

- WADSWORTH (W. J.), see UPTON (B. G. J.), 152;  
TILLEY (C. E.), 344
- WAI (C. M.) and KNOWLES (C. R.), The metal phase of the *Bustee* enstatite chondrite, 627
- WAINE (C. V.), see AXON (H. J.), 94, 725
- WALKER (B. G.), see HASLAM (H. W.), 58
- WALLS (R.), see SMITH (G. W.), 72
- WALSH (J. N.), see HALL (A.), 328
- WAMBEKE (L. VAN), see VAN WAMBEKE (L.)
- WARE (N. G.), see JOPLIN (G. A.), 936
- Water, determination of in amphiboles, 389
- Waterfall Gorge, Insizwa, South Africa*, insizwaite, niggliite, 794
- Weardale, Co. Durham*, fluorite, 459
- WEBB (A. ST. J.), Tobermorite from *Ayrshire*, 253
- WIDDOWSON (J. R.), see JOPLIN (G. A.), 936
- WILKINS (R. W. T.), The Raman spectrum of crocoite, 249
- WILLIAMS (S. A.), Zapatalite, a new mineral, 541; Embreyite, a new mineral, 790
- WILSON (J. R.) and COATS (J. S.), Alkali feldspars from the *Galway* granite, 801; and see COATS (J. S.), 138
- WOOD (B. J.) and STRENS (R. G. J.), Calculation of crystal-field splitting, 909
- WOODS (C. P.), see MAIN (C. V.), 961
- WOOLLEY (A. R.), SYMES (R. F.), and ELLIOTT (C. J.), Fenitized quartzites from the *Borralla* complex, 819
- WRIGHT (J. B.), Natural garnet-pyroxene transformation, *Nigeria?*, 579
- WYS (E. C. DE), see DE WYS (E. C.)
- X-ray fluorescence, glass standards for, 614
- X-ray powder data: aegirine-augite, manganoan, 34; agrinierite, 783; biphosphamite, 967; blanfordite, 34; calcium sulphosilicate,  $\text{Ca}_5(\text{SiO}_4)_2\text{SO}_4$ , 970;  $\text{Ca}(\text{Fe}^{3+}, \text{Al})_2\text{SiO}_6$ , 875; chlorophaeite, 205; diopside, manganoan, 34; embreyite, 793; ferrostilpnomelane, 699; holtite, 24; hydroxyapatite, chlorian, 973; insizwaite, 797; margarite, 319; mordenite, strontianite, 383;  $\text{Na}_2\text{Mn}_5\text{O}_{10} \cdot 4\text{H}_2\text{O}$ , 500; niggliite, 799; palagonite, 205; piemontite, 69; pyrophanite, 315; rameaite, 793; scocelite, 74; vaterite, 522; yttritungstite, 261; zapatalite, 543
- YAGI (K.), see ONUMA (K.), 471
- Yttritungstite, *Malaysia*, partial anal., X-ray, chem., crystal structure, 261
- ŽÁK (L.), Pyrophanite from *Chvaletice (Bohemia)*, 312
- ZANAZZI (P. F.), see COCCO (G.), 564, and FANFANI (L.), 687
- Zapatalite, *Mexico*, anal., opt., X-ray, 541
- Zaria region, *Nigeria*, tourmaline, 369
- Zircon, *Nigeria*, 579; *Ceylon*, metamict, density, X-ray, refr. ind., spectrum, presence of tetragonal  $\text{ZrO}_2$ , effect of heating, 605, 721
- ZUMPE (H.), Microstructures in glauconite, 215

## BOOK REVIEWS

- ADAMS (J. A. S.) and GASPERINI (P.), Gamma-ray Spectrometry of Rocks, 536
- ANDERSON (B. W.), Gem Testing (8th edn.), 907
- BARTH (T. F. W.), CORRENS (C. W.), and ESKOLA (P.), Die Entstehung der Gesteine — Ein Lehrbuch der Petrogenese, 120
- BATTEY (M. H.), Mineralogy for Students, 983
- BLOSS (F. D.), Crystallography and Crystal Chemistry, 903
- BOLLMANN (W.), Crystal defects and crystalline interfaces, 645
- BOTTLEY (E. P.), Rocks and Minerals, 532
- CHAYES (F.), Ratio correlation, 904
- CHIZHIKOV (D. M.) and SHCHASTLIVYI (V. P.), transl. ELKIN (E. M.), Tellurium and the tellurides, 646
- CLIFFORD (T. N.) and GASS (I. G.), editors, African Magnetism and Tectonics. A volume in honour of W. Q. Kennedy, 258
- CLOUD (P.), Adventures in Earth History, 771
- COES (L., JR.), Abrasives, 777
- DESAUETELS (P. E.), The Gem Kingdom (with special photography by Lee Boltin), 908
- DOE (B. R.), Lead isotopes, 387
- ENERGLYN (Lord) and BREARLEY (L.), Analytical Geochemistry, 776
- ERNST (W.), Geochemical Facies Analysis, 644
- FAST (J. D.), Entropy, 534
- FRANTESSON (E. V.), The Petrology of the Kimberlites, 118
- GARD (J. A.), editor, The Electron-optical Investigation of Clays, 779
- GASS (I. G.), SMITH (P. J.), and WILSON (R. C. L.), editors, Understanding the Earth: A Reader in the Earth Sciences, 257
- GAY (P.), The crystalline State, 982
- HARTSHORNE (N. H.) and STUART (A.), Practical Optical Crystallography, 2nd edn., 111
- HINTZE (CARL), Handbuch der Mineralogie.
- CHUDOBA (KARL F.), Gesamtregister für die Bände I/1-4 und II sowie Ergänzungsbände I, II und III, 532

