

SUBJECT INDEX

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440.

Page numbers suffixed by t and f refer to Tables and Figures respectively.

- AAS. *See* Atomic absorption spectrometry
- Absorption spectra
of protactinium
 protactinium (V), 212, 212f
 protactinium (V) sulfates, 216, 218f
of uranium
 bromide complexes, 496–497
 halides, 442, 443f, 529, 557
 hexachloride, 567
 hexafluoride, 561
 iodide complexes, 499
 oxochloride, 526
 pentavalent and complex halides, 501
 pentavalent oxide fluorides and
 complexes, 521
 tetrabromide, 495
 trichloride, 447
 trichloride hydrates, 449–450
 trifluoride, 445
 uranium oxobromo complexes, 573
 uranium pentachloride, 523, 523f
of uranium tetravalent halides, 482–483,
 483f
- Acetates
 coordination with, glycolate v., 590
 of thorium, 114
 properties of, 114
 of uranium, 603–605, 604t
- Acetone, protactinium extraction with, 185
- Acetonitrile, with uranium trichloride, 452
- Acetylacetonates, of thorium, 115
- Acid leaching, for uranium ore, 305
 limitations of, 306–307
- Acid pugging, of uranium ore, 306
- Acids, uranium metal
 reactions with, 328
- Actinide chemistry
 actinium, 18–44
 applications of, 42–44
 atomic properties of, 33–34
 compounds of, 35–36
 metallic state of, 34–35
 nuclear properties of, 20–26
 occurrence in nature of, 26–27
 preparation and purification of,
 27–33
 solution and analytical chemistry of,
 37–42
 protactinium, 161–232
 analytical chemistry of,
 223–231
 atomic properties of, 189–191
 metallic state of, 191–194
 nuclear properties of, 164–170
 occurrence in nature of, 170–171
 preparation and purification of,
 171–189
 simple and complex compounds of,
 194–209
 solution chemistry of,
 209–223
 thorium, 52–134
 atomic spectroscopy of, 59–60
 compounds of, 63–117
 history of, 52–53
 metal of, 60–63
 nuclear properties of, 53–55
 occurrence of, 55–56
 processing and separation of, 56–59
 solution chemistry of, 117–134
 uranium, 253–639
 analytical chemistry of, 631–639
 chemical bonding of, 575–578
 compounds of, 328–575
 free atom and ion properties, 318
 history of, 253–639
 metal of, 318–328
 natural occurrence of, 257–302
 nuclear properties of, 255–257
 ore processing and separation,
 302–317
 organometallic and biochemistry of,
 630–631
 solution chemistry of, 590–630
 structure and coordination chemistry of,
 579–590
- Actinide concept
 history of, 3
 periodic table and, 10–11
- Actinide elements
 definition of, 18
 discovery of, 4, 5f–7f, 8–10

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Actinide elements (*Contd.*)
 lanthanide elements *v.*, 2,
 10–11
 bonding in, 584–585
 metallic state of, 1–2
 overview of, 1–2, 2f
 questions of, 14–15
 systematics of, 10–13
- Actinium
 applications of, 42–44
 as geochemical tracer, 44
 as heat sources, 42–43
 as neutron sources, 43
 for tumor radiotherapy, 43–44
 atomic properties of, 33–34
 compounds of, 35, 36t
 half-life of, 20
 history of, 19–20
 isotopes of, 18–19, 22t–23t, 31–32
 lanthanide elements *v.*, 2
 lanthanum *v.*, 18, 40
 metallic state of, 34–35
 nuclear properties of, 20–26
 actinium–225, 22t–23t, 24f, 25–26
 actinium–227, 20–24, 21f, 22t–23t,
 25f–26f
 actinium–228, 22t–23t, 23f, 24–25
 occurrence in nature of, 26–27, 162
 origin of, 162
 preparation and purification of, 27–33
 gram quantities, 32–33
 by ion-exchange chromatography,
 30–32
 purification of, 28–30
 solution and analytical chemistry of,
 37–42
 complexation, 40, 41t
 radiocolloid formation, 41–42
 redox behavior, 37–38
 solubility, 38–40, 39t
- Actinium–225
 as bismuth–231 generator, 44
 decay series of, 24f, 25
 identification of, 42
 properties of, 22t–23t, 25–26
 from protactinium–233, 171
 in radiotherapy, 43–44
 synthesis of, 28
- Actinium–227
 decay series of, 20, 21f
 as geochemical tracer, 44
 identification of, 20–24, 25f–26f, 42
 occurrence in nature, 26–27
 properties of, 20–24, 22t–23t
 from protactinium–231, 164, 166f
 purification of, 28–31, 29f, 31f
 gram quantities of, 32–33
 synthesis of, 27
- Actinium–228
 decay series of, 23f, 24
 identification of, 42
 properties of, 22t–23t, 24
 purification of, 29, 29f
 synthesis of, 28
- Actinometer, history of, 626
- Adsorption behavior, of protactinium, 176
- AES. *See* Atomic emission spectrometry
- Aliquat 336
 actinium extraction with, 30
 protactinium extraction with, 185–186
- Alkali metals
 with thorium molybdates, 112
 with thorium sulfates, 104–105
 uranates (V) and (IV) of, 380–382
 crystal structures of, 381
 non-stoichiometry in, 382–383
 physicochemical properties of, 372t–378t,
 381–382
 preparation of, 381
 uranates (VI) of, 371–380
 non-stoichiometry in, 382–383
 physicochemical properties of, 372t–378t,
 380
 preparation of, 371, 379
 in uranium mixed halogeno-complexes, 575
 with uranium selenites, 298–299
- Alkaline earth metals
 uranates (V) and (IV) of, 380–382
 crystal structures of, 381
 non-stoichiometry in, 382–383
 physicochemical properties of, 372t–378t,
 381–382
 preparation of, 381
 uranates (VI) of, 371–380
 non-stoichiometry in, 382–383
 physicochemical properties of, 372t–378t,
 380
 preparation of, 371, 379
- Alkylphosphoric extraction, for uranium
 leach recovery, 312–313
- Allanite, thorium in, 56t
- Allotropes
 of plutonium, 1
 of uranium
 α -phase, 320–326, 328–339, 344
 β -phase, 321–323, 325–326, 328–339, 344,
 347
 γ -phase, 321–323, 347
- Alloys
 of protactinium, 194, 194t
 of thorium, 63
 of uranium, 325–326, 325t
- Alpha decay
 actinium
 actinium–225, 25–26, 43–44
 actinium–227, 20–23, 25f

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- protactinium, 164
 protactinium–231, 164, 166, 167f, 224
 protactinium–233, 162–163
 in radioactive displacement principle, 162
 uranium, uranium–232, 256
- α -Phase, of uranium
 electrical properties of, 324
 general properties of, 321–323, 322t–323t
 hydrogen system of, 328–339, 329t, 334f
 intermetallic compounds and alloys,
 325–326, 325t
 magnetic susceptibility of, 323–324
 β phase transformation of, 344
 physical properties of, 320–321, 321f
 resistivity-temperature curve of, 324, 324f
- Alpha spectrometers, multi-channel, for
 protactinium–231, 224
- Alpha spectrometry
 of actinium, 20–23, 25f
 of protactinium–231, 224
 of thorium, 133–134
- Aluminum
 protactinium extraction with, 176–178,
 177f
 uranium v., 318
- Americium
 discovery of, 5t, 8
 history of, 8
 isotopes of, 9–10, 12
 lanthanide elements v., 2
 synthesis of, 8–9
- Amine extraction, for uranium leach recovery,
 312
- Ammonia, with uranium trichloride, 452
- Ammonium carbonate, for uranium
 carbonate leaching, 308
- Ammonium nitrate, actinium solubility in,
 38–39
- Amperometric method, for protactinium, 227
- Analytical chemistry
 of actinium, 42
 of thorium, 133–134
 of uranium, 631–639
 chemical techniques, 631–635
 nuclear techniques, 635–636
 spectrometric techniques, 636–639
- Anion-exchange chromatography
 for actinium purification, 31
 for protactinium purification, 187–188
- Antimonides, of uranium, 411–412
- Antimony
 protactinium compound of, 204
 thorium compound of, 98t, 100
 uranium oxides with, preparative methods
 of, 383–389, 384t–387t
- Apatite, thorium in, 56t
- Aqueous raffinate, protactinium enrichment
 with, 175–176
- Aragonite, uranium in, 291
- Arsenates
 of thorium, 113
 of uranium, 265t–266t
 autunite structures, 294–295
 chain structures, 295–296
 groups of, 294
 natural occurrence of, 293
 phosphuranylite structures, 295
 synthetic, 296–297
 uranophane structures, 295
- Arsenazo-III. *See* 3,6-Bis-[(2-arsenophenyl)
 azo]-4,5-dihydroxy-2,7-naphthalene
 disulfo acid
- Arsenide(s)
 of protactinium, 204, 206t
 preparation of, 204
 properties of, 207
 of thorium, 98t, 100
 of uranium, 411–412
- Atomic absorption spectrometry (AAS), of
 uranium, 636
- Atomic emission spectrometry (AES), of
 uranium, 636–637
- Atomic properties
 of actinium, 33–34
 of protactinium, 189–191
 emission spectrum, 190
 ground state configuration, 190
 Mössbauer effect, 190–191
 X-ray atomic energy levels, 190, 190t
- Atomic spectroscopy, of thorium, 59–60
- Autunite
 at Oklo, Gabon, 271–272
 uranium in, 259t–269t
- Autunite structures, of uranium phosphates
 and arsenates, 294–295
- Azide, of uranium, 602, 603t
- Bacterial leaching, of uranium ore, 306
- Bacterial reduction, of uranium (VI), 297
- Bassetite
 at Oklo, Gabon, 271–272
 uranium in, 259t–269t
- Becquerelite
 at Shinkolobwe deposit, 273
 uranium in, 259t–269t
- N*-Benzoylphenylhydroxylamine (BPHA),
 protactinium extraction with, 184
- Berkelium
 discovery of, 5t, 8
 isotopes of, 9–10
 lanthanide elements v., 2
 synthesis of, 8–9
- Beta decay
 actinium as, 19–20
 actinium–225, 25–26

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Beta decay (*Contd.*)
 actinium–227, 20
 actinium–228 as, 24
 protactinium as, 164
 protactinium–233, 225–226
 protactinium–234, 162, 225
 in radioactive displacement principle, 162
 uranium as, uranium–237, 256
- β -Phase, of uranium
 general properties of, 321–323, 322t–323t
 hydrogen system of, 328–339, 329t, 334f, 335t
 intermetallic compounds and alloys, 325–326, 325t
 α phase transformation of, 344
 γ phase transformation of, 347
 physical properties of, 321
- Bijvoetite
 natural occurrence of, 290
 structure of, 290
- Billietite
 at Shinkolobwe deposit, 273
 uranium in, 259t–269t
- Biochemistry, of uranium, 630–631
- 3,6-Bis-[(2-arsenophenyl)azo]-4,5-dihydroxy-2,7-naphthalene disulfo acid (Arsenazo-III), protactinium compound with, 219
 extraction with, 183
- 3,6-Bis-[(2-arsenophenyl)azo]-4,5-dihydroxy-2,7-naphthalene disulfo acid (Arsenazo-III), protactinium, in spectrophotometric methods, 228
- Bismuth, uranium oxides with, preparative methods of, 383–389, 384t–387t
- Bismuth–231, actinium–225 generation of, 44
- Bismuthides
 thorium compound of, 98t, 100
 of uranium, 411–412
- Bis(2-ethylhexyl)phosphoric acid (HDEHP)
 actinium extraction with, 30
 protactinium extraction with, 172, 184
- Bohrium, discovery of, 6t
- Bonding
 in uranium hexafluoride and pentafluoride, 576–575
 in uranium hydrides, 333–336, 334f, 335t
 in uranyl polyhedra, 280–281
- Bond length(s), of uranium and oxygen, in silicate glass, 276–277
- Bond valence approach, for crystal structure, 286
- Bone
 accumulation of protactinium–231, 188
 transuranium elements in, 12
- Borates, of thorium, 113
- Borides
 of thorium, 66–67, 71t–73t
 structure of, 66–67
 ternary, 67, 74f
 of uranium, 398–399, 399f, 401t–402t
 phase diagram of, 398, 400f
 preparation of, 398
 properties of, 398–399, 401t–402t
 structure of, 398, 399f
- BPHA. *See* *N*-Benzoylphenylhydroxylamine
- Brannerite(s)
 natural occurrence of, 280
 uranium in, 269t, 274, 280
- Brinell hardness, of uranium, metallic state, 323
- Bromide(s)
 protactinium derivatives of, 197–199, 207
 of uranium
 bromo complexes, 454
 oxide and nitride, 497, 500
 ternary and polynary compounds, 495–497
 uranium dioxide monobromide, 527–528
 uranium oxide tribromide, 527
 uranium oxobromo complexes, 572–574
 uranium pentabromide, 526
 uranium tetrabromide, 494–495
 uranium tribromide, 453
 uranium tribromide hexahydrate, 453–454
 uranyl bromide, 571–572
 uranyl hydroxide bromide and bromide hydrates, 572
- By-product, uranium as, 314
- Cadmium, with thorium molybdates, 112
- Calcination, of uranium ore, 304
- Calcite, uranium in, 289–291
- Calcium, for uranium reduction, 319
- Californium
 discovery of, 5t, 8–9
 isotopes of, 9–10, 12
 lanthanide elements v., 2
 synthesis of, 8–9
- Carbides
 of protactinium, 195
 of thorium, 67–69, 68f, 71t–73t
 halogens with, 68
 structures of, 67–69, 68f
 ternary, 68–69, 74f
 of uranium, 399–405, 401t–402t, 403f–404f
 application of, 405
 hydrolytic behavior of, 403–405
 phase diagram of, 399, 403f
 preparation of, 400
 structure of, 400, 404f
 ternary, 405
- Carbonate(s)
 of thorium, 108–109

