

## SUBJECT INDEX, VOLUME 78, 1993

- Al<sub>2</sub>O<sub>3</sub>-SiO<sub>2</sub>-H<sub>2</sub>O, 285  
Ar, 1135  
Au, 877  
Au<sub>94-88</sub>Hg<sub>6-12</sub>, 1108  
α-β quartz, 694  
Abhurite, 233  
Aeschynite, 419  
Alaska, 143, 1066  
Alberta, 225, 230  
Algebraic analysis, 1257  
Alkali feldspar, 952  
Almandine, 405  
Aluminosilicate, 594, 911  
Aluminum silicate, 298  
Alumotantite, 845  
Amazonite, 500  
Amorphous silica, 1066  
Amphibole, 96, 405, 733, 746, 968, 1117  
Amphibole activities, 1174  
Amphibolite, 988  
Analcime, 225, 230  
Analysis, chemical (mineral)  
  aeschynite, 419  
  algebraic analysis, 1257  
  amphibole, 96, 733, 746, 968  
  analcime, 225, 230  
  annite, 665, 669  
  anorthite, 601  
  anthophyllite, 511  
  antigorite, 391, 844 [erratum]  
  aquamarine, 762  
  arfvedsonite, 733  
  augite, 1230  
  bastnäsite-(Ce), 415  
  bernalite, 827  
  beryl, 762  
  biotite, 113, 158, 665, 669, 826 [erratum], 1031  
  brucite, 271  
  calcite, 49  
  chamosite, 1208  
  chlorite-smectite, 377  
  chromite, 68, 724  
  chromium clinochlore, 68  
  chrysotile, 391, 844 [erratum]  
  clinochlore, 1208  
  clinopyroxene, 132  
  Analysis, chemical (mineral), *cont.*  
    columbite, 419  
    cordierite, 1041  
    diamond, 753  
    diaphorite, 85  
    dravite, 265  
    Fe-Pt, 178  
    Fe<sub>2</sub>O<sub>3</sub>-FeTiO<sub>3</sub>, 941  
    fangite, 1096  
    feldspar, 158  
    fergusonite, 419  
    fluid inclusions, 657, 804  
    foitite, 1299  
    forsterite + monticellite, 42  
    galena, 85  
    garnet, 113, 132, 158, 338, 345, 826 [erratum], 988, 1002, 1041  
    gedrite, 511  
    halogen, 641  
    hornblende, 968  
    ilmenite, 113, 826 [erratum]  
    jacobsite, 1304  
    kaersutite, 968, 1230  
    kosnarite, 653  
    lindqvistite, 1304  
    lizardite, 391, 844 [erratum]  
    lunar rocks, 360  
    magnetite + ulvöspinel, 565  
    mahlmoodyite, 437  
    morganite, 762  
    muscovite, 782  
    olivine, 132, 794, 1230  
    orthoamphibole, 1041  
    orthopyroxene, 921, 1016  
    paragonite, 782  
    phengite, 158  
    phlogopite, 665, 669, 1056  
    pitchblende, 1262  
    plagioclase, 1041, 1066  
    poldervaartite, 1082  
    potassium iron silicate, 627  
    potassium magnesium silicate, 627  
    potassium zinc silicate, 627  
    povondraite, 433  
    preiskwite, 1290  
    pyroxene, 1002, 1066  
    quenched liquid, 1016  
    rutile, 1181  
  Analysis, chemical (mineral), *cont.*  
    samarskite, 419  
    sanidine, 601  
    serendibite, 195  
    smectite, 1217  
    sodium-potassium mica, 782  
    spinel, 873, 1002  
    staurolite, 345, 988, 1041  
    taikanite, 1088  
    tengerite-(Y), 425  
    tourmaline, 1299  
    tremolite-richterite, 23  
    tschernichite, 822  
    uraninite, 1262  
    widgiemoolthalite, 819  
    zircon, 36  
  Analysis, chemical (rock)  
    amphibolite, 988  
    basalt, 794  
    basanite, 1230  
    lunar rocks, 360  
    magnesian-arfvedsonite, 96  
    manganese cummingtonite, 96  
    microspheres, 873  
    pelite, 158, 345  
    PIXE, 893  
    rhyolite, 612  
    trachybasalt, 1230  
Andalusite, 298, 594  
Andalusite + corundum + quartz, 594  
Andradite, 957  
Angola, 1217  
Annite, 665, 669  
Anorthite, 601  
Anorthite-orthoclase, 601  
Anorthite-sanidine, 601  
Anorthosite, 1016  
Anthophyllite, 511  
Antigorite, 75, 391, 844 [erratum]  
Apatite, 210, 213, 441, 446, 641, 1275  
Apatite fission tracks, 210, 213, 441, 446  
Aquamarine, 762  
Arfvedsonite, 733  
Arizona, 968, 1230  
Arkansas, 437  
Arsenoflorencite-(La), 672

- Arsenoflorencite-(Nd), 672  
 Augite, 1230  
 Austria, 260  
 Awards  
   Mineralogical Society of America  
     Award, acceptance of, 856  
   Mineralogical Society of America  
     Award, presentation of, 853  
   Roebling Medal, acceptance of,  
     851  
   Roebling Medal, presentation of,  
     850  
  
 Ba-dominant brewsterite, 1314  
 BaSO<sub>3</sub>, 1314  
 BaS<sub>2</sub>O<sub>3</sub>·H<sub>2</sub>O, 1314  
 Ba<sub>2</sub>Al<sub>2</sub>S<sub>3</sub>(OH)<sub>8</sub>·8H<sub>2</sub>O, 1314  
 Ba<sub>2</sub>S<sub>2</sub>O<sub>3</sub>F<sub>2</sub>, 1314  
 Bannisterite, 233  
 Baratovite (= discredited  
   katayamalite), 450  
 Basalt, 794  
 Basanite, 1230  
 Bastnäsite-(Ce), 415  
 Bearthite, 1314  
 Bernalite, 827, 1108  
 Beryl, 762  
 Betpakdalite, 845  
 Biotite, 113, 158, 665, 669, 826  
   [erratum], 1031  
 Bolivia, 433  
 Bond-valence theory, 884  
 Brazil, 68, 762  
 British Columbia, 391, 844 [erratum]  
 Brookins, Douglas G., Memorial of,  
   870  
 Brucite, 271  
 Buckhornite, 1108  
 Buddingtonite, 204  
 Bystrite, 450  
  
