

ALPHABETICAL INDEX

Names of authors are printed in SMALL CAPITALS, subjects in lower-case roman, and localities in *italics*; book reviews are placed at the end.

- Actinolite, *Mexico*, 443
AL-AMEEN, S., see FERGUSON, C. C., 505
Albitization, *Sweden*, in Proterozoic granite, 107
AL-HERMEZI, H. M., qandilite, new mineral, 739
Alumina, in ilmenite, 141
Amphiboles, *Greenland*, 117
ANAND, R. R., and GILKES, R. J., alumina and silica in ilmenite, 141
ANGEL, R. J., wollastonite and bustamite, 37
ANGUS, M. J., see McCULLOCH, C. E., 211
ANGUS, N. S., and MIDDLETON, R., hōgbomites, 649
ANTARCTICA, *Lützow-Holm Bay*, potassium pargasite, 703
Apatite and metamorphic fluids, 77
AUSTRALIA, NEW SOUTH WALES, *Cudgegong-Mudgee* district, clinopyroxene compositions, 591; *North End Hill* synclinorium, low-grade metamorphic rocks, 357; *Walcha area*, diamonds from nepheline mugarite, 748; QUEENSLAND, *Redcap Creek* magmatic skarn, tilleyite occurrence, 71; WESTERN AUSTRALIA, ilmenite from beach sand, 141; *Pilbara*, ϵ -FeOOH in black shale, 139
AUSTRIA, *Oetztal-Stubai complex*, zirconolite and baddeleyite, 523
Baddeleyite, *Austria*, from metacarbonates, 523
BAKER, J. H., element mobility in granite, 107; greenalite, Mg-rich minnesotaite and stilpnomelane, 611
BALDERER, W., high-level radioactive waste, 281
BALDWIN, J. R., see KEMP, A. E. S., 335
Bariçite, X-ray diffraction study, 81
Barium silicates, staining technique, 614
Barysilite, *New Jersey*, 725
Basalt, dissolution of olivine, plagioclase, and quartz, 683; *Northern Ireland*, partial melting, 655
Basaltic glass, EXAFS study, 25
Bastnaesite, hydroxyl-bastnaesite-(Nd), new mineral, 717
BAYLISS, P., rossite, 140
Bentonites, smectite/illite conversion, 393
BERRIDGE, N. G., see YOUNG, B., 555
BEUKES, G. J., see DE BRUIYN, H., 145
BEVINS, R. E., pumpellyite-dominated metadomain alteration, 451
BIGGAR, G. M., Ca-poor pyroxenes, 49
Biotite, *Mexico*, 443
BIRCH, W. D. and MUMME, W. G., pekoite, 135
BIRD, D. K., see SCHIFFMAN, P., 435
BLACK, P. M., see SAMESHIMA, T., 81
BOK, L. D. C., see DE BRUIYN, H., 145
Bonchevite, 135
Boron, co-ordination in sillimanite, 132
Botallackite, crystal structure refinement, 87
Boulangerite, *Channel Islands*, 137
BOURG, A. C. M., OUSTRIÈRE, P., and SUREAU, J. F., 223
BRADBURY, M. H., see LEVER, D. A., 245
BRAITHWAITE, R. S. W., roebingite, 756
BRAMWELL, M. G., metamorphic differentiation, 59
BRIME, C., diagenesis/metamorphism transition, 481; X-ray diffraction of mineral mixtures, 531
Brine, barrier to radionuclide transport, 265
BROWNFIELD, I. K., see FOORD, E. E., 729
BULGARIA, *Narechen*, pekoite, 135
Bustamite, structural study, 37
Bytownite, in basaltic glass, 25
CANADA, NEWFOUNDLAND, *Grand Banks*, carbonate cements, 457; NOVA SCOTIA, cordierite in peraluminous granites, 695
Canfieldite, *Portugal*, Te-bearing, 745
CANNON, B., see FALLS, R., 65
