

ALPHABETICAL INDEX

Names of AUTHORS are printed in small capitals, Subjects in lower-case roman, and *Localities* in italics. The minerals, localities, and authors mentioned in the 22nd List of new mineral names (p. 941) are not included in this Index.

- Absorption microspectroscopy, X-ray: apparatus, theory, 117; application to determination of Ca-content of a $\text{CaO}:\text{SiO}_2$ hydrogel, 117
- Adamite, *England*, xlv
- Age determination: lead isotope method, accuracy of, 657; uranium & thorium minerals, 654, 716
- AGRELL (S. O.), Metamorphosed bole, lithomarge, & bauxite from *Antrim*, xlv
- Alabandine, *Cornwall*, 921
- Albite, synthetic, kinetics of ordering in, 436
- Allanite: *South Harris*, 367; *Sutherland*, 389
- Almandine: magnetic susceptibility of, 573; *Sutherland*, anal., opt., 848
- Alunite, *Cumberland*, 418
- Amazonite, *Sutherland*, 389
- Amphibole, see Clino-anthophyllite, Cummingstonite, Hornblende, Juddite, Tremolite
- Amphibolite: -facies, *Nyasaland*, transition to granulite, 725; garnet-plagioclase, *Sutherland*, anal., petr., 848
- Analcime: *Antrim*, distribution, morphology, paragenesis, 202, 503; *Skye*, 340, 745
- Andesine: *Arran and Iceland*, anal., opt., crystallization, 587; *Sutherland*, opt., 848
- Andradite, magnetic susceptibility of, 573
- Anglesite: *Co. Tipperary*, 136; morphology of, 63
- Ankerite, *Co. Tipperary*, 128
- Anorthoclase: *Iceland*, in pitchstone, anal., opt., crystallization, 587; *Pantelleria*, anal., opt., crystallization, 587
- Apatite: -group, a calcium chromium chromate with apatite structure (artif.), 408; manganoan, *Southern Rhodesia*, 87
- Aphthitalite(?), *Durham*, 172
- Apophyllite, *Antrim*, opt., morphology, distribution, 507
- Aragonite, *Antrim*, 505, distribution, 202
- Arkose, *Ardnamurchan*, anal., mode, petr., metamorphism by dolerite, 866
- Arsenopyrite: *Co. Tipperary*, 128, 136; *Cumberland*, 428, 429; (?) *Durham*, 172
- Augite: *Skaergaard*, exsolution from pigeonite, 379; *Sutherland*, anal., opt., 848
- Axinite: *Cornwall*, 921
- Azurite: *Co. Tipperary*, 129; *Cumberland*, 428
- BALDWIN (J. R.), analysis by, 375
- BALL (M. C.) & TAYLOR (H. F. W.), The dehydration of brucite, 754
- Baryte: *Co. Tipperary*, 129, 136; *Cumberland*, 428; morphology, 63
- Basalt, amygdaloidal, *New South Wales*, secondary minerals in, 480
- Basic rocks, origin of, 459
- Bauxite, *Antrim*, xlv
- Bavenite, *Devon*, cryst., opt., Ge in, 577
- Bayldonite: *Cornwall*, 431; *Cumberland*, 428
- Beaverite, *Cumberland* and *Cornwall*, formation from beudantite, 423
- BEEVERS (C. A.) & STEWART (F. H.), *p*-Veatchite from *Yorkshire*, 500
- Beldongrite, *India*, X-ray, relation to cryptomelane, 334
- Bertrandite, *Cornwall*, 921
- Betafite(?), *South Harris*, spectr. anal., X-ray, 376
- Beudantite, *Cumberland* & *Cornwall*, formation from carminite, alteration to beaverite, 423
- Bindheimite: *Cornwall*, anal., 664; bismuthiferous, *South-West Africa*, anal., X-ray, 664
- Biotite: *South Harris*, anal., opt., spectr. anal., 371; *Tanganyika*, anal., opt., 13
- Biotite-diorite, *Sutherland*: ore minerals of, 767; Cu, Ni, Co in, 775
- Bixbyite ('Sitaparite'), *India*, X-ray, space-group, 335
- Blende, *Co. Tipperary*, replacement by chlorite, 129, 136
- Bolivarite, *Spain*, anal., opt., X-ray, 419
- Book reviews:
- ABELSEN (Philip Hauge), editor. *Researches in Geochemistry*, 585
- BERRY (L. G.) & MASON (Brian). *Mineralogy: Concepts, Descriptions, Determinations*, 352

- BORCHERT (H.). Ozeane Salzlagerstätten, 256
- BROWN (G. M.) & NOCKOLDS (S. R.), managing editors. *Journal of Petrology*, vol. 1, no. 1, 671
- BRUHNS (W.) & RAMDOHR (P.). Petrographie, 831
- BUERGER (Martin J.). Vector Space, 669
- BURRI (Conrad). Petrochemische Berechnungsmethoden auf äquivalenter Grundlage, 670
- CHUDOBA (Karl F.): BRAUNS (R.), Mineralogie, 260; HINTZE (Carl), Handbuch der Mineralogie, Erg.-Bd. II, Lief. 6-9, 259
- DAVIES (G. M.). A French-English Vocabulary in Geology & Physical Geography, 743
- DURIF-VARAMBON (A.) & FORRAT (F.). Tables numeriques de $\sin$ et de $\sin^2$, 255
- FISHER (J. C.), JOHNSTON (W. G.), THOMSON (R.), & VREEHLAND (T.). Dislocations & mechanical properties of crystals, 91
- FRONDEL (Clifford). Systematic Mineralogy of Uranium & Thorium, 346
- GINZBURG (I. I.). Principles of Geochemical Prospecting, 913
- GLESSON (Sterling). Ultraviolet Guide to Minerals, 743