 CaCl<sub>2</sub>, 1108  
 4CaO·3Al<sub>2</sub>O<sub>3</sub>·SO<sub>3</sub>, 672  
 Cl-dominant kettnerite, 233  
 Cs analogue of gainesite, 653  
 Cu-Pb-Fe sulfide, 1314  
 Cu<sub>6</sub>Bi<sub>2</sub>S<sub>6</sub>, 1314  
 Cu<sub>6</sub>Fe<sub>3</sub>Ag<sub>7</sub>S<sub>11</sub>, 672  
 Calcite, 49, 775  
 California, 204, 415, 968, 1117,  
   1230, 1299  
 Cancrisilite, 1314  
 Cannonite, 845  
  
 Cathodoluminescence, 1113  
 Cebaite, 1108  
 Central Pacific, 1217  
 Chamosite, 607, 1208  
 Chelyabinskite, 1108  
 Chile, 988  
 China, 1056, 1275  
 Chlorite, 607, 1197, 1208  
 Chlorite-chromite intergrowth, 68  
 Chlorite-H<sub>2</sub>O, 1208  
 Chlorite-smectite, 377  
 Chromite, 68, 724  
 Chromium clinocllore, 68  
 Chrysotile, 391, 844 [erratum]  
 Clinocllore, 1208  
 Clinoptilolite, 260  
 Clinopyroxene, 132, 456, 1117  
 Clinotobermorite, 672  
 Cohen, Alvin Jerome, Memorial of,  
   1340  
 Columbite, 419  
 Compressibility measurements  
   H<sub>2</sub>O, 271  
   hollandite (KAlSi<sub>3</sub>O<sub>8</sub>), 493  
   mullite, 1192  
 Computer programs  
   PTMAFIC, 840  
   XPOW, 1104  
   XPOWPLOT, 1104  
 Connecticut, 338  
 Coquandite, 845  
 Cordierite, 1041  
 Coronas, 331  
 Cowlesite, 845  
 Crystal growth  
   chlorite-chromite intergrowth, 68  
   diamond, 753  
   garnet, 345  
   magnesio-arfvedsonite, 96  
   manganese cummingtonite, 96  
   microspheres, 873  
   olivine, 794  
   plagioclase, 143  
   staurolite, 345  
   topotaxy, 68  
 Crystal structure  
   amphibole, 746  
   anthophyllite, 511  
   antigorite, 75  
   aquamarine, 762  
   arfvedsonite, 733  
   bastnäsite-(Ce), 415  
   bernalite, 827  
  
 Crystal structure, *cont.*  
   beryl, 762  
   calcite, 775  
   chlorite, 1197  
   chromite, 724  
   clinoptilolite, 260  
   dolomite, 769  
   dravite, 265  
   fangite, 1096  
   foitite, 1299  
   garnet, 583  
   gedrite, 511  
   hollandite (KAlSi<sub>3</sub>O<sub>8</sub>), 493  
   leakeite, 733  
   lindqvistite, 1304  
   mahlmoodite, 437  
   majorite, 1165  
   moctezumite, 835  
   morganite, 762  
   mullite, 1192  
   nickel magnesium cobalt richterite,  
     633  
   orthopyroxene, 921  
   poldervaartite, 1082  
   potassium iron silicate, 627  
   potassium magnesium silicate, 627  
   potassium richterite, 980  
   potassium zinc silicate, 627  
   povondraite, 433  
   preiswerkite, 1290  
   ribbeite, 190  
   rutile, 1181  
   samarskite, 419  
   sartorite, 619  
   serendibite, 195  
   silicate spinel, 1320  
   sillimanite, 461  
   spangolite, 649  
   staurolite, 477  
   taikanite, 1088  
   tengerite-(Y), 425  
   tolbachite, 187  
   topaz-OH, 285  
   tourmaline, 1299  
   tridymite, 241  
   ZrSiO<sub>4</sub>, 245  
 Crystal synthesis  
   anorthite, 601  
   brucite, 271  
   chlorite, 1208  
   garnet, 583, 1002  
   nickel magnesium cobalt richterite,  
     633

- Crystal synthesis, *cont.*  
 sanidine, 601  
 silicate spinel, 1320  
 spinel, 1002  
 tolbachite, 187  
 topaz-OH, 285  
 tremolite-richterite, 23  
 Cuproaurite, 672
- Danburite, 911  
 Decarbonation reactions, 804  
 Diamond, 753  
 Diaphorite, 85  
 Diopside, 1246  
 Discredited minerals  
 baratovite (= discredited  
 katayamalite), 450  
 katayamalite (= discredited  
 baratovite), 450  
 kehoite (= mineral mixture), 233  
 Dolomite, 769  
 Dravite, 265  
 DTA, TGA  
 aquamarine, 762  
 beryl, 762  
 brucite, 271  
 buddingtonite, 204  
 chamosite, 1208  
 clinocllore, 1208  
 kaolinite, 904  
 morganite, 762  
 silicate melts, 325
- Edenharterite, 845  
 Editors, 1992 Report of the, 861  
 Electrical properties, 877  
 Electron diffraction  
 calcite, 775  
 chromite, 724  
 diaphorite, 85  
 franckeite, 85  
 galena, 85  
 halloysite, 1066  
 magnesio-arfvedsonite, 96  
 majorite, 1165  
 manganese cummingtonite, 96  
 muscovite, 782  
 paragonite, 782  
 plagioclase, 1066  
 pyroxene, 1066  
 sartorite, 619  
 smectite, 1217  
 smectite-illite, 465  
 sodium-potassium mica, 782  
 staurolite, 345  
 topaz, 641  
 tremolite-richterite, 23  
 tridymite, 241  
 uraninite, 1262  
 zircon, 36  
 Enstatite, 1246  
 EPR spectroscopy  
 amazonite, 500  
 calcite, 49  
 microcline, 500  
 Erniggliite, 845
- Electron diffraction, *cont.*  
 smectite, 1066  
 sodium-potassium mica, 782  
 tremolite-richterite, 23  
 Electron microscopy  
 aeschynite, 419  
 amorphous silica, 1066  
 anthophyllite, 511  
 antigorite, 75  
 apatite, 641  
 buddingtonite, 204  
 calcite, 775  
 chromite, 724  
 columbite, 419  
 diamond, 753  
 diaphorite, 85  
 diopside, 1246  
 dolomite, 769  
 enstatite, 1246  
 fergusonite, 419  
 fluorite, 641  
 franckeite, 85  
 galena, 85  
 gedrite, 511  
 illite, 1217  
 kaolinite, 904  
 magnesio-arfvedsonite, 96  
 majorite, 1165  
 manganese cummingtonite, 96  
 mica, 158  
 microspheres, 873  
 muscovite, 782  
 paragonite, 782  
 pitchblende, 1262  
 plagioclase, 143, 1066  
 pyroxene, 1066  
 samarskite, 419  
 sartorite, 619  
 smectite, 1217  
 smectite-illite, 465  
 sodium-potassium mica, 782  
 staurolite, 345  
 topaz, 641  
 tremolite-richterite, 23  
 tridymite, 241  
 uraninite, 1262  
 zircon, 36
- Errata  
 lizardite and magnetite in  
 serpentinite, 844  
 mixing properties in biotite, 826  
 Expansivity measurements  
 chlorite, 1197  
 silicate melts, 325  
 Experimental apparatus, 1286  
 Experimental petrology  
 Ar, 1135  
 aluminum silicate, 298  
 andalusite + corundum + quartz, 594  
 anorthite, 601  
 anorthosite, 1016  
 biotite, 113, 826 [erratum]  
 brucite, 271  
 experimental apparatus, 1286  
 Fe-Pt, 178  
 gabbro, 1016  
 garnet, 113, 826 [erratum], 1002  
 H<sub>2</sub>O, 271  
 halogen diffusion, 316  
 ilmenite, 113, 826 [erratum]  
 kimberlite, 132  
 kyanite + corundum + quartz, 594  
 monzonorite, 1016  
 Na<sub>2</sub>Si<sub>4</sub>O<sub>9</sub> melt, 574  
 olivine, 469  
 potassium richterite, 980  
 sanidine, 601  
 silicate liquid, 1135  
 silicate melts, 325, 1324  
 spinel, 1002  
 tremolite-richterite, 23  
 Xe, 1135
- 2FeCl<sub>3</sub>·5H<sub>2</sub>O, 1108  
 FeO-Fe<sub>2</sub>O<sub>3</sub>-SiO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub>, 1002  
 Fe-Pt, 178  
 Fe<sub>2</sub>(OH)<sub>3</sub>Cl, 450  
 Fe<sub>2</sub>O<sub>3</sub>-FeTiO<sub>3</sub>, 941  
 Fe<sub>2</sub>SiO<sub>4</sub> spinel, 456  
 Fe<sup>3+</sup>, 500  
 Fangite, 1096  
 Feldspar, 158  
 Fergusonite, 419, 672  
 Fergusonite-(Nd), 672  
 Ferrocapholite, 450  
 Ferrowodginite, 845  
 Financial Advisory Committee, 1992  
 Report of the, 860  
 Fluid flow, 804