Carbonate alteration minerals, *California*, 469
Carbonate cements, *Newfoundland*, geochemistry, 457
Cements, in radioactive waste disposal, 211
Chalcophanite, chemical composition, 752
CHANNEL ISLANDS, JERSEY, *l'Etacq*, fibrous sulphosalts, 137
Chlorites, sedimentary, compositional variation, 375; *Morocco*, from greywackes, 401
CHO, M., see LIU, J. G., 321
Chrysoberyl, *India*, genesis in pegmatites, 733
CLARKE, D. B., see MAILLET, L. A., 695
Clinopyroxene, *Mexico*, 443; *Australia*, from volcanic rocks, 591
COBBAN, R. R., see FOORD, E. E., 729
COHEN, A. J., and MAKAR, L. N., absorption spectra in rose quartz, 709
Cordierite, *Canada*, in peraluminous granites, 695
Corundum, in *Omei* granite, 505
Cosalite, *Channel Islands*, 137
CRAWFORD, R. W., see McCULLOCH, C. E., 211
Crystal shapes, in magmas, 129
Crystal structure, wollastonite and bustamite, 37; botallackite, 87; junitoite, 91
CUFF, C., see RUBENACH, M. J., 71
CURTIS, C. D., HUGHES, C. R., WHITEMAN, J. A., and WHITTLE, C. K., sedimentary chlorites, 375
DEARNLEY, R., measurement of grain size, 539
DE BRUIYN, H., SCHOCH, A. E., BEUKES, A. E., BOK, L. D. C., and VAN DER WESTHUIZEN, W. A., zaheerite, 145
Diagenesis, and low-temperature metamorphism, 301; chemical controls of illite/smectite composition, 387; smectite/illite conversion, 393; *SW England*, in Variscan complex, 365; *Spain*, transition to metamorphism, 481
DIAKUN, G. P., see HARDWICK, A., 25
Diamonds, *New South Wales*, from nepheline mugarite, 748
Diffusion, rock-matrix, 245
DIN, V. K., see NAWAZ, R., 103; see also RAADE, G., 583
Diopside, in basaltic glass, 25; *Sweden*, contact-metamorphic occurrence, 606

- DONALDSON, C. H., crystal shapes in magmas, 129; dissolution in basalt melt, 683
- DORLING, M., and ZUSSMAN, J., nephrite jade, 31
- DRYSDALE, D. J., petalite and spodumene, 758
- DUBEAU, M. L., and EDGAR, A. D., priderite stability, 603
- DUNN, P. J., lead silicates from *Franklin, New Jersey*, 721; — PEACOR, D. R., VALLEY, J. W., and RANDALL, C. A., ganomalite, 579
- DUPLAY, J., and WYBRECHT, E., 401
- DURRANCE, E. M., and HEATH, M. J., thermal groundwater movement and radionuclide transport, 289
- DYER, A., and MIKHAIL, K. Y., zeolite treatment of radioactive waste, 203
- EDGAR, A. D., see DUBEAU, M. L., 606
- ELDERS, W. A., see SCHIFFMAN, P., 435
- Electron microscopy, 31; phyllosilicate intergrowths, 413
- ELLIOTT, C. J., see RAADE, G., 583
- EMBREY, P. G., obituary of M. H. Hey, 1
- ENGLAND, *southern*, Jurassic and Cretaceous sediments, 255; *SW*, thermal groundwater movement and radionuclide transport, 289; *north*, Caledonian lamprophyres, 485; *northern Pennine orefield*, strontianite, 762; *Upper Teesdale*, niccolite-magnetite mineralization, 555; CORNWALL, diagenis-greenschist facies transition, 365; *Botallack mine*, botallackite, 87; *Carmenellis* granite, fracture permeability, 233; *RE* distribution, 495; CUMBRIA, *Lake District*, low-grade Lower Palaeozoic rocks, 425; *Sellafield*, uranium reprocessing, 177; DEVON, petalite and spodumene in Meldon aplite, 758
