

INDEX TO VOLUME 43

Leading articles are in **bold face** type; notes, abstracts and reviews are in ordinary type. Only minerals for which definite data are given are indexed.

Absorption for rod-shaped single crystals, correction for (Buerger, Niizeki)	726	Andreev, Y. K.....	797
Adsorption and retention of an organic material by montmorillonite in the presence of water (Brindley, Rustom)		Ankerite and dolomite, x-ray data for (Howie, Broadhurst).....	1210
Ajoite, a new hydrous aluminum copper silicate (Schaller, Vlisdjis)	1107	Anthoinitite (Niggli, Jäger).....	384
Alkali amphiboles, classification of (Miyashiro, Iwasaki) (Andreev)	797	Arduinite (=mordenite) (Davis).....	1224
Alkali feldspars: IV. The cooling history of high-temperature sodium-rich feldspars (Smith, MacKenzie)	872	Argon and helium, excess, in beryl and other minerals (Damon, Kulp).....	433
Allen, R. D., and Almond, H., Nonfibrous ulexite from the Kramer District, California.....		Arsenolamprite (=arsenic +arsenolite) (Padera, Fischer).....	1225
Almond, H., with Smith, G. L., and Sawyer, D. L. Sassolite from the Kramer borate district, California	1068	Ashby, G. E., and Kellagher, R. C. Apparatus for the study of thermoluminescence from minerals.....	695
—, with Allen, R. D. Nonfibrous ulexite from the Kramer District, California.....	169	Atchley, F. W. Low-magnification thin-section photography.....	997
Alumian (=natroalunite) (Moss)	1225	Atoms and ions in minerals, chart showing the sphere of influence of (Remick).....	166
Aluminian boride monocrystals, microhardness of (Cotter).....	781	Autenrieth, H.....	1221
Alumochalcosiderite (=aluminian chalcosiderite) (Fischer) ...	1224	Axelrod, J. M., with Milton, C., Carron, M. K., and MacNeil, F. S. Gorceixite from Dale County, Alabama.....	688
Ambramovich, Y. M.	1222	— with Milton, C., and Ingram, B. Bismutoferrite, chapmanite and "hypochlorite"...	656
Ames, L. L., and Sand, L. B. Factors effecting maximum hydrothermal stability in montmorillonites	641	(β -MnS), unnamed (Baron, Debyser).....	795
— Hydrothermal synthesis in wairakite and calcium-mordenite.....		Barbierite (=microcline) (Schneider, Laves).....	1008
Amphibole paragenesis in the Bidwell Bar region, California, significance of (Compton)	476	Baron, G.....	795
Amstutz, G. C. (Book Review) ...	890	Barton, P. B., Jr. Synthesis and properties of carnotite and its alkali analogues.....	799
Andradite-spessartite garnet from Pajsberg, Sweden (Lee)	788	Bassett, W. A. Copper vermiculites from northern Rhodesia.....	1112
	794	Bastiansen, O., with Vogt, T., and Skancke, P. Holmquistite as a rhombic amphibole.....	981
	208	Batchelorite (=muscovite) (Bothwell, Moss).....	1008
		Bates, T. F. Selected electron micrographs of clays and other fine-grained minerals (Book Review).....	1218

- Bayerite (natural) = gibbsite (Sasvari, Zalai) 626
- Beamish, F. E., with Westland, A. D. Chemical analysis of iridosmines and other platinum-metal minerals 503
- Bellite (Strunz) 798
- Beryl and other minerals, excess helium and argon in (Damon, Kulp) 433
- Beryllium content of roscherite from the Sapucaia pegmatite mine, Minas Gerais, Brazil (Lindberg) 824
- Bikitaite additional data on (Hurlbut) 768
- Biotite, chlorine-rich, from Lemhi County, Idaho (Lee) 107
- Bismutoferrite, chapmanite and "hypochlorite" (Milton, Axelrod, Ingram) 626, 656
- Bismutomicrolite (Zalashkova, Kukharchik) 1223
- Blade, L. V. 1006
- , with Rose, H. J., Jr., and Ross, M. Earthy monazite at Magnet Cove, Arkansas 995
- Blix, R. 387
- Bonattite (Garavelli) 180
- Bonchevite (Kostov) 1221
- Bose, M. K. Goethite-hematite relation 989
- Bothwell, D. I. 1008
- Branche, G. 180
- Braune, G. 1221
- Breger, I. A. (Book Review) 788
- Breislakite (= vonsenite) (Federico) 626
- Brindley, G. W., and Rustom, M. Adsorption and retention of an organic material by montmorillonite in the presence of water 627
- Broadhurst, F. M., with Howie, R. A. X-ray data for dolomite and ankerite 1210
- Bruyerite (Tacnet) 624
- Buckle, E. R., and Taylor, H. F. W. Calcium analogue of chondrodite 818
- Buerger, M. J., and Kennedy, G. C. Improved specimen holder for the focusing-type x-ray spectrometer 756
- , and Niizeki, N. Correction for adsorption for rod-shaped single crystals 726
- Bunting, E. N., and Van Valkenburg, A. Some properties of diamond 102
- Burst, J. F. Mineral heterogeneity in "glaucosite" pellets 481
- Bur'yanova, E. Z. 623
- Butkovich, T. R. Hardness of single ice crystals 48
- Cadmoselite (Bur'yanova, Kovalev, Komkov) 623
- Caillère, S. 1223
- Calcite, melting of in the presence of water and carbon dioxide (Paterson) 603
- Calcium-mordenite and wairakite, hydrothermal synthesis in (Ames, Sand) 476
- Carnotite, synthesis and properties and its alkali analogues (Barton) 799
- Carr, R. M., and Fyfe, W. S. Some observations on the crystallization of amorphous silica 908
- Carron, M. K., with Glass, J. J., Evans, H. T., Jr., and Hildebrand, F. A. Cerite from Mountain Pass, San Bernardino County, California 460
- , with Milton, C., MacNeil, F. S., and Axelrod, J. M. Gorceixite from Dale County, Alabama 688
- , Mrose, M. E., and Murata, K. J. Relation of ionic radius to structures of rare-earth phosphates, arsenates and vanadates 985
- Célébonovic, S. The Living Rocks (Book Review) 177
- Cerite from Mountain Pass, San Bernardino County, California (Glass, Evans, Carron, Hilde-