- Fluid immiscibility, 804  
 Fluid inclusions, 216, 220, 338, 657, 804  
 Fluorite, 641  
 Foitite, 1299  
 Fontanite, 845  
 Former officers, medal recipients, and meeting places, 863  
 Forsterite, 1143  
 Forsterite + monticellite, 42  
 France, 968, 1117, 1275  
 Franckeite, 85  
 Franklinphilitite, 672
- $\gamma$ -CrO(OH), 233  
 Gabbro, 1016  
 Galápagos, 1217  
 Galena, 85, 877  
 Garnet, 113, 132, 158, 338, 345, 583, 826 [erratum], 988, 1002, 1041  
 Garnet isograd, 1257  
 Gedrite, 511  
 Geobarometry  
 Al<sub>2</sub>O<sub>3</sub>-SiO<sub>2</sub>-H<sub>2</sub>O, 285  
 aluminosilicate, 594  
 basalt, 794  
 garnet + biotite + plagioclase + muscovite, 338, 345  
 H<sub>2</sub>O fugacity, 1031  
 mafic rocks, 840  
 pelite, 113, 158, 681, 826 [erratum]  
 ultramafic rocks, 840  
 Geochemistry  
 amphibole, 968, 1117  
 amphibolite, 988  
 andalusite, 594  
 chromite, 68  
 clinopyroxene, 1117  
 diamond, 753  
 fangite, 1096  
 halogen diffusion, 316  
 hornblende, 968  
 kaersutite, 968  
 kyanite, 594  
 lunar rocks, 360  
 melt inclusions, 612  
 metapelite, 988  
 peridotite, 1117  
 PIXE, 893  
 potassium richterite, 980  
 silicate melts, 325  
 smectite, 1217
- Geothermometry, 113, 826 [erratum]  
 aluminosilicate, 594  
 apatite, 210, 213, 441, 446  
 garnet + biotite, 338, 345  
 graphite, 533  
 mafic rocks, 840  
 orthopyroxene, 921  
 pelite, 158, 681  
 ultramafic rocks, 840  
 Germany, 968  
 Granite, 733  
 Granulite, 331  
 Graphite, 533  
 Greenland, 377  
 Grossular, 957, 1149  
 Grossular-andradite garnet, 957  
 Guarinoite, 1314
- H<sub>2</sub>O, 271  
 H<sub>2</sub>O diffusion, 1324  
 H<sub>2</sub>O fugacity, 1031  
 H<sub>2</sub>O-CO<sub>2</sub>, 558  
 H<sub>2</sub>O-CO<sub>2</sub>-(Na,K)Cl, 804  
 H<sub>6</sub>Si<sub>2</sub>O<sub>7</sub>, 253  
 Halloysite, 1066  
 Halogen, 316, 641  
 Halogen diffusion, 316  
 Hawaii, 794, 873  
 High-pressure phases  
 $\alpha$ - $\beta$  quartz, 694  
 Fe-Pt, 178  
 Fe<sub>2</sub>SiO<sub>4</sub> spinel, 456  
 garnet, 1002  
 H<sub>2</sub>O-CO<sub>2</sub>, 558  
 KAlSi<sub>3</sub>O<sub>8</sub> (hollandite), 493  
 kaolinite, 904  
 kimberlite, 132  
 (Mg,Fe)<sub>2</sub>SiO<sub>4</sub> spinel, 456  
 magnesite, 1328  
 majorite, 456, 1165  
 Na<sub>2</sub>Si<sub>4</sub>O<sub>9</sub> melt, 574  
 olivine, 469  
 orthopyroxene, 1336  
 peridotite, 1332  
 silicate spinel, 1320  
 smectite, 904  
 spinel, 1002  
 topaz-OH, 285  
 wadsleyite, 456  
 ZrSiO<sub>4</sub>, 245  
 Hornblende, 968  
 Huanghoite, 1108  
 Huanghoite-(Ce), 1314
- Hydrogrossular, 1149  
 Hydroxycancrinite, 1314
- IrAsSb, 233  
 IrO<sub>2</sub>, 1108  
 Igneous petrology  
 analcime, 225, 230  
 anorthosite, 1016  
 granite, 733  
 kimberlite, 132  
 lunar rocks, 360  
 mantle metasomatism, 1117  
 megacryst, 1230  
 olivine leucitite, 1056  
 peralkaline melts, 316  
 PIXE, 893  
 plagioclase, 143  
 rhyolite, 1031  
 rhyolitic magma, 612  
 silicate melts, 325, 1324
- Illite, 1217  
 Ilmenite, 113, 826 [erratum]  
 India, 96  
 IR spectroscopy  
 andradite, 957  
 basalt, 794  
 buddingtonite, 204  
 diamond, 753  
 fluid inclusions, 338  
 garnet, 338  
 grossular, 957, 1149  
 grossular-andradite garnet, 957  
 kaolinite, 904  
 olivine, 469  
 potassium richterite, 980  
 rhyolite, 1324  
 rutile, 1181  
 smectite, 904  
 topaz-OH, 285
- Italy, 75
- Jacobsite, 1304  
 Japan, 425
- KAlSi<sub>3</sub>O<sub>8</sub>-Xe, 1135  
 K<sub>2</sub>Si<sub>4</sub>O<sub>9</sub>-Xe, 1135  
 K<sub>2</sub>TiSi<sub>3</sub>O<sub>9</sub>, 1108  
 Kaersutite, 968, 1230  
 Kaluginite, 450  
 Kaolinite, 904  
 Katayamalite (= discredited baratovite), 450  
 Kehoite (= mineral mixture), 233

