

INDEX TO VOLUME 36

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.

Agricola, Georgius. De Re Metallica. (Book review)	516	Bannister, F. A.	382, 642
Ahfeld, F. New locality for greenockite crystals in Bolivia.	165	Barksdale, J. D.	310
Alkaline rocks of the Nemuro District, Hokkaido, Japan, petrology of. (Yagi)	327	Barnes, W. H. and Shore, V. C. The childrenite-eosphorite problem	509
Allanite from Yosemite National Park, Tuolumne Co., Calif. (Hutton)	233	———, Przybylska, Maria and Shore, V. C. Further notes on the precision of the Buerger precession instrument	430
Allen, V. T.	310	Barwick, A. R. Vivianite concretions in Aquia Formation (Middle Eocene), Anne Arundel County, Maryland.	629
Alumian (=alunite). (Bassett, Goodwin)	383	Basaluminite, hydrobasaluminite. (Hollingworth, Bannister)	382
Amphiboles, structural transformations at elevated temperatures. (Wittels)	851	Bassett, H.	383
Anderson, J. L. Determination of thin-section thickness by the U-stage.	622	Bateman, A. M. Economic Mineral Deposits. (Book review)	167
Andersonite, optical, chemical and x-ray data.	4	Bates, T. F.	310
Anion exchange in clay minerals. (Prabhu)	324	Bauer, L. H. with Frondel, C. Nasonite and its relation to pyromorphite	534
Annals of the University of Stellenbosch. (Book review)	791	Bayldonite, stolzite, hydrocerussite and other rare minerals, occurrence in the Lake District. (Kingsbury, Hartley)	637
Anosov, F. Y.	793	Bayleyite, optical, chemical and x-ray data.	4
Antarctica, mineralogy of. (Stewart)	362	Beard, E. H.	641
Antimony oxides, naturally occurring, further account of. (Mason, Vitaliano)	320	Beck, C. W. and LaPaz, L. The Nortonite fall and its mineralogy	45 357
Antofagastite = eriochalcite. (Frondel)	384	Benoit, R. J. with Winchell, H. Taylorite, mascagnite, apthitalite, lecontite, and oxamite from guano	590
Apthitalite. (Winchell, Benoit)	590	Bentonite, Wyoming, fluorescence of. (Sampson)	160
Aramayoite. (Graham)	436	Berg, G., Friedensburg, F., and Sommerlatte, H. Die Metallischen Rohstoffe, Vol. 9, Blei und Zink. (Book review)	633
Armstrong, G.	636	Berry, L. G., Peacock, M. A. Rowland, J. F., with Thompson, R. M. Empressite and "stuet-	
Axelrod, J. M. , with Milton, C. Stylotypite, a discredited species	696		
———, Grimaldi, F. S., Milton, C., and Murata, K. J. Uranium minerals from Hillside Mine, Yavapai County, Arizona	1		
———	631		
Ball, Sydney H. A Roman Book on Precious Stones. (Book review)	168		

- zite."..... 458
- . Observations on conchalcite, cornwallite, euchroite, lironite and olivenite..... 484
- . and Rowland, J. F., The structural lattice of hessite... 471
- . Unit cell of linarite..... 511
- . Unit cell of magnetoplumbite..... 512
- Beryl at Mount Mica, Maine.**
(Hurlbut, Wenden)..... 751
- Beus, A. A..... 925, 926
- Bonatti, S..... 926
- Botallackite. (Fronde)..... 384
- Bowen, N. L. Acceptance of the Roebling Medal of the Mineralogical Society of America.** 295
- . (Book review)..... 785
- Bradley, W. F. and Grim, R. E. High temperature thermal effects of clay and related materials.**..... 182
- Branford-Killingworth area, Connecticut, geology of. (Mikami, Digman)..... 321
- Brazilianite, second South American occurrence. (Murdoch).... 323
- Breece, New Mexico, meteoritic iron. (Beck, LaPaz, Goldsmith)..... 357
- Briggs, L. I. Jarosite from the California Tertiary..... 902
- Brindley, G. W. X-ray Identification and Crystal Structure of Clay Minerals. (Book review)..... 632, 637, 921
- Brisson, R. J. A method for the preparation of polished thin sections of mineral grains.**.... 731
- Brunckite. (Zemann)..... 383
- Buckley, H. E. Crystal Growth. (Book review)..... 787
- Buddhue, J. D. Meteoritic Dust. (Book review)..... 633
- Buddington, A. F. Presentation of the Roebling Medal of the Mineralogical Society of America to Norman L. Bowen.** 291
- Buerger, M. J..... 311
- Buerger precession instrument, further notes on the precision of. (Barnes, Przybylska, Shore)..... 430**
- Burri, C. Das Polarisationsmikroskop. (Book review)..... 374
- Bystromite, magnesium antiminate, a new mineral. (Mason, Vitaliano)..... 320
- Ca-Mg-Fe carbonate minerals, thermal study of (Kulp, Kent, Kerr)..... 643**
- Calculi and other stones found in mammals. (Milton, Axelrod).. 631
- California minerals, notes on: nuevite = samarskite; trona and hanksite; gaylussite. (Murdoch)..... 358
- Cameron, E. N., Rowe, R. B. and Weis, P. L. Fluid inclusions in beryl and quartz from pegmatites of the Middletown District, Connecticut..... 906
- Campbell, C. D., with Conybeare, C. E. B. Petrology of the red radioactive zones north of Goldfields, Saskatchewan.**.... 70
- Capitan Quadrangle, New Mexico, igneous rocks of. (Patton).... 713**
- Caras, A. with Wolfe, C. W. Unit cell of schairerite..... 912
- Carbonate minerals, thermal study of. (Kulp, Kent, Kerr)..... 643**
- Carnotite, tyuyamunite and related compounds, hydration and base exchange properties of. (Murata, Cisney, Stieff, Zworykin)..... 323
- Chalcanthite by the x-ray precession technique. (Fisher)..... 314
- Chayes, F. and Fairbairn, H. W. A test of the precision of thin-section analysis by point counter.**..... 704
- Childrenite-eosphorite problem. (Barnes, Shore)..... 509
- Chloritoid from Rawlinsville, Lancaster County, Pennsylvania. (Hietanen)..... 859**
- Chukhrov, F. V..... 793