- HAWKES (H. E.). Principles of Geochemical Prospecting, 253
- HEINRICH (E. W.). Mineralogy of Radioactive Raw Materials, 348
- DE JONG (W. F.): Kompendium der Kristallkunde, 741; General Crystallography: a Brief Compendium, 741
- JUNG (J.) & BROUSSE (R.). Classification modale des roches éruptives, utilisant les données fournies par le compteur de points, 581
- KASPER (J. S.) & LONSDALE (K.). International Tables for X-ray Crystallography. Vol. 2. Mathematical Tables, 914
- KERR (Paul F.). Optical Mineralogy, 254
- KONTA (J.). Jílové minerály Československa, 257
- KORZHINSKY (D. S.). Physicochemical basis of the analysis of the genesis of minerals, 911
- KRAUS (Edward Henry), HUNT (Walter Fred), & RAMSDELL (Lewis Stephen). Mineralogy, 259
- KRINOV (E. L.). Principles of Meteoritics, 831
- KUKUK (Paul). Geologie, Mineralogie und Lagerstättenlehre, 744
- LIPSON (H.) & TAYLOR (C. A.). Fourier Transforms & X-ray Diffraction, 91
- MASON (Brian H.). Trap Rock Minerals of New Jersey, 742
- MAUCHER (A.) & REHWALD (G.). Bildkarten der Erzmikroskopie, 993
- MENDELSSOHN (F.). The Geology of the Northern Rhodesian Copperbelt, 994
- MICHEL-LÉVY (Christophe). Tableaux des Minéraux des Roches, 584
- NORTHROP (Stuart A.). Minerals of New Mexico, 581
- RAMDOHR (P.). Die Erzminerale und ihre Verwachsungen, 995
- ROBERTSON (R. H. S.). Mineral Use Guide, 992
- ROSE (A. J.): Tables et Abaques, 255; (editor) Répertoire de Matériel Cristallographique, 501
- SMALES (A. A.) & WAGER (L. R.), editors. Methods in Geochemistry, 740
- SMITS (D. W.). World Directory of Crystallographers, 2nd edn., 672
- STASIW (O.). Elektronen- und Ionenprozesse in Ionenkristallen, 580
- SWINEFORD (A.), editor. Clays & Clay Minerals, Proc. 5th Nat. Conf. Clays, 258
- TOLANSKY (S.). Surface Microtopography, 739
- TWENEY (C. F.) & HUGHES (L. E. C.). Chambers's Technical Dictionary, 92
- VAN HIPPEL (Arthur R.). Molecular Science & Molecular Engineering, 501
- VITANAGE (P. W.). Memoir no. 1, Dept. of Mineralogy, Geol. Survey of Ceylon, 583
- WILLIAMS (Howel). Volcanic History of the Guatemalan Highlands, 915
- Bornite, *Cornwall*, 921
- BOSE (Mihir Kumar). Bleached hornblende, 177
- Botallackite, crystal structure, xlvii
- BOTHWELL (D. I.), DAVIS (R. J.), & MOSS (A. A.). Bindheimite, 664
- see MOSS (A. A.), 802; analyses by, 309, 746, 921
- Boulangerite, *Co. Tipperary*, 129
- Bournonite, *Co. Tipperary*, 129
- BOWN (M. G.) & GAY (P.). Exsolution in pyroxenes, 379
- Braggite, *Transvaal*, 833
- BRAITHWAITE (M. S. W.), see RYBACK (G.), lxxvi
- Brannerite, *Northern Rhodesia*, anal., age, 719
- Braunite, *India*, X-ray, space-group, 334
- BROWN (C. S.) & THOMAS (L. A.). Synthetic quartz, lxiv
- BROWN (G.) & STEPHEN (I.). Expanding-lattice minerals from *Shropshire*, 251
- BROWN (P. E.). Pyrosmalite from *North Wales*, 242
- Brucite: *Canada*, var. nemalite, anal., dehydr. curve, course & mechanism of dehydration, 754; *Pennsylvania*,

- course & mechanism of dehydration, 754
- Brunsvigite, *Co. Tipperary*, opt., 129
- Buchites, *Ardnamurchan*, refr. ind., water content, 866
- BUTLER (J. R.) and EMBREY (P. G.), Metamorphism & metasomatism of Moine Series rocks in *Glenmore*, 866.
- BUTLER (J. R.) and EMBREY (P. G.), Delorenzite is tanteuxenite, 308
- and HALL (Rosemary), The fergusonite-formanite series, 392
- Cahnite, *Italy*, cryst., opt., X-ray, crystal structure, 666
- Calcite, *Antrim*, morphology, new forms, constancy of habit in basic lavas, 609
- CARMICHAEL (I. S. E.), Feldspar phenocrysts, 587
- Carminite, *Cumberland & Cornwall*, alteration to beudantite or plumbogjarosite, 423
- ČECH (F.), Stokesite from *Czechoslovakia*, 673
- Celestine, morphology, 63
- Cerussite: *Co. Tipperary*, 136; *Cumberland*, 428, 430; *Nottingham*, 705
- Chabazite: *Antrim*, distribution, morphology, paragenesis, overgrowth on gmelinite, 202, 509; *New South Wales*, in amygdaloidal basalt, paragenesis, opt., 480; *Renfrewshire* ('Glottalite'), 421
- Chalcedony: *New South Wales*, in amygdaloidal basalt, paragenesis, opt., 480; *Antrim*, 505
- Chalcocite, *Co. Tipperary*, 129
- Chalcopyrite: *Co. Tipperary*, 129; *Nottingham*, 705
- CHALMERS (R. A.), analyses by, 220, 354
- Chalybite, *Co. Tipperary*, 128
- CHANDLER (T. R. D.), see DARNLEY (A. G.), 654, 716
- Chlorite: brunsvigite, *Co. Tipperary*, opt., 129; pennine, *Edinburgh*, pseudomorphs after olivine, 324; *Shropshire*, opt., 251