- Kenya, 265  
 Kimberlite, 132  
 Kinetics  
   apatite fission tracks, 210, 213,  
     441, 446  
   brucite, 271  
   coronas, 331  
   garnet, 345  
   H<sub>2</sub>O diffusion, 1324  
   muscovite, 158  
   Na<sub>2</sub>Si<sub>4</sub>O<sub>9</sub> melt, 574  
   olivine, 794  
   orthopyroxene, 921, 1016  
   Pb diffusion, 500  
   silicate melts, 325, 1324  
   weathering, 405  
 Klyuchevskite, 450  
 Komkovite, 450  
 Kopeiskite, 1108  
 Korkinoite, 1108  
 Kosnarite, 653  
 Koutekite, 672  
 Krasnogorite, 672  
 Krasnoselskite, 672  
 KREEP, 360  
 Kyanite, 285, 298, 594, 952  
 Kyanite + andalusite, 594  
 Kyanite + corundum + quartz, 594
- Labrador, 1016  
 Laterite, 405  
 Laumontite, 450  
 Lazurite, 845  
 Leakeite, 733  
 Leucite, 486  
 Leucophanite, 672  
 Liebauite, 672  
 Lindqvistite, 1304  
 Lizardite, 391, 844 [erratum]  
 Lorettoite, 672  
 Luberoite, 450  
 Lunar rocks, 360  
 Lutecite, 233
- (Mg,Fe)<sub>2</sub>SiO<sub>4</sub> spinel, 456  
 Mg[(UO<sub>2</sub>)(AsO<sub>4</sub>)<sub>2</sub>·4H<sub>2</sub>O], 450  
 Mg<sub>2</sub>SiO<sub>4</sub>-CaMgSiO<sub>4</sub>, 42  
 Mn analogue of arseniosiderite, 672  
 Mn silicate, 672  
 Mafic rocks, 840  
 Magnesio-arfvedsonite, 96
- Magnesite, 1328  
 Magnetic properties  
   bernalite, 827  
   chromite, 724  
   Fe<sub>2</sub>O<sub>3</sub>-FeTiO<sub>3</sub>, 941  
 Magnetite, 391, 844 [erratum]  
 Magnetite + ulvöspinel, 565  
 Mahlmoodite, 437  
 Maine, 653  
 Majorite, 456, 1165  
 Manaksite, 1314  
 Manganese cummingtonite, 96  
 Mantle metasomatism, 1117  
 Massachusetts, 533  
 Mather, Katharine, Memorial of, 239  
 Matveevite, 450  
 McConnell, Duncan, Memorial of,  
   679  
 Mckelveyite-(Nd), 233  
 Mckelveyite-(Y), 233  
 Mechanical properties  
   fangite, 1096  
   mullite, 1192  
   Na<sub>2</sub>Si<sub>4</sub>O<sub>9</sub> melt, 574  
   silicate melts, 325  
 Megacryst, 1230  
 Melt inclusions, 612  
 Melt structure  
   halogen, 316  
   high temperature, 699  
   Na<sub>2</sub>Si<sub>4</sub>O<sub>9</sub>, 574  
   silicate glasses, 253  
   silicate melts, 1324  
 Memorials  
   Brookins, Douglas G., 870  
   Cohen, Alvin Jerome, 1340  
   Mather, Katharine, 239  
   McConnell, Duncan, 679  
 Metamorphic petrology  
   amphibolite, 988  
   coronas, 331  
   fluid flow, 804  
   garnet, 338, 345  
   garnet isograd, 1257  
   granulite, 331  
   graphite, 533  
   kyanite + andalusite, 594  
   magnetite, 391, 844 [erratum]  
   metapelite, 988  
   pelite, 113, 826 [erratum]  
   *P-T* paths, 1041  
   staurolite, 345, 477  
 Metapelite, 988
- Meta-uranocircite II, 672  
 Mexico, 85, 225, 230, 641, 804, 835,  
   1230  
 Mica, 1, 158  
 Microcline, 500  
 Microspheres, 873  
 Mineralogical Society of America  
   Award  
     acceptance of, 856  
     presentation of, 853  
 Moctezumite, 835  
 Moganite, 672  
 Molecular-orbital theory, 884  
 Monzonorite, 1016  
 Moon, 360  
 Morganite, 762  
 Mössbauer spectroscopy  
   amphibole, 968  
   annite, 665, 669  
   antigorite, 391, 844 [erratum]  
   bernalite, 827  
   biotite, 665, 669  
   chrysotile, 391, 844 [erratum]  
   clinopyroxene, 456  
   Fe<sub>2</sub>SiO<sub>4</sub> spinel, 456  
   garnet, 1002  
   hornblende, 968  
   kaersutite, 968  
   lizardite, 391, 844 [erratum]  
   (Mg,Fe)<sub>2</sub>SiO<sub>4</sub> spinel, 456  
   majorite, 456  
   mica, 1  
   orthopyroxene, 8  
   phlogopite, 665, 669  
   wadsleyite, 456  
 Mullite, 1192  
 Mummeite, 845  
 Muscovite, 158, 782
- (NH<sub>4</sub>)<sub>2</sub>Mg(SO<sub>4</sub>)<sub>2</sub>·4H<sub>2</sub>O, 1108  
 NaAlSiO<sub>4</sub>-SiO<sub>2</sub>, 710  
 NaAlSi<sub>3</sub>O<sub>8</sub>-Xe, 1135  
 NaBSiO<sub>4</sub>, 233  
 Na-Ba-Mn fluorosilicate, 672  
 Na<sub>2</sub>Si<sub>4</sub>O<sub>9</sub> melt, 574  
 Na<sub>3</sub>Sr(PO<sub>4</sub>)(CO<sub>3</sub>), 233  
 Na<sub>16</sub>K<sub>2</sub>[Si<sub>18</sub>O<sub>36</sub>(OH)<sub>18</sub>]·38H<sub>2</sub>O, 672  
 Namansilite, 1314  
 Native brass, 1314  
 Neptunite, 233  
 Neutron diffraction  
   aquamarine, 762

