

1999 AUTHOR INDEX

- Adcock, C.T., see Papike et al., 392
- Ahn, J.H., Cho, M., and Buseck, P.R.: Interstratification of carbonaceous material within illite, 1967
- Ahsbahs, H., see Zhang et al., 447
- Akai, J., Akai, K., Ito, M., Nakano, S., Maki, Y., and Sasagawa, I.: Biologically induced iron-ore at Gunma iron mine, Japan, 171
- Akai, K., see Akai, J. et al., 171
- Alberti, A., see Meneghinello et al., 1144
- Altaner, S.P.: *X-ray Diffraction and the Identification and Analysis of Clay Minerals, second edition*. By D.M. Moore and R. C. Reynolds, Jr., 689
- Amthauer, G., see Grew et al., 536
- Angel, R.J., Kunz, M., Miletich, R., Woodland, A.B., Koch, M., and Knoche, R.L.: Effect of isovalent Si, Ti substitution on the bulk moduli of $\text{Ca}(\text{Ti}_{1-x}\text{Si}_x)\text{SiO}_5$ titanites, 282
- Angel, R.J., see Ross and Angel, 277
- Anderson, O.L. and Hama, J.: Shifts in thermal expansivity with Fe content for solid solutions of $\text{MgSiO}_3\text{-FeSiO}_3$ with the perovskite structure, 221
- Appleman, P.: Acceptance of the Mineralogical Society of America Public Service Award of 1998, 1207
- Aranovich, L.Y. and Newton, R.C.: Experimental determination of $\text{CO}_2\text{-H}_2\text{O}$ activity-composition relations at 600–1000 °C and 6–14 kbar by reversed decarbonation and dehydration reactions, 1319
- Armbruster, T.: Si,Al ordering in the double-ring silicate armenite, $\text{BaCa}_2\text{Al}_6\text{Si}_6\text{O}_{30}\cdot 2\text{H}_2\text{O}$: A single-crystal X-ray and ^{29}Si MAS NMR study, 92
- Armbruster, T., see Merlino et al., 1613
- Armbruster, T., see Wüst et al., 1126
- Anovitz, L.M. and Blencoe, J.G.: Dry melting of high albite, 1830
- Artioli, G. and Galli, E.: Gonnardite: Re-examination of holotype material and discreditation of tetranatrolite, 1445
- Artioli, G., Fumagalli, P., and Poli, S.: The crystal structure of $\text{Mg}_8(\text{Mg}_2\text{Al}_2)\text{Al}_8\text{Si}_{12}(\text{O},\text{OH})_{56}$ pumpellyite and its relevance in ultramafic systems at high pressure, 1906
- Artioli, G., see Pavese et al., 905
- Ashbrook, S.E., Berry, A.J., and Wimperis, S.: Three- and five-quantum ^{17}O MAS NMR of forsterite Mg_2SiO_4 , 1191
- Ayers, J.C., Miller, C., Gorisch, B. and Milleman, J.: Textural development of monazite during high-grade metamorphism: Hydrothermal growth kinetics, with implications for U,Th-Pb geochronology, 1766
- Baerwald, R., see Ransom et al., 183
- Baker, D.R. and Freda, C.: Ising models of undercooled binary system crystallization: Comparison with experimental and pegmatite textures, 725
- Balić-Žunić, T., see Makovicky and Balić-Žunić, 400
- Banfield, J.F., see Penn and Banfield, 871
- Banfield, J.F., see Penn et al., 152
- Banfield, J.F., see Zhang and Banfield, 528
- Barbier, J., Grew, E.S., Moore, P.B., and Su, S.-C.: Khmaralite, a new beryllium-bearing mineral related to sapphirine: A superstructure resulting from partial ordering of Be, Al, and Si on tetrahedral sites, 1650
- Baron, V., Gutzmer, J., Rundlöf, H., and Tellgren, R.: *Erratum*: The influence of iron substitution of the magnetic properties of hausmannite, $\text{Mn}^{2+}(\text{Fe}, \text{Mn})_3^+\text{O}_4$, 212
- Bebout, G.E., Cooper, D.C., Bradley, A.D., and Sadofsky, S.J.: Nitrogen-isotope record of fluid-rock interactions in the Skiddaw Aureole and granite, English Lake District, 1495
- Becker, U., see Rosso et al., 1535
- Becker, U., see Rosso et al., 1549
- Behrens, H., see Holtz et al., 27
- Behrens, H., see Schulze et al., 1512
- Bell, M.I., see McKeown et al., 970
- Bell, M.I., see McKeown et al., 1041
- Bell, T.H. and Mares, V.M.: Correlating deformation and metamorphism around orogenic arcs, 1727
- Benna, P., Tribaudino, M., and Bruno, E.: High-temperature in situ structural investigation on lead feldspar, 120
- Bennett, R.H., see Ransom et al., 183
- Beny, J.-M., see Mysen et al., 1336
- Berry, A.J., see Ashbrook et al., 1191
- Biino, G.G., Mannella, N., Kay, A., Mun, B., and Fadley, C.S.: Surface chemical characterization and surface diffraction effects of real margarite (001): An angle-resolved XPS investigation, 629
- Bindi, L., see Bonazzi and Bindi, 1604
- Blencoe, J.G., see Anovitz and Blencoe, 1830
- Bloodaxe, E.S., Hughes, J.M., Dyar, M.D., Grew, E.S., and Guidotti, C.V.: Linking structure and chemistry in the Schorl-Dravite series, 922
- Blundy, J., see van Westrenen et al., 838
- Bonaccorsi, E., see Merlino et al., 1613
- Bonazzi, P. and Bindi, L.: Structural adjustments induced by heat treatment in ilvaite, 1604
- Bonazzi, P., see Giuli et al., 933
- Boisen, M.B., Jr., see Gibbs et al., 435
- Borisov, A. and Jones, J.H.: An evaluation of Re, as an alternative to Pt, for the 1 bar loop technique: An experimental study at 1400 °C, 1528
- Bosenick, A., Geiger, C.A., and Phillips, B.L.: Local Ca-Mg distribution of Mg-rich pyrope-grossular garnets synthesized at different temperatures revealed by ^{29}Si MAS NMR spectroscopy, 1422
- Bowman, L.E., Papike, J.J., and Spilde, M.N.: Diogenites as asteroidal cumulates: Insights from spinel chemistry, 1020
- Boyle, A.P., see Prior et al., 1741
- Bradley, A.D., see Bebout et al., 1495
- Brady, P., see Navrotsky et al., 1622
- Brandon, H.J., see Pasteris et al., 997
- Brenan, J.: Acceptance of the Mineralogical Society of America Award for 1998, 1203
- Brenker, F., see Prior et al., 1741
- Brown, G.E., Jr., see Farges et al., 1562
- Brown, G.E., Jr., see Morin et al., 420
- Brown, M., see Brown et al., 1793
- Brown, M.A., Brown, M., Carlson, W.D., and Denison, C.: Topology of syntectonic melt-flow networks in the deep crust: Inferences from three-dimensional images of leucosome geometry in migmatites, 1793
- Bruno, E., see Benna et al., 120
- Brustman, C.M., see Philpotts et al., 1819
- Bryan, N.D., see Parkman et al., 407
- Bryce, J.G., Spera, F.J., and Stein, D.J.: Pressure dependence of self-diffusion in the $\text{NaAlO}_2\text{-SiO}_2$ system: Compositional effects and mechanisms, 345
- Bühn, B., Rankin, A.H., Radtke, M., Haller, M., and Knöchel, A.: Burbankite, a (Sr,REE,Na,Ca)-carbonate in fluid in-

- clusions from carbonatite-derived fluids: Identification and characterization using Laser Raman spectroscopy, SEM-EDX, and synchrotron micro-XRF analysis, 1117
- Burkett, P.-J., see Ranson et al., 183
- Burnley, P.C., see Hofmeister et al., 454
- Burkhard, D.J.M., Ulmer, G.C., Redhammer, G., and Myer, G.H.: Dynamic electrochemical assessment of redox reactions in natural micas between 613 and 1373 K at 10^5 Pa, 493
- Burnham, C.W.: Acceptance of the Roebling Medal of the Mineralogical Society of America for 1998, 1200
- Burns, P.C.: A new complex sheet of uranyl polyhedra in the structure of wölsendorfite, 1661