- Chondrodite, *South Harris*, opt., 910
- Chromates: a calcium chromium chromate with apatite structure, 408; a calcium iron chromium chromate with perovskite structure, 408
- Chrysocolla, *Cumberland*, 430
- CLARINGBULL (G. F.), HEY (M. H.), & DAVIS (R. J.), Cornubite, 1
- see DEARMAN (W. R.), 577
- CLIFFORD (T. N.), Chromian mica from *Ross-shire*, 178
- see VON KNORRING (O.), 650
- Clino-anthrophyllite, existence of synthetic, 659
- Clinopyroxene: *Skaergaard*, orientation of exsolution lamellae, inversion, 379; see also Augite, Ferroaugite, Pigeonite
- Cobalt, determination of in iron meteorites, 802
- Columbite, *South Harris*, anal., spectr. anal., X-ray, 373
- COOK (A. C.), see KOSSENBERG (M.), 829
- Cooperite, *Transvaal*, 833
- Copper: determination of in iron meteorites, 802; native, *Antrim*, 208
- Cornubite, *Cornwall, Devon, & Cumberland*, anal., opt., X-ray, 1
- Cornwallite, *Wheal Carpenter, Cornwall*, anal., X-ray, 1
- Coronadite, *Cumberland*, 343
- Covellite, *Co. Tipperary*, 129
- COX (K. G.), see VON KNORRING (O.), 676
- Cromalite, *Sutherland*: ore minerals of, 767; Cu, Ni, Co in, 775
- Cryptomelane, *India*: X-ray, space-group, cell-contents, 168; presence of amorphous material in, 333; X-ray, 334
- Crystallographic calculations, 817
- Cummingtonite, relation to anthophyllite, 659
- Cyanotrichite, *Namaqualand, South Africa*, ('namaqualite'), opt., 737
- Danalite, *Cornwall*, anal., 921
- DANCE (D. F.), see DARNLEY (A. G.), 654, 716
- DARNLEY (A. G.), HORNE (J. E. T.), SMITH (G. H.), CHANDLER (T. R. D.), DANCE (D. F.), & PREECE (E. R.), Ages of African minerals, 716
- SMITH (G. H.), CHANDLER (T. R. D.), DANCE (D. F.), & PREECE (E. R.), Age of uraninite, 654
- Davidite, *Mozambique*, anal., age, 720
- DAVIES (M.), see NASHAR (Beryl), 480
- DAVIS (R. J.), The use of Buerger's algorithm in crystallographic calculations, 817
- see: BOTHWELL (D. I.), 664; CLARINGBULL (G. F.), 1
- DEANS (T.), Mineralization in the Magnesian Limestone, 705
- DEARMAN (W. R.) & CLARINGBULL (G. F.), Bavenite from *Devonshire*, 577
- DEARNLEY (R.), Humite & chondrodite from *South Harris*, 910
- see VON KNORRING (O.), 344, 366, 389
- Dehydration mechanisms: homogeneous & inhomogeneous, 761; in dickite, 314; in brucite, 754

- Delhayelite, *North Kivu, Congo*, anal., opt., X-ray, 6
- Delorenzite, *Piemont*, is tanteuxenite, anal., 308
- DE WYS (E. Christiaan): Immiscibility in silicate melts, 471; no structures in silicate melts, 640; system anorthite-åkermanite, 644; viscosity of silicate melts, 825
- Dickite: *Colorado*, d.t.a., 314; *Cumberland*, 418; *Pennsylvania*, anal., X-ray, infra-red absorption, crystal structure, 683; mechanism of dehydroxylation, 314; *South Africa*, anal., opt., d.t.a., 314; *Wisconsin*, dehydration, 53
- Differential thermal analysis (d.t.a.) curves: dickite, 318; erionite, 261; goethite, 155; halloysite, 41, 60; iron oxide gels, 155; kaolinite, 41; montmorillonite, 59; palygorskite, 60; pandaite, 21; sepiolite, 60, 223; stevensite, 223; thaumasite, 569; yoderite, 298
- Diopside, Si-O chains in melts of, 640
- Disorder, structural, types of, 231
- Dolerite: *Ardnamurchan*, anal., mode, petr., metamorphism of arkose & pelite by, 866; *Islay*, anal., differentiation, 140; *Sutherland*, anal., petr., 848
- Dolomite, *Co. Tipperary*, opt., 136
- DONNAY (Gabrielle), SCHAIRER (J. F.), & DONNAY (J. D. H.), Nepheline solid solutions, 93
- DONNAY (J. D. H.), see DONNAY (Gabrielle), 93
- Donnay-Harker hypothesis, 63
- DREVER (H. I.), Rocks from *Ubekendi Ejdland, West Greenland*, xlv
- DUFFIN (W. J.) & GOODYEAR (J.), *Scarbroite*, 353
- see GOODYEAR (J.), 902
- Electron-probe microanalyser, identification of new Pt & Pd minerals with, 833
- EMBREY (P. G.): Cahnite, 666; Model of the crystal structure of botallackite, xlv
- see BUTLER (J. R.), 308
- Epidiorite, *Sutherland*: ore minerals of, 767; Cu, Ni, Co in, 775
- Epidote, *South Harris*, 367; *Sutherland*, 848
- Epsomite, *Durham*, 172
- Erionite: *Faroe Isles*, 343; *Oregon*, anal., X-ray, d.t.a., electron diffraction, cryst. structure, 261
- Federov stage, see Universal stage
- Feldspar: crystallization of, in volcanic rocks, 587; order & disorder in, 226; see also Amazonite, Andesine, Anorthoclase, Microcline, Oligoclase, Orthoclase, Plagioclase, Sanidine
- (Fe,Ni)₂S, unnamed new mineral, *Transvaal*, anal., opt., 833
