Rare-earth element partitioning 274
- Rare earths, in chevkinite 724
- Rasvumite, new data 776
- Reaction cell, hydrothermal 646
- Refractive index, measurement in thin section 440
- Reviews
- Angulo, R. (ed.): *Recursos Minerales de Colombia* (Feininger) 1335
- Baragar, W.R.A., L.C. Coleman and J.M. Hall (eds.): *Volcanic Regimes in Canada* (Simkin) 932
- Bardet, M.G.: *Geologie du Diamant* (Meyer) 932
- Brownell, W.E.: *Structural Clay Products* (Faust) 933
- Brownlow, A.H.: *Geochemistry* (Fudali) 935
- Campbell Smith, W.: *Early Mineralogy in Great Britain and Ireland* (Mason) 660
- Choy, M.M. and others: *Elastic, Piezoelectric, Pyroelectric, Electrooptic Constants, and Non-Linear Dielectric Susceptibilities of Crystals* (Mason) 936
- Cook, R.B.: *Minerals of Georgia* (White) 660
- Deer, W.A., R.A. Howie and J. Zussman: *Rock-Forming Minerals, Vol. 2A, Single-Chain Silicates* (Mason) 936
- Greg, R.P. and W.G. Lettsom: *Manual of the Mineralogy of Great Britain and Ireland* (Pabst) 660
- Holland, H.D.: *The Chemistry of the Atmosphere and Oceans* (Maynard) 246
- Reviews, cont.
- Jensen, D.E.: *Minerals of New York State* (Mason) 246
- Kimberley, M.M. (ed.): *Uranium Deposits, Their Mineralogy and Origin* (Kullerud) 937
- Klemm, D.D. and H.J. Schneider (eds.): *Time- and Strata-Bound Ore Deposits* (Barton) 933
- Liebau, F.: *Fortschritte auf dem Gebiet der Kristalchemie der Silikate* (Pabst) 934
- Lieber, W.: *Menschen, Minen, Mineralien* (Sinkankas) 1335
- Perel'man, A.I.: *Geochemistry of Elements in the Supergene Zone* (Siegel) 246
- Peters, W.C.: *Exploration and Mining Geology* (Kullerud) 247
- Picot, P. and Z. Johan: *Atlas des Mineraux Metalliques* (Craig) 937
- Pies, W. and A. Weiss: *Crystal Structure Data of Inorganic Compounds* (Mason) 247
- Piller, H.: *Microscope Photography* (Bloss) 934
- Reeves, R.D. and R.R. Brooks: *Trace Element Analysis of Geological Materials* (Jarosewich) 1335
- Smith, R.C. II: *The Mineralogy of Pennsylvania* (Fleischer) 935
- Störr, M. (ed.): *Genese des Kaolins* (Brindley) 938
- Sudo, T. and S. Shimoda (eds.): *Clay and Clay Minerals of Japan* (Brindley) 660
- van der Marel, H.W. and H. Beutelspacher: *Atlas of Infrared Spectroscopy of Clay Minerals and their Admixtures* (White) 661
- Vaughan, D.J. and J.R. Craig: *Mineral Chemistry of Metal Sulfides* (Kullerud) 935
- Weast, R.C. (ed.): *CRC Handbook of Chemistry and Physics, 59th Edition* (Mason) 248
- Wilson, J.L.: *Carbonate Facies in Geologic History* (Pettijohn) 1336
- The *Wolfson Geochemical Atlas of England and Wales* (Mason) 662
- Yoder, H.S. Jr.: *Generation of Basaltic Magma* (Simkin) 932
- Rhode Island
- chlorite 151
- muscovite 151
- RIBBE, P.H.: The structure of a strained intermediate microcline 402
- \_\_\_\_\_, \_\_\_\_\_: Titanium, fluorine, and hydroxyl in the humite minerals 1027
- \_\_\_\_\_, see LUMPKIN, G.R. 635
- RICE, J.M.: Petrology of clintonite-bearing marbles in the Boulder aureole, Montana 519
- RICHTER, W. see EVANS, B.W. 15
- ROBBINS, D.B. see GHENT, E.D. 874
- ROBIE, R.A. see KRUPKA, K.M. 86
- ROBINSON, B.W. and E.H. NICKEL: The backscattered-electron/low vacuum mode of SEM operation 1322
- Roebing Medal
- Presentation by E-an Zen 663
- Acceptance by J.B. Thompson, Jr. 664
- ROGERS, R.J. and F.H. BROWN: Authigenic mitridatite 169