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- crystallization of, 109
 - with fluoride, 109
 - as ligands, 129
 - solubility and, 127–128
 - synthesis of, 108–109
- of uranium, 261t–263t
 - formation of, 289
 - natural occurrence of, 291
 - properties of, 289–290
 - structures of, 290
- Carbonate leaching, of uranium ore, 307–309, 309f, 632
 - benefits of, 307
 - flow chart of, 308, 309f
 - oxygen for, 307–308
- Carbonate precipitate, protactinium enrichment with, 174–175
- Carboxylates, of thorium, 113–114
 - in solvent extraction, 113–114
- Carnotite
 - description of, 297–298
 - natural occurrence of, 297–298
 - uranium production with, 297
- Cation exchange, of uranium, 633
- Cation-exchange chromatography, for actinium purification, 30–32, 31f
- Ceramic capacitors, protactinium in, 189
- Cesium, with thorium sulfates, 105
- Chain structures
 - factors in, 579
 - in soddyite, 293
 - in studtite, 288–289
 - of uranium phosphates and arsenates, 295–296
 - in uranyl minerals, 281
 - selenites and tellurites, 298
 - in weeksite, 292–293
- Chalcogenides
 - of thorium, 75t, 95–97
 - structures of, 95–96
 - of uranium, 412–420, 414t–417t
- Chelate formation, by glycolate and acetate, 590
- Chemical methods, of uranium ore processing, 302
- Chemical precipitation, for uranium leach recovery, 313–314
 - history of, 313
 - materials for, 314
 - process of, 313–314
- Chemical reactions, of uranium metal, 327, 327t
- Chemical reactivity, of thorium, 63
- Chemical transport reactions, for uranium oxide preparation, 343
- Chernikovite
 - at Oklo, Gabon, 271–272
 - uranium in, 259t–269t
- Chloride(s)
 - of protactinium (V), 213, 215t
 - protactinium derivatives of, 197–199, 198f, 207
 - of uranium
 - anhydrous complexes, 450–452
 - complexes, 492–493, 523–524
 - nitride, 500
 - oxide, 524–525
 - oxochloride, 525–526
 - perchlorates and related compounds, 570–571
 - uranium dioxide dichloride, 567–569
 - uranium hexachloride, 567
 - uranium pentachloride, 522–523
 - uranium perchlorates, 494
 - uranium tetrachloride, 490–492
 - uranium trichloride, 446–448, 447f
 - uranium trichloride hydrates, 448–450
- Chromate(s), of thorium, 112
 - structure of, 112
 - synthesis of, 112
- Citrate(s), of thorium, as ligands, 131, 132t
- Citrobacter* sp., uranyl phosphate precipitation by, 297
- Clarification, in uranium ore processing, 308–309
- Clarkeite, transformation of, 288
- Cliffordite, as uranyl tellurite, 298
- Coffinite
 - natural occurrence of, 275–276
 - at Oklo, Gabon, 271–272
 - structure of, 586, 587f
 - uranium in, 259t–269t, 274
- Color
 - of actinium, 34–35
 - of protactinium, 194
 - of thorium, 61
- Colorant, uranium as, 254
- Color cathode ray tube, protactinium for, 188–189
- Complexation
 - of actinium, 40, 41t
 - of thorium, 129–133, 130t
 - coordination compounds for, 115
 - formation constants, 131, 132t
 - inorganic ligands, 129–131, 130t
 - solubility curves of, 129
 - stability constants, 129, 130t
 - study of, 130–131
- Compreignacite
 - at Shinkolobwe deposit, 273
 - uranium in, 259t–269t
- Congruently vaporizing composition (CVC), of uranium oxides, 365

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Coordination compounds, of thorium, 114–115
 ligands of, 115
 properties of, 115
- Coordination geometry
 hexagonal bipyramidal
 of uranyl (V), 588–589
 of uranyl (VI), 580–581, 580f, 582f–583f
 pentagonal bipyramidal
 of uranyl (V), 589
 of uranyl (VI), 580, 581f–582f
 peroxide complexes, of uranyl (VI), 583–584, 584f
 six-coordination, of uranyl (VI), 582, 583f
 structure and, 579
 of uranium
 hydroxide complexes, 600
 uranium (III), 610
 uranium (IV), 595, 610
 uranium (V), 610
 uranium (VI), 610
 uranyl (VI), 580–584, 580f–584f
- Copper, with thorium molybdates, 112
- Copper spark method, for protactinium, 226
- Corrosion, of uranium metal, 327–328, 327t
- Counter-current leaching, of uranium ore, 306
- Coutinhoite, description of, 293
- CP. *See* Cupferron
- Crystal chemistry, of uranium (IV), 281
- Crystal morphology, prediction of uranium (IV) sheets, 286–287
- Cupferron (CP), protactinium extraction with, 184
- Cupferronate(s), of protactinium, gravimetric methods with, 230–231
- Cuprosklodowskite
 at Shinkolobwe deposit, 273
 uranium in, 259t–269t
- Curite
 anion topology of, 283, 284f–285f
 from clarkeite, 288
 at Koongarra deposit, 273
 uranium in, 259t–269t
 with uranium phosphates, 294
- Curium
 discovery of, 5t, 8
 history of, 8
 isotopes of, 9–10, 12
 lanthanide elements v., 2
 synthesis of, 8–9
 UO₂ solid solutions with
 oxygen potentials of, 394–396, 395t
 properties of, 391t–392t, 392
- Curium (IV), uranium (IV) v., coordination numbers, 585–586
- CVC. *See* Congruently vaporizing composition
- Cyclopentadienyl compounds, of thorium, 116
- Darmstadtium, discovery of, 6t
- Dating, with protactinium–231, 231
 and thorium–230, 170–171
 and uranium–235, 189
- Decay chain, of actinium, 20–26, 21f–26f
- D2EHIBA. *See* Di–2-ethyl-hexyl isobutylamide
- Demesmaekerite, as uranyl selenite, 298
- Derriksite, as uranyl selenite, 298
- Dewindite, description of, 297
- DIBC, protactinium extraction with, 182, 188
- Dibenzyl sulfoxide, for protactinium extraction, 181–182
- DIBK, protactinium extraction with, 182
- Di–2-ethyl-hexyl isobutylamide (D2EHIBA), protactinium extraction with, 184
- Di-isobutylketone (DIPK), protactinium extraction with, 176, 178, 182, 188
- Di-isopropylcarbinol (DIPC), protactinium extraction with, 175
- Dimethyl oxalate, actinium precipitation with, 38
- Dimethyl sulfoxide (DMSO), for protactinium extraction, 181–182
- Dioxide dichloride, of uranium, 567–570
- Dioxouranium (V), aqua ions of, 594t, 595
- Dioxouranium (VI), aqua ions of, 594t, 596, 596f
- DIPC. *See* Di-isopropylcarbinol
- Diphenyl sulfoxide, for protactinium extraction, 181–182
- DIPK. *See* Di-isobutylketone
- Di-S-butylphenyl phosphonate (DSBPP), uranium extraction with, 175
- DMSO. *See* Dimethyl sulfoxide
- DNA footprinting, photochemical oxidation for, 630–631
- Dowex 50, for actinium purification, 30–31
- Dowex–1 anion-exchange column, protactinium separation on, 180, 180f
- DSBPP. *See* Di-S-butylphenyl phosphonate
- Dubnium, discovery of, 6t
- EDTA. *See* Ethylenediaminetetraacetate
- Eigen-Wilkins mechanism
 ligand substitution and, 608–610
 organic and inorganic ligand formation and, 615–616
- Einsteinium
 discovery of, 5t, 9
 isotopes of, 10

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- lanthanide elements *v.*, 2
synthesis of, 9
Ekanite, structural data for, 113
Eldorado mine, uraninite at, 274
Electrical conductivity, of uranium oxides, 368–369
Electrical properties, of uranium, metallic state, 324, 324f, 324t
Electrical resistivity, of uranium
 hydrides, 333
 metallic state, 322
Electrochemical methods, for protactinium, 227
 gravimetric methods, 229–231
 polarographic, 227
 potentiometric and amperometric, 227
 spectrophotometric methods, 227–228
Electrochemical separation, of uranium, 632–633
Electrolysis
 of actinium, 38
 of protactinium, 220
 of thorium, 60–61
Electron behavior, in actinides, 1–2
Electron microscopy, for actinide element study, 14
Electrostatic concentration methods, for uranium ore, 303
El'kon District deposit, brannerite at, 280
Emission spectrum, of protactinium, 190, 226
Entropy, of thorium, 119, 119t
Environmental problems
 actinide chemistry for, 3
 of uranium, 270
Epidote, thorium in, 56t
Equilibrium constants
 of protactinium, protactinium (V), 211, 211t
 of uranium
 hydroxide complexes, 598, 599t
 inorganic ligand complexes, 601t, 602
 organic ligand complexes, 603–605, 604t
 ternary complexes, 605–606, 606t
 uranium (III), 598, 601t, 604t
Ethereal sludge, protactinium enrichment from, 176–178, 177f
Ethylenediaminetetraacetate (EDTA)
 of thorium, as ligands, 131
 with uranium, 603–605, 604t
Europium
 californium *v.*, 152–
 UO₂ solid solutions with, oxygen potentials of, 395t, 396
EXAFS. *See* Extended X-ray absorption fine structure analysis
Extended X-ray absorption fine structure analysis (EXAFS)
 for coordination number analysis, 586, 588, 602
 LAXS *v.*, 589
 for obtaining structural information, 589
 uranium (IV) in silicate glass and, 276
Extraction chromatography, protactinium purification with, 181–186, 183f
Extractive metallurgy, of uranium, 303
FA. *See* Fulvic acid
FAAS. *See* Flame source atomic absorption spectrometry
Fermium
 discovery of, 5t, 9
 isotopes of, 10
 lanthanide elements *v.*, 2
 synthesis of, 9
Fission process, history of, 3–4
Flame source atomic absorption spectrometry (FAAS), of uranium, 636
Floating zone technique, for uranium oxide preparation, 343
Flocculants, for uranium ore processing, 309
Flotation concentration methods, for uranium ore, 303–304
Fluorescence
 intensity of, 626
 overview of, 625, 625f
 phosphorescence *v.*, 625
 quenching of, 625
 of uranyl (VI), 624–630
Fluorescence spectroscopy
 laser-induced, 628–629
 photochemical studies and, 627
Fluorescence spectrum, of uranium, uranium oxobromo complexes, 573
Fluoride(s)
 of protactinium (V), 213–215, 216f, 217t
 protactinium derivatives of, 197–199, 198f, 207
 alkali, 200–203, 202t
 with thorium carbonates, 109
 as thorium ligand, 129
 of uranium, 444–446, 484–489, 518–521, 557–564
 fluoro complexes, 445–446, 487–489, 520–521, 520t, 563–564, 564t
 hexavalent oxide fluoride complexes, 566–567
 oxides and nitrides of, 489–490
 pentavalent oxide fluorides and complexes, 521
 polynuclear, 579
 uranium hexafluoride, 557–563
 uranium oxide difluoride, 565–566
 uranium oxide tetrafluoride, 564–565
 uranium pentafluoride, 518–520
 uranium tetrafluoride, 484–486
 uranium tetrafluoride hydrates, 486–487