- Fergusonite, *Ceylon, Greenland, Norway, South Africa, & U.S.A.*, anal., ratio of lanthanons in, 392
- β-Ferric oxide hydrate: d.t.a., electron micrographs, 153; synthesis, X-ray, electron diffraction, crystal structure, twinning, dehydration, 545
- oxyhydroxide, see β-Ferric oxide hydrate
- Ferric sulphate, *Durham*, 172
- Ferroaugite, subcalcic, *Sutherland*, anal., opt., 848
- Ferrohypersthene, *Sutherland*, anal., opt., 848
- Ferrous sulphate heptahydrate, see Melanterite
- tetrahydrate, see Siderotil
- FONT-ALTABA (M.), Thaumasite, 567
- Formanite, *Western Australia*, anal., ratio of lanthanons, 392
- FROST (M. J.), Magnetic susceptibility of garnet, 573
- Fuchsite, *Ross-shire*, anal., paragenesis, 179
- Gahnite, *South Harris*, anal., spectr. anal., opt., X-ray, 374
- Galena: *Co. Tipperary*, 129, 136; *Nottinghamshire and Yorkshire*, in Magnesian Limestone, Ag & Sb content, age, 705; *Derbyshire*, Ag & Sb content, 705
- Gallium, determination of, in iron meteorites, 802
- GARD (J. A.), see STAPLES (Lloyd W.), 261
- Garnet, see Almandine, Andradite, Grossular, Pyrope, Spessartine
- Garronite, *Antrim*, 505
- GAY (P.) & LEMAITRE (R. W.), Observations on iddingsite, lxvii
- & RICKSON (K. O.), X-ray data on stokesite, 433
- see BOWN (M. G.), 379
- Genthelvite, *Cornwall*, anal., 921
- Germanium, determination of, in iron meteorites, 802
- Geversite, *Transvaal*, anal., opt., 833
- Gismondine, *Antrim*, 503, early records probably really chabazite + heulandite, 207

- Glass: from vitrification of arkose by dolerite, *Ardnamurchan*, anal., opt., 866; theory of aluminosilicate glasses, lx
- Glottalite, *Renfrewshire*, is chabazite, 421
- Goethite: *Co. Tipperary*, 128; *Edinburgh*, in pseudomorphs after olivine, 823; in iron oxide gels, electron micrographs, d.t.a., 153; transformation to hematite, 898
- Gold, *Cumberland*, lxxxiii, 420
- GOODYEAR (J.) & DUFFIN (W. J.), Well-crystallized kaolinite, 902
- see DUFFIN (W. J.), 353
- Gmelinite, *Antrim*, 503, distribution, morphology, paragenesis, 202
- Granulite facies, *Nyasaland*, transition to amphibolite, 725
- GRIM (Ralph E.), see KULBICKI (Georges), 53
- Grossular, magnetic susceptibility, 573
- Gudmundite, *Co. Tipperary*, 129
- Gyrolite: *Antrim*, opt., distribution, 509; *Skye*, anal., opt., dehydr., 745
- Halite, *Durham*, opt., 172
- HALL (Rosemary), see BUTLER (J. R.), 392
- HALLIMOND (A. F.): Adjustment of the Fedorov stage, 245; Aluminium foil laps for polished sections, 738
- Halloysite: *Indiana*, dehydration, d.t.a., 53; *Macedonia*, infra-red absorption before & after heat treatment, 38
- Harmotome, *Sutherland*, 390
- HARTLEY (J.), Coronadite from *Cumberland*, 343
- see KINGSBURY (A. W. G.), 423
- HECKROODT (R. O.), see SCHMIDT (E. R.), 314
- Hectorite, *California*, dehydration, 53
- Helvine: *Cornwall*, anal., 921; *Devon*, anal., 921; *Southern Rhodesia*, anal., opt., 87
- Hematite: *Edinburgh*, in pseudomorphs after olivine, 825; transformation of goethite to, 898
- Hemimorphite, *Co. Tipperary*, 129, 136
- Herderite, *Cornwall*, 921
- HERDSMAN (W. H.), analysis by, 146
- Heulandite, *Antrim*, opt., morphology, distribution, 506
- HEY (M. H.): Erionite from the *Faroës*, 343; Glottalite is chabazite, 421; The *Bamenda* 'meteorite', 910; 22nd List of new mineral names, 941
- see CLARINGBULL (G. F.), I; MOSS (A. A.), 802
- HOAGLAND (L. L.), analysis by, 272
- Hollandite, *India*: symmetry, 170; monoclinic, 334
- Holmquistite, *Southern Rhodesia*, anal., opt., X-ray, 731, 823
- Hornblende: *Bihar, India*, opt., 'bleaching', 177; *Southern Rhodesia*, anal., opt., 731; *Sutherland*, opt., 389, anal., opt., 848
- Hornblende-schist, *Sutherland*, anal., petr., 848
- HORNE (J. E. T.), see DARNLEY (A. G.), 716
- HORNUNG (G.), see VON KNORRING (O.), 731, 823
- Hübnerite, *England*, xlv
- Humite, *South Harris*, opt., 910
- HUSS (Glenn I.), see NININGER (H. H.), 619
- Hydroscarbroite, *Yorkshire*, X-ray, 353
- Hypersthene: *Sutherland*, anal., opt., 848; *Tomhannock Creek*, meteorite, opt., 532
- HYTÖNEN (Kai), see SAHAMA (Th. G.), 6
- Iddingsite: *Edinburgh*, nature of, 823; nature of, lxxvii
- Illite, *Illinois*, dehydration, 53
- Ilmenite: -magnetite intergrowth, effect of heating on, 32; -magnetite-ulvöspinel intergrowth, effect of heating on, 32
- Ilsemanite, *Durham*, 172
- Ilvaite, *Cornwall*, 921
- Immiscibility in silicate melts, 471