- Burns, P.C. and Finch, R.J.: Wyartite: Crystallographic evidence for the first pentavalent-uranium mineral, 1456
- Buseck, P.R., see Ahn et al., 1967
- Buseck, P.R., see Garvie and Buseck, 946
- Buseck, P.R., see Garvie et al., 1170
- Büttner, H., see Wulf et al., 1461
- Büttner, S.H.: The geometric evolution of structures in granite during continuous deformation from magmatic to solid-state conditions: An example from the central European Variscan Belt, 1781
- Calas, G., see Morin et al., 420
- Calas, G., see Wulf et al., 1461
- Camara, F., see Garvie et al., 1170
- Camara, F., see Oberti et al., 102
- Camara, F., see Oberti et al., 913
- Carlson, W.D., Donelick, R.A., and Ketcham, R.A.: Variability of apatite fission-track annealing kinetics: I. Experimental results, 1213
- Carlson, W.D., see Brown et al., 1793
- Carlson, W.D., see Donelick et al., 1224
- Carlson, W.D., see Ketcham et al., 1235
- Carlson, W.D., see Philpotts et al., 1819
- Carpenter, M.A., see Cellai et al., 1950
- Castro, A., El-Biad, M., and El-Hmidi, H.: A new method for determining the fluid-absent solidus temperature in piston-cylinder experiments, 1971
- Cellai, D., Gesing, T.M., Wruck, B., and Carpenter, M.A.: X-ray study of the trigonal \rightarrow hexagonal phase transition in metamorphic kalsilite, 1950
- Černý, P., Chapman, R., Simmons, W.B., and Chackowsky, L.E.: Niobian rutile from the McGuire granitic pegmatite, Park County, Colorado: Solid solution, exsolution, and oxidation, 754
- Černý, P., see Galliski et al., 773
- Černý, P., see Galliski et al., 1674
- Černý, P., see Hawthorne et al., 778
- Chackowsky, L.E., see Černý et al., 754
- Chapman, R., see Černý et al., 754
- Chapman, R., see Galliski et al., 773
- Charnock, J.M., see Parkman et al., 407
- Chateau, C., Haines, J., Léger, J.-M., LeSauze, A., and Marchand, R.: A moganite-type phase in the silica analog phosphorus oxynitride, 207
- Cheadle, M.C., see Prior et al., 1741
- Chen, G., Cooke, J.A., Jr., Gwanmesia, G.D., and Liebermann, R.C.: Elastic wave velocities of $\text{Mg}_3\text{Al}_2\text{Si}_3\text{O}_{12}$ -pyrope garnet to 10 GPa, 384
- Chen, F., Ewing, R.C., and Clark, S.B.: The Gibbs free energies and enthalpies of formation of U^{6+} phases: An empirical method of prediction, 650
- Chen, F., Ewing, R.C., and Clark, S.B.: *Errata*: The Gibbs free energies and enthalpies of formation of U^{6+} phases: An empirical method of prediction, 1208
- Cheng, X., see Stebbins et al., 1680
- Cho, H., see Tagg et al., 1451
- Cho, M., see Ahn et al., 1967
- Chopelas, A.: Estimates of mantle relevant Clapeyron slopes in the MgSiO_3 system from high-pressure spectroscopic data, 233
- Chrosch, J., see Salje et al., 1107
- Clark, S.B., see Chen et al., 650
- Clark, S.B., see Ewing and Clark *Erratum*, 1208
- Clemens, J.D., see Graphchikov et al., 15
- Comodi, P., Zanazzi, P.F., Weiss, Z., Rieder, M., and Drábek, M.: "Cs-tetra-ferriannite." High-pressure and high-temperature behavior of a potential nuclear waste disposal phase, 325
- Conrad, P.G., Zha, C.-S., Mao, H.-k., and Hemley, R.J.: The high-pressure, single-crystal elasticity of pyrope, grossular, and andradite, 374
- Conrad, P.G., see Yang et al., 245
- Cooke, J.A., Jr., see Chen et al., 384
- Cooney, T.F., Scott, E.R.D., Krot, A.N., Sharma, S.K., and Yamaguchi, A.: Vibrational spectroscopic study of minerals in the Martian meteorite ALH84001, 1569
- Cooper, D.C., see Bebout et al., 1495
- Cooper, M.A., Hawthorne, F.C., and Grew, E.S.: The crystal chemistry of sogdianite, a milarite-group mineral, 764
- Cooper, M.A., see Galliski et al., 1674
- Cooper, M.A., see Grew et al., 536
- Courtial, P. and Dingwell, D.B.: Densities of melts in the $\text{CaO-MgO-Al}_2\text{O}_3\text{-SiO}_2$ system, 465
- Cruciani, G. and Gualtieri, A.: Dehydration dynamics of analcime by in situ synchrotron powder diffraction, 112
- Cruciani, G., see Meneghinello et al., 1144
- Culetto, F.J., see Effenberger et al., 669
- Cygan, R.T., see Fisler and Cygan, 1392
- Cynn, H., see Hofmeister et al., 454
- Davis, M.J. and Ihinger, P.D.: New controlled rapid quench technique in a 1 atm infrared image furnace, 48
- Day, A., see Prior et al., 1741
- de Ligny, D. and Navrotsky, A.: Energetics of kaolin polymorphs, 506
- Della Ventura, G., see Oberti et al., 913
- Della Ventura, G., see Robert et al., 86
- Denison, C., see Brown et al., 1793
- Denison, C., see Philpotts et al., 1819
- Devouard, B., see Garvie et al., 1170
- Diella, V., see Pezzotta et al., 782
- Dingwell, D.B., see Courtial and Dingwell, 465
- Dingwell, D.B., see Gottsmann et al., 1176
- Domeneghetti, M.C., see Zema et al., 1895
- Donelick, R.A., Ketcham, R.A., and Carlson, W.D.: Variability of apatite fission-track annealing kinetics: II. Crystallographic orientation effects, 1224
- Donelick, R.A., see Carlson et al., 1213
- Donelick, R.A., see Ketcham et al., 1235
- Dooley, D., see Navrotsky et al., 1622
- Dowker, S.E.P., see Wilson et al., 1406
- Downs, J.W.: *X-Ray Charge Densities and Chemical Bonding*. By P. Coppens, 690
- Downs, R.T., Yang, H., Hazen, R.M., Finger, L.W., and Prewitt, C.T.: Compressibility mechanisms of alkali feldspars: New data from reedmergnerite, 333
- Drábek, M., see Comodi et al., 325
- Duan, W., Karki, B.B., and Wentzcovitch, R.M.: High-pressure elasticity of alumina studied by first principles, 1961
- Dubrovinsky, L.S., see Saxena et al., 226
- Dudás, F.Ö., see Smerekanicz and Dudás, 746
- Dutrow, B.L., Foster, C.T. Jr., and Henry, D.J.: Tourmaline-rich pseudomorphs in sillimanite zone metapelites: Demarcation of an infiltration front, 794
- Dyar, M.D., Taylor, M.E., Lutz, T.M., Francis, C. A., Guidotti, C.V., and Wise, M.: *Erratum*: Inclusive chemical characterization of tourmaline:

- Mössbauer study of Fe valance and site occupancy, 692
- Dyar, M.D., see Bloodaxe et al., 922
- Dyar, M.D., see Tagg et al., 1451
- Eberl, D.D., see Kile and Eberl, 718
- Effenberger, H., Paar, W.H., Topa, D., Culetto, F.J., and Giester, G.: Toward the crystal structure of nagyagite, $[\text{Pb}(\text{Pb},\text{Sb})\text{S}_2][(\text{Au},\text{Te})]$, 669
- Eggleston, C.M.: The surface structure of $\alpha\text{-Fe}_2\text{O}_3$ (001) by scanning tunneling microscopy: Implications for interfacial electron transfer reactions, 1061
- Eggleston, C.M., see Jordan et al., 144
- El-Biad, M., see Castro et al., 1971
- El-Hmidi, H., see Castro et al., 1971
- Elliott, J.C., see Wilson et al., 1406
- Ellis, D.J., see Troitzsch and Ellis, 1162
- Etz, E.S., see McKeown et al., 970
- Etz, E.S., see McKeown et al., 1041
- Evensen, J.M., London, D., and Wendlandt, R.F.: Solubility and stability of beryl in granitic melts, 733
- Ewing, R.C., see Chen et al., 650
- Ewing, see Salje et al., 1107
- Fadley, C.S., see Biino et al., 629
- Falster, A.U., see Foord et al., 769