- ROMANENKO, I.M. see KAZACHENKO, V.T. 432
- RÖNSBO, J.G. see MAZZI, F. 202

|  |                |  |             |   |      |
|--|----------------|--|-------------|---|------|
| ROSENBERG, P.E. and F.F. FOIT, JR.:<br>Synthesis and characterization<br>of alkali-free tourmaline<br>_____, see FOIT, F.F. JR.                                | 180<br>788     | Silica hydrates, from leached<br>silicates   | 799         | Systems, cont.<br>Tl <sub>2</sub> S-As <sub>2</sub> S <sub>3</sub>  | 704  |
| ROSS, F.K. see HOCELLA, M.F. JR.   | 337            | Silicate framework structures  | 1188        |   |      |
| ROSS, M. and J.S. HUEBNER: Temper-<br>ature-composition relationships<br>between naturally-occurring<br>augite, pigeonite, and ortho-<br>pyroxene              | 1133           | Silicate melts, compressibility  | 1075        |   |      |
| ROSSMAN, G.R. see POTTER, R.M.   | 1199,1219,1227 | Silicates, leaching of   | 799         |   |      |
| Rostite, new mineral (abstr)   | 1331           | Sillimanite, structure   | 573         |   |      |
| ROZENSON, I. and E.R. BAUMINGER,<br>L. HELLER-KALLAI: Mössbauer<br>spectra of iron in 1:1 phyllo-<br>silicates   | 893            | SIMKIN, T., review of <i>Generation<br/>of Basaltic Magma</i> (Yoder)<br>_____, review of <i>Volcanic Regimes<br/>in Canada</i> (Baragar, Coleman and<br>Hall)   | 932<br>932  | Taiwan, ophiolite   | 1    |
| RUCKLIDGE, J.C. see MIURA, Y.  | 1272           | SIMPSON, D.R.: Subsolidus rela-<br>tions between CaAl <sub>2</sub> Si <sub>2</sub> O <sub>8</sub> and<br>Ca <sub>2</sub> P <sub>2</sub> O <sub>7</sub>   | 1049        | TAKAHASHI, T. see WEAVER, J.S.  | 604  |
| Rutile, in Bushveld Complex  | 140            | SINKANKAS, J., review of <i>Menschen,<br/>Minen, Mineralien</i> (Lieber)   | 1335        | TAKEUCHI, Y. and F. MAZZI, N. HAGA,<br>E. GALLI: The crystal structure<br>of wairakite  | 993  |
| Rustumite, new data (abstr)  | 659            | SMITH, C.A. see KOMARNENI, S.  | 650         | Talc, lattice parameters  | 211  |
| RUTSTEIN, M.S.: Fibrous inter-<br>growths of cross muscovite<br>and cross chlorite   | 151            | SMITH, J.V.: Enumeration of 4-<br>connected 3-dimensional nets<br>and classification of framework<br>silicates. III. Combination of<br>heli $\chi$ , and zigzag, crankshaft<br>and saw chains with simple 2D<br>nets | 551         | TARDY, Y. see VIEILLARD, P.   | 626  |
| Sabatierite, new mineral (abstr)   | 1331           | SNOKE, A.W. and S.E. WHITNEY:<br>Relict pyroxenes from the Pres-<br>ton Peak ophiolite, Klamath<br>Mountains, California   | 865         | Tetrakalsilite, new mineral<br>(abstr)  | 658  |
| SABELLI, C. see MENCHETTI, S.  | 383            | SOKOLOVA, M.N. see CZAMANSKE, G.K.   | 776         | Thadeuite, new mineral  | 359  |
| Salmonsite, discredited mineral  | 466            | South Africa, Ti-bearing oxides  | 140         | Thermodynamic data  |      |
| Sanidine, entropy of mixing  | 57             | South Dakota, lamprophyre  | 986         | anthophyllite   | 300  |
| SANZ, J. and W.E.E. STONE: NRM<br>study of micas, II   | 119            | SPEER, J.A. see BALDASARI, A.  | 742         | enstatite   | 300  |
| Sarcosite, new data (abstr)  | 245            | Spinel, analyses   | 258         | forsterite  | 300  |