- Fluoride(s) (*Contd.*)
 uranium trifluoride, 444–445
 uranium trifluoride monohydrate, 445–446
- Fluorination
 of uranium, 315–317, 316f, 317t
 by uranium hexafluoride, 561
- Fluorometry, of uranium, 636–637
- Fluxed fusion decomposition, of uranium, 631–632
- Formates, of thorium, 114
 synthesis of, 114
- Fourmarierite
 anion topology of, 282–283, 284f–285f
 at Oklo, Gabon, 271–272
 at Shinkolobwe deposit, 273
 uranium in, 259t–269t
- Fractional crystallization, for actinium and lanthanum separation, 18
- Francium–223, from actinium–227, 20
- Françoisite
 at Oklo, Gabon, 271–272
 uranium in, 259t–269t
- Fulvic acid (FA), for thorium complexation, 132–133
- Gadolinium, UO₂ solid solutions with, oxygen potentials of, 395t, 396, 397f
- γ -Phase, of uranium
 β transformation of, 347
 general properties of, 321–323, 322t–323t
 physical properties of, 321
- Gamma spectrometry
 of actinium
 actinium–227, 23–24, 26f
 actinium–228, 24–25
 of protactinium
 protactinium–231, 166, 168f, 224–225
 protactinium–233, 225–226
 protactinium–234, 170, 171f
 of thorium, 133–134
- Geochemical tracer, actinium–227 as, 44
- Geometries, of uranyl polyhedra, 281–282, 284f–286f
- Germanium, uranium compounds with, 407
- Germanates, of thorium, 113
- GFAAS. *See* Graphite furnace source atomic absorption spectrometry
- Gibbs hydration energy, of thorium, 119, 119t
- Gloved boxes, for actinide element study, 11–12, 11f
- Glycine, of uranium, 603–605, 604t
- Glycolate
 coordination with, acetate v., 590
 of uranium, 603–605, 604t
- Graphite furnace source atomic absorption spectrometry (GFAAS), of uranium, 636
- Gravimetric methods
 for protactinium, 229–231
 cupferronate, 230–231
 hydroxide, 229
 iodate, 230
 peroxide, 230
 phenylarsonate, 229–230
 for uranium, 634–635
- Gravitational concentration methods, for uranium ore, 303
- Ground state configuration
 of protactinium, 190
 of uranium, hexavalent and complex halides, 557
- Guilleminite, as uranyl selenite, 298
- HA. *See* Humic acid
- Half-life
 of actinium
 actinium–227, 20
 actinium–228, 24
 of protactinium, 162–163
 protactinium–231, 166, 170
 protactinium–233, 169
 protactinium–233 (IV), 221
 protactinium–234, 186
- Halides
 of protactinium, 197–204, 201t
 alkali, 200–203, 202t
 preparation of, 197–199, 198f–199f
 properties of, 199–200
 of thorium, 78–94
 binary, 78–84, 78t
 crystallographic data of, 87t–89t
 nitride reaction with, 98–99
 phases of, 84–86, 85f, 86t
 polynary, 84–94
 thorium fluoride, 78–80, 78t, 79f
 thorium tetrabromide, 81–82, 81f
 thorium tetrachloride, 78t, 80–81, 81f
 thorium tetraiodide, 78t, 82–84, 83f
 of uranium, 420–575
 applications of, 420
 chemistry of, 421
 oxidation states in, 420–421
 trivalent and complex, 421–456
- Hassium, discovery of, 6t
- HDEHP. *See* Bis(2-ethylhexyl)phosphoric acid
- Heap leaching, of uranium ore, 306
- Heat capacity
 of protactinium, 192, 193t
 of uranium
 hydrides, 333–334, 334f
 uranium oxide difluoride, 565
- Heat source, actinium as, 42–43

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- HEHA. *See* 1,4,7,10,13,16-Hexaazacyclohexadecane-*N,N',N'',N''',N''''*-hexaacetic acid
- 1,4,7,10,13,16-Hexaazacyclohexadecane-*N,N',N'',N''',N''''*-hexaacetic acid (HEHA), for tumor radiotherapy, 43
- HFIR. *See* High-Flux Isotope Reactor
- High-Flux Isotope Reactor (HFIR)
for transcurium element production, 9
for transfermium element production, 12
- High-flux nuclear reactors, for transplutonium element production, 9
- High-level waste (HLW), uranium in, 270
- High-purity product refinement, of uranium ore, 314–317, 315f–316f, 317t
- High-resolution high-purity germanium (HPGe) detectors, for uranium analysis, 635
- HLW. *See* High-level waste
- Hot-wire deposition, for uranium metal preparation, 319
- HPGe detectors. *See* High-resolution high-purity germanium detectors
- Humic acid (HA), for thorium complexation, 132–133
- Huttonite, thorium in, 55–56
- Hydration number(s), of thorium, 118
- Hydrides
of protactinium, 194
of thorium, 64–66, 66t
decomposition of, 65
formation of, 64–65
properties of, 64
reaction with, 65
structure of, 64
ternary, 65–66, 66t
of uranium, 328–339
chemical properties of, 336–337, 337t
crystal structures of, 329–330, 329t
electrical resistivity, 333
magnetic properties and bonding of, 333–336, 334f, 335t
other compounds of, 337–339
phase relations and dissociation pressures of, 330–332, 330f–331f
preparative methods for, 329
reactions of, 337, 337t
thermodynamic properties, 332–333, 332t
use of, 333
- Hydrochloric acid
uranates (V) and (IV) dissolution in, 381–382
uranium compound dissolution in, 632
uranium metal reactions with, 328
uranium oxide reactions with, 370–371
- Hydrofluoric acid
protactinium (IV) precipitation by, 222
as protactinium solvent, 176, 178–179
- Hydrofluorination, of uranium, 319, 320f
- Hydrogen, uranium metal solubility of, 330f, 331–332
- Hydrogen peroxide
protactinium extraction with, 175, 179
UO₂ dissolution in, 371
- Hydrolytic behavior
of protactinium, 170–171, 179
protactinium (IV), 222
protactinium (V), 209–212, 210f, 211t, 212f
of thorium, 119–120, 121t, 122f
of uranium
aqueous complexes, 597–600, 599t
carbides, 403–405
pentavalent and complex halides, 501
uranium (IV), 585–586
- Hydroxide(s)
of protactinium, 207–208
gravimetric methods with, 229
of thorium, 76
of uranium, 259t
- Ianthinite
at Peña Blanca, Chichuhua District, Mexico, 272–273
uranium in, 259t–269t
- ICP-MS. *See* Inductively coupled plasma mass spectrometry
- IDA. *See* Iminodiacetate
- ID analysis. *See* Isotope dilution analysis
- Iminodiacetate (IDA), of uranium, 603–605, 604t
- INAA. *See* Instrumental neutron activation analysis
- Inductively coupled plasma mass spectrometry (ICP-MS)
with AES, 636
for thorium, 133
of uranium, 637–639
- In situ* leaching, of uranium ore, 306
- Instrumental neutron activation analysis (INAA), for uranium, 636
- Intermetallic compounds, of uranium, 325–326, 325t
hydrides as, 338–339
molybdenum, 326, 326f
noble metals, 325–326
transition-metal compounds, 325
x-ray crystallography for, 325
- Iodate(s), of protactinium, gravimetric methods with, 230
- Iodide(s)
protactinium derivatives of, 197–199, 207–208
of uranium
complexes, 498–499

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Iodide(s) (*Contd.*)
 oxide and nitride, 499–500
 uranium tetraiodide, 497–498
 uranium triiodide, 454–455
- Ion-exchange chromatography
 for actinium and lanthanum separation, 18
 actinium purification by, 30–32
 for protactinium purification, 180–181, 180f
 for transfermium element identification, 13
 for uranium leach recovery, 310–311
 problems with, 311
 process for, 310
 solvent extraction v., 311
 species absorbed, 310–311
- Ionization potentials (IP)
 of actinium, 33
 of thorium, 59–60
- IP. *See* Ionization potentials
- Irriginite
 umohoite transformation to, 299, 300f
 uranium molybdates in, 299
- Iron
 protactinium separation from, 179–180, 180f
 uranate preparation with, 388
- Island of stability, overview of, 14
- Isotope dilution (ID) analysis, of uranium, 638
- Isotope dilution mass spectrometry, for protactinium–231, 231
- Isotopes
 of actinium, 18–19, 22t–23t, 31–32
 of americium, 9–10, 12
 of berkelium, 9–10
 of californium, 9–10, 12
 of curium, 9–10, 12
 of einsteinium, 10
 of fermium, 10
 longer-lived, 14
 of neptunium, 9–10, 12
 of plutonium, 4, 8–10, 12
 of protactinium, 161–162, 164–170, 165t
 of thorium, 53–55, 54t–55t
 of uranium, 4, 8–10, 255–257, 256t, 258t
- Itinerant electron behavior, in actinides, 1–2
- Jáchymov mine, maccottite and zippeite in, 292
- Kidneys, accumulation of protactinium–231, 188
- Koongarra deposit, uranium deposits at, 273
- Kyzylsai deposit, mourite in, 301
- Lanthanide elements, actinide elements v., 2, 10–11
 bonding in, 584–585
- Lanthanum, actinium v., 18, 40
- Large-Angle X-ray Scattering (LAXS)
 for coordination number analysis, 586
 EXAFS v., 589
 for obtaining structural information, 589
- Larisaite, as uranyl selenite, 298
- Laser fluorescence spectroscopy, for actinide element study, 14
- Lattice constant, of thorium nitrides, 99
- Lattice parameter(s), of uranium
 dioxide, 390, 391t–392t
 halides, 422, 423t–441t, 530t–556t
 oxide, 344, 345t–346t
- Lawrencium
 discovery of, 6t, 13
 lanthanide elements v., 2
 synthesis of, 13
- LAXS. *See* Large-Angle X-ray Scattering
- Leaching
 calcination prior to, 304
 of uranium ores, 303
 forms of, 305–306
 object of, 304
 oxidizer for, 305
 reagent for, 304–305
 recovery of, 309–317
- Lead
 in uraninite, 274
 uranium compounds with, 407
 uranium oxides with, preparative methods of, 383–389, 384t–387t
 uranyl oxyhydroxides with, 287–288
- Lepersonnite, description of, 293
- Lermontovite, uranium in, 259t–269t, 275
- Ligands, for thorium
 in coordination compounds, 115
 inorganic, 129–131, 130t
- Liquid-liquid extraction, of uranium, 633
- Liquid scintillation spectrometry, for thorium, 133–134
- Lithium, protactinium compounds with, 208
- Localized electron behavior, in actinides, 1–2
- Luminescence, overview of, 627
- Lungs, transuranium elements in, 12
- Magnesium
 UO₂ solid solutions with, oxygen potentials of, 395t, 396–397
 for uranium reduction, 319
 uranium v., 318
- Magnetic concentration methods, for uranium ore, 303–304
- Magnetic moment, of uranium hydrides, 334–336, 335t

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Magnetic properties
of anhydrous uranium chloride complexes, 451
of protactinium, 192, 193t
carbides, 195
halides, 203
pnictides, 207
of thorium, 61–63
antimony, 100
borides, 67
phosphides, 99–100
of uranium
bromide complexes, 496
dioxide solid solutions, 389–390
halides, 443–444, 483
hexafluoride, 561
hydrides, 333–336, 334f, 335t
iodide complexes, 499
pentavalent and complex halides, 501, 518
silicides, 406
tetrachloride, 491–492
tetravalent halides, 483
tribromide, 453
trichloride, 448
trifluoride, 445
triiodide, 455
UNiAlH_y, 338–339
uranium pentachloride, 523
uranium tetrachloride, 491–492
of uranium oxides, 389–390
Magnetic susceptibility, of uranium
metallic state, 323–324
oxides, 380, 382
Magnetite, thorium in, 56t
Manganese
protactinium separation from, 188
with thorium sulfates, 105
Manganese dioxide, for uranium
leaching, 305
Marecottite, uranium sulfates in, 292
Marthozite, as uranyl selenite, 298
Mass spectrometry
of protactinium and thorium, 231
of uranium, 636–637
for uranium–235, 255
Mass spectroscopy, for actinide element
study, 14
Mechanical properties, of uranium, metallic
state, 322–323, 323t
Meitnerium, discovery of, 6t
Mendelevium
discovery of, 5t, 13
lanthanide elements v., 2
synthesis of, 13
Metallic conduction
with thorium boride, 67
with thorium hydride, 64
Metallic state
of actinides, 1–2
of actinium, 34–35
of protactinium, 191–194
physical parameters of, 191–194, 193t
preparation of, 191
of thorium, 60–63
of uranium, 318–328
chemical properties of, 327–328, 327t
electrical properties, 324, 324f, 324t
general properties of, 321–323, 322t
intermetallic compounds and alloys, 325–326, 325t
magnetic susceptibility, 323–324
physical properties of, 320–321, 321f
preparation of, 318–324, 320f
Metallothermic process, for uranium metal
preparation, 319, 320f
Metamictization, of uraninite, 275
MIK, protactinium extraction with, 188
Military purposes, plutonium for, 4
Mineralogy, of uranium, 257, 259t–269t, 270–273
Minerals, with uranium, 259t–269t, 274–275
bonding in, 280–281
crystal morphology prediction, 286–287
geometry of, 281–282, 284f–285f
Moctezumite, as uranyl tellurite, 298
Molybdates
of thorium, 111–112
with alkali metals, 112
structure of, 111–112
synthesis of, 111
tungstates v., 113
of uranium, 266t
natural occurrence of, 299
uranium (IV), 275
Molybdenum
in uranium amine extraction, 312
in uranium intermetallic compound, 326, 326f
Monazite
processing of, 56–58, 57f–59f
thorium in, 56t
Montmorillonite, uranium complexes on, 301–302
Mössbauer effect, of protactinium, 190–192
Mourite, uranium molybdates in, 301
NAA. *See* Neutron activation analysis
Natural occurrence
of actinium, 26–27
actinium–227, 26–27
of actinium v. uranium, 162
of bijvoetite, 290
of brannerite, 280
of carnotite, 297–298
of coffinite, 275–276