- Epidote, *Mexico*, 441
- Esperite, *New Jersey*, 722
- EUGSTER, H. P., granites and hydrothermal ore deposits, 7
- EXAFS study of basaltic glass, 25
- FALLS, R., CANNON, B., and MANDARINO, J. A., schultenite, 65
- FERGUSON, C. C., and AL-AMEEN, S., metamorphism and fluid movement around *Omev* granite, 505
- FINNEY, J. J., see HAMILTON, R. D., 91
- FISK, S., staining barium silicates, 614
- FOORD, E. E., COBBAN, R. R., and BROWNFIELD, I. K., 729
- Foyaité, *Greenland*, 623
- FRANCE, *St Sylvestre* massif, granite, 223
- Gabbro, *Greenland*, alkali-, 623
- Ganomalite, *New Jersey* and *Sweden*, chemical, structural data, 579, 725
- Garnet, *Mexico*, 443; *Greenland*, 117
- GASKARTH, J. W., see MACDONALD, R., 485
- Gehlenite, *Northern Ireland*, 665
- GILKES, R. J., see ANAND, R. R., 141
- GILLARD, R. D., Fe^{2+} and Fe^{3+} in rocks and minerals, 101
- GLASSER, F. P., see MCCULLOCH, C. E., 211
- Glaucozerinite, *Greece* and *Wales*, new data, 583
- Granites, 7; *Cornwall*, fracture permeability, 233; *Ireland*, contact metamorphism and fluid movement, 505; *France*, clogging of fissures and pores, 223; *Sweden*, albitization, 107
- GREECE, *Laurion*, glaucozerinite, 583
- Greenalite, *Sweden*, 611
- GREW, E. S., and ROSSMAN, G. R., sillimanite, 132
- GREENLAND, *SW*, metamorphism of iron-formation, 117; *Gardar Province*, Tugtutôq older giant dyke complex, 623
- Greenschist facies, *SW England*, in Variscan complex, 365
- Greywackes, *Morocco*, evolution of white micas and chlorites, 401; *California*, low-temperature recrystallization, 345
- GRINDROD, A. R., see MACDONALD, R., 485
- Groundwater, movement in *SW England*, 289
- HALL, R. P., metamorphism in *SW Greenland*, 117
- HAMILTON, E. I., radioactive waste in marine environment, 177
- HAMILTON, R. D., and FINNEY, J. J., junitoite, 91
- Hancockite, *New Jersey*, 727
- HARDWICK, A., WHITTAKER, E. J. W., and DIAKUN, G. P., EXAFS study of basaltic glass, 25
- Hardystonite, *New Jersey*, 722
- HARMON, R. S., see THOMAS, L. J., 425
- HAWTHORNE, F. C., botallackite, 87
- HEATH, M. J., fracture permeability in *Carmenellis* granite, 233; see also DURRANCE, E. M., 289
- HELLINGWERF, R. H., nepheline-scapolite-diopside assemblage, 606
- HENDERSON, G. S., see SAMESHIMA, G. S., 81
- HERBERT, H.-J., see SANDER, W., 265
- HEY, M. H., obituary, 1
- Högbomite, *Ireland*, compositional variation, 649
- Hollandite, in SYNROC, 159
- HOLLIS, J. D., see SUTHERLAND, F. L., 748
- HUGGETT, J. M., see WHITE, S. H., 413
- HUGHES, C. D., see CURTIS, C. D., 375
- HUTCHEON, I., NAHNYBIDA, C., and KROUSE, H. R., carbonate cements, 457
- Hydrothermal deposits, 7