- Falster, A.U., see Webber et al., 708
- Farges, F., Neuville, D.R., and Brown, G.E., Jr.: Structural investigation of platinum solubility in silicate glasses, 1562
- Fei, Y.: Effects of temperature and composition on the bulk modulus of $(\text{Mg},\text{Fe})\text{O}$, 272
- Fei, Y., Frost, D.J., Mao, H.-K., Prewitt, C.T., and Häusermann, D.: In situ structure determination of the high-pressure phase of Fe_3O_4 , 203
- Fei, Y., see Linton et al., 1595
- Fei, Y., see Yang et al., 681
- Fellows, R.A., Lennie, A.R., Munz, A.W., Vaughan, D.J., and Thornton, G.: Structures of FeTiO_3 (0001) surfaces observed by scanning tunneling microscopy, 1384
- Fialin, M., Rémy, H., Richard, C., and Wagner, C.: Trace element analysis with the electron microprobe: New data and perspectives, 70
- Filatov, S.K., see Krivovichev and Filatov, 1099
- Finch, R.J., see Burns and Finch, 1456
- Finger, L.W., see Downs et al., 333
- Finger, L.W. see Hazen et al., 987
- Finger, L.W., see Jephcoat et al., 214
- Finger, L.W., see Yang et al., 245
- Fiquet, G. and Reynard, B.: High-pressure equation of state of magnesite: New data and a reappraisal, 856
- Fischer, A., see Heinemann et al., 1400
- Fisler, D.K. and Cygan, R.T.: Diffusion of Ca and Mg in calcite, 1392
- Floss, C.: Fe,Mg,Mn-bearing phosphates in the GRA 95209 meteorite: Occurrences and mineral chemistry, 1354
- Floss, C., see Jolliff et al., 821
- Foord, E.E. and O'Connor, J.T.: *Boron: Mineralogy, Petrology and Geochemistry*. Edited by E.S. Grew and L.M. Anovitz, 1209
- Foord, E.E., O'Connor, J.T., Hughes, J.M., Sutley, S.J., Falster, A.U., Soregaroli, A.E., Lichte, F.E., and Kile, D.R.: Simmonsite, $\text{Na}_2\text{LiAlF}_6$, a new mineral from the Zapot amazonite-topaz-zinnwaldite pegmatite, Hawthorne, Nevada, U.S.A., 769
- Foord, E.E., see Kleck and Foord, 695
- Foord, E.E., see Webber et al., 708
- Foster, C.T., Jr., see Dutrow et al., 794
- Fowler, G.W., see Papike et al., 392
- Francis, C.A., see Dyar et al. *Erratum*, 692
- Franz, G., see Najorka et al., 171
- Freeman, J.J., see Pasteris et al., 997
- Freeman, J.J., see Wopenka et al., 550
- Freda, C., see Baker and Freda, 725
- Frost, D.J., see Fei et al., 203
- Fujino, K., see Shinmei et al., 1588
- Fujino, K., see Tomioka and Fujino, 267
- Fumagalli, P., see Artioli et al., 1906
- Fursenko, B.A., see Hazen et al., 987
- Gaffney, T.R., see Shim et al., 1870
- Galli, E., see Artioli and Galli, 1445
- Galliski, M.A., Černý, P., Márquez-Zavalfa, M.F., and Chapman, R.: Ferrotitanowodginite, $\text{Fe}^{2+}\text{TiTa}_2\text{O}_8$, a new mineral of the wodginite group from the San Elías pegmatite, San Luis, Argentina, 773
- Galliski, M.A., Černý, P., Márquez-Zavalfa, M.F., and Chapman, R.: *Erratum*: Ferrotitanowodginite, $\text{Fe}^{2+}\text{TiTa}_2\text{O}_8$, a new mineral of the wodginite group from the San Elías pegmatite, San Luis, Argentina, 1966
- Galliski, M.A., Cooper, M.A., Hawthorne, F.C., and Černý, P.: Bederite, a new pegmatite phosphate mineral from Nevados de Palermo, Argentina: Description and crystal structure, 1674
- Garvie, L.A.J. and Buseck, P.R.: Bonding in silicates: Investigation of the Si $L_{2,3}$ edge by parallel electron energy-loss spectroscopy, 946
- Garvie, L.A.J., Devouard, B., Groy, T.L., Camara, F., and Buseck, P.R.: Crystal structure of kanemite, $\text{NaHSi}_2\text{O}_5 \cdot 3\text{H}_2\text{O}$, from the Aris phonolite, Namibia, 1170
- Gasparik, T., Parise, J.B., Reeder, R.J., Young, V.G., and Wilford, W.S.: Composition, stability, and structure of a new member of the aenigmatite group, $\text{Na}_2\text{Mg}_{4+x}\text{Fe}^{3+}_2\text{Si}_{6+x}\text{O}_{20}$, synthesized at 13–14 GPa, 257
- Gennaro, C., see Gottsmann et al., 1176
- Geiger, C.A., see Bosenick et al., 1422
- Geister, G., see Effenberger et al., 669
- Gesing, T.M., see Cellai et al., 1950
- Ghiorso, M.S.: On the stability relations of hydrous minerals in water-undersaturated magmas, 1506
- Ghiorso, M.S., Yang, H., and Hazen, R.M.: Thermodynamics of cation ordering in karoosite (MgTi_2O_5), 1370
- Gibbs, G.V., Tamada, O., Boisen, M.B., Jr., and Hill, F.C.: Laplacian and bond critical point properties of the electron density distributions of sulfide bonds: A comparison with oxide bonds, 435
- Gil-Crespo, P.P., see Pesquera et al., 55
- Giuli, G., Bonazzi, P., and Menchetti, S.: Al-Fe disorder in synthetic epidotes: A single-crystal X-ray diffraction study, 933
- Glazner, A.F.: *Third Hutton Symposium: The origin of granites and related rocks*. Edited by M. Brown, P.A. Candela, D.L. Peck, W.E. Stephens, R.J. Walker, and E. Zen, 1210
- Goetz, S., see Sherriff et al., 1033
- Gorisch, B., see Ayers et al., 1766
- Gottschalk, M., see Najorka et al., 171
- Gottsmann, J., Dingwell, D.B., and Gennaro, C.: Thermal expansion of silicate liquids: Direct determination using container-based dilatometry, 1176
- Götze, J., Habermann, D., Kempe, U., Neuser, R.D., and Richter, D.K.: Cathodoluminescence microscopy and spectroscopy of plagioclases from lunar soil, 1027
- Graphchikov, A.A., Konilov, A.N., and Clemens, J.D.: Biotite dehydration, partial melting, and fluid composition: Experiments in the system $\text{KAlO}_2\text{-FeO-MgO-SiO}_2\text{-H}_2\text{O-CO}_2$, 15
- Grew, E., see Wopenka, et al., 550
- Grew, E.S., Redhammer, G.J., Amthauer, G., Cooper, M.A., Hawthorne, F.C., and Schmetzer, K.: Iron in kornerepine: A ^{57}Fe Mössbauer spectroscopic study and

- comparison with single-crystal structure refinement, 536
- Grew, E.S., see Barbier et al., 1650
- Grew, E.S., see Bloodaxe et al., 922
- Grew, E.S., see Cooper et al., 764
- Grew, E.S., see Peacor et al., 1152
- Grew, E.S., see Tagg et al., 1451
- Groy, T. L., see Garvie et al., 1170
- Grünsteudel, H., see Zhang et al., 447
- Gualtieri, A., see Cruciani and Gualtieri, 112
- Gualtieri, A.F. and Venturelli, P.: In situ study of the goethite-hematite phase transformation by real time synchrotron powder diffraction, 895
- Guastoni, A., see Pezzotta et al., 782
- Guggenheim, S. and Zhan, W.: Crystal structures of two partially dehydrated chlorites: The "modified" chlorite structure, 1415
- Guidotti, C.V., see Bloodaxe et al. 922
- Guidotti, C.V., see Dyar et al. *Erratum*, 692
- Gunter M.E., see Norton and Gunter, 1009
- Gwanmesia, G.D., see Chen et al., 384
- Habermann, D., see Götz et al., 1027
- Hafner, S.S., see Zhang et al., 447
- Haines, J., see Chateau et al., 207
- Haller, M., see Bühn et al., 1117
- Hama, J., see Anderson and Hama, 221
- Harlow, G.: *The Photo Atlas of Minerals*. By the Gem and Mineral Council, Los Angeles County Museum of Natural History, 995
- Harris, D.J., Watson, G.W., and Parker, S.C.: Computer simulation of pressure-induced structural transitions in MgO [001] tilt grain boundaries, 138