- Cisney, E. A. 323, 326
- Clabaugh, S. E. 311
- Claffy, E. W. and Schulman, J. H.
Preliminary observations on
the luminescence activation of
zeolite minerals by base ex-
change 272, 312
- Claringbull, G. F. 357, 642
- Claudite (monoclinic As_2O_3),
crystal structure of (Frueh) 316, 833
- Clay minerals, nomenclature of . . . 370
- Cobalt cabrerite. (Meixner) 926
- Colloidal Chemistry of the Silicate
Minerals (Marshall). (Book
review) 921
- Comeforo, J. E. and Eitel, W. Dis-
cussion of "X-ray diffraction
patterns of asbestos." 368
_____ 312
- Complete substitution of alumi-
num for silicon: The system
 $3MnO \cdot Al_2O_3 \cdot 3SiO_2 - 3Y_2O_3 \cdot$
 $5Al_2O_3$. (Yoder, Keith) 328, 519
- Composition of fine grained igneous
rocks, useful method for de-
termining. (Mathews) 92
- Conichalcite, cornwallite, euch-
roite, lironconite and olivenite,
observations on. (Berry) 484
- Conservation of Natural Re-
sources. (Smith), (Book re-
view) 377.
- Conybeare, C. E. B. and Camp-
bell, C. D. Petrology of the red
radioactive zones north of
Goldfields, Saskatchewan 70
- Cornwallite. (Berry) 484
- Correns, C. W. Einführung in die
Mineralogie (Kristallographie
und Petrologie). (Book re-
view) 789
- Corundum in Idaho, note on the
occurrence of. (Fryklund) 776
- Corundum deposits of Montana.
(Clabaugh) 311
- Crystal Growth. (Buckley), (Book
review) 787
- Crystal structure determination
from rough intensity relations.
(Lukesh) 687
- Cuomo, J. R. 638
- Cupromontmorillonite. (Chuk-
hrov, Anosov) 793
- Cuproskoldowskite. (Hogarth) 411
- Das Polarisationsmikroskop. (Bur-
ri). (Book review) 374
- Davidite, differential thermal anal-
yses of (Kerr, Holland) 563
- Davidson, W. F. 357
- De Re Metallica. (Georgius Ari-
cola), (Book review) 516
- Dennen, W. H. 313
- deRoever, W. P. Ferrocapholite,
the hitherto unknown ferrous
iron analogue of carpholite
proper 736
- "Diamond" mortar, improved.
(Oke) 164
- Diccionario Minero-Metalúrgico-
Geológico-Mineralógico-Petro-
gráfico, y de Petróleo (Inglés-
Español, Francés, Alemán,
Ruso). (Novitzky), (Book re-
view) 791
- Die Metallischen Rohstoffe, Vol. 9,
Blei und Zink. (Berg, Friedens-
burg, Sommerlatte), (Book re-
view) 633
- Differential thermal analysis of
natural hydrous ferric oxides
(Kulp, Trites) 23
- Differential thermal analyzer as a
micro-calorimeter. (Wittels) 615
- Digman, R. 321
- Direct determination of interplanar
spacings from x-ray patterns
recorded on charts. (Shurtz) 626
- Discredited minerals. 383, 642, 927
- Dollar-Mantuani, L. Notes on the
nomenclature of textural terms
in petrography 624
- Donnay, J. D. H. (Book review) 167
- Double fluorides of zinc. (Ingerson,
Morey) 778
- Duftite, new occurrences of. (Clar-
ingbull) 357
- Dumortierite locality from Mon-
tana, new. (Graham, Robert-
son) 916