- brand)..... 460
 Chalmers, R. A..... 624
 Chantret, F..... 180
 Chao, E. C. T., with Milton, C.
 Eskolaite in "merumite" from
 British Guiana..... 1203
 Chapmanite, bismutoferrite, and
 "hypochlorite" (Milton, Axel-
 rod, Ingram)..... 656
 Chapmanite, bismutoferrite, hypo-
 chlorite (Milton, Axelrod, In-
 gram)..... 626
 Chayes, F. Memorial of Samuel
 James Shand..... 317
 Chemical Engineering in the Coal
 Industry (F.W. Sharpley, Ed.)
 (Book Review)..... 788
 Chernikov, A. A..... 383
 Chondrodite, calcium analogue of
 (Buckle, Taylor)..... 818
 Chlorine in serpentined dunite
 (Earley)..... 148
 Chlorite, chromium, structural and
 chemical variation in (Lap-
 ham)..... 921
 Chlorite, white, from Cobargo,
 N.S.W. (Loughnan, See)..... 671
 Chlorites, synthesis of, and their
 structural and chemical con-
 stitution (Nelson, Roy)..... 707
 Christ, C. L., with Ross, M. Min-
 eralogical applications of elec-
 tron diffraction..... 1157
 Chrome mica-clay, Temple Moun-
 tain, Utah (Kerr, Hamilton)..... 34
 Chromian muscovite from Baker
 Mountain, Virginia (Dietrich)..... 162
 Cipriani, C..... 378
 Clay-carbonate-soluble salt inter-
 action during differential ther-
 mal analysis (Martin)..... 649
 Coeruleolactite (=Ca analogue of
 turquois) (Fischer)..... 1224
 Coffinite, thorite and uranothorites,
 synthetic, x-ray studies of
 (Fuchs, Gebert)..... 243
 Cohen, A. J., and Rice, R. V. New
 method for orienting electron
 microscope replicas..... 25
 — and Sumner, G. G. Rela-
 tionships among impurity con-
 tents, color centers and lattice
 constants in quartz..... 58
 Combeite (Sahama, Hytönen)..... 791
 Compton, R. R. Significance of
 amphibole paragenesis in the
 Bidwell Bar region, California..... 890
 Comuccite (=jamesonite) (Gar-
 velli)..... 1225
 Concise International Dictionary
 of Mechanics and Geology
 (Book Review)..... 1004
 Constitution of Binary Alloys.
 (Hansen) (Book Review)..... 1217
 Copper vermiculites from northern
 Rhodesia (Bassett)..... 1112
 Corey, A. S., with Gross, E. B.,
 Mitchell, R. S., and Walenta,
 K. Heinrichite and metahein-
 richite, hydrated barium ura-
 nyl arsenate minerals..... 1134
 Corwin, J. F., with White, J. F.,
 and Shaw, E. R. A chalcedony-
 like variety of germania, GeO_2 580
 Cotter, P. G. Microhardness of
 aluminum boride monocrystals..... 781
 Crandallite (pseudowavellite) from
 Gardner Mine Ridge, Law-
 rence County, Indiana (Green-
 berg, Elberty)..... 983
 Cuspидine, synthetic (Van Valken-
 burg, Rynders)..... 1195
 Dahllite pseudomorphs after pyrite
 concretions (Mitchell, Sher-
 wood)..... 600
 Damon, P. E., and Kulp, J. L. Ex-
 cess helium and argon in beryl
 and other minerals..... 433
 D'Ansite (Autenrieth, Braune)..... 1221
 Davis, R. J..... 1224
 Day, G., with Sabine, P. A., and
 Rowe, R. H. Device for pre-
 cisely controlling an iris dia-
 phragm..... 784
 Debysier, J..... 795
 De Las Casas, F..... 794
 Denning, R. M. (Book Reviews) 618, 622
 Diamond, some properties of
 (Bunting, Van Valkenburg).... 102