- Harris, M.J.: A new explanation for the unusual critical behavior of calcite and sodium nitrate, NaNO₃, 1632
- Harrison, R.J., Dove, M.T., Knight, K.S., and Putnis, A.: In-situ neutron diffraction study of non-convergent cation ordering in the (Fe₃O₄)_{1-x}(MgAl₂O₄)_x spinel solid solution, 555
- Harrison, R.J., see Redfern et al., 299
- Häusermann, D., see Fei et al., 203
- Hawthorne, F.C., see Schindler and Hawthorne, 665
- Hawthorne, F.C., Teertstra, D.K., and Černý, P.: Crystal-structure refinement of a rubidial cesian phlogopite, 778
- Hawthorne, F.C., see Cooper et al., 764
- Hawthorne, F.C., see Galliski et al., 1674
- Hawthorne, F.C., see Grew et al., 536
- Hawthorne, F.C., see Oberti et al., 102
- Hawthorne, F.C., see Robert et al., 86
- Hazen, R.M. and Parise, J.: Dedication to Charles T. Prewitt, 213
- Hazen, R.M. and Yang, H.: Effects of cation substitution and order-disorder on *P-V-T* equations of state of cubic spinels, 1956
- Hazen, R.M., Yang, H., Finger, L.W., and Fursenko, B.A.: Crystal chemistry of high-pressure BaSi₄O₉ in the trigonal (*P3*) barium tetragermanate structure, 987
- Hazen, R.M., see Downs et al., 333
- Hazen, R.M., see Ghiorso et al., 1370
- Hazen, R.M., see Yang and Hazen, 130
- Hazen, R.M., see Yang et al., 245
- Heaney, P. J., see Xu et al., 1360
- Heinemann, R., Staack, V., Fischer, A., Kroll, H., Vad, T., and Kirfel, A.: Temperature dependence of Fe,Mg partitioning in Acaapulco olivine, 1400
- Heinrich, W., see Najorka et al., 171
- Hemley, R.J., see Conrad et al., 374
- Henry, D.J., see Dutrow et al., 794
- Hercule, S. and Ingrin, J.: Hydrogen in diopside: Diffusion, kinetics of extraction-incorporation, and solubility, 1577
- Higgins, S.R., see Jordan et al., 144
- Hill, F.C., see Gibbs et al., 435
- Hochella, M.F., Jr., see Rosso et al., 1535
- Hochella, M.F., Jr., see Rosso et al., 1549
- Hofmeister, A.M., Cynn, H., Burnley, P.C., and Meade, C.: Vibrational spectra of dense, hydrous magnesium silicates at high pressure: Importance of the hydrogen bond angle, 454
- Holland, T., see Powell and Holland, 1
- Holloway, J.R.: Presentation of the Roebling Medal of the Mineralogical Society of America for 1998 to C. Wayne Burnham, 1199
- Holtz, F., Roux, J., Ohlhorst, S., Behrens, H., and Schulze, F.: The effects of silica and water on the viscosity of hydrous quartzofeldspathic melts, 27
- Holtz, F., see Mysen et al., 1336
- Hou, X., see Kirkpatrick et al., 1186
- Hriljac, J.A., see Jephcoat et al., 214
- Huang, H., see Simon et al., 1071
- Hughes, J.M., see Bloodaxe et al., 922
- Hughes, J.M., see Foord et al., 769
- Hulbert, M.H., see Ransom et al., 183
- Hull, S., see Pavese et al., 905
- Hurkuck, W., see Schulze et al., 1512
- Igawa, N., see Urakawa et al., 341
- Ihinger, P.D., see Davis and Ihinger, 48
- Ildefonse, P., see Morin et al., 420
- Ingrin, J., see Hercule and Ingrin, 1577
- Inoue, A., see Murakami et al., 1080
- Irifune, T., see Shinmei et al., 1588
- Ishizawa, N., see Yanagisawa et al., 1861
- Ito, E., see Nakatsuka et al., 199
- Ito, E., see Nakatsuka et al., 1135
- Ito, M., see Akai, J. et al., 171
- Jackson, J.M., Sinogeikin, S.V., and Bass, J.D.: Elasticity of MgSiO₃ orthoenstatite, 677
- Jäger, C., see Sherriff et al., 1033
- Jakobsen, H.J., see Lausen et al., 1433
- Jambor, J.L. and Roberts, A.C.: New Mineral Names, 193
- Jambor, J.L. and Roberts, A.C.: New Mineral Names, 990
- Jambor, J.L. and Roberts, A.C.: New Mineral Names, 1464
- Jambor, J.L., Kovalenker, V.A., and Roberts, A.C.: New Mineral Names, 1685
- Jambor, J.L., Pertsev, N.N., and Roberts, A.C.: New Mineral Names, 1195
- Jambor, J.L., Puziewicz, J., and Roberts, A.C.: New Mineral Names, 685
- Janney, D.E. and Wenk, H.-R.: Peristerite exsolution in metamorphic plagioclase from the Lepontine Alps: An analytical and transmission electron microscope study, 517
- Jansa, J., see Ondruš et al., 1439
- Jenkins, D.M., see Sharma and Jenkins, 1304
- Jenkins, D.M., see Sherriff et al., 1033
- Jenkins, D.M., see Sirbescu and Jenkins, 1850
- Jephcoat, A.P., Hriljac, J.A., McCammon, C.A., O'Neill, H.St.C., Rubie, D.C., and Finger, L.W.: High-resolution synchrotron X-ray powder diffraction and Rietveld structure refinement of two (Mg_{0.95}Fe_{0.05})SiO₃ perovskite samples synthesized under different oxygen fugacity conditions, 214
- Johannes, W., see Truckenbrodt and Johannes, 1333
- Johnson, S.E.: Porphyroblast microstructures: A review of current and future trends, 1711
- Jolliff, B.L., Floss, C., McCallum, I.S., and Schwartz, J.M.: Geochemistry, petrology, and cooling history of 14161, 7373: A plutonic lunar sample with textural evidence of granitic-fraction separation by silicate-liquid immiscibility, 821
- Jones, J.H., see Borisov and Jones, 1528
- Jordan, G., Higgins, S.R., and Eggleston, C.M.: Dissolution of the periclase (001) surface: A scanning force microscope study, 144

- Juillot, F., see Morin et al., 420
- Kao, L.-S., see Simon et al., 1071
- Karki, B.B., see Duan et al., 1961
- Katsura, T., see Nakatsuka et al., 1135
- Kay, A., see Biino et al., 629
- Kempe, U., see Götze et al., 1027
- Keppler, H., see Sowerby and Keppler, 1843
- Kerrick, D.M., see Penn et al., 152
- Kesler, S.E., see Simon et al., 1071
- Ketcham, R.A., Donelick, R.A., and Carlson, W.D.: Variability of apatite fission-track annealing kinetics: III. Extrapolation to geological time scales, 1235
- Ketcham, R.A., see Carlson et al., 1213
- Ketcham, R.A., see Donelick et al., 1224
- Khomenko, V.M. and Langer, K.: Aliphatic hydrocarbons in structural channels of cordierite: A first evidence from polarized single-crystal IR-absorption spectroscopy, 1181
- Kiefer, B., Stixrude, L., and Wentzcovitch, R.: Normal and inverse ringwoodite at high pressures, 288
- Kile, D.E. and Eberl, D.D.: Crystal growth mechanisms in miarolitic cavities in the Lake George ring complex and vicinity, Colorado, 718
- Kile, D.E., see Foord et al., 769
- Kim, Y., see Kirkpatrick et al., 1186
- Kirfel, A., see Heinemann et al., 1400
- Kirkpatrick, R.J., Yu, P., Hou, X., and Kim, Y.: Interlayer structure, anion dynamics, and phase transitions in mixed-metal layered hydroxides: Variable temperature ^{35}Cl NMR spectroscopy of hydrotalcite and Ca-aluminate hydrate (hydrocalumite), 1186
- Kleck, W.D. and Foord, E.E.: The chemistry, mineralogy, and petrology of the George Ashley Block pegmatite body, 695
- Knoche, R.L., see Angel et al., 282
- Knöchel, A., see Bühn et al., 1117
- Koch, M., see Angel et al., 282
- Kohn, M.J.: Why most "dry" rocks should cool "wet", 570
- Konilov, A.N., see Graphchikov et al., 15
- Konzett, J., see Yang et al., 681
- Kovalenker, V.A., see Jambor et al., 1685
- Krivovichev, S.V. and Filatov, S.K.: Structural principles for minerals and inorganic compounds containing anion-centered tetrahedra, 1099