- Dunham, K. C. 636
- Economic Mineral Deposits (Bate-
man), (Book review) 167
- Einführung in die Gesteinskunde.
(Leitmeier), (Book review) 922
- Einführung in die Mineralogie
(Kristallographie und Petrol-
ogie. (Correns), (Book review) 789
- Eitel, W. and Comeforo, J. E. Dis-
cussion of "X-ray diffraction
patterns of asbestos." 368
- . Silicate Melt Equilibria.
(Book review) 785
- 312, 317
- Empressite and "stuetzite."**
(Thompson, Peacock, Row-
land, Berry) 458
- Engel, A. E. J. 313
- Engel, Celeste. 313
- Eosphorite-childrenite problem.
(Barnes, Shore) 509
- Erinite (Berry) 487
- Eschwegeite (= tantalian poly-
crase). (Tavora) 927
- Eskdal No. 2 boring, East York-
shire, petrology of evaporites.
(Stewart) 636
- Euchroite. (Berry)** 484
- Evaporites of Eskdale No. 2 Bor-
ing, East Yorkshire, petrology
of (Stewart) 636
- Exchangeable magnesium and ca-
tion-exchange capacity in the
study of montmorillonitic
clays, importance of. (Foster)**
. 315, 717
- Fairbairn, H. W. and Podolsky, T.
Notes on precision and ac-
curacy of optic angle deter-
mination with the universal
stage 823
- , with Chayes, F. A test of
the precision of thin-section
analysis by point counter 704
- Faust, G. T. Thermal analysis and
x-ray studies of saucornite and
some zinc minerals of the
same paragenetic association. 795
- . (Book review) 789
- Fenner, Clarence Norman, memo-
rial of. (Wright) 297
- Ferrocapholite, the hitherto un-
known ferrous iron analogue of
carpholite proper. (DeRoever) 736
- Fisher, D. J. Setting a given direc-
tion parallel to the axis of a
goniometer head. 123
- 314
- Flawn, P. T. 314
- Fleischer, M. Ten years of new
mineral names. 630
- Flint, raw and calcined, properties
of. (Weymouth, Williamson). 637
- Fluid inclusions in beryl and
quartz from pegmatites of the
Middletown District, Connec-
ticut. (Cameron, Rowe, Weis) 906
- Fluorine-amphiboles, synthetic,
isomorphism of. (Comeforo,
Hatch, Eitel) 312
- Fluorine-micas and related layer
structure compounds, synthe-
sis of. (Hatch, Eitel, Humphrey) 317
- Fluorite in sands, detection of,
with zirconium-alizarin solu-
tion. (Grogan) 780
- Folk, R. L. 315
- Forman, S. A. Xanthophyllite** 450
- Formation temperatures of south-
ern Illinois bedded fluorite as
determined from fluid inclu-
sions. (Grogan, Shrode) 316
- Foster, M. D. The importance of
the exchangeable magnesium
and cation-exchange capacity
in the study of montmoril-
lonitic clays 315, 717
- Foster, W. R. 315
- Fractography as a mineralogical
technique. (Zapffe, Worden,
Zapffe)** 202
- Friedensburg, F., Sommerlatte,
H., Berg, G. Die Metallischen
Rohstoffe, Vol. 9, Blei und
Zink. (Book review) 633
- Fronde!, C. Uranium minerals
(VIII): Sabugalite, an alumi-
num-autunite 671
- . Uranium minerals (IX):

- Saléite and novacekite 680
 ———. and Bauer, L. H. Nasonite
 and its relation to pyromor-
 phite 534
 ———. 316, 384
- Fron del, J. W. Studies of uranium
 minerals (VII); Zeunerite . . . 249
- Frueh, A. J., Jr. The crystal struc-
 ture of claudetite (mono-
 clinic As_2O_3) 316, 833
- Fryklund, V. C., Jr. Note on the
 occurrence of corundum in
 Idaho 776
- Furnace atmosphere control in
 differential thermal analysis
 (Rowland, Lewis) 80, 324
- Fyfe, W. S. Isomorphism and bond
 type 538
- Gagarin, G. 638
- Galena, precision lattice measure-
 ments of. (Wasserstein) 102
- Garrido, J. The development of
 twinning in dehydration of
 brucite 773
- Gaylussite. (Murdoch) 358
- Geochemistry. (Rankama, Saha-
 ma), (Book review) 378
- George, D. R. Thorite from Cali-
 fornia 129
- Ginzburg, A. I. 382, 642
- Glaucochroite, unit cell and space
 group of. (O'Mara) 918
- Goldsmith, L. H. 357
- Goodwin, T. H. 383
- Gorai, M. Petrological studies on
 plagioclase twins 884
- Gordon, R. B. Some measurements
 on minerals of the pyrite group . 918
- Gorman, D. H. X-ray study of the
 mineral livingstonite 480
- Gottardi, G. 926
- Graham, A. R. Matildite, aramayo-
 ite, miargyrite 436
- Graham, C. and Robertson, F. A
 new dumortierite locality from
 Montana 916
- Granophyre in diabase in south-
 eastern Pennsylvania, origin of.
 (Hotz) 317
- Graphical simplification of the re-
 lationship between 2V and
 N_x , N_y and N_z . (Gravenor) . . . 162
- Gravenor, C. P. A graphical sim-
 plification of the relationship
 between 2V and N_x , N_y and N_z . 162
- Greenockite crystals in Bolivia,
 new locality for. (Ahlfeld) . . . 165
- Greenockite locality at Bishopton,
 Scotland. (Harwood) 630
- Grenville Series in the northwest
 Adirondacks: Stratigraphy
 and metamorphic reconstruc-
 tion. (Engel, Engel) 313
- Grim, R. E., with Bradley, W. F.
 High temperature thermal ef-
 fects of clay and related mate-
 rials 182
- Grimaldi, F. S., Milton, C., and
 Murata, K. J., with Axelrod,
 J. M. Uranium minerals from
 the Hillside Mine, Yavapai
 County, Arizona 1
- Grogan, R. M. Detection of fluo-
 rite in sands with zirconium-
 alizarin solution 780
- 316
- Growth of water soluble and other
 crystals at low temperatures.
 (Waesche) 326
- Gruner, J. W. (Book review) 924
- Habit changes in barytes from
 Westmorland and Durham.
 (Davidson, Seager) 357
- Hanksite. (Murdoch) 358
- Hartley, J. 637
- Harttite (=calcium svanbergite).
 (Tavora) 927
- Harvey, C. O. 636
- Harwood, H. F. The greenockite
 locality at Bishopton, Scotland . 630
- Hatch, R. A. 312, 317
- Heinrich, E. Wm. Mineralogy of
 triplite 256
- . (Book reviews) 791
- 377, 378, 379, 633, 634,
- Henderson, E. P. and Perry, S. H.
 A restudy of the Social Circle,
 Georgia, meteorite 603