- Natural occurrence (*Contd.*)
of parsonsite, 297
of protactinium, 161, 231
 protactinium–231, 170
 protactinium–233, 171
of pyrochlore, 279
of saléite, 293
of thorite, 275–276
of thorium, 133
of uranium, 170, 255, 256t, 257–302
 arsenates, 293
 carbonates, 291
 molybdates, 299
 phosphates, 293
 selenites, 298
 silicates, 292
 uranium–234, 255, 256t
 uranium–235, 26–27, 170, 255–256, 256t
 uranium–238, 255, 256t
of uranophane, 292
of zirconolite, 277–278
- NCP. *See* Neocupferron
- Neocupferron (NCP), protactinium extraction with, 184
- Neptunium
discovery of, 4, 5t
d transition elements v., 2
history of, 4
isotopes of, 9–10, 12
studies on, 11
synthesis of, 4
Neptunium–237, protactinium–233 from, 171
Neptunium–239, from uranium–239, 255
Neptunium series ($4n + 1$), 24f
 actinium–225 in, 20, 24f
 in nature, 27
 thorium–229 from, 53
Network structures, factors in, 579
- Neutron(s)
 in actinide synthesis, 3–4, 8–9
 thermonuclear device production of, 9
- Neutron activation analysis (NAA), for uranium, 635–636
- Neutron diffraction, for coordination geometry study, 602–603
- Neutron emissions, actinium for, 43
- Neutron irradiation, of uranium, 3–4
- Neutron scattering, for actinide element study, 14
- Ningyoite, uranium in, 259t–269t, 275
- Niobates, of uranium, uranium (IV), 277–280
- Niobium, protactinium purification from, 178–186
 ion exchange, 180–181, 180f
 precipitation and crystallization, 178–186
 solvent extraction and extraction chromatography, 181–186, 183f
- Nitrates
 of protactinium (V), 212–213, 214t
 of thorium, 106–108, 107f
 extraction of, 107–108
 properties of, 106–107
 structure of, 106, 107f
 synthesis of, 106
 ternary, 108
- Nitric acid
 uranates (V) and (IV) dissolution in, 381–382
 uranium compound dissolution in, 632
 uranium metal reactions with, 328
 uranium oxide reactions with, 370–371
- Nitride(s)
 of thorium, 97–99, 98t, 99f
 halide reaction with, 98–99
 lattice constant of, 99
 preparation of, 97–98
 structure of, 98–99
 of uranium, 407–411, 408t–409t, 411f
 bromides, 497, 500
 chlorides, 500
 fluorides, 489–490
 iodides, 499–500
 phases, 407, 410, 411f
 preparation of, 410
 properties of, 408t–409t
 stability of, 410
 structure of, 410–411
- Nitrogen, uranium metal reactions with, 327–328, 327t
- NMR. *See* Nuclear magnetic resonance
- $4n + 2$ decay chain
 thorium–230 from, 53
 thorium–234 from, 53
 uranium–238 in, 255–256
- $4n$ series. *See* Thorium series
- $4n + 1$ series. *See* Neptunium series
- $4n + 3$ series. *See* Uranium-actinium series
- Nobelium
 discovery of, 5t, 13
 lanthanide elements v., 2
 synthesis of, 13
- Noble metals, in intermetallic compounds of uranium, 325–326
- Nuclear energy
 plutonium for, 4
 thorium for, 53
 uranium for, 255
- Nuclear fission, of uranium
 discovery of, 255
 uranium–235, 256
- Nuclear magnetic resonance (NMR)
 for ligand exchange reactions, 607–608
 intramolecular, 617, 617f
 organic and inorganic, 614–615

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- for structure study, 589
- of thorium hydrides, 64
- Nuclear properties
 - of actinium, 20–26, 21f–26f, 22t–23t
 - of protactinium, 164–170
 - of thorium, 53–55, 54t–55t
 - of uranium, 255–257
- Nuclear systematics, development of, 10
- Nuclear waste
 - actinide chemistry for, 3
 - immobilization of
 - brannerite for, 280
 - pyrochlore for, 278–279, 279f
 - zirconolite for, 277–278
 - protactinium clean-up in, 189
 - uranium predictions in, 270
- Nuclear weapons, actinide chemistry for, 3

- Oklo, Gabon
 - uraninite at, 274
 - uranium deposits at, 271–272
- Oligonucleotides, uranyl ion for synthesis of, 631
- One-atom-at-a-time chemistry
 - for element identification, 10
 - for mendelevium identification, 13
 - for transactinides, 3
- 7p Orbital, transactide contraction of, 3
- 7s Orbital, transactide contraction of, 3
- Orbital diagram, for uranyl (VI) ion, 577, 577f
- 5f Orbitals
 - in actinides, 1–2, 10–11
 - in back-bonding, 576
 - in uranium bonding, 577
- Ore
 - thorium processing and separation from, 56–59
 - from monazite, 56–58
 - problems with, 58
 - from uraninite or uranothorianite, 58
 - uranium processing and separation from, 302–317
 - complexities of, 302–303
 - methods of, 302
 - pre-concentration, 303–304
 - recovery from leach solutions, 309–317
 - roasting or calcination, 304
- Organometallic chemistry, of uranium, 630–631
- Organothorium compounds
 - examples of, 116
 - study of, 117
- Orthosilicates, of uranium, 261t
 - uranium (IV), 275–276
- Oscillator strengths, of uranium
 - chlorides, 447–448
 - halides, 442–443
- Oxalates
 - of thorium, 114
 - as ligands, 131–132, 132t
 - of uranium, 603–605, 604t
- Oxalic acid, protactinium (V), 219
- Oxidation
 - photochemical, of polydeoxynucleotides, 630–631
 - of UO₂ solid solutions, 394
 - of uranium (III), 598
 - for uranium carbonate leaching, 307–308
 - by uranium hexafluoride, 562
 - for uranium processing, 305
- Oxidation state(s)
 - of actinides, 1
 - of protactinium, 161, 209
 - of thorium, 117
 - of uranium, 257, 276–277, 328, 590
 - in uraninite, 274–275
- Oxide(s)
 - of protactinium, 195–197
 - binary, 195, 196t
 - polynary, 195–197, 197t
 - of thorium, 70, 75–76
 - as catalysts, 70, 76
 - properties of, 70, 75, 75t
 - research of, 70
 - of uranium, 259t, 339–398
 - alkali and alkaline-earth metals, 371–383, 372t–378t
 - binary, 339–371
 - bromides, 497, 527–528, 571–574
 - chlorides, 524–525
 - fluorides, 489–490, 564–567
 - halides, 456
 - history of, 253–254
 - iodides, 499
- Oxine, in thorium compounds, 115
- Oxobromides, of uranium, 528
- Oxo chlorides, of uranium, 525–526
- Oxy chlorides, of uranium, 494
- Oxygen
 - in uranium aqua ions, 592–593
 - for uranium carbonate leaching, 307–308
 - uranium metal reactions with, 327–328, 327t
- Oxygen diffusion, of UO₂, 367
- Oxygen potential, of uranium
 - oxides, 360–364, 361f–363f
 - solid solutions, 394–398, 395t
- Oxyhydroxides, of uranium, 259t–260t, 287

- PAA. *See* Phenylarsonic acid
- Parsonsite
 - natural occurrence of, 297
 - structure of, 295–296, 296f

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Partition chromatography, for actinium purification, 31–32
- Peña Blanca, Chichuhua District, Mexico, uranium deposits at, 272–273
- Perchlorates
 of thorium, 101, 102t–103t
 preparation of, 101
 of uranium, 494, 570–571
- Percolation leaching, of uranium ore, 306
- Peroxide(s)
 of protactinium, 208
 gravimetric methods with, 229–230
 of thorium, 76–77
 formation of, 76–77
 properties of, 77
 of uranium, 259t, 288–289
- Perrhenates, of thorium, 113
- Phase diagram, of uranium
 borides, 398, 400f
 carbides, 399, 403f
 hydrides, 331, 331f
 nitrides, 410, 411f
 oxides, 352–353, 352f, 354f
 selenides, 418, 419f
 sulfides, 413, 413f
 tellurides, 418, 419f
 uranium hexafluoride, 563, 563f
- Phase relations, of uranium oxides, 351–357, 352f
 $\text{UO}_{2.00}$ – $\text{UO}_{2.25}$, 353–354, 354f
 $\text{UO}_{2.25}$ – $\text{UO}_{2.667}$, 354f, 355–356, 358t
 $\text{UO}_{2.667}$ – UO_3 , 356–357, 358t
 uranium-uranium dioxide region, 351–353, 352f
- Phase transformations, of uranium, 344, 347
- Phenylarsonate(s), of protactinium, gravimetric methods with, 229–230
- Phenylarsonic acid (PAA), protactinium precipitation by, 179
- 1-Phenyl-3-methyl-4-benzoylpyrazolone (PMBP), protactinium extraction with, 184
- Phosphates
 of protactinium (V), 217–218
 of thorium, 109–110
 arsenates v., 113
 as ligands, 129
 solubility and, 128
 structure of, 109–110
 study and use of, 109
 synthesis of, 109–110
 ternary, 110
 vanadates v., 110
 of uranium, 263t–265t
 autunite structures, 294–295
 chain structures, 295–296
 groups of, 294
 natural occurrence of, 293
 phosphuranylite structures, 295
 synthetic, 296–297
 uranium (IV), 275
 uranium (VI), 297
 uranophane structures, 295
- Phosphides
 of protactinium, 204, 206t
 of thorium, 98t, 99–100
 synthesis of, 99–100
 of uranium, 411–412
- Phosphorescence, fluorescence v., 625
- Phosphorimetry, of uranium, 636
- Phosphuranylite structures, of uranium phosphates and arsenates, 295
- Photochemical oxidation, of polydeoxynucleotides, 630–631
- Photochemistry
 experimental basis for, 627
 history of, 626
 overview of, 624–625
 of uranyl (VI), 624–630
- Photoelectron spectroscopy, of thorium hydrides, 64
- Physical concentration methods
 types of, 303
 of uranium ore processing, 302
- Pitchblende
 complexity of, 302–303
 uranium in, 253
- Plutonium
 allotropes of, 1
 discovery of, 4, 5t, 8
 history of, 4, 8
 isotopes of, 4, 8–10, 12
 for RTGs, 43
 studies on, 11
 synthesis of, 4, 8–9
- Plutonium–238, uranium–234 from, 257
- Plutonium–239, from uranium–239, 255
- Plutonium (III), structure of, 593
- PMBP. *See* 1-Phenyl-3-methyl-4-benzoylpyrazolone
- Pnictides
 of protactinium, 204–207
 of thorium, 97–101, 98t, 99f
 antimony, 98t, 100
 arsenides, 98t, 100
 bismuth, 98t, 100
 nitrides, 97–99, 98t, 99f
 phosphides, 98t, 99–100
 of uranium, 407–412, 408t–409t
 nitride, 407–411, 408t–409t, 411f
 others, 411–412
 preparation of, 411–412
- Polarizability, of transactinide elements, 3
- Polarography, for protactinium, 220, 227
- Polonium, discovery of, 245

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Potassium
with thorium molybdates, 112
with thorium sulfates, 105
- Potassium permanganate, for uranium
carbonate leaching, 307–308
- Potentiometric method, for protactinium, 227
- Praseodymium, UO₂ solid solutions with,
oxygen potentials of, 395t, 396
- Pressure-composition diagram, of uranium-
hydrogen system, 330–331, 330f
- Pressure leaching, of uranium ore, 306
- Protactinium, 161–232
actinium separation from, 38
analytical chemistry of, 223–231
determination in environment, 231
electrochemical methods, 227
radioactivation methods, 226
radiometric methods, 223–226
spectral and X-ray methods,
226–227
applications of, 188–189
ceramic capacitors, 189
color cathode ray tube, 188–189
dating methods, 189
nuclear waste clean-up, 189
X-ray detection, 188
atomic properties of, 189–191
emission spectrum, 190
ground state configuration, 190
Mössbauer effect, 190–191
X-ray atomic energy levels, 190, 190t
- d transition elements v., 2
- half-life of, 162–163
- isotopes of, 161–162, 164–170, 165t
- metallic state of, 191–194
alloys of, 194
physical parameters of, 191–194, 193t
preparation of, 191
- nuclear properties of, 164–170
- occurrence in nature of, 170–171
- preparation of, 172–189
of 234 and 234m isotopes, 186–187
aqueous raffinate enrichment for,
175–176
carbonate precipitate enrichment for,
174–175
ethereal sludge enrichment for,
176–178, 177f
industrial-scale enrichment for, 174
procurement of, 172–173
of protactinium–233, 187–188
raw material analysis for, 172, 173t
- purification of, 178–186
ion exchange, 180–181, 180f
large-scale recovery of protactinium–231,
186
precipitation and crystallization,
178–179
solvent extraction and extraction
chromatography, 181–186, 183f
simple and complex compounds of, 194–209
borohydride, 206t, 208
carbides, 195
cyclooctatetraene, 206t, 208
halides, 197–204, 201t
hydrides, 194
miscellaneous, 207–209
oxides, 195–197, 196t–197t
pnictides, 204–207
tropolone, 206t, 208
solution chemistry of, 209–223
oxidation states of, 209
protactinium (IV) aqueous chemistry,
222–223, 223f
protactinium (V) complexes in aqueous
solution, 218–219, 219t
protactinium (V) complexes in mineral
acids, 212–218, 214t–215t, 216f, 217t,
218f
protactinium (V) hydrolysis, 209–212,
210f, 211t, 212f
redox behavior in aqueous solution,
220–221
structure of, 191–194, 193t
toxic properties of, 188
- Protactinium–231, 164–167, 165t, 166f
actinium–227 from, 20
alpha-spectrum of, 166, 167f
dating
with TIMS, 171
with uranium–235, thorium–230, and,
170–171
discovery of, 162–163
emission spectrum of, 190
gamma-ray spectrum of, 166, 168f
half-life of, 166, 170
importance of, 164
isotope dilution mass spectrometry for, 231
large-scale recovery of, 186
natural occurrence of, 170
overview of, 161
procurement of, 167
protactinium–232 from, 256
radioactivation methods for, 226
radiometric methods for
alpha-counting, 224
gamma rays, 225
toxicity of, 188
- Protactinium–232
from protactinium–231, 256
uranium–232 from, 256
- Protactinium–233, 165t, 167–169
adsorption behavior of, 176
half-life of, 169
importance of, 164, 167–169
natural occurrence of, 171