- Kroll, H., see Heinemann et al., 1400
- Krot, A.N., see Cooney et al., 1569
- Kuehner, S.M., see Tepper and Kuehner, 581
- Kunath-Fandrei, G., see Sherriff et al., 1033
- Kunz, M., see Angel et al., 282
- Kuroda, K., see Shinmei et al., 1588
- Lamble, G.M., see Reeder et al., 1049
- Langer, K., see Khomenko and Langer, 1181
- Lausen, S.K., Lindgreen, H., Jakobsen, H.J., and Nielsen, N.C.: Solid-state ^{29}Si MAS NMR studies of illite and illite-smectite from shale, 1433
- Le Bihan, T., see Saxena et al., 226
- Lee, S.K. and Stebbins, J.F.: The degree of aluminum avoidance in aluminosilicate glasses, 937
- Lee, S.K., see Stebbins et al., 1680
- Léger, J.-M., see Chateau et al., 207
- Lennie, A.R., see Fellows et al., 1384
- LeSauze, A., see Chateau et al., 207
- Lichte, F.E., see Foord et al., 769
- Liebermann, R.C., see Chen et al., 384
- Lieftink, D.J., see Visser et al., 977
- Lindgreen, H., see Lausen et al., 1433
- Linton, J.A., Fei, Y., and Navrotsky, A.: The $\text{MgTiO}_3\text{-FeTiO}_3$ join at high pressure and temperature, 1595
- Liou, J.G., see Zhang et al., 447
- Liu, J., see Xu et al., 1360
- Livens, F.R., see Parkman et al., 407
- Livi, K.J.T., see Schmidt and Livi, 160
- London, D.: Preface to the Foord Issue, 693
- London, D., see Evensen et al., 733
- Lopez, G., see Prior et al., 1741
- Lutz, T.M., see Dyar et al. *Erratum*, 692
- MacDougall, J.E., see Shim et al., 1870
- Maki, Y., see Akai, J., et al., 171
- Makovicky, E. and Balić-Žunić, T.: Gillulyite $\text{Ti}_2(\text{As,Sb})_8\text{S}_{13}$: Reinterpretation of the crystal structure and order-disorder phenomena, 400
- Mao, H.-K., see Conrad et al., 374
- Mao, H.-K., see Fei et al., 203
- Mao, H.K., see Zhang et al., 564
- Marchand, R., see Chateau et al., 207
- Markl, G. and Piazzolo, S.: Stability of high-Al titanite from low-pressure calcsilicates in light of fluid and host-rock composition, 37
- Mannella, N., see Biino et al., 629
- Mares, V.M., see Bell and Mares, 1727
- Márquez-Zavalía, M.F., see Galliski et al., 773
- Maruyama, S., see Okamoto and Maruyama, 362
- Maurice, P.A., see Sutheimer et al., 620
- McCallum, I.S., see Jolliff et al., 821
- McCammon, C.A., see Jephcoat et al., 214
- McCammon, C.A., see Sobolev et al., 78
- McGee, J.J., see Shervais and McGee, 806
- McKeown, D.A., Bell, M.I., and Etz, E.S.: Raman spectra and vibrational analysis of the trioctahedral mica phlogopite, 970
- McKeown, D.A., Bell, M.I., and Etz, E.S.: Vibrational analysis of the dioctahedral mica: $2M_1$ muscovite, 1041
- McKeown, D.A., Bell, M.I., and Etz, E.S.: *Erratum*: Raman spectra and vibrational analysis of the trioctahedral mica phlogopite, 1692
- Meade, C., see Hofmeister et al., 454
- Menchetti, S., see Guili et al., 933
- Meneghinello, E., Alberti, A., and Cruciani, G.: Order-disorder process in the tetrahedral sites of albite, 1144
- Merlino, S., Bonaccorsi, E., and Armbruster, T.: Tobermorites: Their real structure and order-disorder (OD) character, 1613
- Metge, J., see Zhang et al., 447
- Miletich, R., see Angel et al., 282
- Milleman, J., see Ayers et al., 1766
- Miller, C., see Ayers et al., 1766
- Miller, C.F., see Robinson and Miller, 1346
- Moecher, D.P. and Sharp, Z.D.: Comparison of conventional and garnet-aluminosilicate-quartz O isotope thermometry: Insights for mineral equilibration in metamorphic rocks, 1287
- Mogk, D.W.: *MDAT Lite 97 CD-Rom*. By A. Hölzel, 1691
- Montel, J.-M., see Mysen et al., 1336
- Morin, G., Ostergren, J.D., Juillot, F., Ildefonse, P., Calas, G., and Brown, G.E., Jr.: XAFS determination of the chemical form of lead in smelter-contaminated soils and mine tailings: Importance of adsorption processes, 420
- Mountjoy, E., see Paquette et al., 1939
- Mun., B., see Biino et al., 629
- Munz, A.W., see Fellows et al., 1384
- Murakami, T., Sato, T., and Inoue, A.: HRTEM evidence for the process and mechanism of saponite-to-chlorite conversion through corrensite, 1080
- Myer, G.H., see Burkhard et al., 493
- Mysen, B.O., Holtz, F., Pichavant, M., Beny, J.-M., and Montel, J.-M.: The effect of temperature and bulk composition on the solution mechanism of phosphorus in peraluminous haplogranitic magma, 1336
- Nabelek, P.I.: Trace element distribution among rock-forming minerals in Black Hills migmatites, South Dakota: A case for solid-state equilibrium, 1256

- Najorka, J., Gottschalk, M., Franz, G., and Heinrich, W.: Ca-Sr distribution between amphibole, clinopyroxene, and chloride-bearing solutions, 596
- Nakano, S., see Akai, J., et al., 171
- Nakatsuka, A., Yoshiasa, A., Yamanaka, T., and Ito, E.: Structure refinement of birefringent Cr-bearing majorite $Mg_3(Mg_{0.34}Si_{0.34}Al_{0.18}Cr_{0.14})_2Si_3O_{12}$, 199
- Nakatsuka, A., Yoshiasa, A., Yamanaka, T., Ohtaka, O., Katsura, T., and Ito, E.: Symmetry change of majorite solid-solution in the system $Mg_3Al_2Si_3O_{12}$ - $MgSiO_3$, 1135
- Navrotsky, A., Dooley, D., Reeder, R., and Brady P.: Calorimetric studies of the energetics of order-disorder in the system $Mg_{1-x}Fe_xCa(CO_3)_2$, 1622
- Navrotsky, A., see de Ligny and Navrotsky, 506
- Navrotsky, A., see Linton et al., 1595
- Navrotsky, A., see Schoenitz and Navrotsky, 389
- Navrotsky, A., see Shim et al., 1870
- Navrotsky, A., see Xu et al., 1360
- Nesbitt, H.W. and Reinke, M.: Properties of As and S at NiAs, NiS, and $Fe_{1-x}S$ surfaces, and reactivity of niccolite in air and water, 639
- Neuser, R.D., see Götze et al., 1027
- Neuville, D.R., see Farges et al., 1562
- Newton, R.C., see Aranovich and Newton, 1319
- Nickel, E.H. and Grice, J.D.: IMA report on produceures and guidelines on mineral nomenclature, 1998. Abstract, 691: Complete, www.ammin.minsocam.org
- Nielsen, N.C., see Lausen et al., 1433
- Nieto, J.M., see Ruiz Cruz et al., 1915
- Nijland, T.G., see Visser et al., 977
- Noe, D.C. and Veblen, D.R.: Incommensurate modulation and the crystal structure of ganophyllite, 1088
- Noe, D.C. and Veblen, D.R.: HRTEM analysis of dislocation cores and stacking faults in naturally deformed biotite crystals, 1925
- Noe, D.C. and Veblen, D.R.: Mottled contrast in TEM images of mica crystals, 1932
- Northrup, P.A., see Reeder et al., 1049
- Norton M.R. and Gunter M.E.: Relationships between respiratory diseases and quartz-rich dust in Idaho, U.S.A., 1009
- Novák, F., see Ondruš et al., 1439
- Oberti, R., Hawthorne, F.C., Camara, F., and Raudsepp, M.: Unusual M^{3+} cations in synthetic amphiboles with nominal fluoro-eckermannite composition: Deviations from stoichiometry and structural effects of the cummingtonite component, 102
- Oberti, R., Ottolini, L., Camara, F., and Della Ventura, G.: Crystal structure of non-metamict Th-rich hellandite-(Ce) from Latium (Italy) and crystal chemistry of the hellandite-group minerals, 913