- Illite, in low-grade metamorphic rocks, 357; chemical controls during diagenesis, 387; alteration from smectite, 393
- Ilmenite, *Western Australia*, alumina and silica in, 141
- Image analysis, measurement of grain size, 539
- INDIA, *Kerala*, chrysoberyl in pegmatites, 733
- IRAQ, *Qala-Dizeh* region, qandilite, 739
- IRELAND, *Connemara*, apatite from schists, 77; högbomites, 649; metamorphism and fluid movement around *Omev* granite, 505; CO. DONEGAL, radioelements in Dalradian rocks, 643; NORTHERN IRELAND, ANTRIM, *Scawt Hill*, basalt partial melting, 655; bredigite, 663
- IRISH SEA, disposal of radioactive waste, 177
- Iron, Fe^{2+} and Fe^{3+} in rocks and minerals, 101; absorption spectra in rose quartz, 709
- Iron compounds, ϵ -FeOOH in black shale, 139
- Iron-formation, *SW Greenland*, 117
- IVANOVICH, M., see SIMPSON, P. R., 151
- Jadeite, interaction with water, 601
- JEFFERIES, N. L., *RE* in *Carmenellis* pluton, 495
- Junitoite, crystal structure, 91
- KEMP, A. E. S., OLIVER, G. H. J., and BALDWIN, J. R., low-grade metamorphism and accretion tectonics, 335

- KENYA, *Uyete area*, Zn-rich staurolite, 573
 KITCHEN, D. E., partial melting of basalt, 655
 KROUSE, H. R., see HUTCHEON, I., 457
 Kyanite, *Switzerland*, in schist, 59
- Lamprophyres, *northern England*, multi-component origin, 485
 Larnite, *Northern Ireland*, 664
 Larsenite, *New Jersey*, 724
 Leadhillite, *Scotland*, distinction from susannite, 759
 LEVER, D. A., and BRADBURY, M. H., rock-matrix diffusion, 245
 LEWIS, J. B., radioactive waste, 153
 LIU, J. G., MARUYAMA, S., and CHO, M., metabasites in low-grade metamorphism, 321; see also MARUYAMA, S., 345
 LIVINGSTONE, A., and RUSSELL, J. D., susannite and leadhillite, 759
 LONG, C. B., see O'CONNOR, P. J., 643
- MAASKANT, P., zoisites, 97
 McCULLOGH, C. E., ANGUS, M. J., CRAWFORD, R. W., RAHMAN, A. A., and GLASSER, F. P., cements in radioactive waste disposal, 211
 MACDONALD, R., THORPE, R. S., GASKARTH, J. W., and GRINDROD, A. R., Caledonian lamprophyres, 485
 McDOWELL, S. D., and PACES, J. B., carbonate alteration minerals, 469
 MCHARDY, W. J., see NADEAU, P. H., 393
 MACKENZIE, W. S., see RYABCHIKOV, I. D., 603
 Magmas, crystal shapes, 129
 Magmatic skarn, *Queensland*, tilleyite occurrence, 71
 Magnetite, *England*, niccolite-magnetite mineralization, 555
 MAILLET, L. A., and CLARKE, D. B., cordierite in peraluminous granites, 695
 MAKAR, L. N., see COHEN, A. J., 709
 MAKSIMOVIĆ, Z., and PANTÓ, G., hydroxyl-bastnaesite-(Nd), 717
 MALONE, J. F., see NAWAZ, R., 103
 MANDARINO, J. A., see FALLS, R., 65
 Margarosane, *New Jersey*, 725
 MARTIN, A. R., see UPTON, B. G. J., 623
 MARUYAMA, S., LIU, J. G., and SASAKURA, Y., recrystallization of greywackes, 345; see also LIU, J. G., 321
 MATSUBARA, S., and MOTOYOSHI, Y., potassium pargasite, 703
 MERRIMAN, R. J., and ROBERTS, B., white micas in pelitic rocks, 305; see also SAVAGE, D., 195