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Protactinium–233 (*Contd.*)
 overview of, 161
 preparation of, 187–188
 procurement of, 167–169, 169t
 radiometric methods for, 225–226
- Protactinium–234, 170, 170f
 discovery of, 162
 gamma-ray spectrum of, 170, 171f
 half-life of, 186
 importance of, 164
 protactinium–234 v. protactinium–234m, 170, 170f
 preparation of, 186–187
 radiometric methods for, 225
- Protactinium (IV), aqueous chemistry of, 222–223, 223f
- Protactinium (V)
 absorption spectra of, 212, 212f
 complexes in aqueous solution of, 218–219, 219t
 complexes in mineral acids of, 212–218
 fluoro complexes, 213–215
 ionic species in hydrochloric acid, 213, 215t
 ionic species in nitric acid, 212–213, 214t
 miscellaneous with inorganic ligands, 217–218
 sulfuric acid, 215–216, 217t, 218f
 equilibrium constants of, 211, 211t
 hydrolysis of, 209–212, 210f, 211t, 212f
 hydrolytic behavior of, 209–212, 210f, 211t, 212f
 thermodynamics of, 211, 211t
- Protasite, anion topology of, 282, 284f–285f
- Pyrochlore
 description of, 278–279
 natural occurrence of, 279
 structure of, 278, 279f
 uranium (V) in, 279
- Quenching mechanisms, of uranyl (VI), 629
- Radioactive displacement principle,
 description of, 162
- Radioactive waste, protactinium isolation
 from, 179
- Radioactivity
 of actinides, 1
 discovery of, 254
- Radiochemical Engineering Development
 Center (REDC), for transcurium
 element production, 9
- Radiocolloid formation, by actinium, 41–42
- Radioisotope thermoelectric generator (RTG)
 actinium for, 42–43
 plutonium for, 43
- Radiolysis, of water at SNF, 289
- Radiometric methods
 of protactinium, 223–226
 protactinium–231, 224–225
 protactinium–233, 225–226
 protactinium–234, 225
 for uranium, 635–636
- Radium
 discovery of, 254
 recovery of, 172–173
- Radium–226, actinium–227 from, 27–28, 28f
- Radium–228, actinium–228 from, 25, 28
- Radon, in actinium isolation, 32
- Rare earth metals
 actinium separation from, 30
 uranium oxides with, 389
- Rate constants, of ligand exchange reactions,
 608, 609t, 611t–612t
 redox reactions, 622–623
- REDC. *See* Radiochemical Engineering
 Development Center
- Redox behavior
 of actinium, 37–38
 of protactinium, 220–221
 of thorium, 60–61, 117–118
 of uranium
 aqua ions, 590–591, 592f, 594t
 dioxouranium (VI), 594t, 596
 hexafluoride, 562
 rates and mechanisms of, 622–624, 623f
 reduced phases, 274–280
- Reduced phase, of uranium, 274–280
- Reduction
 by uranium (III), 598
 of uranium, 319
 hexafluoride, 562
 UO₂ solid solutions, 392, 393t
- Remote control, for actinide element study,
 12, 12f–13f
- Resistivity tensor, of uranium, 324, 324t
- Resonance ionization mass spectrometry
 (RIMS), of thorium, 60
- RIMS. *See* Resonance ionization mass
 spectrometry
- Roasting
 functions of, 304
 of uranium ore, 304
- Roentgenium, discovery of, 7t
- RTG. *See* Radioisotope thermoelectric
 generator
- Rubidium, with thorium sulfates, 105
- Rutherfordine, schoepite and, 289–290
- Rutherfordium, discovery of, 6t
- Saléite
 at Koongarra deposit, 273
 natural occurrence of, 293
 uranium in, 259t–269t

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Salt roasting, functions of, 304
Sample preparation, for uranium analysis, 631–633
Sayrite, anion topology of, 283, 284f–285f
Schmitterite, as uranyl tellurite, 298
Schoepite
 at Peña Blanca, Chichuhua District, Mexico, 272–273
 rutherfordine and, 289–290
 at Shinkolobwe deposit, 273
 uranium in, 259t–269t, 287, 289–290
Scintillation detection, for uranium, 635
Seaborgium, discovery of, 6t
Séelite, uranophane structure in, 295
Selenides
 of thorium, 75t, 96–97
 of uranium, 414t–417t, 418–420, 420f
 phases of, 418, 419f
 preparation of, 418–420
 properties of, 414t–417t, 420
Selenites, of uranium, 268t
 with alkaline metals, 298–299
 natural occurrence of, 298
Sheet structures
 factors in, 579
 in uranyl minerals, 281–282
 crystal morphology prediction of, 286–287
 curite, 283, 284f–285f
 fourmarierite, 282–283, 284f–285f
 molybdates, 299
 protasite, 282, 284f–285f
 sayrite, 283, 284f–285f
 uranophane, 284f–285f, 286
 vandendriesscheite, 283, 284f–285f
 weeksite, 292–293
 wölsendorfite, 284f–285f, 286
Shinkolobwe deposit
 lepersonnite at, 293
 uranium deposits at, 273
Silica, in protactinium purification, 174
Silicate(s)
 of thorium, 113
 of uranium, 260t–261t
 minerals of, 292–293
 natural occurrence of, 292
 structure of, 292
 uranium (IV), 276–277
 uranium determination in, 632
Silicides
 of thorium, 69–70, 71t–73t
 phase diagram for, 69, 74f
 quaternary, 70
 structures of, 69
 ternary, 69–70
 of uranium, 405–407, 406f
 phases of, 405–406, 460f
 properties of, 401t–402t, 406
 ternary, 406
Sklodowskite
 at Koongarra deposit, 273
 uranium in, 259t–269t
SNF. *See* Spent nuclear fuel
Soddyite
 sodium uranates in, 287
 uranyl silicates in, 293
Sodium
 in anhydrous uranium chloride complexes, 451–452
 with thorium sulfates, 105
Sodium carbonate, for uranium carbonate leaching, 307
Sodium chloride, roasting with, 304
Solubility
 of actinium, 38–40, 39t
 of thorium, 122–128, 124t, 125t, 127f, 133
 carbonates and, 127–128
 colloid generation in, 126
 in complexing media, 126–128
 crystallization in, 126, 127f
 hydrolysis of, 122–123, 124t
 in non-complexing media, 122–126, 124t–125t, 127f
 phosphates and, 128
 products of, 123, 125t, 126
Solvent exchange, for uranium leach recovery, 311–313
 alkylphosphoric, 312–313
 amine, 312
 ion exchange v., 311
Solvent extraction
 for actinium and lanthanum separation, 18
 protactinium purification with, 181–186, 183f, 187–188
 thorium carboxylates in, 113–114
 for uranium metal preparation, 319
Speciation diagram, of thorium, 122f
Spectrophotometry
 for protactinium, 227–228
 light absorption in mineral acids solutions, 227–228
 reactions with organic reagents, 228
 for protactinium (IV), 222
 for thorium, 133
 of uranium, 636
Spent nuclear fuel (SNF)
 impurities in, 274
 radiolysis of water at, 289
 studtite in, 289
 uranium in, 270, 274
Spriggite, lead and uranium in, 288
Stability constants
 of actinium, 40, 41t
 of glycolate and acetate uranium complexes, 590
 of uranium
 hydroxide complexes, 598, 600f

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Stability constants (*Contd.*)
 inorganic complexes, 600–602, 601t
 organic ligand complexes, 603–605, 604t
- Stoichiometry
 structure and, 579
 of uranium
 hydroxides, 598, 599t
 inorganic complexes, 600–602, 601t
 organic ligand complexes, 603–605, 604t
 ternary complexes, 605–606, 606t
- Structure
 of actinium, 34–35
 of bijvoetite, 290
 of coffinite, 586, 587f
 coordination geometry and, 579
 of curite, 283, 284f–285f
 description of, uranium complexes, 579
 of ekanite, 113
 of fourmarierite, 282–283, 284f–285f
 hexagonal bipyramidal coordination
 of uranyl (V), 588–589
 of uranyl (VI), 580–581, 580f, 582f–583f
 isostructural, uranium (IV) compounds,
 586–588, 587f
 LAXS and EXAFS for, 589
 of parsonsite, 295–296, 296f
 pentagonal bipyramidal, of uranyl (V), 589
 pentagonal bipyramidal coordination, of
 uranyl (VI), 580, 581f–582f
 peroxide complexes, of uranyl (VI),
 583–584, 584f
 of plutonium, plutonium (III), 593
 of protactinium, 191–194, 193t
 hydrides, 194
 of protasite, 282, 284f–285f
 of pyrochlore, 278, 279f
 of sayrite, 283, 284f–285f
 six-coordination, of uranyl (VI), 582, 583f
 of studtite, 583, 584f
 of thorium, 61
 chromates, 112
 coordination compounds, 115
 halides, 78–84, 79f, 81f, 83f, 90–91
 hydrides, 64
 molybdates, 111–112
 nitrides, 98–99
 phosphates, 109–110
 phosphides, 99–100
 selenides, 97
 sulfates, 104–105, 104f
 sulfides, 96
 tellurides, 96–97
 thorium (IV), 118
 vanadates, 110, 111f
 of thornasite, 113
 of uranium
 anhydrous chloride complexes, 451
 aqueous complexes, 597
 borides, 398, 399f
 carbides, 400, 404f
 carbonates, 290
 dioxouranium (VI), 596, 596f
 hexachloride, 567, 568f
 hexafluoride, 560–561
 hexavalent oxide fluoride complexes,
 566–567
 hydrides, 329–330, 329t
 metal, 320–321, 321f
 nitrides, 410–411
 oxides, 343–351, 345t–346t
 oxochloro complexes, 494, 570
 pentafluoride, 519, 519f
 perchlorates and related compounds, 571
 silicates, 292
 silicides, 401t–402t, 406
 sulfides, 413, 414t–417t, 418f
 tellurides, 418, 420f
 tetrafluoride, 486
 transition metal oxides, 388–389
 trichloride, 447, 447f
 trichloride hydrates, 448–449
 trifluoride, 445
 triiodide, 455
 UNiAlH₉, 338
 uranium (III) compounds, 584–585, 585f
 uranium dioxide dichloride, 569
 uranium dioxide monobromide, 527–528
 uranium (IV) minerals, 282, 284f–285f
 uranium oxide difluoride, 566
 uranium pentachloride, 522–523
 uranium tetraiodide, 498, 498f
 uranyl (VI), 580–584, 580f–584f
 of uranium tetravalent halides, 456, 482
 of uranophane, 284f–285f, 286
 of vandendriesscheite, 283, 284f–285f
 of wölsendorfite, 284f–285f, 286
 of wyartite, 290
- Studtite
 structure of, 583, 584f
 uranyl peroxides in, 288–289
- Subshells, of actinide elements, 1
- Sulfate(s)
 of protactinium (V), 215–216, 217t, 218f
 of thorium, 101–106, 102t–103t, 104f
 with alkali metals, 104–105
 as ligand, 104–105
 preparation of, 101–104
 structure of, 104–105, 104f
 of uranium, 291–292
- Sulfides
 of thorium, 75t, 95–96
 of uranium, 413, 413f, 414t–417t
 phases of, 413, 413f
 preparation of, 413
 properties of, 413, 414t–417t
 structure of, 413, 414t–417t, 418f