- Dietrich, R. V. Chromian muscovite from Baker Mountain, Virginia..... 162
- Differential Thermal Investigation of Clays (Mackenzie, Ed.) (Book Review)..... 617
- Digenite, Cu_9S_5 , crystal and twin structure of (Donnay, Donnay, Kullerud)..... 228
- Discredited minerals..... 626, 1008, 1224
- Dolomite and ankerite, x-ray data for (Howie, Broadhurst)..... 1210
- Dolomonova, E. I..... 386
- Donnay, G. (Book Review)..... 376
- , Donnay, J. D. H., and Kullerud, G. Crystal and twin structure of digenite, Cu_9S_5 228
- Donnay, J. D. H. (Book Review)..... 376
- , with Donnay, G., and Kullerud, G. Crystal and twin structure of digenite Cu_9S_5 228
- Douglass, R. M. Crystal structure of sanbornite, BaSi_2O_5 517
- Duffin, W. J..... 384
- Earley, J. W. On chlorine in serpentinized dunite..... 148
- Einführung in die Kristallographie (Kleber) (Book Review)..... 788
- Eitel, W..... 626
- Elberty, W. T., with Greenberg, S. S. Crandallite (pseudowavelite) from Gardner Mine Ridge, Lawrence County, Indiana..... 983
- Electron diffraction, mineralogical applications of (Ross, Christ)..... 1157
- Electron microscope replicas, new method for orienting (Rice, Cohen)..... 25
- Emerson, D. O. Stage for macro point counting..... 1000
- English, G. L., and Jensen, D. E. Getting Acquainted with Minerals. 2d ed. (Book Review)..... 1217
- Eosphorite-childrenite series, optics of (Winchell)..... 765
- Erdelyi, J..... 1222
- Eskolaite, a new chromium mineral (Kouvo, Vuorelainen)..... 1098
- Eskolaite in "merumite" from British Guiana (Milton, Chao)..... 1203
- Evans, H. T., Jr..... 385
- (Book Review)..... 787
- , with Glass, J. J., Carron, M. K., and Hildebrand, F. A. Cerite from Mountain Pass, San Bernardino County, California..... 460
- Fahey, J. J..... 625
- Faick, J. N., and Hildebrand, F. A. An occurrence of molybdenian stolzite in Arizona..... 156
- Faust, G. T. (Book Reviews)..... 178, 616, 617
- Federico, M..... 626
- Ferroelectricity in Crystals (Megaw) (Book Review)..... 787
- Ferutite (Getseva, Savel'eva)..... 382
- Fischer, E..... 1224
- Fisher, D. J. Pegmatite phosphates and their problems..... 181
- Addendum to the pegmatite phosphates..... 609
- Note on lithiophosphate... 761
- Refractometer perils..... 777
- , and Runner, J. J. Morinite from the Black Hills.... 585
- Fleischer, M. Memorial of Benno Wasserstein..... 331
- , New mineral names..... 180, 378, 623, 790, 1006, 1219
- (Book Review)..... 616
- Flokite (=mordenite) (Davis).... 1224
- Foshagite:composition,unitcell and dehydration (Gard, Taylor) .. 1
- Foster, L. M., Long, G., and Stumpf, H. S. Production of graphite single crystals by thermal decomposition of aluminum carbide..... 285
- Francevillite (Branche, Ropert, Chantret, Mornignat, Pouget). 180
- Frenzel, G..... 1219
- Frolovite (Petrova)..... 385
- Frondel, C..... 793
- Fuchs, L. H. Formation and properties of synthetic thorite crystals..... 367

—, and Gebert, E. X-ray studies of synthetic coffinite, thorite and uranothorites....	243	Over, E. Yttrium-bearing pegmatite body near Lake George, Park County, Colorado.....	991
Fyfe, W. S., with Carr, R. M. Some observations on the crystallization of amorphous silica...	908	"Glaucosite" pellets, mineral heterogeneity in (Burst).....	481
Gabrielson, O.....	387	Goethite-hematite relation (Bose).....	989
Garavelli, C. L.....	1225	Goldsmith, J. R., and Graf, D. L.	
Gard, J. A.....	624	Relation between lattice constants and composition of the Ca-Mg carbonates.....	84
—, and Taylor, H. F. W. Foshagite: composition, unit cell and dehydration.....	1	Goniometer head, double arc, for crystal orientation, sawing and grinding (Giardini).....	370
Garnet, composition and physical properties of (Winchell).....	595	Goodman, N. R.....	791
Gebert, E., with Fuchs, L. H. X-ray studies of synthetic coffinite, thorite and uranothorites....	243	Goodyear, J.....	384
Geffroy, J.....	792	Gorceixite from Dale County, Alabama (Milton, Axelrod, Carron, MacNeil).....	688
Geier, B. H.....	1006	Gorceixite, occurrence in Arkansas (Young).....	762
Gelbertrandite, spherobertrandite (Semenov).....	1219	Gotman, Y. D.....	1007
Gerasimovskite (niobobelyankinite), mangano-belyankinite (Semenov).....	1220	Götzenite (Sahama, Hytönen)....	790
Germania, GeO_2 , a chalcedony-like variety (White, Shaw, Corwin)	580	Gradwell, R. A simple fusion method for determination of plagioclase feldspar from thin section.....	368
Getseva, R. V.....	378	Graf, D. L., with Goldsmith, J. R.	
Getting Acquainted with Minerals. 2d ed. (English, Jensen) (Book Review).....	1217	Relation between lattice constants and composition of the Ca-Mg carbonates.....	84
Giannini, W. F., with Mitchell, R. S. Natrojarosite from near the Montana-Wyoming line..	1205	Graphite single crystals, production by thermal decomposition of aluminum carbide (Foster, Long, Stumpf).....	285
Giardini, A. A. Double arc goniometer head for crystal orientation, sawing and grinding..	370	Greenberg, S. S., and Elberty, W. T. Crandallite (pseudowavellite) from Gardner Mine Ridge, Lawrence County, Indiana.....	983
— Piezobirefringence in silicon.....	249	Grigor'ev, I. F.....	386
— Study of the directional hardness in silicon	957	Gross, E. B., Corey, A. S., Mitchell, R. S., and Walenta, K. Heinrichite and metaheinrichite, hydrated barium uranyl arsenate minerals.....	1134
Gillespite, leached, a sheet silicate, structure of (Pabst)	970	Guillemain, C.....	796
Giulekhite (Khalifa-Zade).....	1223	Guinier camera, multiple, application in clay mineral studies (Porrenga).....	770
Glass, J. J., Evans, H. T., Jr., Carron, M. K., and Hildebrand, F. A. Cerite from Mountain Pass, San Bernardino County, California...	460		
—, Rose, H. J., Jr., and			