- . (Book review)..... 375
- Hendricks, S. B. (Book review)... 921
- Hessite, structural lattice of. (Rowland and Berry)**..... 471
- Hey, M. H. An Index of Mineral Species and Varieties Arranged Chemically. (Book review)..... 634
- Hey, M. H..... 642
- Hietanen, A. Chloritoid from Rawlinsville, Lancaster County, Pennsylvania**..... 859
- Higginsite. (Berry)..... 485
- High temperature stage for the polarizing microscope (Wood). 768
- High temperature thermal effects of clay and related materials. (Bradley, Grim)**..... 182
- High-temperature x-ray study of the polymorphism of MgSiO₃. (Foster)..... 315
- High-low inversion of quartz, geological significance of variations in. (Keith, Tuttle).... 319
- Histrixite. (Ramdohr)..... 383
- Hogarth, D. D. Studies of radioactive compounds: II—Metazeunerite, uranophane, kasolite and cuprosklodowskite in Canada**..... 411
- Holland, H. D., with Kerr, P. F. Differential thermal analyses of davidite**..... 563
- Hollingsworth, S. E..... 382
- Hornblende rims on Adirondack garnet, origin of. (Levin).... 319
- Hotz, P. E..... 317
- Hummerite and montroseite, two vanadium minerals from Montrose County, Colorado. (Weeks, Cisney, Sherwood)... 326
- Humphrey, R. A..... 317
- Hurlbut, C. S., Jr., and Wenden, H. E. Beryl at Mount Mica, Maine**..... 751
- 318
- Hutton, C. O. Allanite from Yosemite National Park, Tuolumne Co., California**..... 233
- . Occurrence, analysis, and properties of huttonite..... 66
- Huttonite, a new monoclinic thorium silicate. (Pabst)**..... 60
- Huttonite, an account of its occurrence, analysis, and properties. (Hutton)**..... 66
- Hydration and base exchange properties of carnotite, tyuyamunite and related compounds. (Murata, Cisney, Stieff, Zworykin) 323
- Hydrobasaluminite. (Hollingsworth, Bannister)..... 382
- Hydrocerussite (Kingsbury, Hartley)..... 637
- Hydrous ferric oxides, differential thermal analysis of. (Kulp, Trites)**..... 23
- Ilsemannite and jordisite. (Staples)**..... 609
- Immersion liquids of high refractive index. (Meyrowitz, Larsen)**..... 321, 746
- Index of mineral species and varieties arranged chemically. (Hey), (Book review)..... 634
- Industrial Diamond Review).... 632
- Ingerson, E., and Morey, G. W. Double fluorides of zinc..... 778
- . (Book reviews)..... 517, 787, 791, 922
- Insley, H..... 318
- Interplanar spacings, direct determination of, from x-ray patterns recorded on charts. (Shurtz)..... 626
- Introduction to theoretical igneous petrology. (Wahlstrom). (Book review)..... 379
- Isomorphism and bond type. (Fyfe)**..... 538
- Jaffe, H. W. The role of yttrium and other minor elements in the garnet group**..... 133
- Jarosite from the California Tertiary. (Briggs)..... 902
- Jasmund, K. Die Silicatischen Tonminerale. (Book review).. 924
- Jeffries, J. T..... 637
- Jordisite. (Staples)**..... 609