Neutron diffraction, *cont.*

- beryl, 762
- chromite, 724
- morganite, 762
- XPOW, 1104
- XPOWLOT, 1104
- Nevada, 957, 968, 1230
- New Hampshire, 511
- New Mexico, 733
- New mineral data (abstracts)
  - abhurite, 233
  - alumotantite, 845
  - bannisterite, 233
  - betpakdalite, 845
  - cebaite, 1108
  - cowlesite, 845
  - cuproaurite, 672
  - fergusonite, 672
  - fergusonite-(Nd), 672
  - ferrocarpholite, 450
  - huanghoite, 1108
  - huanghoite-(Ce), 1314
  - klyuchevskite, 450
  - komkovite, 450
  - koutekite, 672
  - laumontite, 450
  - lazurite, 845
  - leucophanite, 672
  - lorettoite, 672
  - lutcite, 233
  - mckelveyite-(Nd), 233
  - mckelveyite-(Y), 233
  - meta-uranocircite II, 672
  - moganite, 672
  - native brass, 1314
  - neptunite, 233
  - revdite, 1108
  - russellite, 450
  - spertiniite, 233
  - taikanite, 845
  - tantalowodginite, 845
  - wittite, 233
  - zhonghuacerite, 1108
- New minerals (abstracts)
  - Au<sub>94-88</sub>Hg<sub>6-12</sub>, 1108
  - arsenoflorencite-(La), 672
  - arsenoflorencite-(Nd), 672
  - Ba-dominant brewsterite, 1314
  - BaSO<sub>3</sub>, 1314
  - BaS<sub>2</sub>O<sub>3</sub>·H<sub>2</sub>O, 1314
  - Ba<sub>2</sub>Al<sub>2</sub>S<sub>3</sub>(OH)<sub>8</sub>·8H<sub>2</sub>O, 1314
  - Ba<sub>2</sub>S<sub>2</sub>O<sub>3</sub>F<sub>2</sub>, 1314
  - bearthite, 1314

New minerals (abstracts), *cont.*

- bernalite, 1108
- buckhornite, 1108
- bystrite, 450
- CaCl<sub>2</sub>, 1108
- 4CaO·3Al<sub>2</sub>O<sub>3</sub>·SO<sub>3</sub>, 672
- Cl-dominant kettnerite, 233
- Cu-Pb-Fe sulfide, 1314
- Cu<sub>6</sub>Bi<sub>2</sub>S<sub>6</sub>, 1314
- Cu<sub>6</sub>Fe<sub>3</sub>Ag<sub>7</sub>S<sub>11</sub>, 672
- cancrisilite, 1314
- cannonite, 845
- chelyabinskite, 1108
- clinitobermorite, 672
- coquandite, 845
- edenharterite, 845
- erniggliite, 845
- 2FeCl<sub>3</sub>·5H<sub>2</sub>O, 1108
- Fe<sub>2</sub>(OH)<sub>3</sub>Cl, 450
- ferrowdginite, 845
- fontanite, 845
- franklinphilite, 672
- γ-CrO(OH), 233
- guarinoite, 1314
- hydroxycancrinite, 1314
- IrAsSb, 233
- IrO<sub>2</sub>, 1108
- K<sub>2</sub>TiSi<sub>3</sub>O<sub>9</sub>, 1108
- kaluginite, 450
- kopeiskite, 1108
- korkinoite, 1108
- krasnogorite, 672
- kranoselskite, 672
- liebauite, 672
- luberoite, 450
- Mg[(UO<sub>2</sub>)(AsO<sub>4</sub>)<sub>2</sub>·4H<sub>2</sub>O], 450
- Mn analogue of arseniosiderite, 672
- Mn silicate, 672
- manaksite, 1314
- matveevite, 450
- mummeite, 845
- (NH<sub>4</sub>)<sub>2</sub>Mg(SO<sub>4</sub>)<sub>2</sub>·4H<sub>2</sub>O, 1108
- NaBSiO<sub>4</sub>, 233
- Na-Ba-Mn fluorosilicate, 672
- Na<sub>3</sub>Sr(PO<sub>4</sub>)(CO<sub>3</sub>), 233
- Na<sub>16</sub>K<sub>2</sub>[Si<sub>18</sub>O<sub>36</sub>(OH)<sub>18</sub>]·38H<sub>2</sub>O, 672
- namansilite, 1314
- olekminkite, 450
- PbO, 1108
- (Pd,Ag,Cu)<sub>4</sub>S<sub>3</sub>, 672
- Pd-Bi chloride, 1314
- Pd-Bi sulfide, 1314

New minerals (abstracts), *cont.*

- (Pd,Cu,Pt,Fe)<sub>9</sub>Sn(Te,S)<sub>4</sub>, 672
- (Pd,Cu)<sub>3</sub>Sn, 233
- (Pd,Pt,Ag)<sub>8</sub>(Te,Bi)<sub>3</sub>, 672
- Pd<sub>2</sub>(Sb,As), 845, 1108
- Pd<sub>2</sub>(Sn,Sb), 672
- Pd<sub>4</sub>Cu<sub>2</sub>Sn<sub>3</sub>, 1108
- Pd<sub>6</sub>AgTe<sub>4</sub>, 672
- Pd<sub>8</sub>Sb<sub>3</sub>, 672
- PtBi, 1108
- (Pt,Ir)<sub>2</sub>(As,S)<sub>3</sub>, 672
- Pt<sub>2</sub>(As,S)<sub>3</sub>, 233
- Pt<sub>2</sub>(Sb,Bi)<sub>3</sub>, 233
- Pt<sub>3</sub>Cu, 1108
- Pt<sub>3</sub>Sb, 1108
- Pt<sub>3</sub>(Sb,Sn,Bi)<sub>4</sub>, 233
- padmaite, 450
- paranite-(Y), 450
- peprossite-(Ce), 1108
- polyphite, 1314
- quadruphite, 1314
- RhNiAs, 1108
- RhSbS, 1108
- redikortsevite, 1108
- reppiaite, 450
- Si-dominant cancrinite, 233
- simferite, 450
- sitinakite, 1314
- stalderite, 845
- sulfalumite, 1108
- swaknoite, 1108
- theresemanganite, 1314
- tinnunculite, 450
- titanowodginite, 845
- trembathite, 233
- unnamed (Ir,Pt,Rh)<sub>2</sub>S<sub>2</sub>, 672
- unnamed Pd PGM, 672
- wadalite, 1314
- weinebeneite, 845
- wodginite group, 845
- Zn analogue of ktenasite, 672
- Zn schulenbergite, 233
- (Zn,Cu,Fe)S, 450
- New minerals (descriptions)
  - bernalite, 827
  - fangite, 1096
  - foitite, 1299
  - kosnarite, 653
  - lindqvistite, 1304
  - mahlmoodite, 437
  - poldervaartite, 1082
  - povondraite, 433
  - tschernichite, 822