- O'Connor, J.T., see Foord and O'Connor 1209
- O'Connor, J.T., see Foord et al., 769
- Ohlhorst, S., see Holtz et al., 27
- Ohno, H., see Urakawa et al., 341
- Ohtaka, O., see Nakatsuka et al., 1135
- Oishi, S., see Yanagisawa et al., 1861
- Okamoto, K. and Maruyama, S.: The high-pressure synthesis of lawsonite in the MORB+ H_2O system, 362
- Ondruš, P., Skála, R., Vít, C., Veselovský, F., Novák, F., and Jansa, J.: Parascroditite, $FeAsO_4 \cdot 2H_2O$ —a new mineral from Kaňk near Kutná Hora, Czech Republic, 1439
- Papike, J.J., see Shearer and Papike, 1469
- O'Neill, H.St.C., see Jephcoat et al., 214
- O'Neill, H.St.C., see Redfern et al., 299
- Ostergren, J.D., see Morin et al., 420
- Ottolini, L., see Oberti et al., 913
- Papale, P.: Modeling of the solubility of a two-component $H_2O + CO_2$ fluid in silicate liquids, 477
- Papike, J.J., Fowler, G.W., Adcock, C.T., and Shearer, C.K.: Systematics of Ni and Co in olivine from planetary melt systems: Lunar mare basalts, 392
- Papike, J.J., see Bowman et al., 1020
- Paquette, J., Vali, H., and Mountjoy, E.: Novel TEM approaches to imaging of microstructures in carbonates: Clues to growth mechanisms in calcite and dolomite, 1939
- Parise, J.B., see Gasparik et al., 257
- Parise, J.B., see Hazen and Parise, 213
- Parker, S.C., see Harris et al., 138
- Parkman, R.H., Charnock, J.M., Bryan, N.D., Livens, F.R., and Vaughan, D.J.: Reactions of copper and cadmium ions in aqueous solution with goethite, lepidocrocite, mackinawite, and pyrite, 407
- Parr, W.H., see Effenberger et al., 669
- Pasteris, J.D., Wopenka, B., Freeman, J.J., Young, V.L., and Brandon, H.J.: Medical mineralogy as a new challenge to the geologist: Silicates in human mammary tissue?, 997
- Pavese, A., Artioli, G., and Hull, S.: In situ powder neutron diffraction of cation partitioning vs. pressure in $Mg_{0.94}Al_{2.04}O_4$ synthetic spinel, 905
- Peacor, D.R., Rouse, R.C., and Grew, E.S.: Crystal structure of boralsilite and its relation to a family of borosaluminosilicates, sillimanite, and andalusite, 1152
- Penn, R.L. and Banfield, J.F.: Formation of rutile nuclei at anatase {112} twin interfaces and the phase transformation mechanism in nanocrystalline titania, 871
- Penn, R.L., Banfield, J.F., and Kerrick, D.M.: TEM investigation of Lewiston, Idaho, fibrolite: Microstructure and grain boundary energetics, 152
- Penner-Hahn, J.E., see Simon et al., 1071
- Pertsev, N.N.: Memorial of Dimitriy Sergeevich Korzhinskiy, 1899–1985, 1212
- Pertsev, N.N., see Jambor et al., 1195
- Pesquera, A., Torres-Ruiz, J., Gil-Crespo, P.P., and Velilla, N.: Chemistry and genetic implications of tourmaline and Li-F-Cs micas from the Valdeflores area (Cáceres, Spain), 55
- Petruzzolo, L., see Prior et al., 1741
- Pezzotta, F., Diella, V., and Guastoni, A.: Chemical and paragenetic data on gadolinite-group minerals from Baveno and Cuasso al Monte, southern Alps, Italy, 782
- Piazolo, S., see Markl and Piazolo, 37
- Pichavant, M., see Mysen et al., 1336
- Phillips, B.L., see Bosenick et al., 1422
- Philpotts, A.R., Brustman, C.M., Shi, J., Carlson, W.D., and Denison, C.: Plagioclase-chain networks in slowly cooled basaltic magma, 1819
- Poli, S., see Artioli et al., 1906
- Potts, G.J., see Prior et al., 1741
- Powell, R. and Holland, T.: Relating formulations of the thermodynamics of mineral solid solutions: Activity modeling of pyroxenes, amphiboles, and micas, 1
- Prewitt, C.T., see Downs et al., 333
- Prewitt, C.T., see Fei et al., 203
- Prewitt, C.T., see Yang and Prewitt, 1902
- Prewitt, C.T., see Yang et al., 245
- Prewitt C.T., see Yang et al., 681
- Prior, D.J., Boyle, A.P., Brenker, F., Cheadle, M.C., Day, A., Lopez, G., Peruzzo, L., Potts, G.J., Reddy, S., Spiess, R., Timms, N.E., Trimby, P., Wheeler, J., and Zetterström, L.: The application of electron backscatter diffraction and orienta-

- tion contrast imaging in the SEM to textural problems in rocks, 1741
- Puga, E., see Ruiz Cruz et al., 1915
- Putnis, A., see Vinograd and Putnis, 311
- Radtke, M., see Böhn et al., 1117
- Rakovan, J., Becker, U., and Hochella, M.F. Jr.: Aspects of goethite surface microtopography, structure, chemistry, and reactivity, 884
- Rankin, A.H., see Böhn et al., 1117
- Ramos, A., see Wulf et al., 1461
- Ransom, B., Bennett, R.H., Baerwald, R., Hulbert, M.H., and Burkett, P.-J.: In situ conditions and interactions between microbes and minerals in fine-grained marine sediments: A TEM microfabric perspective, 183
- Ratajeski, K. and Sisson, T.W.: Loss of iron to gold capsules in rock-melting experiments, 1521
- Raudsepp, M., see Oberti et al., 102
- Reddy, S., see Prior et al., 1741
- Redfern, S.A.T., Harrison, R.J., O'Neill, H.St.C., and Wood, D.R.R.: Thermodynamics and kinetics of cation ordering in $MgAl_2O_4$ spinel up to 1600 °C from in situ neutron diffraction, 299
- Redhammer, G., see Burkhard et al., 493
- Redhammer, G.J., see Grew et al., 536
- Reeder, R., see Navrotsky et al., 1622
- Reeder, R.J., Lamble, G.M., and Northrup, P.A.: XAFS study of the coordination and local relaxation around Co^{2+} , Zn^{2+} , Pb^{2+} , and Ba^{2+} trace elements in calcite, 1049
- Reeder, R.J., see Gasparik et al., 257
- Reeder, R.J., see Zhang and Reeder, 861
- Reinke, M., see Nesbitt and Reinke, 639
- Rémy, H., see Fialin et al., 70
- Rendon-Angeles, J.C., see Yanagisawa et al., 1861
- Reynard, B., see Fiquet, G. and Reynard, B., 856
- Richard, C., see Fialin et al., 70
- Richet, P., see Thiéblot, et al., 848
- Richter, D.K., see Götzte et al., 1027
- Rieder, M., see Comodi et al., 325
- Rietmeijer, F.J.M.: Metastable non-stoichiometric diopside and Mg-wollastonite: An occurrence in an interplanetary dust particle, 1883
- Robert, J.-L., Della Ventura, G., and Hawthorne, F.C.: Near-infrared study of short-range disorder of OH and F in monoclinic amphiboles, 86
- Roberts, A.C., see Jambor and Roberts, 193
- Roberts, A.C., see Jambor and Roberts, 1464
- Roberts, A.C., see Jambor et al., 1195
- Roberts, A.C., see Jambor et al., 1685
- Robinson, D. and Santana de Zamora, A.: The smectite to chlorite transition in the Chipilapa geothermal system, El Salvador, 607
- Robinson, D.M. and Miller, C.F.: Record of magma chamber processes preserved in accessory mineral assemblages, Aztec Wash pluton, Nevada, 1346
- Roselieb, K., see Wulf et al., 1461
- Rosenhauer, M., see Wulf et al., 1461
- Ross, M.: Presentation of the Distinguished Public Service Medal for 1998 to Daniel E. Appleman, 1205
- Ross, N.L. and Angel, R.J.: Compression of $CaTiO_3$ and $CaGeO_3$ perovskites, 277
- Rosso, K.M., Becker, U., and Hochella, M.F., Jr.: Atomically resolved electronic structure of pyrite {100} surfaces: An experimental and theoretical investigation with implications for reactivity 1535