- Kasolite.** (Hogarth)..... 411
- Kawai, T..... 794
- Keith, M. L. with Yoder, H. S.**
Complete substitution of aluminum for silicon: The system $3\text{MnO} \cdot \text{Al}_2\text{O}_3 \cdot 3\text{SiO}_2 \cdot 3\text{Y}_2\text{O}_3 \cdot 5\text{Al}_2\text{O}_3$ 328, 519
- 319
- Kent, P., and Kerr, P. F., with Kulp, J. L.** Thermal study of the Ca-Mg-Fe carbonate minerals..... 643
- Kerr, P. F., and Kent, P., with Kulp, J. L.** Thermal study of the Ca-Mg-Fe carbonate minerals..... 643
- , and Holland, H. D. Differential thermal analyses of davidite..... 563
- Kingsbury, A. W. G..... 637
- Kobeite. (Takubo, Ukai, Minato). 925
- Kokkoros, P..... 381
- Kraus, H. (Book reviews)..... 168, 169
- Kruzhanovskite. (Ginsburg)..... 382
- Ktenasite. (Kokkoros)..... 381
- Kulp, J. L., Kent, P., and Kerr, P. F.** Thermal study of the Ca-Mg-Fe carbonate minerals... 643
- , and Trites, A. F. Differential thermal analysis of natural hydrous ferric oxides... 23
- LaPaz, L., with Beck, C. W.** The Nortonite fall and its mineralogy..... 45
- 357
- Larsen, E. S., Jr., with Meyrowitz, R.** Immersion liquids of high refractive index..... 321, 746
- Layered ultramylonite from southeastern Connecticut, origin of. (Sclar)..... 324
- Lecontite.** (Winchell, Benoit).... 590
- Leitfaden für die exakte Edelsteinbestimmung. (Schlossmacher), (Book review)..... 169
- Leitmeier, H. Einführungen die Gesteinskunde. (Book review) 922
- Leucochalcite. (Berry)..... 500
- Levin, S. B..... 319
- Lewis, D. R., with Rowland, R. A.** Furnace atmosphere control in differential thermal analysis..... 80, 324
- Linarite, unit cell of. (Berry)..... 511
- Liquid immiscibility in the system $\text{K}_2\text{O}-\text{FeO}-\text{Al}_2\text{O}_3-\text{SiO}_2$ at low temperature (Roedder).. 282
- Liroconite.** (Berry)..... 484
- Livingstonite.** x-ray study of. (Gorman)..... 480
- Lombaardite. (Nel, Strauss, Wickman)..... 381
- Lord Hill pegmatite, geology and paragenesis of.** (Woodard)... 869
- Love, J. D..... 319
- Lukesh, J. S.** Crystal structure determination from rough intensity relations..... 687
- Luminescence activation of zeolite minerals by base exchange, preliminary observations on.** (Claffy, Schulman)..... 272, 312
- Magnetoplumbite, unit cell of. (Berry)..... 512
- Magniophilite. (Beus)..... 925
- Mangankoninkite. (Beus)..... 926
- Marble, J. P. Report of the Committee on the Measurement of Geologic Time, 1949-1950. (Book review)..... 633
- Marshall, C. E. Colloidal Chemistry of the Silicate Minerals. (Book review)..... 921
- Mascagnite.** (Winchell, Benoit)... 590
- Mason, B..... 320
- Mathews, W. H.** A useful method for determining approximate composition of fine grained igneous rocks..... 92
- Matildite, aramayoite, miargyrite.** (Graham)..... 436
- McConnell, D..... 321
- Medmontite. (Chukhrov, Anosov) 793
- Meixner, H..... 926
- Meta-zeunerite.** (Hogarth)..... 411
- Meteoritic Dust. (Buddhue), (Book review)..... 633
- Meyrowitz, R., and Larsen, E. S., Jr.** Immersion liquids of high refractive index..... 321, 746

- Miargyrite. (Graham)** 436
- Mica and related fluosilicates,
growth of crystals of. (Insley) 318
- Microseparation of minerals in
heavy liquids. (Rodda) 625
- Mikami, H. M. 321
- Milne, I. H. and Nuffield, E. W.**
Studies of radioactive com-
pounds: I—Vandenbrandeite 394
— Studies of radioactive
compounds: III—Urano-
uranic oxide (U_3O_8) 415
- Milton, C., and Axelrod, J. M.**
Stylotypite, a discredited spe-
cies 696
—, Murata, K. J., Grimaldi,
F. S., with Axelrod, J. M. The
uranium minerals from the
Hillside Mine, Yavapai Coun-
ty, Arizona 1
— 631
- Minato, T. 925
- Mineral calorimetry, some aspects
of. (Wittels)** 760
- Mineral Commodities of California,
Bulletin 156. (Calif. State Div.
of Mines), (Book review) 376
- Mineral formation in natural chemi-
cal systems under equilibri-
um and non-equilibrium condi-
tions. (Tunell)** 171
- Mineral resources of the south-
eastern United States, Sym-
posium on 517
- Mineralogical Society of America
at Washington, D. C., Pro-
ceedings of the thirty-first
annual meeting 304
- Mineralogical Society. (London) . .
. 357, 635, 783
- Minerals of the eastern Santa
Monica Mountains, Los An-
geles City. (Neuerburg) 156
- Minerals, new data 384
- Mink, J. F. 310
- Monochrometer utilizing the rotary
power of quartz. (Hurlbut) 318
- Montmorillonite, crystal chemi-
stry of, II—Calculation of the
structural formula. (McCon-
nell) 321
- Montroseite. (Weeks, Cisney,
Sherwood) 326
- Morey, G. W. with Ingerson, E.
Double fluorides of zinc 778
— 322
- Mrose, M. E. 322
- Murata, K. J., Grimaldi, F. S. and
Milton, C., with Axelrod,
J. M. Uranium minerals from
the Hillside Mine, Yavapai
County, Arizona** 1
— 323
- Murdoch, J. Notes on California
minerals: neuvite=samars-
kite; trona and hanksite; gay-
lussite 358
— Perovskite 573
— 323
- Nasonite and its relation to pyro-
morphite. (Fronzel, Bauer)** 534
- Nel, H. J. 381
- Neuerburg, G. J. Minerals of the
eastern Santa Monica Moun-
tains, Los Angeles City 156
- New mineral names, ten years of.
(Fleischer) 630
- New mineral names. 381, 638, 793, 925
- New mineral names. (Gagarin, Cu-
omo) 638
- Nichols, J. B. (Book review) 376
- Nickel cabrerite. (Meixner) 926
- Nininger Collection of Meteorites.
(Nininger, Nininger), (Book re-
view) 375
- Nininger, H. H., and Nininger,
A. D. The Nininger Collection
of Meteorites. (Book review) 375
- Nogizawalite. (Kawai) 794
- Norrish, K. 357, 793
- Nortonite fall and its mineralogy.
(Beck and LaPaz)** 45
- Novacekite, studies of uranium
minerals. (Fronzel)** 680
- Novitzky, A. Diccionario Minero-
Metalúrgico-Geológico-Minero-
alógico-Petrográfico, y de Pe-
troléo. (Inglés-Español, Fran-
cés, Alemán, Ruso), Book re-
view) 791
- Nuevite=samarskite; trona and