Häggite (Evans, Mrose)	385	with special reference to tapiolite from southern Westland, New Zealand	112
Hallimond, A. F. Manual of the Polarizing Microscope (Book Review)	616	Hydroparagonite (Erdelyi, Koblencz, Tolnay)	1222
Hamilton, P. K., with Kerr, P. F. Chrome mica-clay, Temple Mountain, Utah	34	"Hypochlorite," bismutoferrite and chapmanite (Milton, Axelrod, Ingram)	656
Hansen, M. Constitution of Binary Alloys. (Book Review)	1217	Hypochlorite, bismutoferrite, chapmanite (Milton, Axelrod, Ingram)	626
Hayase, K.	623	Hytönen, K.	790, 791, 795
Hayes, E. T. (Book Review)	1218	—, with Sahama, T. G. Calcium-bearing magnesium-iron olivines	862
Heating stage, liquid, a new low-temperature (Virgin, Massoni)	606		
Heide, F. Kleine Meteoritekunde (Book Review)	177		
Heinrich, E. Wm. (Book Reviews)	177, 1004		
Heinrichite and metatheinrichite, hydrated barium uranyl arsenate minerals (Gross, Corey, Mitchell, Walenta)	1134	Ice crystals, single, hardness of (Butkovich)	48
Helium and argon, excess, in beryl and other minerals (Damon, Kulp)	433	Idaite (Frenzel)	1219
Hénin, S.	1223	Indergand, P.	1008
Hessenbergite (=bertrandite) (Parker, Indergand)	1008	Índice Alfabético Para el Diccionario Minero (Español, Francés, Alemán Y Ruso) (Novitzky) (Book Review)	1004
Hildebrand, F. A., with Faick, J. N. Au occurrence of molybdenian stolzite in Arizona	156	Ingerson, E. (Book Reviews)	176, 177, 376, 1004, 1217
—, with Glass, J. J., Evans, H. T., Jr., and Carron, M. K. Cerite from Mountain Pass, San Bernardino County, California	460	Ingram, B., with Milton, C., and Axelrod, J. M. Bismutoferrite, chapmanite and "hypochlorite"	656
Holmquistite as a rhombic amphibole (Vogt, Bastiansen, Skancke)	981	Inyoite at Laguna Salinas, Peru, first known occurrence in a playa (Muessig)	1144
Hooker, M.	624	Ionic radius, relation to structures of rare-earth phosphates, arsenates and vanadates (Carron, Mrose, Murata)	985
Horobetsuite (Hayase)	623	Iridosmines and other platinum-metal minerals, chemical analysis of (Westland, Beamish)	503
Howie, R. A., and Broadhurst, F. M. X-ray data for dolomite and ankerite	1210	Irignite (Soboleva, Pudovkina)	379
Hunt, W. F. Acceptance of the Roebling Medal	336	Iris diaphragm, device for precisely controlling (Sabine, Rowe, Day)	784
Huntite from Tea Tree Gully, South Australia (Skinner)	159	Iron-alabandite (Ramdohr)	378
Hurlbut, C. S., Jr. Additional data on bikitaite	768	Iron Ore Beneficiation (Roe) (Book Review)	376
Hutton, C. O. Notes on tapiolite,		Isogyres in interference figures (Kamb)	1029
		Iwasaki, M.	797

Jäger, E.....	384	type structures: A proposed boundary-structure model.....	263
Jagoite (Blix, Gabrielson, Wickman).....	387	Komkov, A. I.....	623
Jasmund, K. Die Silikatischen Tonmineralen (Book Review).....	178	Kopchenova, E. V.....	383
Jensen, D. E., with English, G. L. Getting Acquainted with Minerals. 2d ed. (Book Review).....	1217	Kopp, O. C., and Kerr, P. F. Differential thermal analysis of pyrite and marcasite.....	1079
Johan, Z.....	794	——— Differential thermal analysis of sphalerite.....	732
Kalita, A. P.....	797	Kostov, I.....	1221
Kamb, W. B. Isogynes in interference figures.....	1029	Koutekite (Johan).....	794
Kazakova, M. E.....	792	Kouvo, O., and Vuorelainen, Y. Eskolaite, a new chromium mineral.....	1098
Keith, M. L., with Van Hook, H. J. The system $\text{Fe}_3\text{O}_4\text{-Mn}_3\text{O}_4$	69	Kovalev, G. A.....	623
Kellagher, R. C., with Ashby, G. E. Apparatus for the study of thermoluminescence from minerals	695	Krutetskaya, O. V.....	383
Kelly, W. C. (Book Review).....	178	Kukharchik, M. V.....	1223
Kennedy, G. C., with Buerger, M. J. Improved specimen holder for the focusing-type x-ray spectrometer	756	Kullerud, G., with Donnay, G., and Donnay, J. D. H. Crystal and twin structure of digenite, Cu_2S_5	228
Kerr, P. F. Memorial of Austin Flint Rogers.....	310	Kulp, J. L., with Damon, P. E. Excess helium and argon in beryl and other minerals	433
———, and Hamilton, P. K. Chrome mica-clay, Temple Mountain, Utah	34	Kupa, F.....	792
———, with Kopp, O. C. Differential thermal analysis of pyrite and marcasite	1079	Kutina, J. Memorial of František Slavík	325
——— Differential thermal analysis of sphalerite	732	Laboratory Manual of Crystallography for Students of Mineralogy and Geology (Tunell, Murdoch)(Book Review).....	618
Késterite (Orlova)	1222	Lapham, D. M. Structural and chemical variation in chromium chlorite	921
Kettnerite (Zak, Syneček)	385	Larsen, E. S., 3rd. Memorial of John Charles Rabbitt	307
Khalifa-Zade, Ch. M.....	1223	Lattice constants and composition of the Ca-Mg carbonates, relation between (Goldsmith, Graf)	84
Khapaev, I. A.....	1007	Laves, F.....	1008
Kinneyite (Milton, Blade)	1006	Lee, D. E. An andradite-spessartite garnet from Pajsberg, Sweden	208
Kirschsteinite (Sahama, Hytönen)	790	——— A chlorine-rich biotite from Lemhi County, Idaho	107
Kleber, W. Einführung in die Kristallographie (Book Review)	788	Leonard, B. F.....	793
Kleine Meteoritekunde. 2d ed. (Heide) (Book Review)	177	Lermontovite (Soboleva, Pudovkina)	379
Koblencz, V.....	1222		
Kobokobite (Thoreau)	795		
Kohn, J. A. Twinning in diamond-			