- Rosso, K.M., Becker, U., and Hochella, M.F., Jr.: The interaction of pyrite {100} surfaces with O_2 and H_2O : Fundamental oxidation mechanisms, 1549
- Rossouw, C.J. and Miller, P.R.: Location of interstitial Cr in mullite by incoherent channeling patterns from characteristic X-ray emission, 965
- Rouse, R.C., see Peacor et al., 1152
- Roux, J., see Holtz et al., 27
- Rubie, D.C., see Jephcoat et al., 214
- Ruiz Cruz, M.D., Puga, E., and Nieto, J.M.: Silicate and oxide exsolution in pseudospinifex olivine from metaultramafic rocks of the Betic Ophiolitic Association: A TEM study, 1915
- Rüffer, R., see Zhang et al., 447
- Sadofsky, S.J., see Bebout et al., 1495
- Salje, E.K.H., Chrosch, J., and Ewing, R.C.: Is "metamictization" of zircon a phase transition?, 1107
- Sanchez-Navas, A.: Sequential kinetics of a muscovite-out reaction: A natural example, 1270
- Santana de Zamora, A., see Robinson and Santana de Zamora, 607
- Sasagawa, I., see Akai et al., 171
- Sasaki, S., see Toyoda et al., 294
- Saxena, S.K., Dubrovinsky, L.S., Tutti, F. and Le Bihan, T.: Equation of state of $MgSiO_3$ with the perovskite structure based on experimental measurements, 226
- Schindler M. and Hawthorne, F.C.: Schubnelite, $[Fe^{3+}(V^{5+}O_4(H_2O))]$, a novel heteropolyhedral framework mineral, 665
- Schmetzer, K., see Grew et al., 536
- Schmidt, D. and Livi, K.J.T.: HRTEM and SAED investigations of polytypism, stacking disorder, crystal growth, and vacancies in chlorites from subgreenschist facies outcrops, 160
- Schoenitz, M. and Navrotsky, A.: Enthalpy of formation of katoite $Ca_3Al_2[(OH)_4]_3$: Energetics of the hydrogarnet substitution, 389
- Schulze, F., Behrens, H., and Hurkuck, W.: Determination of the influence of pressure and dissolved water on the viscosity of highly viscous melts: Application of a new parallel-plate viscometer, 1512
- Schulze, F., see Holtz et al., 27
- Schwartz, J.M., see Jolliff et al., 821
- Scott, E.R.D., see Cooney et al., 1569
- Sharma, A. and Jenkins, D.M.: Hydrothermal synthesis of amphiboles along the tremolite-pargasite join and in the ternary system tremolite-pargasite-cummingtonite, 1304
- Sharma, S.K., see Cooney et al., 1569
- Sharp, Z.D., see Moecher and Sharp, 1287
- Shearer, C.K. and Papike, J.J.: Magmatic evolution of the Moon, 1469
- Shearer, C.K., see Papike et al., 392
- Sherriff, B.L., Jenkins, D.M., Kunath-Fandrei, G., Goetz, S., and Jäger, C.: ^{23}Na , ^{29}Si , and ^{71}Ga MAS-NMR spectroscopy of synthetic gallian-fluor-amphiboles, 1033
- Shervais, J.W. and McGee, J.J.: KREEP cumulates in the western lunar highlands: Ion and electron microprobe study of alkali-suite anorthosites and norites from Apollo 12 and 14, 806
- Shi, J., see Philpotts et al., 1819
- Shibue, Y.: Calculations of fluid-ternary solid solution equilibria: An application of the Wilson equation to fluid-(Fe, Mn, Mg)TiO₃ equilibria at 600 °C and 1 kbar, 1375
- Shim, S.-H., Navrotsky, A., Gaffney, T.R., and MacDougall, J.E.: Chabazite: Energetics of hydration, enthalpy of formation, and effect of cations on stability, 1870
- Shinmei, T., Tomioka, N., Fujino, K., Kuroda, K., and Irifune, T.: In situ X-ray diffraction study of enstatite up to 12 GPa and 1473 K and equations of state, 1588
- Shimomura, O., see Urakawa et al., 341
- Shu, J.F., see Zhang et al., 447
- Simmons, R., see Černý et al., 754
- Simmons, W.B. and Webber, K.L.: Memo-

- rial of Eugene Edward Foord, 1946–1998, 790
- Simmons, W.B., see Webber et al., 708
- Simon, G., Huang, H., Penner-Hahn, J.E., Kesler, S.E., and Kao, L.-S.: Oxidation state of gold and arsenic in gold-bearing arsenian pyrite, 1071
- Sinkankas, J.: *Ruby and Sapphire*. By R. W. Hughes, 211
- Sirbescu, M. and Jenkins, D.M.: Experiments on the stability of cancrinite in the system $\text{Na}_2\text{O}-\text{CaO}-\text{Al}_2\text{O}_3-\text{SiO}_2-\text{CO}_2-\text{H}_2\text{O}$, 1850
- Sisson, T.W., see Ratajeski and Sisson, 1521
- Skála, R., see Ondruš et al., 1439
- Smerekanic, J.R. and Dudás, F.Ö.: Reconnaissance fluid inclusion study of the Morefield pegmatite, Amelia County, Virginia, 746
- Snyder, G. A., see Sobolev et al., 78
- Sobolev, V.N., McCammon, C.A., Taylor, L.A., Snyder, G.A., and Sobolev, N.V.: Precise Mössbauer milliprobe determination of ferric iron in rock-forming minerals and limitations of electron microprobe analysis, 78
- Sobolev, N.V., see Sobolev et al., 78
- Soregaroli, A.E., see Foord et al., 769
- Sowerby, J.R. and Keppler, H.: Water speciation in rhyolitic melt determined by in-situ infrared spectroscopy, 1843
- Spera, F.J., see Bryce et al., 345
- Spiess, R., see Prior et al., 1741
- Spilde, M.N., see Bowman et al., 1020
- Stanek, J., see Zhang et al., 447
- Staack, V., see Heinemann et al., 1400
- Stebbins, J.F., Lee, S.K., and Oglesby, J.V.: Al-O-Al oxygen sites in crystalline aluminates and aluminosilicate glasses: High-resolution oxygen-17 NMR results, 983
- Stebbins, J.F., Zhao, P., Lee, S.K., and Cheng, X.: Reactive Al-O-Al sites in a natural zeolite: Triple-quantum oxygen-17 nuclear magnetic resonance, 1680
- Stebbins, J.F., see Lee and Stebbins, 937
- Stein, D.J., see Bryce et al., 345
- Stixrude, L., see Kiefer et al., 288
- Stolz, J., see Wüst et al., 1126
- Su, S.-C., see Barbier et al., 1650
- Sutheimer, S.H., Maurice, P.A., and Zhou, Q.: Dissolution of well and poorly crystallized kaolinites: Al speciation and effects of surface characteristics, 620
- Sutley, S.J., see Foord et al., 769
- Tagg, S.L., Cho, H., Dyar, M.D., and Grew, E.S.: Tetrahedral boron in naturally occurring tourmaline, 1451
- Takahashi, E., see Wang and Takahashi, 357
- Tamada, O., see Gibbs et al., 435
- Tanaka, M., see Toyoda et al., 294
- Taylor, L.A., see Sobolev et al., 78
- Taylor, M.E., see Dyar et al. *Erratum*, 692
- Tazzoli, V., see Zema et al., 1895
- Teertstra, D.K., see Hawthorne et al., 778
- Tepper, J.H. and Kuehner, S.M.: Complex zoning in apatite from the Idaho batholith: A record of magma mixing and intracrystalline trace element diffusion, 581
- Téqui, C., see Thiéblot et al., 848
- Thiéblot, L., Téqui, C., and Richet, P.: High-temperature heat capacity of grossular ($\text{Ca}_3\text{Al}_2\text{Si}_3\text{O}_{12}$), enstatite (MgSiO_3), and titanite (CaSiTiO_5), 848
- Thornton, G., see Fellows et al., 1384
- Timms, N.E., see Prior et al., 1741
- Tomioka, N. and Fujino, K.: Akimotoite, $(\text{Mg,Fe})\text{SiO}_3$, a new silicate mineral of the ilmenite group in the Tenham chondrite, 267
- Tomioka, N. and Fujino, K.: *Erratum*: Akimotoite, $(\text{Mg,Fe})\text{SiO}_3$, a new silicate mineral of the ilmenite group in the Tenham chondrite, 1468
- Tomioka, N., see Shinmei et al., 1588
- Topa, D., see Effenberger et al., 669
- Topor, L., see Xu et al., 1360