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Sulfuric acid solution
 for thorium separation, 56–58, 57f–59f
 uranates (V) and (IV) dissolution in, 381–382
 uranium compound dissolution in, 632
 for uranium leaching, 305
 uranium oxide reactions with, 370–371
- Superconductivity
 with protactinium, 161, 192, 193t
 with thorium hydride, 64
 with thorium sulfides, 96
- Sylvania process, for thorium, 61
- Synthesis
 of actinides, 1
 of americium, 8–9
 of berkelium, 8–9
 of californium, 8–9
 of curium, 8–9
 of einsteinium, 9
 of fermium, 9
 of lawrencium, 13
 of mendelevium, 13
 of neptunium, 4
 of nobelium, 13
 of plutonium, 4, 8–9
 of transfermium elements, 12–13
 of transuranium elements, 4
- Tantalates
 of thorium, 113
 of uranium, uranium (IV), 277–280
- Tantalum, protactinium purification from, 178–186
 ion exchange, 180–181, 180f
 precipitation and crystallization, 178–186
 solvent extraction and extraction chromatography, 181–186, 183f
- TBP. *See* Tri(*n*-butyl)phosphate
- Technological problems, actinide chemistry for, 3
- Tellurides
 of thorium, 75t, 96–97
 of uranium, 414t–417t, 418–420, 420f
 phases of, 418, 419f
 preparation of, 418–420
 properties of, 414t–417t, 418, 420, 420f
- Tellurites, of uranium, 268t, 298–299
- Tellurium, uranium oxides with, preparative methods of, 383–389, 384t–387t
- TEM. *See* Transmission electron microscope
- Tetrabenzylthorium, properties of, 116
- Tetrahydrofuran (THF), with uranium trichloride, 452
- 2-Thenoyltrifluoroacetone (TTA)
 actinium extraction with, 28–29, 29f, 31–32
 protactinium extraction with, 184
 in spectrophotometric methods, 184
- Thermal ionization mass spectroscopy (TIMS)
 for dating with protactinium–231, 171, 231
 for uranium analysis, 637–638
- Thermal-neutron irradiation, thorium–232 after, 167, 169t
- Thermodynamic properties
 of protactinium, protactinium (V), 211, 211t
 of thorium, of thorium (IV), 118–119, 119t
 of uranium, 270, 597
 dioxouranium (V), 595
 fluoro complexes, 520
 hexafluoride, 561
 hydrides, 332–333, 332t
 metallic state, 321, 322t
 mixed halides, 499
 oxide and nitride bromides, 497
 oxides, 351–357, 352f, 360–364, 361f–363f
 tetrafluoride, 485–486
 uranium oxide difluoride, 565
- Thermoelectric generator
 actinium in, 19, 42–43
 plutonium in, 43
- Thermonuclear device
 history of, 9
 neutron production of, 9
- THF. *See* Tetrahydrofuran
- Thiobacillus ferrooxidans*, for uranium ore leaching, 306
- Thiocyanate, of uranium, 602, 603t
- THOREX. *See* Thorium extraction process
- Thorianite, thorium from, 55
- Thorian uraninite, thorium from, 55
- Thorite
 natural occurrence of, 275–276
 thorium from, 52, 55
- Thorium
 actinium separation from, 38
 atomic spectroscopy of, 59–60
 compounds of, 64–117
 acetates, 114
 acetylacetonates, 115
 arsenates, 113
 borates, 113
 borides, 66–70, 71t–73t, 74f
 carbides, 66–70, 71t–73t, 74f
 carbonates, 108–109
 carboxylates and related salts, 113–114
 chalcogenides, 75t, 95–97
 chromates, 112
 complex anions, 101–114, 102t–103t
 coordination, 114–115
 cyclopentadienyl anion in, 116
 formates, 114
 germanates, 113
 halides, 78–94

- Thorium (*Contd.*)
- hydrides, 64-66, 66t
 - hydroxides, 70, 75-77, 75t
 - molybdates, 111-112
 - nitrate, 106-108, 107f
 - organothorium, 116-117
 - other oxometallates, 113
 - oxalates, 114
 - oxides, 70, 75-77, 75t
 - perchlorates, 101, 102t-103t
 - peroxides, 70, 75-77, 75t
 - perrhenates, 113
 - phosphates, 109-110
 - pnictides, 97-101, 98t, 99f
 - selenides, 75t, 96-97
 - silicates, 113
 - silicides, 66-70, 71t-73t, 74f
 - sulfates, 101-106, 102t-103t, 104f
 - sulfides, 75t, 95-96
 - tantalates, 113
 - tellurides, 75t, 96-97
 - titanates, 113
 - tungstates, 113
 - vanadates, 110, 111f
 - d transition elements v., 2
 - history of, 3, 52-53, 254
 - isotopes of, 53-55, 54t-55t
 - mass spectrometric methods for, 231
 - metal of, 60-63
 - alloys of, 63
 - chemical reactivity, 63
 - magnetic susceptibility of, 61-63
 - physical properties of, 61, 62t
 - preparation of, 60-61
 - nuclear properties of, 53-55, 54t-55t
 - occurrence of, 55-56, 56t
 - ore processing and separation of, 56-59
 - from monazite, 56-58
 - problems with, 58
 - from uraninite or uranothorianite, 58
 - solution chemistry of, 117-134
 - analytical chemistry of, 133-134
 - complexation, 129-133, 130t
 - hydrolysis behavior, 119-120, 121t, 122f
 - redox properties, 117-118
 - solubility, 122-128, 124t, 125t, 127f
 - thorium (IV) structure, 118
 - thorium (IV) thermodynamics, 118-119, 119t
 - UO₂ solid solutions with
 - oxygen potentials of, 394, 395t
 - properties of, 390, 391t-392t
- Thorium-227
- from actinium-227, 20
 - synthesis of, 53
- Thorium-228
- purification of, gram quantities of, 32-33
 - synthesis of, 53, 54t
- Thorium-229
- actinium-225 from, 28
 - synthesis of, 53
- Thorium-230
- dating with protactinium-231, and, 170-171
 - extraction of, 175-176
 - synthesis of, 53
- Thorium-231
- protactinium-231 from, 164, 166f
 - separation of, 163
 - synthesis of, 53
- Thorium-232
- actinium-228 from, 24
 - for nuclear energy, 53
 - from ores, 53
 - protactinium-233 from, 187-188
 - after thermal-neutron irradiation, 167, 169t
 - uranium-232 from, 256
 - uranium-233 separation from, 256
- Thorium-234
- with protactinium-234, 186-187
 - synthesis of, 53
- Thorium (IV)
- coordination numbers, analysis of, 586-588
 - structure of, 118
 - thermodynamics of, 118-119, 119t
- Thorium dioxide
- as catalyst, 76
 - double salt of, 77
 - production of, 75-76
 - properties of, 70, 75
- Thorium extraction process (THOREX), 115
- Thorium hydroxide, 76
- Thorium peroxide, 76-77
- Thorium series (4n), 23f
- actinium-228 in, 20, 23f
 - thorium-228 in, 53-55, 54t-55t
- Thorium tetrabromide
- polynary, 93-94, 94f-95f
 - properties of, 78t, 81f, 82
 - synthesis of, 81-82
- Thorium tetrachloride
- polynary, 93
 - properties of, 78t, 80-81, 81f
 - synthesis of, 80
- Thorium tetrafluoride
- phases of, 84-86, 85f, 86t
 - polynary, 92-93, 92f
 - properties of, 78t, 79-80, 79f
 - synthesis of, 78-79
- Thorium tetraiodide
- polynary, 94
 - properties of, 78t, 83-84, 83f
 - structure of, 83f, 84
 - synthesis of, 82-83
- Thornasite, structural data for, 113

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Thorocene
 preparation of, 116
 properties of, 116
 TIMS. *See* Thermal ionization mass spectroscopy
- Tin
 protactinium separation from, 179
 with thorium sulfates, 105
 uranium compounds with, 407
- Titanates
 of thorium, 113
 of uranium, uranium (IV), 277–280
- Titanite, thorium in, 56t
- Titanium, protactinium separation from, 179
- TnOA. *See* Tri-*n*-octylamine
- TOA. *See* Trioctylamine
- Torbernite
 at Oklo, Gabon, 271–272
 uranium in, 259t–269t
- Toxicity
 of protactinium, 188
 of transuranium elements, 12
- TPPO. *See* Triphenylphosphine oxide
- Tracer methods
 for actinide element study, 11
 with actinium–228, 24–25
 for uranium, 256
- Transactinide chemistry
 history of, 2
 one-atom-at-a-time, 3
- Transactinide elements, overview of, 2–3, 2f
- Transcurium element(s), production of, 9
- Transfermium element(s)
 isolation and characterization of, 9–10
 synthesis of, 12–13
- Transferrin, uranium (IV) bonding to, 631
- Transition metals
 in uranium intermetallic compounds, 325
 uranium oxides with, 383–389, 384t–387t
 crystal structures of, 388–389
 preparative methods of, 383, 388
 properties of, 384t–387t
- Transmission electron microscope (TEM)
 for actinide element detection, 11
 of Koongarra deposit, 273
- Transplutonium element(s)
 high-flux nuclear reactors for, production, 9
 isolation and characterization of, 9
- Transuranium element(s)
 list of, 5t–7t
 periodic table and, 10
 synthesis of, 4
 toxicity of, 12
- Tri-*n*-octylamine (TnOA), actinium extraction with, 30
- Tri-*n*-octylphosphine oxide (TOPO), protactinium extraction with, 175, 184
- Trioctylamine (TOA), protactinium extraction with, 185
- Trioctylphosphine oxide, actinium extraction with, 29–30
- Triphenylarsine oxide, protactinium extraction with, 184
- Triphenylphosphine oxide (TPPO), protactinium extraction with, 184
- Tri(*n*-butyl)phosphate (TBP)
 actinium extraction with, 29, 31–32
 thorium extraction with, 57
 thorium nitrate extraction with, 107
 for uranium refinement, 314–315, 315f
- TTA. *See* 2-Thenoyltrifluoroacetone
- Tuliokite, 109
- Tumor radiotherapy, actinium for, 43–44
- Tungstates
 of thorium, 113
 of uranium, 267t–268t, 301
- UKAEA. *See* United Kingdom Atomic Energy Authority
- Ulrichtite, uranophane structure in, 295
- Ultramicrochemical methods, for actinide element study, 11
- Umohoite
 iriginite transformation of, 299, 300f
 uranium molybdates in, 299
- UNiAlH₇, 338–339
- United Kingdom Atomic Energy Authority (UKAEA), protactinium from, 163–164, 173, 173t
- UO, preparative methods of, 339
- U₂O₅
 phase relations of, 354f, 355
 preparative methods of, 340–341
- UO₃
 crystal structure of, 350–351
 hydrates, preparative methods of, 342–343
 preparative methods of, 341–342, 341f
 reduction to U₃O₈, 369–370
- U₃O₇
 crystal structure of, 347–349
 phase relations of, 354f, 355
 preparative methods of, 340
- U₃O₈
 crystal structure of, 349–350, 349f
 electrical conductivity of, 368–369
 preparative methods of, 341
 UO₂ oxidation to, 369–370
 UO₃ reduction to, 369–370
- U₄O₉
 crystal structures of, 344, 345t–346t, 347, 348f
 phase relations of, 353–354, 354f
 preparative methods of, 340
- U₈O₁₉, phase relations of, 354f, 355