- Leucite nepheline dolerite of Meiches, Vogelsberg, Hessen (Tilley)..... 758
- Lindberg, M. L. Beryllium content of roscherite from the Sapucaia pegmatite mine, Minas Gerais, Brazil..... 824
- Lithiophosphate, note on (Fisher). Living Rocks (Célébonovic) (Book Review)..... 177
- Lodochnikite (Gotman)..... 1007
- Lodochnikite (Soboleva, Pudovkina)..... 380
- Long, G., with Foster, L. M., and Stumpf, H. S. Production of graphite single crystals by thermal decomposition of aluminum carbide..... 285
- Losert, J..... 792
- Louderback, George Davis, memorial of (Pabst)..... 297
- Loughnan, F. C., and See, G. T. White chlorite from Cobargo, N. S. W..... 671
- MacKenzie, W. S., with Smith, J. V. Alkali feldspars: IV. The cooling history of high-temperature sodium-rich feldspars..... 872
- MacNeil, F. S., with Milton, C., Axelrod, J. M., and Carron, M. K. Gorceixite from Dale County, Alabama..... 688
- Macro point counting, stage for (Emerson)..... 1000
- Magak'Yan, I. G..... 1223
- Magnetic susceptibilities of minerals in the Frantz Isodynamic separator (Rosenblum)..... 170
- Manganese silicate, unnamed (Smirnov)..... 793
- Mangano-belyankinitite (Semenov)..... 1220
- Manual of the Polarizing Microscope (Hallimond) (Book Review)..... 616
- Marcasite and pyrite, differential thermal analysis of (Kopp, Kerr)..... 1079
- Martin, R. T. Clay-carbonate-solu-
- ble salt interaction during differential thermal analysis..... 649
- Mason, B..... 1008
- Massoni, C. J., with Virgin, W. W., Jr. A new low-temperature, liquid heating stage..... 606
- Mathieson, A. M. Mg-vermiculite: a refinement and re-examination of the crystal structure of the 14.36 Å phase..... 216
- McConnell, D. The so-called "oxygen excess"..... 786
- (Book Review)..... 619
- and Murdoch, J. Crystal chemistry of scawtite..... 498
- McLachlan, D., Jr. X-ray Crystal Structure (Book Review)..... 620
- Meen, V. B. Memorial of Arthur Leonard Parsons..... 302
- Megaw, H. D. Ferroelectricity in Crystals (Book Review)..... 787
- Melkov, V. G..... 1008
- , with Thompson, M. E., and Roach, C. H. Sherwoodite, a mixed vanadium(IV)-vanadium(V) mineral from the Colorado Plateau..... 749
- Simplotite, a new quadrivalent vanadium mineral from the Colorado Plateau..... 16
- Mg-Al oxides and silicates, physical properties and bond type in (Verhoogen)..... 552
- Mg-vermiculite: a refinement and re-examination of the crystal structure of the 14.36 Å phase (Mathieson)..... 216
- Milton, C..... 1006
- (Book Review)..... 1217
- , Axelrod, J. M., Carron, M. K., and MacNeil, F. S. Gorceixite from Dale County, Alabama..... 688
- , Axelrod, J. M., and Ingram, B. Bismutoferrite, chapmanite and "hypochlorite".... 656
- , and Chao, E. C. T. Eskolaite in "merumite" from British Guiana 1203
- Mineralogical Society of America

- Award, acceptance of (Roy). 346
Mineralogical Society of America
 Award, presentation to Rustum Roy (Osborn) 344
Mineralogical Society of America,
 proceedings of the thirty-eighth annual meeting at Atlantic City, New Jersey 349
 List of papers of special mineralogical interest presented at annual meeting 362
 List of fellows and members 388
Minerologische Tabellen (Strunz)
 (Book Review) 619
Minéraux D'uranium du Haut Katanga (Vaes, Guillemin, Destas) (Book Review) 1218
 Mitchell, R. S., and Giannini, W. F.
 Natrojarosite from near the Montana-Wyoming line 1205
 ——, with Gross, E. B., Corey, A. S., and Walenta, K. Heinrichite and metaheinrichite, hydrated barium uranyl arsenate minerals 1134
 —— and Sherwood, W. C.
 Dahhlite pseudomorphs after pyrite concretions 600
 Miyashiro, A. 797
 Moluranite (Soboleva, Pudovkina) 380
 Molybdenian stolzite, an occurrence in Arizona (Faick, Hildebrand) 156
 Monazite, earthy, at Magnet Cove, Arkansas (Rose, Blade, Ross) 995
Montmorillonites, factors effecting maximum hydrothermal stability in (Ames, Sand) 641
 Morniat, B. 180
Morinite from the Black Hills (Fisher, Runner) 585
 Moss, A. A. 1008, 1225
 Mountain, E. D. 624
 Mountaintite, Rhodesite (Mountain) (Gard, Taylor, Chalmers) 624
 Mrose, M. E. 385
 ——, with Carron, M. K., and Murata, K. J. Relation of ionic radius to structures of rare-earth phosphates, arsenates and vanadates 985
Muessig, S. First known occurrence of inyoite in a playa, at Laguna, Peru 1144
 Murata, K. J., with Carron, M. K., and Mrose, M. E. Relation of ionic radius to structures of rare-earth phosphates, arsenates and vanadates 985
Murdoch, J. Phosphate minerals of the Borborema pegmatites. II. Boqueirão 1148
 ——, with McConnell, D. Crystal chemistry of scawtite 498
 ——, with Tunell, G. Laboratory Manual of Crystallography for Students of Mineralogy and Geology (Book Review) 618
 Nakaya, U. Snow Crystals, Natural and Artificial (Book Review) 622
 Natrojarosite from near the Montana-Wyoming line (Mitchell, Giannini) 1205
 Nelson, B. W., and Roy, R. Synthesis of chlorites and their structural and chemical constitution 707
 Nendo-Kobutso (Clay Minerals) (Sudo) (Book Review) 1217
 Nepheline, natural, a complex form from Iivaara, Finland (Sahama) 165
 New data 384, 626, 795, 1223
 New mineral names 180, 378, 623, 790, 1006, 1219
 Niggli, E. 384
 Niizeki, N., with Buerger, M. J. Correction for absorption for rod-shaped single crystals 726
 Nioboloparite (Tikhonenkov, Kazakova) 792
 Novak, F. 792
 Novitzky, A. Índice Alfabético Para el Diccionario Minero (Español, Francés, Alemán Y Ruso) (Book Review) 1004
 —— Tables for the Microscopic