| Sasaite, new mineral (abstr)   | 464            | STARKEY, J. see KERRICH, R.  | 452         | quartz  | 300  |
| Scatterlyite, new mineral (abstr)  | 657            | Staurolite, dehydration to<br>hercynite  | 736         | talc  | 300  |
| Scanning electron microscope,<br>new technique   | 1322           | STEWART, D.B.: Presentation of the<br>Mineralogical Society of<br>America Award  | 665         | THOMPSON, A.B. and M. WENNEMER:<br>Heat capacities in tridymite,<br>cristobalite, and tridymite-<br>cristobalite mixed phases | 1018 |
| Soapolite, structure   | 1188           | Stibiopearceite, new mineral<br>(abstr)  | 243         | THOMPSON, J.B. JR.: Acceptance of<br>the Roebling Medal   | 664  |
| Schafarzskite, structure   | 1235           | Stilbite, structure  | 1188        | _____, and G.L. HOVIS: Entropy<br>of mixing in sanidine   | 57   |
| Schirmelite, new data (abstr)  | 243            | Stishovite-coesite equilibrium   | 604         | Tlapallite, new mineral (abstr)   | 465  |
| SCHMID, R. and B.J. WOOD, G.<br>CRESSEY: Experimental deter-<br>mination of univariant equi-<br>libria using divariant solid-<br>solution assemblages: a reply | 929            | STODDARD, E.F.: Zinc-rich hercynite<br>in high-grade metamorphic rocks   | 736         | Todorokite, new data (abstr)  | 1333 |
| Schoderite, redescription  | 713            | Stoiberite, new mineral  | 941         | Torreyite, X-ray diffraction data   | 951  |
| Schuchardtite, discredited<br>(abstr)  | 1334           | STONE, W.E.E. see SANZ, J.   | 119         | Tourmaline<br>synthesis   | 140  |
| SCHWEITZER, E.L. and J.J. PAPIKE,<br>A.E. BENCE: Statistical analy-<br>sis of clinopyroxenes from<br>deep-sea basalts  | 501            | STOUT, M.Z. see GHENT, E.D.  | 874         | vanadian  | 788  |
| SCLAR, C.B. see BASS, J.D.   | 1173           | STULL, R.J.: Mantled feldspars<br>and synneusis  | 514         | Tourmaline group, properties of<br>end members  | 948  |
| SCOTFORD, D.M. see LASKOWSKI, T.E.   | 440            | STURMAN, D.B. see DUNN, P.J.   | 352,708,949 | Trace-element partitioning  | 274  |
| SCOTT, S.D. see KISSIN, S.A.   | 1306           | Sulfur fugacity, measurement   | 1306        | Transmission electron microscopy  |      |
| Sealing, cold-weld   | 651            | Sweden   |             | anthophyllite   | 687  |
| Semenovite, structure  | 202            | paulmooreite   | 352         | chesterite  | 687  |
| Senegal, phosphatic sediments  | 626            | yttrionicrolite  | 890         | feldspar  | 404  |
| Senegalite, structure  | 1243           | Switzerland  |             | jimthompsonite  | 687  |
| SERNA, C.J. see VANSCHOYOC, G.E.   | 215            | albite-anorthite assemblages   | 1294        | Treasurite, new mineral (abstr)   | 243  |
| SEYFRIED, W.E. JR. and P.C. GORDON,<br>F.W. DICKSON: A new reaction<br>cell for hydrothermal solution<br>equipment   | 646            | eclogite-metarodingite suite   | 15          | TREMBATH, L.T. see CHERRY, M.E.   | 66   |
| SHARMA, S.K. and D. VIRGO, B.O.<br>MYSEN: Raman study of the coor-<br>dination of aluminum in jadeite<br>melts   | 779            | Synchysite-(Nd), new mineral<br>(abstr)  | 658         | Tridymite, heat capacity and<br>inversions  | 1018 |