- hanksite; gaylussite, notes on California minerals. (Murdoch) 358
- Nuffield, E. W., with Milne, I. H. Studies of radioactive compounds: I—Vandenbrandeite 394
- Oke, W. C. An improved "diamond" mortar. 164
- Olivenite. (Berry). 484
- Oliver, T. A. Effect of uralitization upon the chemical composition of the Sudbury norite. 421
- O'Mara, J. H. Unit cell and space group of glaucocroite. 918
- Optic angle determination with the universal stage, precision and accuracy of. (Fairbairn, Podolsky) 823
- Optical angle, computation of, from the three principal refractive indices (Wright). 543
- Optical Crystallography. (Wahlstrom), (Book review) 924
- Oxammite. (Winchell, Benoit). 590
- Oxychildrenite. (Ginzburg, Voronkova) 642
- Pabst, A. Huttonite, a new monoclinic thorium silicate 60
- . X-ray examination of uranothorite 323, 557
- Palache, C. Memorial of Martin A. Peacock. 385
- Paragenesis of sylvine, carnallite, polyhalite and kieserite in Eskdale borings Nos. 3, 4 and 6, North-east Yorkshire. (Armstrong, Dunham, Harvey, Sabine, Waters). 636
- Paratacamite. (Fronde) 384
- Patton, L. T. Igneous rocks of the Capitan Quadrangle, New Mexico. 713
- Peacock, Martin Alfred, memorial of. (Palache) 385
- Peacock, M. A., Rowland, J. F., and Berry, L. G., with Thompson, R. M. Empressite and "stuetzite". 458
- Perovskite. (Murdoch) 573
- Perrierite. (Bonatti, Gottardi). 926
- Perry, S. H., with Henderson, E. P. A restudy of the Social Circle, Georgia, meteorite. 603
- Petrography as an aid in dating Tertiary volcanic rocks. (Love) 319
- Photographs of the atoms in the structures of minerals. (Buerger). 311
- Plagioclase twinning in metamorphic rocks. (Turner) 326, 581
- Plagioclase twins, petrological studies on. (Gorai). 884
- Podolsky, T., with Fairbairn, H. W. Notes on precision and accuracy of optic angle determination with the universal stage 823
- Polished thin sections of mineral grains, preparation of. (Brisson) 731
- Prabhu, K. P. 324
- Precision of thin-section analysis by point counter, a test of. (Chayes, Fairbairn). 704
- Priderite, a new mineral from the leucite lamproites of the west Kimberley area, Western Australia. (Norrish) 357, 793
- Przybylska, M., and Shore, V. C., with Barnes, W. H. Further notes on the precision of the Buerger precision instrument. 430
- Pyrite group, some measurements on minerals of. (Gordon) 918
- Quartz, high-low inversion, geological significance of. (Keith, Tuttle) 319
- Radioactive Compounds: I—Vandenbrandeite, studies of. (Milne, Nuffield). 394
- Radioactive Compounds: II—Meta-zeunerite, uranophane, kasolite and cuprosklodowskite in Canada, studies of. (Hogarth) 411
- Radioactive compounds: III—Urano-uranic oxide (U_3O_8), studies of. (Milne) 415
- Ramdohr, P. 383