and X-ray Determination of the Opaque Minerals ("Tablas Para la Determinación Microscópica y Rayos X de Minerales Opacos") (Book Review).....	176	Petrova, E. S.	385
Obruchevite (Getseva, Savel'eva).....	380	Phosphate minerals of the Borborema pegmatites. II. Boqueiro (Murdoch)	1148
Obruchevite (Kalita).....	797	Physics and Chemistry of the Earth (Book Review)	616
Olivine and orthopyroxene in basic lavas and shallow intrusions, alteration of (Wilshire).....	120	Pierrot, R.	796
Olivines, calcium-bearing magnesian-um-iron (Sahama, Hytönen).....	862	Plagioclase, heated, optical properties of (Smith)	1179
Orcel, J.	1223	Plagioclase feldspar, a simple fusion method for determination from thin section (Gradwell)	368
Ordite (Ambramovich).....	1222	Plagioclase feldspars, effect of temperature, structural state and composition on the albite, pericline and acline-A twins of (Smith)	546
Organov, N. I.	383	Planerite (=cuprian coeruleolactite and calcian turquoise) (Fischer).....	1224
Orlite (Soboleva, Pudovkina).....	381	Platinum-metal minerals, chemical analysis of (Westland, Beamanish)	503
Orlova, Z. V.	1222	Porrenya, D. H. Application of multiple Guinier camera in clay mineral studies	770
Orthochamosite (Novak, Vtelen-sky, Losert, Kupa, Valcha)....	792	Potassium "fixation" by expandable clay minerals derived from muscovite, biotite, chlorite and volcanic material, effects of geologic significance of (Weaver)	839
Osborn, E. F. Presentation of the Mineralogical Society of America Award to Rustum Roy	344	Pouget, R.	180
Over, E., with Glass, J. J., and Rose, H. J., Jr. Yttrium-bearing pegmatite body near Lake George, Park County, Colorado.....	991	Przhevalskite (Soboleva, Pudovkina).....	381
"Oxygen excess," so-called (McConnell).....	786	Ptilolite, Flokite, Arduinitite (all =mordenite) (Davis).....	1224
Pabst, A. Memorial of George Davis Louderback	297	Pudovkina, I. A.	378
— The structure of leached gillespite, a sheet silicate.....	970	Pukhal'skii, L. C.	1008
— (Book Review).....	620	Pyrite and marcasite, differential thermal analysis of (Kopp, Kerr)	1079
Padera, K.	1225		
Parapitchblende (Geffroy, Sarcia).....	792		
Parker, R. L.	1008		
Parsons, Arthur Leonard, memorial of (Meen)	302		
Paterson, M. S. Melting of calcite in the presence of water and carbon dioxide.....	603	Quartz, relationships among impurity contents, color centers and lattice constants in (Cohen, Sumner)	58
Pegmatite phosphates, addendum to (Fisher).....	609		
Pegmatite phosphates and their problems (Fisher)	181	Rabbitt, John Charles, memorial of (Larsen)	307

- Ramdohr, P. 378, 794
- Ramsdell, L. S.** Presentation of the Roebling Medal to Walter F. Hunt 334
—, Book Reviews 1218
- Ranite (=gonnardite) (Mason) 1008
- Refractometer perils (Fisher) 777
- Reinerite (Strunz, Söhnge, Geier) 1006
- Remick, J. H. Chart showing the sphere of influence of atoms and ions in minerals
— (Book Review)
- Revoredite (Amstutz, Ramdohr, De Las Casas)
- Rhodesite, Mountainite (Mountain) (Gard, Taylor, Chalmers)
- Rice, R. V., and Cohen, A. J.** New method for orienting electron microscope replicas
- Rinkite, johnstrupite, rinkolite, lovchorrite, and calcium rinkite (all =mosandrite) (Slepnev) (Sahama, Hytönen) 795
—, with Thompson, M. E., and Meyrowitz, R. Sherwoodite, a mixed vanadium(IV)-vanadium(V) mineral from the Colorado Plateau 749
- Simplotite, a new quadrivalent vanadium mineral from the Colorado Plateau
- Roe, L. A. Iron Ore Beneficiation (Book Review)
- Roebling Medal, acceptance of (Hunt) 336
- Roebling Medal, presentation to Walter F. Hunt (Ramsdell) 334
- Rogers, Austin Flint, memorial of (Kerr) 310
- Ropert, M. E. 180
- Roscherite from the Sapucaia pegmatite mine, Minas Gerais, Brazil, beryllium content of (Lindberg) 824
- Rose, A. J. Tables Permettant le Dépouillement des Diagrammes de Rayons X et Abaques de Réglage des Monochromateurs à Lame Courbe (Book Review) 376
- Rose, H. J., Jr., Blade, L. V., and Ross, M. Earthy monazite at Magnet Cove, Arkansas 995
—, with Glass, J. J., and Over, E. Yttrium-bearing pegmatite body near Lake George, Park County, Colorado 991
- Rosenblum, S. Magnetic susceptibilities of minerals in the Frantz Isodynamic magnetic separator 170
- Ross, C. S.** Welded tuff from deep-well cores from Clinch County, Georgia 537
- Ross, M., and Christ, C. L.** Mineralogical applications of electron diffraction 1157
—, with Rose, H. J., Jr., and Blade, L. V. Earthy monazite at Magnet Cove, Arkansas 995
- Rowe, R. H., with Sabine, P. A., and Day, G. Device for precisely controlling an iris diaphragm 784
- Roy, D. M.** System $\text{CaO}-\text{Al}_2\text{O}_3-\text{SiO}_2-\text{H}_2\text{O}$ IV: Phase equilibria in the high lime portion of the system $\text{CaO}-\text{SiO}_2-\text{H}_2\text{O}$ 1009
- Roy, H.** Acceptance of the Mineralogical Society of America Award 346
—, with Nelson, B. W. Synthesis of chlorites and their structural and chemical constitution 707
- Runner, J. J., with Fisher, D. J. Morinite from the Black Hills 585
- Rustom, M., with Brindley, G. W. Adsorption and retention of an organic material by montmorillonite in the presence of water 627
- Rynders, G. F., with Van Valkenburg, A. Synthetic cuspidine 1195
- Sabine, P. A., Rowe, R. H., and Day, G. Device for precisely controlling an iris diaphragm 784
- Saha, P., and Smith, J. B. The