 Mesolite, *Minnesota*, 103
 Metabasites, in low-grade metamorphism, 321
 Metamorphic differentiation, 59
 Metamorphic fluids, 77
 Metamorphic rocks, low-grade, *Australia*, illite and mica in, 357
 Metamorphism, low-grade, metabasites, 321; *Scotland*, low-grade, 335; *Ireland*, around *Omey* granite, 505
 Metavivianite, X-ray diffraction study, 81
 MEXICO, *Baja California*, calcareous sandstones, 435
 Micas, *Wales*, in pelitic rocks, 305; *Morocco*, from greywackes, 401; *Australia*, in low-grade metamorphic rocks, 357
 Microcline, *Mexico*, 441
 Middleton, R., see ANGUS, N. S., 649
 MIKHAIL, K. Y., see DYER, A., 203
 MILODOWSKI, A. E. and WILMOT, R. D., Jurassic and Cretaceous sediments, 255
 Minnesotaite, *Sweden*, Mg-rich, 611
 MIYAKE, A., Zn-rich staurolite, 573
 MONAZITE, *Cornwall*, RE in, 495
 MOROCCO, micas and chlorites from greywackes, 401
 MOTOYOSHI, Y., see MATSUBARA, S., 703
 MOURANT, A. E., fibrous sulphosalts, 137
 Muegarite, nepheline-, *New South Wales*, diamonds from, 748
 MURPHY, D. J., see SHAHMIRI, M., 547
 Muscovite, in *Omey* granite, 505; muscovite-paragonite solid solutions, 515
 NADEAU, P. H., WILSON, M. J., MCHARDY, W. J., and TAIT, J. M., smectite/illite conversion, 393
 NAGRA project 281
 NAHNYBIDA, C., see HUTCHEON, I., 457
 NAIR, G. K., see SOMAN, K., 733
 Nasonite, *New Jersey*, 726
 NAWAZ, R., MALONE, J. F., and DIN, V. K., pseudo-mesolite, 103
 Nephrite jade, electron microscopy, 31
 Nepheline, *Sweden*, contact-metamorphic occurrence, 606
 New mineral, hydroxyl-bastnaesite-(Nd), 717; qandilite, 739
 Niccolite, *England*, niccolite-magnetite mineralization, 555
- O'CONNOR, P. J., and LONG, C. B., radioelements in Dalradian rocks, 643
 OFFLER, R., and PRENDERGAST E., illite crystallinity and white mica, 357; see also PEMBERTON, J. W., 591
 OLIVER, G. H. J., see KEMP, A. E. S., 335; see also THOMAS, L. J., 425
 Olivine, dissolution in basalt melt, 683
 Ore-forming elements, 7
 OSTWALD, J., ϵ -FeOOH, 139; chalcophanite, 752
 OUSTRIÈRE, P., see BOURG, A. C. M., 223
- PACES, J. B., see McDOWELL, S. D., 469
 PANTÓ, G., see MAKSIMOVIĆ, Z., 717
 Paragonite, muscovite-paragonite solid solutions, 515
 Pargasite, *Antarctica*, potassium-, 703
 PASCAL, M. L., and ROUX, J., muscovite-paragonite solid solutions, 515
 PATRICK, R. A. D., mineralization at *Tyndrum*, *Scotland*, 671
 PEACOR, D. R., see DUNN, P. J., 579
 Pekoite, *Bulgaria*, 135
 Pelitic rocks, *Wales*, white micas in, 305
 PEMBERTON, J. W., and OFFLER, R., clinopyroxene compositions, 591
 Perovskite, in SYNROC, 159
 Petalite, *Devon*, in Meldon aplite, 758
 Phyllosilicates, intergrowths in sedimentary and metamorphic rocks, 413
 PIQUÉ, A., see WYBRECHT, E., 401
 Plagioclase, dissolution in basalt melt, 683
 PORTUGAL, *Panasqueira*, silver minerals, 745

- Prehnite, *Wales*, 455, *Mexico*, 441
 PRENDERGAST, E., see OFFLER, R., 357