- Torres-Ruiz, J., see Pesquera et al., 55
- Tossell, J.A.: Theoretical studies on the formation of mercury complexes in solution and the dissolution and reactions of cinnabar, 877
- Tossell, J.A.: Theoretical studies on aluminate and sodium aluminate species in models for aqueous solution: $\text{Al}(\text{OH})_3$, $\text{Al}(\text{OH})_4^-$, and $\text{NaAl}(\text{OH})_4$, 1641
- Toyoda, T., Sasaki, S., and Tanaka, M.: Evidence of the charge ordering between Fe^{2+} and Fe^{3+} in magnetite observed by synchrotron X-ray anomalous scattering, 294
- Treiman, A.: *Mineral Spectroscopy: A Tribute to Roger G. Burns*. Edited by M.D. Dyar, C. McCammon, and M.W. Schaefer, 211
- Tribaudino, M., see Benna et al., 120
- Trimby, P., see Prior et al., 1741
- Troitzsch, U. and Ellis, D.J.: The synthesis and crystal structure of CaAlFSiO_4 , the Al-F analog of titanite, 1162
- Truckenbrodt, J. and Johannes, W.: H_2O loss during piston-cylinder experiments, 1333
- Tutti, F., see Saxena et al., 226
- Ulmer, G.C., see Burkhard et al., 493
- Urakawa, S., Igawa, N., Shimomura, O., and Ohno, H.: High-pressure X-ray diffraction study on the structure of NaCl melt using synchrotron radiation, 341
- Vad, T., see Heinemann et al., 1400
- Vali, H., see Paquette et al., 1939
- van Westrenen, W., Blundy, J., and Wood, B.: Crystal-chemical controls on trace element partitioning between garnet and anhydrous silicate melt, 838
- Vaughan, D.J., see Fellows et al., 1384
- Vaughan, D.J., see Parkman et al., 407
- Veblen, D.R., see Noe and Veblen, 1088
- Veblen, D.R., see Noe and Veblen, 1925
- Veblen, D.R., see Noe and Veblen, 1932
- Velilla, N., see Pesquera et al., 55
- Venturelli, P., see Gualtieri and Venturelli, 895
- Vernon, R.H.: Flame perthite in metapelitic gneisses at Cooma, SE Australia, 1760
- Veselovský, F., see Ondruš et al., 1439
- Vinograd, V.L. and Putnis, A.: The description of Al, Si ordering in aluminosilicates using the cluster variation method, 311
- Visser, D., Nijland, T.G., Lieftink, D.J., and Maijer, C.: The occurrence of preiswerkite in a tourmaline-biotite-scapolite rock from Blengsvatn, Norway, 977
- Viti, C., see Ondruš et al., 1439
- Vocádo, L.: First principles calculations on the high-pressure behavior of magnetite, 1627
- Wagner, C., see Fialin et al., 70
- Wang, W. and Takahashi, E.: Subsolidus and melting experiments of a K-rich basaltic composition to 27 GPa: Implication for the behavior of potassium in the mantle, 357
- Watson, E.B.: Presentation of the Mineralogical Society of America Award for 1998 to James M. Brenan, 1202
- Watson, E.B.: *Presidential Address*: Lithologic partitioning of fluids and melts, 1693
- Watson, G.W., see Harris et al., 138
- Webber, K.L., Simmons, W.B., Falster, A.U., and Foord, E.E.: Cooling rates and crystallization dynamics of shallow level pegmatite-aplite dikes, San Diego County, California, 708
- Webber, K.L., see Simmons and Webber, 790

- Weiss, Z., see Comodi et al., 325
 Wendlandt, R.F., see Evensen et al., 733
 Wentzcovitch, R., see Kiefer et al., 288
 Wentzcovitch, R.M., see Duan et al., 1961
 Wheeler, J., see Prior et al., 1741
 Wilford, W.S., see Gasparik et al., 257
 Wilson, R.M., Elliott, J.C., and Dowker, S.E.P.: Rietveld refinement of the crystallographic structure of human dental enamel apatites, 1406
 Wimperis, S., see Ashbrook et al., 1191
 Wise, M., see Dyar et al. *Erratum*, 692
 Wood, B., see van Westrenen et al., 838
 Wood, D.R.R., see Redfern et al., 299
 Woodland, A.B., see Angel et al., 282
 Wopenka, B., Freeman, J.J., and Grew, E.: Raman spectroscopic identification of B-free and B-rich kornerupine (prismatine), 550
 Wopenka, B., see Pasteris et al., 997
 Wruck, B., see Cellai et al., 1950
 Wulf, R., Calas, G., Ramos, A., Büttner, H., Roselieb, K., and Rosenhauer, M.: Structural environment of krypton dissolved in vitreous silica, 1461
 Wüst, T., Stolz, J., and Armbruster, T.: Partially dealuminated heulandite produced by acidic REECl₃ solution: A chemical and single-crystal X-ray study, 1126
 Xu, H., Heaney, P.J., Navrotsky, A., Topor, L., and Liu, J.: Thermochemistry of stuffed quartz-derivative phases along the join LiAlSiO₄-SiO₂, 1360
 Yamaguchi, A., see Cooney et al., 1569
 Yamanaka, T., see Nakatsuka et al., 199
 Yamanaka, T., see Nakatsuka et al., 1135
 Yanagisawa, K., Rendon-Angeles, J.C., Ishizawa, N., and Oishi, S.: Topotaxial replacement of chlorapatite by hydroxyapatite during hydrothermal ion exchange, 1861
 Yang, H. and Hazen, R.M.: Comparative high-pressure crystal chemistry of karreroite, MgTi₂O₅, with different ordering states, 130
 Yang, H. and Prewitt, C.T.: On the crystal structure of pseudowollastonite (CaSiO₃), 929
 Yang, H. and Prewitt, C.T.: Crystal structure and compressibility of a two-layer polytype of pseudowollastonite (CaSiO₃), 1902
 Yang, H., Finger, L.W., Conrad, P.G., Prewitt, C.T., and Hazen, R.M.: A new pyroxene structure observed at high pressure: Single-crystal X-ray and Raman study of *Pbcn*-*P2₁cn* phase transition in protopyroxene, 245
 Yang, H., Konzett, J., Prewitt, C.T., and Fei, Y.: Single-crystal structure refinement of ^{M4}k-substituted potassic-richterite, K(KCa)Mg₅Si₈O₂₂(OH)₂, 681
 Yang, H., see Downs et al., 333
 Yang, H., see Ghiorso et al., 1370
 Yang, H., see Hazen and Yang, 1956
 Yang, H., see Hazen et al., 987
 Yoder, H.S., Jr.: *N.L. Bowen and Crystallization—Differentiation: The Evolution of a Theory*. By D. A. Young, 690
 Yoshiasa, A., see Nakatsuka et al., 199
 Yoshiasa, A., see Nakatsuka et al., 1135
 Young, V.G., see Gasparik et al., 257
 Young, V. L., see Pasteris et al., 997
 Yu, P., see Kirkpatrick et al., 1186
 Zanazzi, P.F., see Comodi et al., 325
 Zema, M., Domeneghetti, M.C., and Tazzoli, V.: Order-disorder kinetics in orthopyroxene with exsolution products, 1895
 Zenger, D.H.: *A Color Atlas of Carbonate Sediments and Rock Under the Microscope*. By A.E. Adams and W.S. MacKenzie, 689
 Zetterström, L., see Prior et al., 1741
 Zha, C.-S., see Conrad et al., 374
 Zhan, W., see Guggenheim and Zhan, 1415
 Zhang, H. and Banfield, J.F.: A new kinetic model for the nanocrystalline anatase-to-rutile transformation revealing rate dependence on number of particles, 528
 Zhang J. and Reeder, R.J.: Comparative compressibilities of calcite-structure carbonates: Deviations from empirical relations, 861
 Zhang, L., Stanek, J., Hafner, S.S., Ahsbahs, H., Grünstedel, H., Metge, J., and Ruffer, R.: ⁵⁷Fe nuclear forward scattering of synchrotron radiation in hedenbergite CaFeSi₂O₆ at pressures up to 68 GPa, 447
 Zhang, R. Y., Shu, J.F., Mao, H.K., and Liou, J.G.: Magnetite lamellae in olivine and clinohumite from Dabie UHP ultramafic rocks, Central China, 564
 Zhao, P., see Stebbins et al., 1680
 Zhou, Q., see Suthemer, 620