| SHIRAKASHI, T. and T. KUBO: Cation<br>distribution in franklinite by<br>nuclear magnetic resonance   | 599            | Synneusis, and mantled feldspars<br>Systems  | 514         | Troilite, stability   | 1175 |
| SHMAKIN, B.M.: Composition and<br>structural state of K-feldspars<br>from some U.S. pegmatites   | 49             | Ab-H <sub>2</sub> O-HF   | 496         | TROMMSDORFF, V. see EVANS, B.W.   | 15   |
| Sidorenkite, new mineral (abstr)   | 1332           | Al <sub>2</sub> O <sub>3</sub> -AlPO <sub>4</sub> -H <sub>2</sub> O  | 1175        | TSO, J.L. and M.C. GILBERT, J.R.<br>CRAIG: Sulfidation of<br>synthetic biotites   | 304  |
| SIEGEL, F.R., review of <i>Geochemis-<br/>try of Elements in the Super-<br/>gene zone</i> (Perel'man)  | 246            | Al <sub>2</sub> O <sub>3</sub> -SiO <sub>2</sub> -H <sub>2</sub> O   | 1080        | Tucekite, new mineral (abstr)   | 465  |
|  |                | CaAl <sub>2</sub> Si <sub>2</sub> O <sub>8</sub> -Ca <sub>2</sub> P <sub>2</sub> O <sub>7</sub>  | 1049        | Turquoise, electron spin resonance  | 449  |
|  |                | Co <sub>3</sub> S <sub>4</sub> -Cu <sub>3</sub> S <sub>4</sub> -Ni <sub>3</sub> S <sub>4</sub>   | 138         | Turkey  |      |
|  |                | CoS <sub>2</sub> -FeS <sub>2</sub> -NiS <sub>2</sub>   | 138         | omphacites  | 102  |
|  |                | MgO-H <sub>2</sub> O-CO <sub>2</sub>   | 32          | veatchite   | 362  |
|  |                | MgO-MgF <sub>2</sub> -SiO <sub>2</sub> -H <sub>2</sub> O   | 1156        |   |      |
|  |                | MgO-SiO <sub>2</sub> -H <sub>2</sub> O   | 41,811      |   |      |
|  |                | MgO-SiO <sub>2</sub> -CO <sub>2</sub> -H <sub>2</sub> O  | 288         |   |      |
|  |                | NaAlSi <sub>3</sub> O <sub>8</sub> -H <sub>2</sub> O-CO <sub>2</sub>   | 1036        |   |      |

|  |         |  |         |  |
|--|---------|--|---------|--|
| Unit-cell data, cont.  |         |  |         |  |
| clinohumite  | 1159    | VALENCA, J.G. and A.D. EDGAR:          |         |  |
| clinohypersthene   | 132     | Pseudoleucites from Rio de             |         |  |
| cordierite   | 339     | Janeiro State, Brazil                  | 733     |  |
| Cs-dioctahedral mica   | 1185    | VANSCOYOC, G.E. and C.J. SERNA,        |         |  |
| cuproartinite  | 886     | J.L. AHLRICHS: Structural              |         |  |
| cuprohydromagnesite  | 886     | changes in palygorskite during         |         |  |
| CuS <sub>2</sub>   | 1265    | dehydration and dehydroxylation        | 215     |  |
| davidite   | 1011    | Variscite, free energy                 | 626     | WINTER, J.K. and S. GHOSE: Thermal   |
| desautelsite   | 127     | VAUGHAN, D.J. see CRAIG, J.R.          | 136     | expansion and high-temperature   |
| ellisite   | 701     | Veatchite-A, modification of           |         | crystal chemistry of the Al <sub>2</sub> SiO <sub>5</sub>                      |
| enstatite  | 296     | veatchite                              | 362     | polymorphs   |
| ferridravite   | 945     | VEBLEN, D.R. and P.R. BUSECK:          |         | _____, and F.P. OKAMURA, S. GHOSE:   |
| franklinite  | 599     | Chain-width order and disorder         |         | A high-temperature structural  |