- Inclusions in steel, identification of, 790
- Indialite, formation from yoderite on heating, 295
- Infra-red absorption curves: halloysite, 38; iron oxide gels, 156; kaolinite, 38, 683; metakaolin, 38; metascarbroite, 359; scarbroite, 359
- Iridosmine, *Transvaal*, 833
- Iron oxide gels, constitution, d.t.a., electron-micrographs, ageing, 153
- JÄGER (E.), NIGGLI (E.), & VAN DER VEEN (A. H.), A hydrated barium-strontium pyrochlore (pandaite), 10
- Jamesonite, *Cornwall*, 431
- Jarosite, *Cumberland*, 430
- JOHNSON (W. A.), A synthetic chromiferous apatite & a perovskite, 408
- Juddite, *Madhya Pradesh*, India, opt., 736
- Kaolin group, polymorphism, stability of possible polymorphs, 683
- Kaolinite: *Croatia*, *Czechoslovakia*, *Macedonia*, *Georgia*, & synthetic,

- infra-red absorption before & after heat-treatment, 38; *Georgia*, dehydration, 53; *Yorkshire*, X-ray, 902
- Karrooite (MgTi_2O_5 , artif.), 676
- Kasolite, *South Harris*, spectr. anal., 376
- KENNEDY (W. Q.), A diffusion reaction skarn, 26
- Kennedyite, *Southern Rhodesia*, opt., anal., X-ray, 676
- KINGSBURY (A. W. G.): Helvine group, 921; Hübnerite & adamite, xlv; scheelite from *Devonshire*, lxxviii
- & HARTLEY (J.), Carminite & beudantite, 423
- see SWEET (J. M.), lxxxiii
- KNILL (Diane C.), Thaumassite from *Ireland*, 416
- VON KNORRING (O.), Helvine from *Southern Rhodesia*, 87
- & CLIFFORD (T. N.), Monazite from South-West Africa, 650
- & COX (K. G.), Kennedyite, 676
- & DEARNLEY (R.): A rare-earth mineral in nordmarkite, 389; Molybdenite from *Sutherland*, 344; Pegmatites from *South Harris*, 366
- & HORNING (G.), Holmquistite from *Southern Rhodesia*, 731, 823
- KOSSENBERG (M.) & COOK (A. C.), Melanterite in coal, 829
- KULBICKI (Georges) & GRIM (Ralph E.), Thermal dehydration of clay minerals, 53
- Kyanite, *Tanganyika*, alteration to yoderite, 282
- LACY (E. D.), Theory of aluminosilicate glasses, lx
- Lanthanons, distribution ratios in ferugonite and formanite, 392
- Larnite, *Antrim*, hydration of, 117
- Laumontite: *Antrim*, opt., 509, 527; *Skye*, 745
- Laurite, *Transvaal*, 833
- LAYTON (W.) & PHILLIPS (R.), Cumingtonite, 659
- LEMATRE (R. W.), see GAY (P.), lxxvii
- Lepidocrocite, *Durham*, 172
- Leucodolerite, *Islay*, anal., 140
- Levyne, *Antrim*, 503, 527
- LIMA-DE-FARIA (J.), see MCCONNELL (J. D. C.), 898
- Limburgite, *Southern Rhodesia*, anal., 676
- Linarite, *Co. Tipperary*, 129
- Löllingite: *Cornwall*, 921; *Cumberland*, 429
- LONG (J. V. P.) & MCCONNELL (J. D. C.), X-ray absorption microspectroscopy, 117
- LONSDALE (Kathleen), MILLEDGE (H. Judith), & NAVE (Eric), Synthetic diamond, 185
- MCCONNELL (J. D. C.): Dolerite-chalk contact at *Ballycraigy, Northern Ireland*, xlvii; Hydrothermal synthesis of tilleyite, li; Vaterite from *Larne*, 535
- & LIMA-DE-FARIA (J.), Electron-optical & electron-diffraction study of a transitional state in the transformation goethite-hematite, 898
- & MCKIE (Duncan), Kinetics of ordering in $\text{NaAlSi}_3\text{O}_8$, 436
- see LONG (J. V. P.), 117
- MACKAY (A. L.), β -Ferric oxyhydroxide, 545
- MACKENZIE (Robert C.) & MELDAU (Robert), Iron oxide gels, 153
- MCKIE (Duncan), with anals. by RADFORD (A. J.), Yoderite, 282
- see MCCONNELL (J. D. C.), 436
- Magnesian Limestone, mineralization in, 705
- Magnetite: *South Harris*, anal., 368; -ilmenite intergrowth, effect of heating on, 32; -ulvöspinel-ilmenite intergrowth, effect of heating on, 32
- Malachite: *Antrim*, 208; *Co. Tipperary*, 129; *Nottingham*, 705
- Manganapatite, see Apatite, manganoean
- γ -Manganese dioxide, 334
- Manganese ores, *India*, minerals present in, 338
- Manganite, *New South Wales*, in amygdaloidal basalt, paragenesis, 480
- Manganophyllite, *India*, opt., 908
- Marcasite, *Co. Tipperary*, 129, 136
- MASON (Brian), Identity of namaqualite with cyanotrichite, 737
- and WILK (H. B.), *The Tomhannock Creek meteorite*, 528
- MEGAW (Helen D.), Order & disorder in the feldspars, 226
- Melanterite: *New South Wales*, in coal, 829; artif., anal., X-ray, 829
- MELDAU (Robert), see MACKENZIE (Robert C.), 153
- Mesolite: *Antrim*, distribution, 208, 503; *Skye*, 745; red '—', *Skye*, = analcime + thomsonite, 457
- Metakaolin, infra-red absorption, presence of residual hydroxyl groups in, 38, 55
- Metamorphic rocks, *Nyasaland*, 725
- Metamorphism: contact, at *Ballycraigy, Northern Ireland*, xlvii; of arkose & pelite by dolerite, *Ardnamurchan*, 866