- New minerals (descriptions), *cont.*  
 widgiemoolthalite, 819
- New South Wales, 391, 827, 844  
 [erratum]
- New York, 195
- New Zealand, 968
- Nickel magnesium cobalt richterite, 633
- NMR spectroscopy  
 aluminosilicate, 911  
 grossular, 1149  
 hydrogrossular, 1149  
 olivine, 16  
 sillimanite, 461  
 tridymite, 241
- Noble gas, 1135
- Nomenclature, 1313
- North Carolina, 1197
- North Korea, 957
- Northern Territory, 533
- Norway, 331, 641, 1016
- O, 988
- Officers of MSA  
 Former officers, medal recipients,  
 and meeting places, 863  
 Officers and committees for 1993,  
 867
- Olekminskite, 450
- Olivine, 16, 132, 405, 469, 794,  
 1230
- Olivine leucite, 1056
- Ontario, 1
- Optical properties  
 alkali feldspar, 952  
 bernalite, 827  
 cathodoluminescence, 1113  
 fangite, 1096  
 fluid inclusions, 657  
 foitite, 1299  
 kosnarite, 653  
 kyanite, 952  
 lindqvistite, 1304  
 mahlmoodyite, 437  
 orthopyroxene, 8  
 plagioclase, 143, 952  
 poldervaartite, 1082  
 povondraite, 433  
 spindle stage, 657  
 tengerite-(Y), 425  
 topaz-OH, 285  
 tschernichite, 822
- Optical properties, *cont.*  
 widgiemoolthalite, 819  
 wollastonite, 952
- Order-disorder  
 aluminosilicate, 911  
 calcite, 775  
 chromite, 724  
 clinoptilolite, 260  
 dolomite, 769  
 dravite, 265  
 Fe<sub>2</sub>O<sub>3</sub>-FeTiO<sub>3</sub>, 941  
 forsterite + monticellite, 42  
 leucite, 486  
 orthopyroxene, 921, 1336  
 Si-Fe, 627  
 Si-Mg, 627  
 Si-Zn, 627  
 sartorite, 619  
 silicate spinel, 1320  
 sillimanite, 461  
 smectite, 1217  
 smectite-illite, 465  
 taikanite, 1088  
 tridymite, 241
- Oregon, 822
- Orthoamphibole, 1041
- Orthopyroxene, 8, 921, 1016, 1336
- Pb<sup>1+</sup>, 500
- Pb diffusion, 500
- Pb<sup>2+</sup>, 500
- PbO, 1108
- (Pd,Ag,Cu)<sub>4</sub>S<sub>3</sub>, 672
- Pd-Bi chloride, 1314
- Pd-Bi sulfide, 1314
- (Pd,Cu,Pt,Fe)<sub>9</sub>Sn(Te,S)<sub>4</sub>, 672
- (Pd,Cu)<sub>3</sub>Sn, 233
- (Pd,Pt,Ag)<sub>8</sub>(Te,Bi)<sub>3</sub>, 672
- Pd<sub>2</sub>(Sb,As), 845, 1108
- Pd<sub>2</sub>(Sn,Sb), 672
- Pd<sub>4</sub>Cu<sub>2</sub>Sn<sub>3</sub>, 1108
- Pd<sub>6</sub>AgTe<sub>4</sub>, 672
- Pd<sub>8</sub>Sb<sub>3</sub>, 672
- PtBi, 1108
- (Pt,Ir)<sub>2</sub>(As,S)<sub>3</sub>, 672
- Pt<sub>2</sub>(As,S)<sub>3</sub>, 233
- Pt<sub>2</sub>(Sb,Bi)<sub>3</sub>, 233
- Pt<sub>3</sub>Cu, 1108
- Pt<sub>3</sub>Sb, 1108
- Pt<sub>3</sub>(Sb,Sn,Bi)<sub>4</sub>, 233
- Padmaite, 450
- Paragonite, 782
- Paranite-(Y), 450
- Pelite, 113, 158, 345, 681, 826  
 [erratum]
- Pennsylvania, 216, 220, 657, 1208
- Peprossite-(Ce), 1108
- Peralkaline melts, 316
- Peridotite, 1117, 1332
- Phase equilibria  
 α-β quartz, 694  
 algebraic analysis, 1257  
 aluminum silicate, 298  
 andalusite, 298  
 andalusite + corundum + quartz, 594  
 anorthite-sanidine, 601  
 brucite, 271  
 chamosite, 607, 1208  
 chlorite, 607  
 clinochlore, 1208  
 decarbonation reactions, 804  
 fluid immiscibility, 804  
 garnet, 1002  
 kyanite, 285, 298  
 kyanite + corundum + quartz, 594  
 leucite, 486  
 magnetite + ulvöspinel, 565  
 noble gas, 1135  
 pelite, 158  
 plagioclase, 143  
 pyroxene, 1002, 1246  
 sillimanite, 298  
 spinel, 1002  
 thermodynamic data, 107  
 topaz-OH, 285
- Phase transitions  
 leucite, 486  
 tridymite, 241
- Phengite, 158
- Phlogopite, 665, 669, 1056
- Pitchblende, 1262
- PIXE, 893
- Plagioclase, 143, 952, 1041, 1066
- Poldervaartite, 1082
- Polyphite, 1314
- Potassium iron silicate, 627
- Potassium magnesium silicate, 627
- Potassium richterite, 980
- Potassium tourmaline, 433
- Potassium zinc silicate, 627
- Povondraite, 433
- Preiswerkite, 1290
- P-T* paths, 1041
- PTMAFIC, 840
- Pyroxene, 1002, 1066, 1246