- Rankama, K., and Sahama, T. G. Geochemistry. (Book review). 378
- Red radioactive zones north of Goldfields, Saskatchewan, petrology of. (Conybeare, Campbell). 70
- Refractive index, alignment chart for the calculation of, from the deviation of light by a prism. (Winchell). 287
- Reichenbach and Brezina lamellae in meteoritic irons. (Spencer). 635
- Report of the Committee on the Measurement of Geologic Time, 1949-1950. (Marble), (Book review). 633
- Robertson, F. Sphalerite-dolomite orientation relations at the Renfew zinc prospect, Ontario 116
- , with Graham, C. A new dumortierite locality from Montana. 916
- Robinson, E. T. 637
- Rodda, J. L. Microseparation of minerals in heavy liquids. . . . 625
- Roebing Medal of the Mineralogical Society of America, presentation to Norman L. Bowen. (Buddington). 291
- Roebing Medal of the Mineralogical Society of America, acceptance of. (Bowen). 295
- Roedder, E. Low temperature liquid immiscibility in the system $K_2O-FeO-Al_2O_3-SiO_2$. 282
- Roman Book on Precious Stones. (Ball), (Book review). 168
- Ross, C. S. (Book review). 517, 921
- Rowe, R. B. and Weis, P. L., with Cameron, E. N. Fluid inclusions in beryl and quartz from pegmatites of the Middletown District, Connecticut. 906
- Rowland, J. F., Berry, L. G., and Peacock, M. A., with Thompson, R. M. Empressite and "stuetzite". 458
- and Berry, L. G. The structural lattice of hessite. . 471
- Rowland, R. A., and Lewis, D. R. Furnace atmosphere control in differential thermal analysis 80, 324
- Sabine, P. A. 636
- Sabugalite, an aluminum-autunite, Studies of uranium minerals (VIII). (Fron del). 671
- Sahama, T. G., with Rankama, K. Geochemistry. (Book review). 378
- Saléite and novacekite, Studies of uranium minerals (IX). (Fron del). 680
- Samson, H. R. A note on the fluorescence of Wyoming bentonite. 160
- Santa Monica Mountains, minerals of. (Neuerburg). 155
- Sauconite and some zinc minerals of the same paragenetic association, thermal analysis and x-ray studies of. (Faust). . . . 795
- Schairerite, unit cell of. (Wolfe, Caras). 912
- Schlossmacher, K. Leitfaden für die exakte Edelsteinbestimmung. (Book review). 169
- Scholzite. (Strunz). 382
- Schroekingierite, analysis. 5
- Schulman, J. H., with Claffy, E. W. Preliminary observations on the luminescence activation of zeolite minerals by base exchange. 272, 312
- Sclar, C. B. 324
- Seager, A. F. 357, 636
- Sedimentary amphibolites in the Van Horn Mountains, Texas. (Flawn). 314
- Sedimentary inclusions in hypersthene-gabbro, Ardnamurchan, Argyllshire. (Wells). . . . 635
- Segnit, E. R. 635
- Senftle, F. E. Apparatus for the separation of mineral grains. . 910
- Separation of mineral grains, apparatus for. (Senftle). 910
- Serpentine minerals, antigorite and chrysotile, morphology and structure of. (Bates, Mink). . . 310

- Setting a given direction parallel to the axis of a goniometer head. (Fisher)** 123
- Shape of granitic pegmatite intrusions, relation of type of country rock to. (Staatz, Trites) 325
- Shearer, J. 637
- Sherwood, A. M. 326
- Shonkin Sag laccolith revisited. (Barksdale) 310
- Shore, V. C., and Barnes, W. H.** The childrenite-eosphorite problem. 509
- , and **Przybylska, M., with Barnes, W. H.** Further notes on the precision of the Buerger precession instrument 430
- Shrode, R. S. 316
- Shurtz, R. F. Direct determination of interplanar spacing from x-ray patterns recorded on charts. 626
- Silicate Melt Equilibria. (Eitel), (Book review) 785
- Silicatischen Tonminerale. (Jas-mund), (Book review) 924
- Slawson, C. B. (Book review) 924
- Social Circle, Georgia, meteorite, a restudy of. (Henderson, Perry)** 603
- Solubility of quartz and some other substances in superheated steam at high pressures. (Morey) 322
- Sommerlatte, H., and Friedens-burg, F., Berg, G. Die metal-lischen Rohstoffe, Vol. 9, Blei und Zink. (Book review) 633
- Spencer, L. J. 635
- Sphalerite-dolomite orientation relations at the Renfrew zinc prospect, Ontario. (Robertson)** 116
- Staatz, M. H. 325
- Staples, Lloyd W.** Ilsemannite and jordisite. 609
- Star sapphires and rubies, syn-thesis of. (Frondel) 316
- Stewart, D., Jr. On the mineralogy of Antarctica. 362
- Stewart, F. H. 636
- Stieff, L. R. 323
- Stolzite (Kingsbury, Hartley) 637
- Strauss, C. A. 381
- Structural transformations in am- phiboles at elevated tempera- tures. (Wittels)** 851
- "Stuetzite" and empressite. (Thompson, Peacock, Row- land, Berry)** 458
- Strunz, H. 382
- Stylopyrite, a discredited species. (Milton, Axelrod)** 696
- Surface features of chert as studied by the electron microscope. (Folk, Weaver) 315
- Surface structure of crystals. (Sea- ger) 636
- Surface structure and crystal growth. (Weyl) 327
- Swartzite, optical, chemical and x-ray data. 4
- Symposium on Mineral Resources of the Southeastern United States. (Book review) 517
- Synthetic aluminous and other pyroxenes, data on. (Segnit) 635
- Synthetic fluorine-amphiboles, iso- morphism of. (Comeforo, Hatch, Eitel) 312
- Takubo, J. 925
- Tallingite. (Bannister, Hey, Clar- ingbull) 642
- Tavora, E. 927
- Taylorite, mascagnite, apthitalite, lecontite, and oxammite from guano. (Winchell, Benoit)** 590
- Textural terms in petrography, notes on the nomenclature of. (Dolar-Mantuani) 624
- Thin-section thickness, determina- tion of, by the U-stage. (An- derson) 622
- Thompson, R. M., Peacock, M. A., Rowland, J. F., and Berry, L. G., Empressite and "stuetz- ite"** 458
- , Mineral occurrences in Western Canada 504