 Priderite, stability in system $K_2MgTi_7O_{16}-BaMgTi_7O_{16}$, 603
 PRIMMER, T. J., diagenesis–greenschist facies transition, 365
 Pseudomesolite, *Minnesota*, 103
 Pumpellyite, *Wales*, metadomain alteration, 451
 PURTSCHELLER, F., and TESSADRI, R., zirconolite and baddeleyite, 523
 Pyrrargyrite, *Scotland*, 675
 Pyroxenes, Ca-poor, phase relations, 49; *Greenland*, 117

 Qandilite, new mineral, 739
 Quartz, dissolution in basalt melt, 683; rose quartz, Ti^{3+} and Fe^{2+} absorption spectra, 709

 RAADE, G., ELLIOTT, C. J., and DIN, V. K., glaucocerinite, 538
 Radioactive waste, disposal, 151, 153, 159; in marine environment, 177; hydrothermal crystallization of storage glass, 195; zeolite treatment, 203; disposal in cement, 211; in sedimentary rocks, 255; NAGRA investigation, 281
 Radioelements, *Ireland*, in Dalradian rocks, 643
 Radionuclide migration, 245; natural transport barrier, 265; in *SW England* groundwaters, 289
 RAHMAN, A. A., see McCULLOCH, C. E., 211
 RANDALL, C. A., see DUNN, P. J., 579
 Rare earth elements, in *Carnmenellis* pluton, 495; *Sweden*, in Proterozoic granite, 107
 RAYNOR, L. R., see SUTHERLAND, F. L., 748
 RINGWOOD, A. E., disposal of high-level nuclear waste, 159
 ROBBINS, J. E., see SAVAGE, D., 195
 ROBERTS, B., see MERRIMAN, R. J., 305
 ROBINSON, D., diagenesis and low-temperature metamorphism, 301
 RODGERS, K. A., see SAMESHIMA, T., 81
 Roeblingite, *New Jersey*, IR and thermal analysis data, 726, 756
 Rossite, X-ray diffraction data, 140
 ROSSMAN, G. R., see GREW, E. S., 132
 ROUX, J., see PASCAL, M. L., 515
 RUBENACH, M. J., and CUFF, C., tilleyite in skarn, 71
 RUSSELL, J. D., see LIVINGSTONE, A., 759
 RYABCHIKOV, I. D., and MACKENZIE, W. S., jadeite interaction with water, 603

 SABINE, P. A., STYLES, M. T., and YOUNG, B. R., bredigite, 663
 SAMESHIMA, T., HENDERSON, G. S., BLACK, P. M., and RODGERS, K. A., vivianite, metavivianite and baricite, 81
 SANDER, W., and HERBERT, H.-J., barrier to radionuclide transport, 265
 Sandstones, smectite/illite conversion, 393; *Mexico*, calcareous, hydrothermal mineralogy, 435
 SASAKURA, Y., see MARUYAMA, S., 345
 SAVAGE, D., ROBBINS, J. E., and MERRIMAN, R. J., radioactive waste storage glass, 195
 Scapolite, *Sweden*, contact-metamorphic occurrence, 606

 SCHIFFMAN, P., BIRD, D. K., and ELDERS, W. A., calcareous sandstone, 435
 SCHOCH, A. E., see DE BRUIYN, H., 145
 Schultenite, *Washington*, review, 65
 SCHUMACHER, R., zincian staurolite, 561
 SCOTLAND, *Glen Doll*, zincian staurolite, 561; *Leadhills*, susannite and leadhillite, 759; *Southern Uplands*, low-grade metamorphism and accretion tectonics, 335; *Tyndrum*, Pb–Zn and minor U mineralization, 671
 Sedimentary rocks, *southern England*, radioactive waste disposal in, 255
 SHAHMIRI, M., MURPHY, S., and VAUGHAN, D. J., tulameenite and system Pt–Fe–Cu, 547