- Uraninite
 composition of, 274
 impurities in, 274–275
 at Koongarra deposit, 273
 at Oklo, Gabon, 271–272
 oxidation states in, 274–275
 at Peña Blanca, Chichuhua District,
 Mexico, 272–273
 thorium in, 58
 uranium in, 259t, 274–275
- Uranium, 253–639
 actinium separation from, 30
 allotropes of
 α -phase, 320–326, 328–339, 344
 β -phase, 321–323, 325–326, 328–339,
 344, 347
 γ -phase, 321–323, 347
 analytical chemistry of, 631–639
 chemical techniques for, 631–635
 nuclear techniques for, 635–636
 spectrometric techniques for, 636–639
 biochemistry of, 630–631
 chemical bonding of, 575–578
 U (III) and U (IV), 575–576
 UF₅ and UF₆ compounds, 576–577
 uranyl (V) and uranyl (VI) compounds,
 577–578, 577f
 compounds of, 328–575
 antimonides, 411–412
 arsenates, 265t–266t, 293–297
 arsenides, 411–412
 azide, 602, 603t
 bismuthides, 411–412
 borides, 398–399, 399f, 401t–402t
 bromides, 453–454, 494–497, 526–528
 calcites, 289–291
 carbides, 399–405, 401t–402t, 403f–404f
 carbonates, 261t–263t, 289–291
 chalcogenides, 412–420, 414t–417t
 chlorides, 446–448, 490–493, 522–526, 567
 dioxide dichloride, 567–570
 fluorides, 444–446, 484–489, 518–521,
 557–564
 germanium, 407
 halides, 420–575
 history of, 328
 hydrides, 328–339
 hydroxides, 259t
 iodides, 454–455, 497–499, 574
 lead, 407
 molybdates, 266t, 275, 299–301
 niobates, 277–280
 nitride bromides, 497, 500
 nitride chlorides, 500
 nitride fluorides, 489–490
 nitride iodides, 499–500
 orthosilicates, 261t, 275–276
 oxide bromides, 497, 527–528, 571–574
 oxide chlorides, 524–525
 oxide fluorides, 489–490, 564–567
 oxide halides, 456
 oxide iodides, 499
 oxides, 253–254, 259t, 339–398
 oxobromides, 528
 oxochlorides, 525–526
 oxychlorides, 494
 oxyhydroxides, 259t–260t, 287
 perchlorates, 494, 570–571
 peroxides, 259t, 288–289
 phosphates, 263t–265t, 275, 293–297
 phosphides, 411–412
 pnictides, 407–412, 408t–409t
 selenides, 414t–417t, 418–420, 420f
 selenites, 268t, 298–299
 silicates, 260t–261t, 276–277, 292–293
 silicides, 405–407, 406f
 sulfates, 291–292
 sulfides, 413, 413f, 414t–417t
 tantalates, 277–280
 tellurides, 414t–417t, 418–420, 420f
 tellurites, 268t, 298–299
 thiocyanate, 602, 603t
 tin, 407
 titanates, 277–280
 tungstates, 267t–268t, 301
 vanadates, 266t–267t, 297–298
 on zeolites, 301–302
 decay of, 21f
 d transition elements v., 2
 enrichment of, 557, 632
 extraction of, 175, 270–271, 632–633
 free atom and ion properties, 318
 history of, 3–4, 8, 253–255
 discovery of, 253–254
 fission of, 255
 properties of, 254–255
 uses of, 254
 isotopes of, 4, 8–10, 255–257, 256t,
 258t
 natural, 255–256, 256t, 258t
 nuclear properties of, 259t–269t
 synthetic, 256–257, 258t
 ligand substitution reactions, 606–624
 intramolecular mechanisms of,
 611t–612t, 617–618, 617f–619f
 isotopic exchange, 621–622
 mechanisms of, 608–610
 in non-aqueous system rates and
 mechanisms, 618–619, 620t
 organic and inorganic rates and
 mechanisms of, 611t–612t, 614–617
 overview of, 606–607
 oxygen exchange in uranyl (VI) and
 uranyl (V) complexes, 619–621
 rates and mechanisms of, 607–608, 609t,
 611t–612t

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- redox rate and mechanisms, 622–624, 623f
- water exchange in uranyl (VI) and uranium (IV) complexes, 611t–612t, 614
- water exchange rates and mechanisms, 610–614, 613f–614f
- metal of, 318–328
 - chemical properties of, 327–328, 327t
 - crystal structure of, 320–321, 321f
 - electrical properties, 324, 324f, 324t
 - general properties of, 321–323, 322t
 - hydrogen solubility in, 330f, 331–332
 - intermetallic compounds and alloys, 325–326, 325t
 - magnetic susceptibility, 323–324
 - physical properties of, 320–321, 321f
 - preparation of, 318–324, 320f
 - from uranium tetrachloride, 491
- natural occurrence of, 170, 255, 257–302
 - mineralogy, 257, 259t–269t, 270–273
 - oxidation states of, 257
 - phases of, 280–302
 - reduced phases, 274–280
 - sorption of, 257
- nuclear properties of, 255–257
 - of uranium isotopes, 259t–269t
- occurrence in nature of, 162
- ore processing and separation, 302–317
 - complexities of, 302–303
 - high-purity product refinement, 314–317, 315f–316f, 317t
 - methods of, 302
 - pre-concentration, 303–304
 - recovery from leach solutions, 309–317
 - roasting or calcination, 304
- organometallic chemistry of, 630–631
- oxidation states of, 257, 276–277, 328
- protactinium separation from, 180, 180f, 183
- solution chemistry of, 590–630
 - aqueous uranium complexes, 597–606
 - ligand substitution reaction mechanisms, 606–624
 - uranium aqua ions, 590–597
 - uranyl (VI) fluorescence properties and photochemistry, 624–630
- structure and coordination chemistry of, 579–590
 - compounds of organic ligands, 589–590, 591f
 - overview of, 579
 - uranium (III) compounds, 584–585, 585f
 - uranium (IV) compounds, 585–588, 586f–588f
 - uranyl (V) compounds, 588–589
 - uranyl (VI) compounds, 580–584, 580f–584f
- Uranium–232
 - isolation of, 256
 - synthesis of, 256
- Uranium–233
 - extraction of, 176
 - nuclear energy with, 255
 - as probe for isotopic exchange study, 621
 - production of, 256–257
 - protactinium–233 in, 161, 167–169
 - from thorium–232, 53
- Uranium–234
 - occurrence in nature, 255, 256t, 257
 - separation of, 257
- Uranium–235
 - dating with protactinium–231, and, 170–171
 - discovery of, 255
 - nuclear energy with, 255
 - occurrence in nature, 26–27, 255–256, 256t
- Uranium–238
 - nuclear energy with, 255
 - occurrence in nature, 255, 256t
- Uranium–239, discovery of, 255
- Uranium (III)
 - aqua ion of, 593, 594t
 - biochemistry of, 630
 - bromides of
 - bromo complexes, 454
 - uranium tribromide, 453
 - uranium tribromide hexahydrate, 453–454
 - chlorides of
 - anhydrous chloro complexes, 450–452
 - uranium trichloride, 446–448
 - uranium trichloride complexes with neutral donor ligands, 452
 - uranium trichloride hydrates and hydrated chloro complexes, 448–450
 - compounds of, 575–576
 - structures and coordination geometry of, 584–585, 585f
 - fluorides of, 421–456
 - uranium trifluoride, 444–445
 - uranium trifluoride monohydrate and fluoro complexes, 445–446
 - halides of, 421–456
 - absorption spectra of, 442, 443f
 - complexes with, 601
 - electronic configuration of, 422
 - history of, 421–422
 - magnetic properties of, 443–444
 - oscillator strengths, 442–443
 - properties of, 422, 423t–441t
 - stability of, 422
 - synthesis of, 422
 - iodides of
 - complexes with neutral donor ligands, 455
 - uranium triiodide, 454–455

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Uranium (III) (*Contd.*)
 organometallic chemistry of, 630
 oxide halides of, 456
 preparation of, 456
 structure of, 456
- Uranium (IV)
 aqua ion of, 593–595, 594t
 biochemistry of, 630
 bromides of, 494–497
 oxide and nitride, 497, 500
 ternary and polynary compounds, 495–497
 uranium tetrabromide, 494–495
 chlorides of, 490–493
 complex chlorides, 492–493
 nitride, 500
 oxychloride and oxochloro complexes, 494
 uranium tetrachloride, 490–492
 compounds of, 575–576
 molybdates of, 275
 niobates, 277–280
 orthosilicates of, 275–276
 oxides, 372t–378t, 380–382
 phosphates of, 275
 silicates of, 276–277
 structure and coordination geometry of, 585–588, 586f–588f
 tantalates, 277–280
 titanates, 277–280
 coordination numbers
 analysis of, 586–588
 curium (IV) v., 585–586
 DNA footprinting with, 630–631
 fluorides of, 484–490
 complex fluorides, 487–489
 oxide and nitride, 489–490
 uranium tetrafluoride, 484–486
 uranium tetrafluoride hydrates, 486–487
 halides of
 absorption spectra of, 482–483, 483f
 band structure of, 483
 complexes with, 601
 crystal-field strength of, 482–483
 history of, 456
 magnetic properties of, 483
 mixed, 499–500
 nitrogen-containing, 500
 physical properties of, 456, 457t–481t
 stability of, 456
 structure of, 456, 482
 hydrolysis of, 585–586
 iodides of, 497–499
 iodo complexes, 498–499
 oxide and nitride, 499–500
 uranium tetraiodide, 497–498
 in living organisms, 631
 organometallic chemistry of, 630
 phases of, 280–302
 bonding, 280–281
 water exchange in complexes of, 611t–612t, 614
 in wyartite, 290
- Uranium (V)
 bromides of, 526–528
 oxides, 527–528
 ternary and polynary, 526–527
 ternary and polynary oxide and oxobromo, 528
 uranium pentabromide, 526
 chlorides of, 522–526
 complex chloride compounds, 523–524
 oxide, 524–525
 oxochloride, 525–526
 uranium pentachloride, 522–523
 compounds of, oxides, 372t–378t, 380–382
 fluorides of, 518–521
 complex fluoro compounds, 520–521
 oxide fluorides and complexes, 521
 uranium pentafluoride, 518–520
 halides of, 501–529
 absorption spectra, 501
 bonding in, 576–577
 complexes with, 601
 physical properties of, 501, 502t–517t
 stability of, 501
 in pyrochlore and zirconolite, 279
 in wyartite, 290
- Uranium (VI)
 bacterial reduction of, 297
 bromides of, 571–574
 uranium oxobromo complexes, 572–574
 uranyl bromide, 571–572
 uranyl hydroxide bromide and bromide hydrates, 572
 chlorides, 567
 oxochloro complexes, 570
 perchlorates and related compounds, 570–571
 uranium dioxide dichloride, 567–569
 uranium hexachloride, 567
 uranyl chloride hydrates and hydroxide chlorides, 569–570
 compounds of, oxides, 371–380, 372t–378t
 fluorides of, 557–564
 complex fluorides, 563–564
 hexavalent oxide fluoride complexes, 566–567
 uranium hexafluoride, 557–563
 uranium oxide difluoride, 565–566
 uranium oxide tetrafluoride, 564–565
 halides of, 529–575
 absorption spectra of, 529, 557
 applications of, 529
 bonding in, 576–577
 complexes with, 601
 ground state of, 557
 mixed halogeno-complexes, 574–575

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- iodides of, 574
 - phosphates of, 297
 - sulfuric acid dissolution of, 305
 - Uranium-actinium series ($4n + 3$), 21f, 166f
 - actinium–227 in, 20, 21f
 - protactinium–231 in, 164–166, 166f
 - thorium–227 from, 53
 - thorium–231 from, 53
 - uranium–235 in, 256
 - Uranium aqua ions, 590–597
 - applications of, 593
 - dioxouranium (V), 594t, 595
 - dioxouranium (VI), 594t, 596, 596f
 - oxidation states of, 590
 - oxygen atoms in, 592–593
 - redox behavior of, 590–591, 592f, 594t
 - tetrapositive uranium, 593–595
 - tripositive uranium, 593
 - Uranium azide, 602, 603t
 - Uranium (IV) borohydride, 337
 - Uranium bromides, 453–454
 - bromo complexes, 454
 - oxide and nitride, 497, 500
 - physical properties of, 497, 500
 - preparation of, 497, 500
 - ternary and polynary, 528
 - ternary and polynary compounds, 495–497, 526–527
 - bonding in, 496–497
 - oxide and oxobromo compounds, 528
 - physical properties of, 496, 526–527
 - preparation of, 495–496, 526
 - uranium dioxide monobromide, 527–528
 - preparation of, 527
 - properties of, 527–528
 - uranium oxide tribromide, 527
 - uranium oxobromo complexes, 572–574
 - physical properties of, 573
 - preparation of, 572
 - reactions of, 573–574
 - uranium pentabromide, 526
 - uranium tetrabromide, 494–495
 - absorption spectra of, 495
 - physical properties of, 495
 - preparation of, 494–495
 - uranium tribromide, 453
 - preparation of, 453
 - properties of, 453
 - uranium tribromide hexahydrate, 453–454
 - uranyl bromide, 571–572
 - physical properties of, 571–572
 - preparation of, 571
 - uranyl hydroxide bromide and bromide hydrates, 572
 - Uranium chlorides
 - anhydrous complexes, 450–452
 - physical properties of, 451
 - preparation of, 450–451
 - sodium in, 451–452
 - structure of, 451
 - complexes, 492–493, 523–524
 - isolation of, 523
 - ligands of, 492–493
 - magnetic properties of, 493
 - oxochloro, 494, 570
 - oxychloride, 494
 - physical properties of, 492–493, 524
 - preparation of, 492–493, 523–524
 - nitride, 500
 - oxide, 524–525
 - absorption spectra of, 526
 - preparation of, 525–526
 - oxochloride, 525–526
 - absorption spectra of, 526
 - preparation of, 525–526
 - perchlorates and related compounds, 570–571
 - physical properties of, 571
 - preparation of, 570–571
 - uranium dioxide dichloride, 567–569
 - hydrates, 569–570
 - hydroxide chlorides, 569–570
 - physical properties of, 568–569
 - preparation of, 567–568
 - reactions of, 568–569
 - uranium hexachloride, 567
 - properties of, 567
 - synthesis of, 567
 - uranium pentachloride, 522–523
 - preparation of, 522
 - properties of, 522–523
 - uranium perchlorates, 494
 - uranium tetrachloride, 490–492
 - application of, 490–491
 - magnetic properties of, 491–492
 - physical properties of, 490–491
 - preparation of, 490
 - uranium trichloride, 446–448, 447f
 - absorption spectra of, 447
 - magnetic properties of, 448
 - with neutral donor ligands, 452
 - physical properties of, 446–447
 - preparation of, 446
 - structure of, 447, 447f
 - uranium trichloride hydrates, 448–450
 - absorption spectra of, 449–450
 - structure of, 448–449
 - synthesis of, 448–450
- Uranium complexes, aqueous, 597–606
 - donor-acceptor interactions of, 597
 - hydrolytic behavior of, 597–600, 599t
 - inorganic ligand complexes, 601–602, 601t
 - organic ligand complexes, 603–605, 604t
 - structure of, 597
 - ternary uranium complexes, 605–606