## ALPHABETICAL INDEX

- HURLBUT (C. S., JR.), Dana's Manual of Mineralogy, 18th edn., 648
- JEFFERY (P. G.), Chemical methods of rock analysis, 901
- KELLY (A.), and GROVES (G. W.), Crystallography and Crystal Defects, 115
- KENT (P. E.), SATTERTHWAITE (G. E.), and SPENCER (A. M.), editors, Time and Place in Orogeny, 119
- KLEBER (W.), An Introduction to Crystallography, 642
- KORZHINSKII (D. S.), transl. AGRELL (JEAN), Theory of metasomatic zoning, 905
- LEVINSON (A. A.) and TAYLOR (S. R.), Moon rocks and minerals, 779
- LIEBER (W.), Der Mineraliensammler. Über den Aufbau van Sammlungen und was man dazu wissen sollte, 908
- LIPSON (H.) and STEEPLE (H.), Interpretation of X-ray powder diffraction patterns, 907
- MACFADYEN (W. A.), with contributions by KINGSBURY (A. W. G.), Geological Highlights of the West Country, 388
- MACKENZIE (R. C.), Differential Thermal Analysis, 774
- MASON (B.), editor, Handbook of Elemental Abundance in Meteorites, 985
- MASON (B.), and MELSON (W. G.), The Lunar Rocks, 386
- NEWALL (G.) and RAST (N.), editors, Mechanism of igneous intrusion, 640
- PARK (C. F., JR.) and MACDIARMID (R. A.), Ore deposits, 2nd edn., 532
- PAULITSCH (P.), editor, Experimental and natural rock deformation. Experimentelle und natürliche Gesteinsverformung, 639
- PERRIN (R. M. S.), The Clay Mineralogy of British Sediments, 540
- PHILLIPS (F. C.), The use of stereographic projections in structural geology, 780
- PHILLIPS (F. C.), An introduction to crystallography (4th edn.), 778
- PICHLER (H.), Italienische Vulkan-Gebiete I und II, 537
- POUGH (F. H.), A field guide to rocks and minerals, 387
- RATH (R.), Theoretische Grundlagen der allgemeinen Kristalldiagnose im durchfallenden Licht, 535
- READ (H. H.), Rutley's Elements of Mineralogy, 26th edn., 260
- SANDER (B.), An introduction to the study of fabrics of geological bodies, 538
- SINKANKAS (J.), Prospecting for Gemstones and Minerals, 639
- STRAKHOV (N. M.), transl. FITZSIMMONS (J. P.), edited TOMKIEFF (S. I.) and HEMINGWAY (J. E.) Principles of Lithogenesis, 647
- Tasmania Department of Mines, Catalogue of the Minerals of Tasmania, 2nd edn., 901
- THOOR (T. J. W. van), Materials and Technology, vol. II. Non-metallic ores, silicate industries, and solid mineral fuels, 902
- UYTENBOGAARDT (W.) and BURKE (E. A. J.), Tables for the microscopic identification of ore minerals, 982
- WAHLSTROM (E. E.), Optical Crystallography, 4th edn., 112
- WEDEPOHL (K. H.), editor, Handbook of Geochemistry, vol. I and II/1, 116; vol. II/2, 533
- WELLS (A. F.), Models in structural inorganic chemistry, 386
- WHITEMAN (A. J.), The Geology of the Sudan Republic, 772
- WILSON (A. J. C.), Elements of X-ray Crystallography, 114
- WOOLFSON (M. M.), An Introduction to X-ray Crystallography, 113
- WOOSTER (W. A.), and BRETON (A.), Experimental crystal physics, 2nd edn., 535
- WYLLIE (P. J.), editor, Ultramafic and related rocks, 254