 SHAW, H. F., see WHITE, S. H., 413
 Silica, in ilmenite, 141
 Sillimanite, boron co-ordination, 132
 Silver minerals, *Portugal*, 745
 SIMPSON, P. R., and IVANOVICH, M., radioactive waste disposal, 151
 Smectite, conversion to illite, 393; chemical controls during diagenesis, 387
 SMELLIE, J. A. T., U-series disequilibrium studies, 271
 SOMAN, K., and NAIR, G. K., chrysoberyl, 733
 SOUTH AFRICA, *Pofadder*, zaherite, 145
 SPAIN, diagenesis to metamorphism transition, 481; *Galicia*, zoisites, 97
 Spheue, *Mexico*, 443
 Spinels, end-members Mg_2TiO_4 , qandilite, 739; *Northern Ireland*, 666
 Spodumene, *Devon*, in Meldon aplite, 758
 Stable isotopes, *English Lake District*, in low-grade Lower Palaeozoic rocks, 425
 Staurolite, *Scotland*, zincian, 561; *Kenya*, Zn-rich, 573
 STEPHENSON, D., see UPTON, B. G. J., 623
 Stilpnomelane, *Sweden*, 611
 Strontianite, *northern England*, 762
 STYLES, M. T., see SABINE, P. A., 663; see also YOUNG, B., 555
 Sulphosalts, *Jersey*, 137
 SUREAU, J. F., see BOURG, A. C. M., 223
 Susannite, *Scotland*, distinction from leadhillite, 759
 SUTHERLAND, F. L., HOLLIS, J. D., and RAYNOR, L. L., diamonds from nepheline mugearite, 748
 SWEDEN, *Bergslagen*, albitization in Proterozoic granite, 107; metabasic flow breccia, 606; greenalite, Mg-rich minnesotaitite and stilpnomelane, 611; *Jakobsberg*, ganomalite, 579; *Kamlunge* test site, U decay series, 271
 SWITZERLAND, radioactive waste repositories, 281; *Lukmanier region*, kyanite in schist, 59
 Syenite, *Greenland*, augite-, 623
 SYNROC, 159
 System, $CaO-MgO-Al_2O_3-SiO_2$, 49; Pt–Fe–Cu and occurrence of tulameenite, 547

 TAIT, J. M., see NADEAU, P. H., 393
 TESSADRI, R., see PURTSCHELLER, F., 523
 TETRAHEDRITE, *Scotland*, 674
 THOMAS, L. J., HARMON, R. S., and OLIVER, G. J. H., low-grade Lower Palaeozoic rocks, 425
 Thorite, *Utah*, uranoan, 729
 THORPE, R. S., see MACDONALD, R., 485
 Tilleyite, *Queensland*, in skarn, 71
 Tin-tungsten deposits, 7

- Titanium, absorption spectra in rose quartz, 709
 Tulameenite, in system Pt-Fe-Cu, 547
- UNITED STATES OF AMERICA, ARIZONA, *Christmas mine*, junitoite, 91; CALIFORNIA, *Pacheco Pass*, Franciscan greywackes, 345; *Salton Sea* geothermal system, carbonate alteration minerals, 469; MINNESOTA, *Carlton Peak*, pseudomesolite, 103; NEW JERSEY, *Franklin*, lead silicates, 721; ganomalite, 579, roebingite, 756; UTAH, *Yellow Cat Wash*, rossite, 140; *Topaz Mountain*, uranoan thorite, 729; WASHINGTON, *King County*, schultenite, 65
- UPTON, B. G. J., STEPHENSON, D., and MARTIN, A. R., alkali gabbro-augite-syenite-foyaite association, 623
 Uraninite, *Scotland*, 676
 Uranium, disequilibrium studies, 271
- VALLEY, J. W., see DUNN, P. J., 579
 VAN DER WESTHUIZEN, W. A., see DE BRUIYN, H., 145
 VAUGHAN, D. J., see SHAHMIRI, M., 547
 VELDE, B., illite/smectite composition controls, 387
 Vivianite, X-ray diffraction study, 81