- Metasomatism by alkalis of arkose &

- pelite at contact with dolerite, *Ardnamurchan*, 866
- Meteorites: iron, determination of Co, Cr, Cu, Ga, Ge, Ni, P, & S in, 802; stony, action of dry chlorine on, 813
- Meteorite crater, *Dalgaranga*, formed by a stone or stony-iron, 619
- falls: *Bamenda* a pseudometeorite, 910; *Dalgaranga*, classification, weathering, 619; *Tomhannock Creek*, anal., 528; *Yorktown*, 528
- Microcline: *South Harris*, spectr. anal., 370; see also Amazonite
- MILLEDDGE (H. Judith), see LONSDALE (Kathleen), 185
- Mimetite: *Cornwall*, 431, 432; *Cumberland*, 428
- Minerals new to Britain:
- | | |
|------------------|------------------|
| Alunite, 418 | Pyrosmalite, 242 |
| Coronadite, 343 | Stevensite, 218 |
| Garronite, 505 | Tacharanite, 745 |
| Genthelvite, 921 | Thaumasite, 416, |
| Gismondine, 207, | 418 |
| 503 | Uranophane, 369 |
| Gudmundite, 128 | Vaterite, 535 |
| Helvine, 921 | p-Veatchite, 500 |
| Ilsemanite(?), | Zunyite, 418 |
| 172 | |
| Plumbojarosite, | |
| 423 | |
- MITCHELL (W. A.), Quantitative mineral analysis by X-ray powder diffraction, 492
- Moine series, *Ardnamurchan*, metamorphism & metasomatism by dolerite, 866
- Molybdenite: *Cornwall*, 921; *Durham*, 172; *Sutherland*, 344
- Monazite: identification by absorption spectrum, 176; *Nyasaland*, anal., age, 721; *South Harris*, opt., spectr. anal., 368, 370; *South-West Africa*, opt., anal., 650
- Montmorillonite: *Argentina*, *Mississippi*, & *Wyoming*, dehydration, d.t.a., 53; *New South Wales*, in amygdaloidal basalt, paragenesis, 480; *Southern Rhodesia*, after petalite, 88
- Mordenite, *Antrim*, 509
- MOREL (S. W.), Amphibolite-granulite facies, *Nyasaland*, 725
- Morphological analysis of the baryte group, 63
- MOSS (A. A.), HEY (M. H.), & BOTHWELL (D. I.), Analysis of meteorites, 802
- see BOTHWELL (D. I.), 664
- MUKHERJEE (Bibhuti): Manganese minerals, 332; Psilomelane & cryptomelane, 166
- Muscovite: *Harris, Scotland*, 373; & see Fuchsite
- Namaqualite, *Namaqualand*, = cyanotrichite, 737
- NASHAR (Beryl) & DAVIES (M.), Secondary minerals, *New South Wales*, 480
- Natrolite: *Antrim*, distribution, morphology, opt., paragenesis, 202, 503; *New South Wales*, in amygdaloidal basalt, paragenesis, 480
- NAVE (Eric), see LONSDALE (Kathleen), 185
- NAYAK (V. K.): Juddite, 736; Mangano-phyllite from *Goldongri, India*, 908
- Nepheline, X-ray data, solid solution & vacant lattice positions, discontinuities in cell-dimension: composition relation, 93
- New minerals (see also 22nd List of new mineral names, p. 941):
- | | |
|------------------|---------------------|
| Cornubite, 1 | Karrooite, 676 |
| Delhayelite, 6 | Kennedyite, 676 |
| Garronite, 505 | Metascarbroite, 358 |
| Geversite, 833 | Pandaite, 10 |
| Hydroscarbroite, | Tacharanite, 745 |
| 357 | Yoderite, 282 |
- Unnamed: (Fe,Ni)₂S, 842; Pd₂CuSb, 841; Pd₂CuSb₃, 841; Pd(Sb,Bi), 842; PtSb, 839; Pt(Sb,Bi), 838; Pt(Ir,Os)₂As₄, 840; (Pt,Ir)As₃, 839; Pt₂Sn₃Cu₄, 840; rare-earth mineral possibly related to monazite, 389
- NEWNHAM (Robert E.), The structure of dickite, 683
- NICHOLSON (C. G.), Identification of inclusions in steel, 790
- NIGGLI (E.), see JÄGER (E.), 10
- NININGER (H. H.) & HUSS (Glenn I.), The *Dalgaranga* meteorite crater, 619
- Nontzonite, *Washington*, dehydration, 53
- Nordmarkite, *Sutherland*, anal., pegmatite veins in, 389
- O'HARA (M. J.), Petrology of the *Scourie* dyke, 848
- OJANPERÄ (Pentti), analysis by, 8
- Oligoclase: *Iceland*, anal., opt., crystallization, 587; *South Harris*, anal. and spectr. anal. of intergrowth with zoisite, 376; *Tomhannock Creek* meteorite, opt., 532
- Olivene, *Cumberland*, 428
- Olivine: *Edinburgh*, pseudomorphs of hematite & chlorite after, 324; *Edinburgh*, pseudomorphs of hematite, goethite, & saponite after, 823; *Tomhannock Creek* meteorite, opt., 532

- Optics: biaxial ray surface, nature & description of, 558
- Order-disorder: kinetics of ordering in $\text{NaAlSi}_3\text{O}_8$, 436; nature of the ordering process, 450
- Ore specimens, aluminium foil laps for polishing, 738
- Origin of basic & ultrabasic rocks, 459
- Orthoclase: relation to microcline, 240; *Sutherland*, anal., opt., 848; *Tanganyika*, anal., opt., 13; see also Sanidine
- Orthopyroxene: *Skaergaard*, orientation of exsolution lamellae in, 379; see also Ferrohypersthene, Hypersthene.