- Thorite from California, a new occurrence and variety. (George)** 129
 Thorotungstite (Beard) 641, 642
 Triplite, mineralogy of. (Heinrich) 256
Trites, A. F., and Kulp, J. L. Differential thermal analysis of natural hydrous ferric oxides. 23
 Trites, A. F. and Kuep, J. L. 325
 Trona and hanksite. (Murdoch) . . . 358
Tunell, G. Mineral formation in natural chemical systems under equilibrium and non-equilibrium conditions. 171
 Turneure, F. S. (Book review) 167
Turner, F. J. Observations on twinning of plagioclase in metamorphic rocks. 326, 581
 Tuttle, O. P. 319
 Twinning in dehydration of brucite, development of. (Garrido) 773
Twinning of plagioclase in metamorphic rocks, observations on. (Turner). 326, 581

 Ukai, Y. 925
Uralitization of Sudbury norite, effect upon the chemical composition. (Oliver). 421
Uranium minerals, studies of, VII: Zeunerite. (Frondel). 249
Uranium minerals (VIII): Sabugalite, an aluminum-autunite. (Frondel). 671
Uranium minerals (IX): Saléeite and novacekite. (Frondel). 680
Uranium minerals from the Hillside Mine, Yavapai County, Arizona. (Axelrod, Grimaldi, Milton, Murata). 1
Uranophane. (Hogarth). 411
 Uranospinite, synthetic sodium-, ammonium-, and hydrogen-. (Mrose) 322
Uranothorite, x-ray examination of. (Pabst). 323, 557
Urano-uranic oxide (U₃O₈). (Milne). 415
 Uvarovite, new occurrence from Northern Karelia, Finland. (von Knorring) 636

Vandenbrandeite. (Milne, Nuffield) 394
 Variations in chemical composition across igneous contacts. (Denne) 313
 Veil formation in crystals, mechanism of. (Zerfoss) 328
 Vitaliano, C. J. 320
 Vivianite concretions in Aquia Formation (Middle Eocene), Anne Arundel County, Maryland. (Barwick) 629
 von Knorring, O. 636
 Voronkova, N. V. 642

 Wadeite, x-ray study of. (Shearer, Robinson, Jefferies) 637
 Waesche, H. H. 326
 Wahlstrom, E. Introduction to Theoretical Igneous Petrology. (Book review) 379
 ———, Optical Crystallography. (Book review) 924
 Walker Mineralogical Club, Proceedings, 1950 515
Wasserstein, B. Precision lattice measurements of galena. 102
 Water soluble and other crystals at low temperatures, growth of, (Waesche) 326
 Waters, F. W. 636
 Weaver, C. E. 315
 Weeks, A. D. 326
 Weis, P. L., and Rowe, R. B., with Cameron, E. N. Fluid inclusions in beryl and quartz from pegmatities of the Middletown District, Connecticut. 906
 Wells, M. K. 635
Wenden, H. E., with Hurlbut, C. S., Jr. Beryl at Mount Mica, Maine. 751
 Western Canada, mineral occurrences in. (Thompson) 504
 Weyl, W. 327
 Weymouth, J. H. 637
 Wickman, F. E. 381
 Wilcox formation of Arkansas, petrography of. (Allen) 310
 Williamson, W. O. 637
 Wilson, A. J. C. X-ray optics. The

- diffraction of x -rays by finite and imperfect crystals. (Book review) 167
- Winchell, H. Alignment chart for the calculation of refractive index from the deviation of light by a prism 287
- Winchell, H., and Benoit, R. J. Taylorite, mascagnite, apthitalite, lecontite, and oxammitte from guano 590
- Wittels, M. The differential thermal analyzer as a micro-calorimeter 615
- . Some aspects of mineral calorimetry 760
- . Structural transformations in amphiboles at elevated temperatures 851
- Wolfe, C. W., and Caras, A. Unit cell of schairerite 912
- Wood, E. A. High temperature stage for the polarizing microscope 768
- Woodard, H. H. The geology and paragenesis of the Lord Hill pegmatite 869
- Worden, C. O., and Zapffe, C., with Zapffe, C. A. Fractography as a mineralogical technique 202
- Wright, F. E. Computation of the optical angle from the three principal refractive indices 543
- . Memorial of Clarence Norman Fenner 297
- . (Book review) 374
- Wyoming bentonite, notes on the fluorescence of. (Samson) 160
- Xanthophyllite. (Forman) 450
- “X-ray diffraction patterns of asbestos,” discussion of. (Comeforo, Eitel) 368
- X-ray identification and crystal structure of clay minerals. (Edited by Brindley), (Book review) 632, 637, 921
- X-ray optics. The diffraction of x -rays by finite and imperfect crystals. (Wilson), (Book review) 167
- Yagi, K. 327
- Yoder, H. S., and Keith, M. L. Complete substitution of aluminum for silicon: The system $3\text{MnO} \cdot \text{Al}_2\text{O}_3 \cdot 3\text{SiO}_2 \cdot 3\text{Y}_2\text{O}_3 \cdot 5\text{Al}_2\text{O}_3$ 328, 519
- Yttrium and other minor elements in the garnet group, role of. (Jaffe) 133
- Yttrotungstite (Beard) 641
- Zapffe, C. A., Worden, C. O., and Zapffe, C. Fractography as a mineralogical technique 202
- Zemann, J. 383
- Zerfoss, S. 328
- Zeunerite. Studies of uranium minerals (VII). (Fron del) 249
- Zinc, double fluorides of. (Ingerson, Morey) 778
- Zworykin, E. V. 323