- Wairakite, *Mexico*, 441
- WALES, *Caernarvonshire*, woodwardite, 583; *Builth Wells*, pumpellyite-dominated metadomain alteration, 451; *Snowdonia* and *Llyn*, micas in pelitic rocks, 305
- WEBER, F., see WYBRECHT, E., 401
 WHITE, S. H., HUGGETT, J. M., and SHAW, H. F., phyllosilicate intergrowths, 413
 WHITEMAN, J. A., see CURTIS, C. D., 375
 WHITTAKER, E. J. W., see HARDWICK, A., 25
 WHITTLE, C. K., see CURTIS, C. D., 375
 WILMOT, R. D., see MILODOWSKI, A. E., 255
 WILSON, M. J., see NADEAU, P. H., 393
 WIMMERS, D., silver minerals, 745
 Wollastonite, structural study, 37
 Woodwardite, *Wales*, 583
 WYBRECHT, E., DUPLAY, J., PIQUÉ, A., and WEBER, F., white micas and chlorites, 401
- X-ray diffraction, determination of mineral mixtures, 531; leadhillite and susannite, 759; rossite, 140; vivianite, 81
- YARDLEY, B. W. D., apatite and metamorphic fluids, 77
 YOUNG, B., strontianite, 762; —STYLES, M. T., and BERRIDGE, N. G., niccolite-magnetite mineralization, 555
 YOUNG, B. R., see SABINE, P. A., 663
- YUGOSLAVIA, *Montenegro*, hydroxyl-bastnaesite-(Nd), 717
- Zaherite, *South Africa*, cell parameters, 145
 Zeolites, in treatment of radioactive waste, 203
 Zirconolite, in SYNROC, 159; *Austria*, from meta-carbonates, 523
 Zoisites, *Spain*, Fe content and optic axial angle, 97
 ZUSSMAN, J., see DORLING, M., 31

BOOK REVIEWS

- ADAMS, A. E., MACKENZIE, W. S., and GUILFORD, C., Atlas of sedimentary rocks under the microscope, 147
 ATHERTON, M. P., and GRIBBLE, C. D., Migmatites, Melting, and Metamorphism, 617
 BORROWDAILE, G. J., BAYLY, M. B., and POWELL, C. MCA., Atlas of Deformational and Metamorphic Rock Fabrics, 619
 FLEISCHER, M., WILCOX, R. E., and MATZKO, J. J., Microscopic Determination of the Nonopaque Minerals, 622
 GERE, J. M., and SHAH, H. C., Terra Non Firma: Understanding and Preparing for Earthquakes, 149
 HENDERSON, P. (ed.), Rare Earth Element Geochemistry, 617
 IMSLAND, P., Petrology and Evolution of the JanMayen Magma System, 763
 KORNPORST, J., ed., Kimberlites. I. Kimberlites and Related Rocks. II. The Mantle and Crust-Mantle relationships, 763
 MANGONE, G. J. (ed.), American Strategic Minerals, 618
 MARTIN, H., and EDER, F. W. (eds.), Intracontinental Fold Belts: Case Studies in the Variscan Belt of Europe and the Damara Belt of Namibia, 148
 MOSELEY, F., The Volcanic Rocks of the Lake District: a Geological Guide to the Central Fells, 148
 NASSAU, K., Gemstone Enhancement, 619
 NAWAZ, R., Moon, Asteroids, Comets, Meteorites, and Tektites: the most studied but the least understood bodies in the solar system, 149
 PARKER, A., and SELLWOOD, B. W., (eds.), Sediment Diagenesis, 149
 SAWKINS, F. J., Mineral Deposits in Relation to Plate Tectonics, 763
 SAXENA, S. J., ed., Kinetics and Equilibrium in Mineral Reactions, 147
 ZHARKOV, M. A., Palaeozoic Salt Bearing Formations of the World, 622