- structure and properties of natural and synthetic minerals 174
 Sahama, T. G. A complex form of natural nepheline from Iivaara, Finland..... 165
 ———— 790, 791, 795
 ————, and Hytönen, K. Calcium-bearing magnesium-iron olivines..... 862
 Sanbornite, BaSi₂O₅, crystal structure of (Douglass)..... 517
 Sand, L. B., with Ames, L. L. Factors effecting maximum hydrothermal stability in montmorillonites..... 641
 ———— Hydrothermal synthesis in wairakite and calcium-moromite..... 476
 Santafeite (Sun, Weber)..... 623
 Santafeite, a new hydrated vanadate from New Mexico (Sun, Weber)..... 677
 Sarcia, J. A..... 792
 Sassolite, new occurrences in the United States (Smith)..... 1204
 Sassolite from the Kramer borate district, California (Smith, Almond, Sawyer)..... 1068
 Sasvari, K..... 626
 Savel'eva, K. T..... 378
 Sawyer, D. L., with Smith, G. L., and Almond, H. Sassolite from the Kramer borate district, California..... 1068
 Sborgite (Cipriani)..... 378
 Scarbroite (Duffin, Goodyear).... 384
 Scawtite, crystal chemistry of (McConnell, Murdoch)..... 498
 Schaller, W. T., and Vlisdidas, A. C.
 Ajoite, a new hydrous aluminum copper silicate..... 1107
 Schneider, T. R..... 1008
 Schuilingite (Guillemin, Pierrot) .. 796
 See G. T., with Loughnan, F. C.
 White chlorite from Cobargo, N.S.W..... 671
 Semenov, E. I..... 1219, 1220
 Selected Electron Micrographs of Clays and Other Fine-grained Minerals. (Bates) (Book Re- view) 1218
 Serpentine minerals, characterization of (Whittaker, Zussman)..... 917
 S. James Shand Memorial Volume. (Taljaard, M. S., Editor.) (Book Review)..... 178
 Shand, Samuel James, memorial of (Chayes)..... 317
 Shaw, E. R., with White, J. F., and Corwin, J. F. A chalcedony-like variety of germania, GeO₂ 580
 Sherwood W. C., with Mitchell, R. S. Dahllite pseudomorphs after pyrite concretions..... 600
 Sherwoodite, a mixed vanadium-(IV)-vanadium(V) mineral from the Colorado Plateau (Thompson, Roach, Meyrowitz)..... 749
 Silica, amorphous, some observations on the crystallization of (Carr, Fyfe)..... 908
 Silicon, piezobirefringence in (Giardini)..... 249
 Silicon, study of the directional hardness in (Giardini)..... 957
 Silikatischen Tonminerale, 2d ed. (Jasmund) (Book Review).... 178
 Simplotite, a new quadrivalent vanadium mineral from the Colorado Plateau (Thompson, Roach, Meyrowitz)..... 16
 Skancke, P., with Vogt, T., and Bastiansen, O. Holmquistite as a rhombic amphibole..... 981
 Skinner, B. J. Huntite from Tea Tree Gully, South Australia.. 159
 Skvortsova, K. V..... 383
 Slavík, František, memorial of (Kutina)..... 325
 Slepnev, Y. S..... 795
 Smirnov, S. S..... 793
 Smirnovskite (Grivor'ev, Dolomonna)..... 386
 Smith, G. L., Almond H., and Sawyer, D. L. Sassolite from the Kramer borate district, California..... 1068
 Smith, J. B., with Saha, P. The structure and properties of

natural and synthetic minerals	174	thermal decomposition of aluminum carbide	285
Smith, J. R. Optical properties of heated plagioclases	1179	Sudo, T. Nendo-Kubutso (Clay minerals) (Book Review)	1217
Smith, J. V. Effect of temperature, structural state and composition on the albite, pericline and alcline-A twins of plagioclase feldspars	546	Sumner, G. G., and Cohen, A. J. Relation among impurity contents, color centers and lattice constants in quartz	58
—, and MacKenzie, W. S. Alkali feldspars: IV. The cooling history of high-temperature sodium-rich feldspars	872	Sun, M. S.	623
Smith, R. L. New occurrence of sassolite in the United States	1204	—, and Weber, R. H. Santa-fete, a new hydrated vanadate from New Mexico	677
Snow Crystals, Natural and Artificial (Nakaya) (Book Review)	622	Syneček, V.	385
Soboleva, M. V.	378	System $\text{CaO}-\text{Al}_2\text{O}_3-\text{SiO}_2-\text{H}_2\text{O}$ IV: Phase equilibria in the high lime portion of the system	1009
Sodium autunite (Chernikov, Krutetskaya, Organov)	383	$\text{CaO}-\text{SiO}_2-\text{H}_2\text{O}$ (Roy)	1009
Sodium Uranospinitite	383	System $\text{Fe}_3\text{O}_4-\text{Mn}_3\text{O}_4$ (Van Hook, Keith)	69
Sogrenite (Soboleva, Pudovkina)	382	Tables for the Microscopic and X-ray Determination of the Opaque Minerals ("Tablas para la Determinación Microscópica y Rayos X de Minerales Opacos"), 2d ed. (Novitzky) (Book Review)	176
Söhngen, G.	1006	Tables Permettant le Dépouillement des Diagrammes de Rayons X et Abaques de Réglage des Monochromateurs à lame Courbe (Rose) (Book Review)	376
Specimen holder, improved, for the focusing-type X-ray spectrometer (Buerger, Kennedy)	756	Tacnet, G.	624
Sphalerite, differential thermal analysis of (Kopp, Kerr)	732	Tapiolite, notes on, with special reference to tapiolite from southern Westland, New Zealand (Hutton)	112
Spherobertrandite (Semenov)	1219	Taylor, H. F. W.	624
Stainierite (Orcel, Hénin, Caillère)	1223	—, with Buckle, E. R. Calcium analogue of chondrodite	818
Steiner, A. Occurrence of wairakite at The Geysers, California	781	—, with Gard, J. A. Foshagite: composition, unit cell and dehydration	1
Stibiotellurobismuthite (Magak-Yan)	1223	Thermoluminescence from minerals, apparatus for the study of (Ashby, Kellagher)	695
Stottite (Strunz, Söhngen, Geier)	1006	Thin-section photography, low magnification (Atchley)	997
Structure and properties of natural and synthetic minerals (Saha, Smith)	174	—, Roach, C. H., and Mey-	
Structure Reports for 1951 (Book Review)	622		
Struktur und Eigenschaften der Kristalle (Winkler) (Book Review)	177		
Strunz, H. Mineralogische Tabellen (Book Review)	619		
—	798, 1006		
Strunzite (Frondel)	793		
Stumpf, H. S., with Foster, L. M., and Long, G. Production of graphite single crystals by			