| garnet   | 270,321 | in biopyriboles                        | 687     | study of high albite   |
| haidingerite   | 1253    | VENNUM, W.R. and C.E. MEYER:           |         | 409  |
| hilgardite   | 188     | Plutonic garnets from the              |         | study of high albite   |
| hornblende   | 955     | Werner batholith                       | 268     | 844  |
| hungchaoite  | 369     | Vernadite, new data (abstr)            | 1334    | Wollastonite-7T, new mineral   |
| K-feldspar   | 909,912 | Versiliaite, new mineral               | 1230    | (abstr)  |
| kolicite   | 708     | Vesuvianite, cerian                    | 367     | WOOD, B.J. see SCHMID, R.  |
| köttigite  | 376     | VIALSOV, L.N. see KAZACHENKO, V.T.     | 432     | 929  |
| krautite   | 1253    | VIEILLARD, P. and Y. TARDY,            |         | WYLLIE, P.J.: Magmas and volatile  |
| ktenasite  | 447     | D. NAHON: Stability fields of          |         | components   |
| kyanite  | 575     | clays and aluminum phosphates          | 626     | _____, see ELLIS, D.E.   |
| lawsonbauerite   | 949     | Vikingite, new mineral (abstr)         | 243     | 32,41  |
| magnussonite   | 391     | VIRGO, D. see SHARMA, S.K.             | 779     |  |
| microcline   | 402     | Wairakite, crystal structure           | 993     | Xanthoxenite, new data (abstr)   |
| nigerite-24R   | 1257    | WALENTA, K. and P.J. DUNN: Ferri-      |         | Xiangjiangite, new mineral (abstr)   |
| norbergite   | 1159    | dravite, a new mineral of the          |         | X-ray diffraction data   |
| paulmooreite   | 352     | tourmaline group                       | 945     | Ag-Pb sulfoantimonite  |
| pharmacolite   | 1253    | WALL, V.J. see PERKINS, D. III         | 1080    | 433  |
| piemontite   | 321     | WAN, C. see GHOSE, S.                  | 187,563 | apuanite   |
| plagioclase  | 404     | WAN, H.-M. see BRINDLEY, G.W.          | 615     | 1232   |
| pyrope   | 806     | WATSON, E.B.: Calcium content of       |         | auronite   |
| pyroxenes  | 1144    | forsterite                             | 824     | 1229   |
| rasvumite  | 776     | Wavellite, free energy                 | 626     | burckhardtite  |
| schafarzikite  | 1233    | WEAVER, J.S. and D.W. CHIPMAN,         |         | Ca <sub>3</sub> Al <sub>2</sub> P <sub>2</sub> Si <sub>2</sub> O <sub>15</sub> |
| schoderite   | 713     | T. TAKAHASHI: Comparison between       |         | chalcophanite  |
| sellaite   | 1159    | thermochemical and phase stabi-        |         | 1229   |
| semenovite   | 202     | lity data for the quartz-              |         | Cs-dioctahedral mica   |
| senegalite   | 1243    | coesite-stishovite transforma-         |         | 1185   |
| silicate spinels   | 1005    | tions                                  | 604     | cuproartinite  |
| sillimanite  | 575     | WEIDNER, D.J. see LEVIEN, L.           | 805     | 886  |
| stoiberite   | 941     | Welshite, new mineral (abstr)          | 244     | 129  |
| talc   | 213,296 | WENK, E.: On fourlings of plagioclase  |         | ellisite   |
| thadeuite  | 359     | twinned according to the               |         | 703  |
| tourmaline   | 180,788 | laws albite, Ala, and albite-Ala       | 917     | ferridravite   |
| veatchite-A  | 362     | WENK, H.R.: An albite-anorthite        |         | 946  |