- Quadruphite, 1314  
 Quantum mechanical calculations, 253  
 Quebec, 1, 391, 665, 669, 844  
     [erratum], 957, 1149  
 Queensland, 968  
 Quenched liquid, 1016
- RhNiAs, 1108  
 RhSbS, 1108  
 Raman spectroscopy  
   aluminosilicate, 911  
   fluid inclusions, 216, 220, 338  
   forsterite, 1143  
   garnet, 338  
   graphite, 533  
   Mg<sub>2</sub>SiO<sub>4</sub>-CaMgSiO<sub>4</sub>, 42  
   magnesite, 1328  
   olivine, 469  
   potassium richterite, 980  
   preiswerkite, 1290  
   silicate melts, 699  
   ZrSiO<sub>4</sub>, 245  
 Redikortsevite, 1108  
 REE  
   apatite, 1275  
   bastnäsite-(Ce), 415  
   clinopyroxene, 1117  
   melt inclusions, 612  
   peridotite, 1117  
   samarskite, 419  
   scheelite, 1275  
   tengerite-(Y), 425  
 Reports for 1992  
   Editors, 861  
   Financial Advisory Committee,  
     860  
   Secretary, 858  
   Treasurer, 859  
 Reppiaite, 450  
 Revdite, 1108  
 Reviewers for *American Mineralogist*  
   in 1992, 862  
 Rhode Island, 533  
 Rhyolite, 612, 1031, 1324  
 Rhyolitic magma, 612  
 Ribbeite, 190  
 Rietveld refinement, 187, 633, 932  
 Roebling Medal  
   acceptance of, 851  
   presentation of, 850  
 Russellite, 450  
 Russia, 195, 500  
 Rutile, 1181
- Si-dominant cancrinite, 233  
 Si-Fe, 627  
 Si-Mg, 627  
 Si-Zn, 627  
 Samarskite, 419  
 Sanidine, 601  
 Saprolite, 405  
 Sartorite, 619  
 Saskatchewan, 1262  
 Saudi Arabia, 968  
 Scanning electron microscopy, 405  
 Scanning tunneling microscopy, 877  
 Scheelite, 1275  
 Scotland, 331  
 Secretary, 1992 Report of the, 858  
 Serendibite, 195  
 Sierra Leone, 724  
 Silicate glasses, 253  
 Silicate liquid, 1135  
 Silicate melts, 325, 699, 710, 1324  
 Silicate spinel, 1320  
 Sillimanite, 298, 461  
 Simferite, 450  
 Sitinakite, 1314  
 Smectite, 904, 1066, 1217  
 Smectite-illite, 465  
 Sodium-potassium mica, 782  
 Software notices  
   PTMAFIC, 840  
   XPOW, 1104  
   XPOWPLOT, 1104  
 South Africa, 132, 1041, 1082, 1088,  
   1181  
 Spain, 158  
 Spangolite, 649  
 Spertiniite, 233  
 Spindle stage, 657  
 Spinel, 873, 1002  
 Stable isotopes  
   garnet, 988  
   O, 988  
   pitchblende, 1262  
   staurolite, 988  
   uraninite, 1262  
 Stalderite, 845  
 Staurolite, 56, 345, 477, 988, 1041  
 Structure-energy calculations  
   aluminosilicate, 911  
   danburite, 911  
   fangite, 1096  
   olivine, 16  
 Sulfalumite, 1108  
 Swaknoite, 1108
- Sweden, 425, 1113, 1208, 1304  
 Switzerland, 619, 1290  
 Systems (chemical)  
   Al<sub>2</sub>O<sub>3</sub>-SiO<sub>2</sub>-H<sub>2</sub>O, 285  
   anorthite-orthoclase, 601  
   chlorite-H<sub>2</sub>O, 1208  
   FeO-Fe<sub>2</sub>O<sub>3</sub>-SiO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub>, 1002  
   H<sub>2</sub>O-CO<sub>2</sub>, 558  
   H<sub>2</sub>O-CO<sub>2</sub>-(Na,K)Cl, 804  
   KAlSi<sub>3</sub>O<sub>8</sub>-Xe, 1135  
   K<sub>2</sub>Si<sub>4</sub>O<sub>9</sub>-Xe, 1135  
   Mg<sub>2</sub>SiO<sub>4</sub>-CaMgSiO<sub>4</sub>, 42  
   NaAlSiO<sub>4</sub>-SiO<sub>2</sub>, 710  
   NaAlSi<sub>3</sub>O<sub>8</sub>-Xe, 1135  
   Na<sub>2</sub>Si<sub>4</sub>O<sub>9</sub>, 574  
   silicate melts, 710  
   viscosity, 710  
   zirconium phosphate, 437
- Tadjikistan, 500  
 Taikanite, 845, 1088  
 Tantalowodginite, 845  
 Tanzania, 1149  
 Tengerite-(Y), 425  
 Thersemagnanite, 1314  
 Thermodynamic data, 107  
   amphibole activities, 1174  
   aluminum silicate, 298  
   andalusite, 298, 594  
   biotite, 113, 826 [erratum]  
   chamosite, 607  
   chlorite, 607  
   garnet, 583, 1002  
   H<sub>2</sub>O, 271  
   H<sub>2</sub>O-CO<sub>2</sub>, 558  
   kyanite, 298, 594  
   magnetite + ulvöspinel, 565  
   Pb diffusion, 500  
   silicate melts, 325  
   sillimanite, 298  
   staurolite, 56  
   tremolite-richterite, 23  
 Tinnunculite, 450  
 Titanowodginite, 845  
 Tolbachite, 187  
 Topaz, 641  
 Topaz-OH, 285  
 Topotaxy, 68  
 Tourmaline, 1299  
 Trace elements  
   calcite, 49  
   diamond, 753  
   Fe<sup>3+</sup>, 500



Trace elements, *cont.*

- KREEP, 360
- magnetite + ulvöspinel, 565
- melt inclusions, 612
- Pb<sup>1+</sup>, 500
- Pb<sup>2+</sup>, 500
- PIXE, 893
- rhyolitic magma, 612
- rutile, 1181
- staurolite, 477
- zircon, 1113
- Trachybasalt, 1230
- Treasurer, 1992 Report of the, 859
- Trembathite, 233
- Tremolite-richterite, 23
- Tridymite, 241
- Tschernichite, 822
- Tunneling microscopy, 877
- Ultramafic rocks, 840
- Unit-cell data
  - amphibole, 746
  - aquamarine, 762
  - bastnäsite-(Ce), 415
  - bernalite, 827
  - beryl, 762
  - calcite, 49
  - chlorite, 1197
  - chromite, 724
  - clinoptilolite, 260
  - dravite, 265
  - Fe-Pt, 178
  - Fe<sub>2</sub>O<sub>3</sub>-FeTiO<sub>3</sub>, 941
  - fangite, 1096
  - foitite, 1299
  - garnet, 583, 1002
  - hollandite (KAISi<sub>3</sub>O<sub>8</sub>), 493
  - kosnarite, 653
  - lindqvistite, 1304
  - mahlmoodyite, 437
  - moctezumite, 835
  - morganite, 762
  - mullite, 1192
  - nickel magnesium cobalt richterite, 633
  - poldervaartite, 1082
  - potassium richterite, 980
  - povondraite, 433
  - preiswerkite, 1290
  - ribbeite, 190
  - Rietveld refinement, 932
  - rutile, 1181
  - sartorite, 619