- Osmiridium, *Transvaal*, 833
- PADGET (Erna), analysis by, 179
- Palygorskite, *Georgia*, dehydration, d.t.a., 53
- Pandaite, *Tanganyika*, anal., opt., d.t.a., dehydration, X-ray, infra-red absorption, paragenesis, 10
- PATTERSON (E. M.), see WALKER (Frederick), 140
- Pd-minerals, unnamed, *Transvaal*, anal., opt.: $\text{Pd}(\text{Sb}, \text{Bi})$, Pd_2CuSb , Pd_5CuSb_3 , 833
- Pectolite, *Northumberland*, alteration to stevensite, 218
- Pegmatites: *South Harris*, mineralogy, 366; *Sutherland*, 344
- Pelite, *Ardnamurchan*, anal., mode, petr., metamorphism by dolerite, 866
- Pennine, *Edinburgh*, in pseudomorphs after olivine, 324
- Pentlandite, *Transvaal*, 833
- Perovskite group: a calcium chromium iron oxide with perovskite structure, 408
- Petalite, *Southern Rhodesia*, alteration to montmorillonite, 87
- Pharmacosiderite, *Cumberland*, 429
- Phenakite, *Cornwall*, 921
- PHILLIPS (R.), see LAYTON (W.), 659
- Phillipsite, *Antrim*, distribution, opt., morphology, 202, 507
- Phlogopite, *Pyrenees*, opt., 412
- Photometers, use of polarizing film in, 90
- Pigeonite, *Skaergaard*, inversion, orientation of exsolution lamellae in, 379
- Plagioclase: optical determination of composition, 587; see also Andesine, Oligoclase
- Plinthite; original material a ferruginous clay, but name misused for red mixtures of zeolites, 455
- Plumbojarosite, *Cumberland & Cornwall*, formation from carminite, 423
- Polarizing film ('polaroid'), suitability for photometers, 90
- Polished sections, aluminium laps for, 738
- PREECE (E. R.), see DARNLEY (A. G.), 654, 716
- Pseudomorphs after olivine ('iddingsite'), anal., X-ray, 324, 823, lxvii
- Psilomelane, *India*, X-ray, space-group, cell-contents, 166
- Pt-minerals, unnamed, *Transvaal*, anal., opt.: PtSb , $\text{Pt}(\text{Sb}, \text{Bi})$, $(\text{Pt}, \text{Ir})\text{As}_2$, $\text{Pt}(\text{Ir}, \text{Os})_2\text{As}_4$, $\text{Pt}_4\text{Sn}_3\text{Cu}_4$, 833
- p*-Veatchite, see under V
- Pyrite: *Durham*, 182; *Co. Tipperary*, 129, 136
- Pyrochlore, hydrated barium-strontium, see Pandaite
- Pyrope, magnetic susceptibility, 573
- Pyrosmalite, *North Wales*, opt., 242
- Pyroxene: study of oriented intergrowths in, xlv; see also Orthopyroxene, Clinopyroxene
- Pyrrhotine, *Co. Tipperary*, alteration to marcasite, 128
- Quartz, synthetic, effect of impurities on growth, lxiv
- RADFORD (A. J.), see MCKIE (Duncan), 282
- Ramsdellite, *India*, 334
- RANDALL (B. A. O.), Stevensite from the *Whin Sill*, 218
- Rare-earth mineral, unnamed, *Sutherland*, opt., anal., X-ray, possible relation to monazite, 389
- RAYMOND (L. R.), Secondary minerals from *Billingham*, 172
- Ray surface in biaxial crystals, 558
- Reaction-skarn, *Renfrewshire*, 26
- RETHMEYER (R.), analysis by, 316
- Rheomorphic veining, anal., *Ardnamurchan*, 860
- RHODEN (H. N.), The mineralogy of the *Silvermines district, Co. Tipperary*, 128
- RICKSON (K. O.), see GAY (P.), 433
- Risörite, *Norway*, anal., ratio of lanthanons, 392
- Riversideite (9.35 Å. tobermorite), formation from tobermorite & dehydration, 110
- 'Rock soap', *Skye*, 458
- Rosasite, *Derbyshire*, lxxvi
- RYBACK (G.) & BRAITHWAITE (M. S. W.), Rosasite from *Derbyshire*, lxxvi
- SAHAMA (Th. G.) & HYTÖNEN (Kai), Delhayelite, 6
- Samarskite, *Kenya*, anal., age, 722

- Saponite: *Antrim*, 526; *Edinburgh*, in pseudomorphs after olivine, 823; *Skye*, 745
- Scarbrite, *Yorkshire*: anal., opt., X-ray, dehydration, infra-red absorption, 353; electron diffraction, 363
- SCHAIER (J. F.), see DONNAY (Gabrielle), 93
- SCHALLER (W. T.), Some ideas on beryl, lxxx
- Scheelite, *Devon*, lxxviii; *Cornwall & Devon*, 921
- SCHMIDT (E. R.) & HECKROODT (R. O.), Dickite, 314
- Scolecite, *Antrim*, 208, 503
- Scorodite: *Cornwall*, 431, 432; *Cumberland*, 429, 430
- SEAGER (A. F.), Morphology of baryte group, 63
- Secondary minerals: *Durham*, 172; *New South Wales*, in amygdaloidal basalts, mechanism of formation, 480
- Sepiolite: *Madagascar*, d.t.a., 223; *Pyrenees*, opt., 412; *Spain*, dehydration, d.t.a., 53
- Siderite (of DAUBRÉE), see Meteorites, iron
- (of HAIDINGER), see Chalybite
- Siderotil, artif., X-ray, 829
- Silicate melts: immiscibility in, 471; Si-O chains in, 640; viscosity of, 825
- Sitaprite, see Bixbyite
- SMITH (G. H.), see DARNLEY (A. G.), 654, 716
- SMITH (W. Campbell), Obituary of L. J. SPENCER, 181
- SMITH (Wilma W.): Iddingsite, 823; Pseudomorphs after olivine, 324
- SMITHSON (F.), Spectroscopic eyepiece, 176
- Smithsonite, *Co. Tipperary*, 136
- Spectroscopic eyepiece for microscope, simple, 176
- SPENCER (Leonard James), Obituary, 181
- Spessartine: magnetic susceptibility, 573; *South Harris*, opt., 368, opt., anal., 375
- Sphalerite, see Blende
- Sphene, *Sutherland*, 344
- Spinel-like phase of MgO, formation from brucite, 754
- Spodumene: Si-O chains in melts of, 640; *Southern Rhodesia*, 87
- STAPLES (Lloyd W.) & GARD (J. A.), Erionite, 261
- STEPHEN (I.), see BROWN (G.), 251
- Stevensite, *Northumberland*, opt., anal., pseudom. after pectolite, staining reactions, d.t.a., X-ray, 218
- STEWART (F. H.), see BEEVERS (C. A.), 500
- Stibiopalladinite, *Transvaal*, 833
- Stibnite, *Cornwall*, 431