rowitz, R. Sherwoodite, a mixed vanadium(IV)-vanadium(V) mineral from the Colorado Plateau		Verhoogen, J. Physical properties and bond type in Mg-Al oxides and silicates	552
———, Simplotite, a new quadrivalent vanadium mineral from the Colorado Plateau	749	Vibertite (Goodman)	791
Thoreau, J.	16	Virgin, W. W., Jr., and Massoni, C. J. A new low-temperature, liquid heating stage	606
Thorite crystals, synthetic, formation and properties of (Fuchs)	795	Vlisidis, A. C., with Schaller, W. T.	
Thorite, uranothorites, and coffinite, synthetic, X-ray studies of (Fuchs, Gebert)	367	Ajoite, a new hydrous aluminum copper silicate	1107
Thorutite (smirnovite) (Gotman, Khapaev)	243	Vogt, T., Bastiansen, O., and Skancke, P. Holmquistite as a rhombic amphibole	981
Tikhonenkov, I. P.	1007	Vtelensky, J.	792
Tilley, C. E. Leucite nepheline dolerite of Meiches, Vogelsberg, Hessen	792	Vuorelainen, Y., with Kouvo, O. Eskolaite, a new chromium mineral	1098
Tolnay, V.	758	Wairakite, occurrence at The Geysers, California (Steiner)	781
Tunell, G., and Murdoch, J. Laboratory Manual of Crystallography for Students of Mineralogy and Geology (Book Review)	1222	Wairakite and calcium-mordenite, hydrothermal synthesis in (Ames, Sand)	476
Twinnings in diamond-type structures: A proposed boundary-structure model (Kohn)	618	Walenta, K., with Gross, E. B., Corey, A. S., and Mitchell, R. S. Heinrichite and meta-heinrichite, hydrated barium uranyl arsenate minerals	1134
Ufertite (Soboleva, Pudovkina)	378	Walpurgite, unnamed phosphate analogue of (Soboleva, Pudovkina)	383
Ulexite, nonfibrous, from the Kramer district, California (Allen)	169	Wasserstein, Benno, memorial of (Fleischer)	331
Uranium minerals from U.S.S.R. (Soboleva, Pudovkina) (Getseva, Saveleva)	378	Weathered sedimentary ironstones, mineralogical changes in (Youell)	774
Uranothorites, thorite and coffinite, synthetic, X-ray studies of (Fuchs, Gebert)	243	Weaver, C. E. Effects of geologic significance of potassium "fixation" by expandable clay minerals derived from muscovite, biotite, chlorite and volcanic material	
Usigite (usihyte) (Melkov, Pukhal'skii)	1008	Weber, R. H.	839
Valcha, Z.	792	———, with Sun, M. S. Santa feite, a new hydrated vanadate from New Mexico	623
Van Hook, H. J., and Keith, M. L. The System $\text{Fe}_3\text{O}_4\text{-Mn}_3\text{O}_4$	69	Welded tuff from deep-well cores from Clinch County, Georgia (Ross)	677
Van Valkenburg, A., with Bunting, E. N. Some properties of diamond	102		537
———, and Rynders, G. F. Synthetic cuspidine	1195		

Westland, A. D., and Beamish, F. E. Chemical analysis of iridosmines and other platinum-metal minerals.....	503	X-ray Crystal Structure (McLachlan) (Book Review).....	620
White, J. F., Shaw, E. R., and Corwin, J. F. A chalcedony-like variety of germania, GeO_2	580	Yagi, K.....	624
Whittaker, E. J. W., and Zussman, J. Characterization of serpentine minerals.....	917	Youell, R. F. Mineralogical changes in weathered sedimentary ironstones.....	774
Wickman, F. E.....	387	Young, E. J. Occurrence of gorceixite in Arkansas.....	762
Wilshire, H. G. Alteration of olivine and orthopyroxene in basic lavas and shallow intrusions..	120	Yttrium-bearing pegmatite body near Lake George, Park County, Colorado (Glass, Rose, Over).....	991
Winchell, H. The composition and physical properties of garnet ..	595	Zak, L.....	385
— Optics of the eosphorite-childrenite series.....	765	Zalai, A.....	626
Winkler, H. G. F. Struktur und Eigenschaften der Kristalle (Book Review).....	177	Zalashkova, N. E.....	1223
Zussman, J., with Whittaker, E. J. W. Characterization of serpentine minerals.....		Zussman, J., with Whittaker, E. J. W. Characterization of serpentine minerals.....	917