Unit-cell data, *cont.*

- serendibite, 195
- silicate spinel, 1320
- spangolite, 649
- spinel, 1002
- staurolite, 56
- taikanite, 1088
- tengerite-(Y), 425
- tolbachite, 187
- topaz-OH, 285
- tremolite-richterite, 23
- tschernichite, 822
- widgiemoolthalite, 819
- United Arab Emirates, 769
- United Kingdom, 782
- Unnamed (Ir,Pt,Rh)S<sub>2</sub>, 672
- Unnamed minerals
  - Au<sub>94-88</sub>Hg<sub>6-12</sub>, 1108
  - Ba-dominant brewsterite, 1314
  - BaSO<sub>3</sub>, 1314
  - BaS<sub>2</sub>O<sub>3</sub>·H<sub>2</sub>O, 1314
  - Ba<sub>2</sub>Al<sub>2</sub>S<sub>3</sub>(OH)<sub>8</sub>·8H<sub>2</sub>O, 1314
  - Ba<sub>2</sub>S<sub>2</sub>O<sub>3</sub>F<sub>2</sub>, 1314
  - CaCl<sub>2</sub>, 1108
  - 4CaO·3Al<sub>2</sub>O<sub>3</sub>·SO<sub>3</sub>, 672
  - Cl-dominant kettnerite, 233
  - Cs analogue of gainesite, 653
  - Cu-Pb-Fe sulfide, 1314
  - Cu<sub>6</sub>Bi<sub>2</sub>S<sub>6</sub>, 1314
  - Cu<sub>6</sub>Fe<sub>3</sub>Ag<sub>7</sub>S<sub>11</sub>, 672
  - 2FeCl<sub>3</sub>·5H<sub>2</sub>O, 1108
  - Fe<sub>2</sub>(OH)<sub>3</sub>Cl, 450
  - γ-CrO(OH), 233
  - IrAsSb, 233
  - IrO<sub>2</sub>, 1108
  - K<sub>2</sub>TiSi<sub>3</sub>O<sub>9</sub>, 1108
  - Mg[(UO<sub>2</sub>)(AsO<sub>4</sub>)<sub>2</sub>·4H<sub>2</sub>O], 450
  - Mn analogue of arseniosiderite, 672
  - Mn silicate, 672
  - (NH<sub>4</sub>)<sub>2</sub>Mg(SO<sub>4</sub>)<sub>2</sub>·4H<sub>2</sub>O, 1108
  - NaBSiO<sub>4</sub>, 233
  - Na-Ba-Mn fluorosilicate, 672
  - Na<sub>3</sub>Sr(PO<sub>4</sub>)(CO<sub>3</sub>), 233
  - Na<sub>16</sub>K<sub>2</sub>[Si<sub>18</sub>O<sub>36</sub>(OH)<sub>18</sub>]·38H<sub>2</sub>O, 672
  - PbO, 1108
  - (Pd,Ag,Cu)<sub>4</sub>S<sub>3</sub>, 672
  - Pd-Bi chloride, 1314
  - Pd-Bi sulfide, 1314
  - (Pd,Cu,Pt,Fe)<sub>9</sub>Sn(Te,S)<sub>4</sub>, 672
  - (Pd,Cu)<sub>3</sub>Sn, 233
  - (Pd,Pt,Ag)<sub>8</sub>(Te,Bi)<sub>3</sub>, 672
  - Pd<sub>2</sub>(Sb,As), 845, 1108

Unnamed minerals, *cont.*

- Pd<sub>2</sub>(Sn,Sb), 672
- Pd<sub>4</sub>Cu<sub>2</sub>Sn<sub>3</sub>, 1108
- Pd<sub>6</sub>AgTe<sub>4</sub>, 672
- Pd<sub>8</sub>Sb<sub>3</sub>, 672
- PtBi, 1108
- (Pt,Ir)<sub>2</sub>(As,S)<sub>3</sub>, 672
- Pt<sub>2</sub>(As,S)<sub>3</sub>, 233
- Pt<sub>2</sub>(Sb,Bi)<sub>3</sub>, 233
- Pt<sub>3</sub>Cu, 1108
- Pt<sub>3</sub>Sb, 1108
- Pt<sub>3</sub>(Sb,Sn,Bi)<sub>4</sub>, 233
- potassium tourmaline, 433
- RhNiAs, 1108
- RhSbS, 1108
- Si-dominant cancrinite, 233
- unnamed (Ir,Pt,Rh)S<sub>2</sub>, 672
- unnamed Pd PGM, 672
- Zn analogue of ktenasite, 672
- Zn schulenbergite, 233
- (Zn,Cu,Fe)S, 450
- Unnamed Pd PGM, 672
- Uraninite, 1262
- Utah, 641, 657, 1031, 1096
- Vermont, 338, 957, 1208
- Victoria, 968
- Viscosity, 710
- Wadalite, 1314
- Wadsleyite, 456
- Weathering, 405
- Weinebeneite, 845
- Western Australia, 533, 819
- Widgiemoolthalite, 819
- Wittite, 233
- Wodginite group, 845
- Wollastonite, 952
- Xe, 1135
- XPOW, 1104
- XPOWPLOT, 1104
- XRD data
  - aquamarine, 762
  - bastnäsite-(Ce), 415
  - bernalite, 827
  - beryl, 762
  - calcite, 49, 775
  - chlorite, 1197
  - chlorite-smectite, 377
  - chromite, 724
  - fangite, 1096
  - foitite, 1299

XRD data, *cont.*

garnet, 583  
kosnarite, 653  
lindqvistite, 1304  
mahlmoodite, 437  
morganite, 762  
mullite, 1192  
muscovite, 782  
nickel magnesium cobalt richterite,  
633  
orthopyroxene, 1336  
paragonite, 782  
peridotite, 1332  
potassium richterite, 980

XRD data, *cont.*

povondraite, 433  
preiswerkite, 1290  
ribbeite, 190  
Rietveld refinement, 932  
silicate spinel, 1320  
smectite, 1217  
smectite-illite, 465  
sodium-potassium mica, 782  
taikanite, 1088  
tengerite-(Y), 425  
topaz-OH, 285  
tschernichite, 822  
widgiemoolthalite, 819

XPOW, 1104

XPOWPLOT, 1104

## XRF data

basanite, 1230  
rhyolitic magma, 612  
trachybasalt, 1230

Zn analogue of ktenasite, 672

Zn schulenbergite, 233

(Zn,Cu,Fe)S, 450

ZrSiO<sub>4</sub>, 245

Zhonghuacerite, 1108

Zircon, 36, 1113

Zirconium phosphate, 437