- Stilbite: *Antrim*, opt., morphology, distribution, 506; *Sutherland*, 391
- Stokesite: *Cornwall*, X-ray, 433; *Czechoslovakia*, X-ray, 673
- STRUNZ (H.), Mining & metallurgy in *Berlin*, lxxviii
- STUBIČAN (V.), Metakaolin, 38
- STUMPF (E. F.): New Pt & Pd minerals, 833; Ore minerals in *Assynt* rocks, 767
- Sulphur, *Durham*, 172
- SWEET (Jessie M.): Calcium silicates from *Skye*, 745; Gold from *Cumberland*, 420; Plinthite, 455; Tobermorite & xonotlite, *Skye*, lxxvii; Ugite, 340
- & KINGSBURY (A. W. G.), Gold from the *Caldbeck Fells*, lxxxiii
- Syenite, *Islay*, anal., 140
- Sylvine, *Durham*, 172
- System:
- Anorthite-åkermanite, thermodynamic considerations, ionic constitution of melt, 644
- CaO-MgO-FeO-SiO₂, 459
- CaO-SiO₂-H₂O, formation of a hydrogel by hydration of larnite, 117
- FeO-Fe₂O₃-TiO₂, 778
- Tacharanite, *Skye*, anal., opt., dehydration, X-ray, 745
- Tale: *Durham*, 172; *New York*, dehydration, 53
- Tamarugite(?), *Durham*, 172
- Tanteuxenite ('delorenzite'), *Piemont*, anal., ratios of lanthanons, 308
- TAYLOR (H. F. W.), The transformation of tobermorite into xonotlite, 110
- see BALL (M. C.), 754
- Teschenite, *Islay*, anal., 140
- Tetrahedrite, *Co. Tipperary*, 129
- Thaumasite: *Cumberland*, lxxvi, 418; *Ireland*, opt., X-ray, 416; *Virginia*, X-ray, d.t.a., products of dehydration, 567
- Thenardite, *Durham*, 172
- Thermal dehydration curves, new method for, 53
- dehydration curves: dickite, 56; gyrolite, 747; halloysite, 56; hectorite, 57; illite, 57; kaolinite, 56; montmorillonite, 58; nontronite, 57; palygorskite, 58; pandaite, 21; scarbrite, 356; sepiolite, 58; tacharanite, 750; talc, 57; xonotlite, 747; yoderite, 298
- Thin sections: aluminium foil laps for

- polishing, 738; preparation of, from small inclusions in steel, 790
- THOMAS (L. A.), see BROWN (C. S.), lxiv
- Thomsonite: *Antrim*, opt., distribution, paragenesis, 202, 503; *Skye*, 745
- Thorite, *South Harris*, 368, opt., X-ray, spectr. anal., 371
- Thorogummite, *South Harris*, opt., X-ray, 371
- Tilleyite, synthesis, li
- Titaniferous magnetite, effect of heat on, 32
- Titanomagnetite, solid solution relations with ilmenite & ulvöspinel, 778
- Tobermorite: *Antrim*, dehydration through riversideite to β -CaSiO₃, 110, hydrothermal conversion through xonotlite to β -CaSiO₃, 110; *Skye*, lxvii, 745
- TOCHER (F. E.): The biaxial ray surface, 558; Weissenberg net: a visual aid, 578
- Tremolite, *Pyrenees*, opt., 412
- Trona, *Durham*, 172
- Uigite, *Skye*, opt., X-ray, is thomsonite or thomsonite + gyrolite, 340
- Ultrabasic rocks, origin of, 459
- Ulvöspinel-magnetite-ilmenite intergrowths, effect of heating on, 32
- Unidentified expanding-lattice mineral, *Shropshire*, opt., X-ray, 251
- Universal stage, orthoscopic adjustment of, 245
- Unnamed new minerals, see New minerals
- Uraniferous asphaltite, *Nottinghamshire* & *Yorkshire*, in Magnesian Limestone, anal., age, 705
- Uraninite: *Cornwall* & *Perthshire*, anal., age, 654; *Katanga*, anal., age, 719; *Northern Rhodesia*, anal., age, 717; *South Harris*, spectr. anal., 368, 376
- Uranophane, *South Harris*, opt., X-ray, 369
- Valleriite, *Transvaal*, 833
- VAN DER VEEN (A. H.), see JAGER (E.), 10
- VAN TASSEL (R.), Bolivarite, 419
- Vaterite, *Ireland*, & synthetic, opt., X-ray, electron-diffraction, relation to synchisite-bastnäsite series, stability, 535
- p*-Veatchite, *Yorkshire*, X-ray, 500
- Volcanic glasses, feldspars in, 587
- VON KNORRING, see under K
- WALKER (Frederick) & PATTERSON (E. M.), Alkali-dolerite from *Islay*, 140
- WALKER (George P. L.): The amygdale minerals in the Tertiary lavas of *Ireland*. II. The distribution of gmelinite, 202; III. Regional distribution, 503; IV. The crystal habit of calcite, 609
- WATTERS (W. A.), Sepiolite from the *Pyrenees*, 412
- WITK (H. B.), see MASON (Brian), 528
- Wollastonite, *Renfrewshire*, 26
- WRIGHT (J. B.): Titaniferous magnetite, 32; Titaniferous iron oxides, 778
- Wulfenite, *Nottinghamshire*, in Magnesian Limestone, morphology, origin, 705
- WYLLIE (Peter J.), The system CaO-MgO-FeO-SiO₂, 459
- X-ray: Quantitative mineral analysis by powder diffraction, 492; Weissenberg net, a visual aid, 578
- powder data:
- | | |
|--|----------------------|
| Braunite, 335 | Holmquistite, 823 |
| Cahnite, 666 | Hydroscarbroite, 357 |
| Ca ₅ (CrO ₄) ₃ OH, apatite structure, 408 | Metascarbroite, 357 |
| Ca ₄ (Fe,Cr) ₄ O ₁₁ , perovskite structure, 408 | Pandaite, 22 |
| Cornubite, 3 | Psilomelane, 168 |
| Cornwallite, 5 | Scarbroite, 357 |
| Cryptomelane, 169 | Stevensite, 222 |
| Delhayelite, 7 | Stokesite, 434 |
| Erionite, 269 | Tacharanite, 749 |
| β -FeOOH, 545 | Thaumasite, 418, 569 |
| | Vaterite, 538 |
| | Yoderite, 285 |
- Xonotlite: *Skye*, lxvii, anal., dehydration, 745; hydrothermal formation from tobermorite & dehydration, 110
- Yoderite: -bearing schist, 300; *Tanganyika*, anal., opt., X-ray, relation to kyanite, heat treatment, paragenesis, 282
- Zeolites, regional distribution in *Antrim*, 503
- Zeunerite, *Cornwall*, 430
- Zircon, *South Harris*, morphology, spectr. anal., 368, 376
- Zoisite, *South Harris*, anal., & spectr. anal. of intergrowth with oligoclase, 376
- Zunyite, *Cumberland*, 418