| versiliaite  | 1233    | assemblage in low-grade amphi-         |         | hungchaoite  |
| vesuvianite  | 367     | bolite facies rocks                    | 1294    | 373  |
| wairakite  | 993     | _____: Superstructure variation        |         | kerolite   |
| witherite  | 743     | in metamorphic intermediate            |         | 1232   |
| yttromicrolite   | 890     | plagioclase                            | 71      | kolicite   |
| zircon   | 197     | WENNEMER, M. see THOMPSON, A.B.        | 1018    | 709  |
| Unnamed minerals   |         | WESTRUM, E.F. JR. see PERKINS,         |         | 447  |
| AgPb <sub>9</sub> Sb <sub>6</sub> S <sub>18.5</sub>                          | 432     | D. III                                 | 1080    | lawsonbauerite   |
| BaCa(CO <sub>3</sub> ) <sub>2</sub> (abstr)                                  | 1332    | WHIPPLE, E.R.: Errors in chemical      |         | 1229   |
| Ca carbonate-silicate (abstr)  | 658     | analyses of two titanian micas         | 1311    | 1232   |
| CaMn <sub>4</sub> Si <sub>5</sub> O <sub>15</sub> ·2H <sub>2</sub> O (abstr) | 244     | WHITE, J.S.: Boehmite exsolution       |         | 717  |
| CaZrSi <sub>2</sub> O <sub>7</sub> (abstr)                                   | 1332    | in corundum                            | 1300    | silica hydrates  |
| (Fe,Ag) <sub>x</sub> S   | 432     | _____: Lorettoite discredited and      |         | 802  |
| Hg-Pb amalgam (abstr)  | 652     | chubutite reviewed                     | 1303    | thadeuite  |
| NaFeS <sub>2</sub> (OH) (abstr)  | 241     | _____, review of <i>Minerals of</i>    |         | 360  |
| palladium arsenide (abstr)   | 1333    | <i>Georgia</i> (Cook)                  | 660     | torreyite  |
| palladium arsenostannide   |         | WHITE, W.B., review of <i>Atlas of</i> |         | 181  |
| (abstr)  | 1333    | <i>Infrared Spectroscopy of Clay</i>   |         | 364  |
| tellurides (abstr)   | 1332    | <i>Minerals and their Admixtures</i>   |         | 1232   |
| Uranospathite, new mineral   |         | (van der Marel and Beutel-             |         | 891  |
| (abstr)  | 465     | spacher)                               | 661     |  |
| U.S.S.R., ore minerals   | 432     | Whiteite, new mineral (abstr)          | 465     | YACI, T. see FINGER, L.W.  |
|  |         | WHITNEY, S.E. see SNOKE, A.W.          | 865     | 1002   |
|  |         |  |         | YAMAMOTO, K. see HORIUCHI, H.  |
|  |         |  |         | 593  |
|  |         |  |         | YAMANAKA, S. see BRINDLEY, G.W.  |
|  |         |  |         | 830  |
|  |         |  |         | Yedlin, L.N., memorial of  |
|  |         |  |         | 674  |
|  |         |  |         | Yttromicrolite, new mineral  |
|  |         |  |         | 890  |
|  |         |  |         | Zaire, cobalt-bearing sulfides   |
|  |         |  |         | 136  |
|  |         |  |         | Zeolite facies metamorphism  |
|  |         |  |         | 1  |
|  |         |  |         | ZEN, F.-AN: Presentation of the  |
|  |         |  |         | Foebing Medal  |
|  |         |  |         | 663  |
|  |         |  |         | Zircon, crystal structure,   |
|  |         |  |         | compressibility  |
|  |         |  |         | 196  |