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Uranium complexes, aqueous (*Contd.*)
 uranium (III), uranium (IV), uranyl (V), and uranyl (VI) complexes, 598, 601t, 604t
 between uranyl (V) and other cations, 606
- Uranium deposits
 classification of, 270–273
 groups of, 270
 locations of, 271
 at Koongarra deposit, 273
 at Oklo, Gabon, 271–272
 at Pena Blanca, Chichuhua District, Mexico, 272–273
 at Shinkolobwe deposit, 273
- Uranium dioxide
 complex formation with, 606
 crystal structures of, 344, 345t–346t
 diffusion of, 367–368
 dissolution in hydrogen peroxide, 371
 heat capacity of, 357–359, 359f
 oxidation to U_3O_8 , 369–370
 phase relations of, 351–353, 352f
 preparative methods of, 339–340
 solid solutions with, 389–398
 lattice parameter change, 390, 391t–392t
 magnetic properties, 389–390
 in oxidizing atmospheres, 394
 oxygen potentials, 394–398, 395t
 preparation of, 389–390
 in reducing atmospheres, 392, 393t
 regions of, 390–394
 vaporization of, 364–367, 366f
- Uranium dioxide dichloride, 567–569
 physical properties of, 568–569
 preparation of, 567–568
 reactions of, 568–569
- Uranium dioxide monobromide, 527–528
 preparation of, 527
 properties of, 527–528
- Uranium fluorides
 fluoro complexes, 445–446, 487–489, 520–521, 520t, 563–564, 564t
 applications of, 563
 disproportionation of, 520–521
 melting behavior of, 487, 488t
 phase diagram of, 487, 489f
 physical properties of, 487–488, 521
 preparation of, 446, 487, 520, 520t, 563–564
 hexavalent oxide fluoride complexes, 566–567
 physical properties of, 566–567
 preparation of, 566
 oxides and nitrides of, 489–490
 pentavalent oxide fluorides and complexes, 521
 absorption spectra of, 521
 preparation of, 521
 polynuclear, 579
 uranium hexafluoride, 557–563
 application of, 557, 561–562
 phase diagram of, 563, 563f
 physical properties of, 560–561
 preparation of, 557–560, 558f, 560f
 uranium oxide difluoride, 565–566
 physical properties of, 565
 preparation of, 565
 uranium hexafluoride conversion of, 565–566
 uranium oxide tetrafluoride, 564–565
 physical properties of, 565
 preparation of, 564–565
 uranium pentafluoride, 518–520
 characterization of, 519–520
 preparation of, 518
 properties of, 518–519, 519f
 reduction of, 518
 uranium tetrafluoride, 484–486
 applications of, 484
 physical properties of, 485–486
 preparation of, 484–485
 uranium hexafluoride preparation from, 485
 uranium tetrafluoride hydrates, 486–487
 physical properties of, 486–487
 preparation of, 486
 uranium trifluoride, 444–445
 physical properties of, 445
 preparation of, 444–445
 structure of, 445
 uranium trifluoride monohydrate, 445–446
 preparation of, 445
- Uranium halides, 420–575
 applications of, 420
 chemistry of, 421
 hexavalent and complex, 529–575
 absorption spectra of, 529, 557
 applications of, 529
 ground state of, 557
 mixed halgeno-complexes, 574–575
 oxide bromides and oxobromo complexes, 571–574
 properties of, 529, 530t–556t
 uranium compounds with iodine, 574
 uranium dioxide dichloride and related compounds, 567–570
 uranium hexachloride, 567
 uranium hexafluoride and complex fluorides, 557–564
 uranium oxide fluorides and complex oxide fluorides, 564–567
 uranium oxochloro complexes, 570
 uranium perchlorates and compounds, 570–571
 intermediate, 528–529
 characterization of, 529
 equilibrium of, 528

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- preparation of, 528–529
- oxidation states in, 420–421
- pentavalent and complex, 501–529
 - absorption spectra of, 501
 - physical properties of, 501, 502t–517t
 - stability of, 501
 - ternary and polynary oxide bromides and oxobromo compounds, 528
 - uranium oxide bromides, 527–528
 - uranium oxide chlorides, 524–525
 - uranium oxochloride, 525–526
 - uranium pentabromide and complex bromides, 526–527
 - uranium pentachloride and complex chlorides, 522–524
 - uranium pentafluoride and complex fluorides, 518–521
- tervalent and complex, 421–456
 - absorption spectra of, 442, 443f
 - anhydrous uranium chloro complexes, 450–452
 - electronic configuration of, 422
 - history of, 421–422
 - magnetic properties of, 443–444
 - oscillator strengths, 442–443
 - oxide halides, 456
 - properties of, 422, 423t–441t
 - stability of, 422
 - synthesis of, 422
 - uranium tribromide and bromo complexes, 453–454
 - uranium trichloride and chloro complexes, 446–452
 - uranium trichloride hydrates and hydrated chloro complexes, 448–450
 - uranium trifluoride and fluoro complexes, 444–445
 - uranium trifluoride monohydrate and fluoro complexes, 445–446
 - uranium triiodide and iodo complexes, 454–455
- tetravalent and complex, 456–500
 - absorption spectra of, 482–483, 483f
 - band structure of, 483
 - crystal-field strength of, 482–483
 - history of, 456
 - magnetic properties of, 483
 - mixed halides and halogeno compounds, 499–500
 - nitrogen-containing, 500
 - physical properties of, 456, 457t–481t
 - stability of, 456
 - structure of, 456, 482
 - uranium oxide dibromide and nitride bromides, 497
 - uranium oxide diiodide and nitride iodide, 499
 - uranium oxide fluorides and nitride fluorides, 489–490
 - uranium oxychloride oxochloro complexes, 494
 - uranium perchlorates, 494
 - uranium tetrabromide and complex bromides, 494–497
 - uranium tetrachloride and complex chlorides, 490–493
 - uranium tetrafluoride and fluoro complexes, 484–489
 - uranium tetraiodide and complex iodides, 497–499
- Uranium hexachloride, 567
 - properties of, 567, 568f
 - synthesis of, 567
- Uranium hexafluoride, 557–563
 - application of, 557, 561–562
 - compounds of, 576–577
 - distillation of, 315–317, 316f, 317t
 - phase diagram of, 563, 563f
 - physical properties of, 560–561
 - preparation of, 557–560, 558f, 560f
 - uranium oxide difluoride conversion to, 565–566
 - uranium tetrafluoride preparation of, 485
- Uranium iodides, 454–455, 497–500, 574
 - complexes, 498–499
 - with neutral donor ligands, 455
 - preparation of, 498
 - properties of, 498–499
 - oxide and nitride, 499–500
 - uranium tetraiodide, 497–498
 - physical properties of, 498, 498f
 - preparation of, 497–498
 - uranium triiodide, 454–455
 - physical properties of, 455
 - preparation of, 454–455
- Uranium ores
 - actinium from, 27
 - protactinium from, 172–178
- Uranium oxide difluoride, 565–566
 - physical properties of, 565
 - preparation of, 565
 - uranium hexafluoride conversion of, 565–566
- Uranium oxides
 - alkali and alkaline-earth metals, 371–383
 - non-stoichiometry, 382–383
 - uranates (VI), 371–380
 - uranates (V) and (IV), 381–382
 - binary, 339–371
 - chemical properties of, 369–371, 370t
 - crystal structures of, 343–351, 345t–346t
 - diffusion, 367–368
 - electrical conductivity, 368–369
 - electrical conductivity of, 368–369
 - oxygen potential, 360–364, 361f–363f

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Uranium oxides (*Contd.*)
 phase relations of, 351–357, 352f
 physical properties of, 345t–346t
 preparative methods of, 339–343, 341f
 reactions of, 370, 370t
 single crystal preparation, 343
 thermodynamic properties, 360–364, 361f–363f
 UO₂ heat capacity, 357–359, 359f
 UO₂ vaporization, 364–367, 366f
 transition metals, 383–389, 384t–387t
 crystal structures of, 388–389
 preparative methods of, 383, 388
 properties of, 384t–387t
 UO₂ solid solutions, 371–383
 lattice parameter change, 390, 391t–392t
 magnetic properties, 389–390
 in oxidizing atmospheres, 394
 oxygen potentials, 394–398, 395t
 preparation of, 389–390
 regions of, 390–394
- Uranium oxide tetrafluoride, 564–565
 physical properties of, 565
 preparation of, 564–565
- Uranium oxide tribromide, 527
- Uranium pentabromide, 526
- Uranium pentachloride, 522–523
 preparation of, 522
 properties of, 522–523
- Uranium pentafluoride, 518–520
 characterization of, 519–520
 compounds of, 576–577
 preparation of, 518
 properties of, 518–519, 519f
 reduction of, 518
- Uranium perchlorate, 570–571
 physical properties of, 571
 preparation of, 570–571
- Uranium tetrabromide, 494–495
 absorption spectra of, 495
 physical properties of, 495
 preparation of, 494–495
- Uranium tetrachloride, 490–492
 application of, 490–491
 magnetic properties of, 491–492
 physical properties of, 490–491
 preparation of, 490
 reduction of, 319
- Uranium tetrafluoride, 484–486
 applications of, 484
 coordination chemistry of, 600
 hydrates, 486–487
 physical properties of, 486–487
 preparation of, 486
 physical properties of, 485–486
 preparation of, 484–485
 reduction of, 319
 uranium hexafluoride preparation from, 485
- Uranium tetraiodide, 497–498
 physical properties of, 498, 498f
 preparation of, 497–498
- Uranium thiocyanate, 602, 603t
- Uranium tribromide, 453–454
 hexahydrate, 453–454
 physical properties of, 453–454
 preparation of, 453
 physical properties of, 453
 preparation of, 453
- Uranium trichloride, 446–448
 absorption spectra of, 447
 hydrates and hydrated complexes, 448–450
 absorption spectra of, 449–450
 structure of, 448–449
 synthesis of, 448–450
 magnetic properties of, 448
 with neutral donor ligands, 452
 physical properties of, 446–447
 preparation of, 446
 structure of, 447, 447f
- Uranium trifluoride
 monohydrate, 445–446
 preparation of, 445
 physical properties of, 445
 preparation of, 444–445
 structure of, 445
- Uranophane
 anion topology of, 284f–285f, 286
 natural occurrence of, 292
 at Peña Blanca, Chichuhua District, Mexico, 272–273
 at Shinkolobwe deposit, 273
 uranium in, 259t–269t
- Uranophane structures, of uranium phosphates and arsenates, 295
- Uranopilite
 at Oklo, Gabon, 271–272
 uranium in, 259t–269t
- Uranospathite, refinement of, 295
- Uranothorianite, thorium from, 55, 58
- Uranotungstite, uranyl tungstates in, 301
- Uranyl (V)
 bonding of, 577–578
 structure and coordination chemistry of, 588–589
- Uranyl (VI)
 bonding of, 577–578, 577f
 fluorescence properties and photochemistry of, 624–630
 fluorescence v. phosphorescence, 627
 of ion, 629–630
 quenching mechanisms, 629
 structure and coordination chemistry of, 580–584, 580f–584f
 water exchange in complexes of, 611t–612t, 614

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Uranyl bromide, 571–572
 physical properties of, 571–572
 preparation of, 571
Uranyl hydroxide bromide, 572
Uranyl polyhedra
 bonding in, 280–281
 geometries of, 281–282, 284f–286f
- Vanadate(s)
 of thorium, 110, 111f
 phosphates v., 110
 structure of, 110, 111f
 of uranium, 266t–267t, 297–298
 in uranium ion exchange extraction, 311
Vanadium, uranium ore removal of, 304
Vandriesscheite
 anion topology of, 283, 284f–285f
 at Shinkolobwe deposit, 273
 uranium in, 259t–269t
Vaporization, of UO_2 , 364–367, 366f
Vapor pressure
 of protactinium, 192, 193t
 halides, 200
 of UO_2 , 365–366, 366f
Voltammetry, for thorium, 133
Volumetric techniques, for uranium, 633–634
Vyacheslavite, uranium in, 259t–269t, 275
- Weeksite, structure of, 292–293
Wölsendorfite
 anion topology of, 284f–285f, 286
 from clarkeite, 288
Wyartite, structure of, 290
- XANES. *See* X-ray absorption near-edge structure spectroscopy
XAS. *See* X-ray absorption spectroscopy
Xenotime, thorium in, 56t
XPS. *See* X-ray photoelectron spectroscopy
X-ray absorption near-edge structure spectroscopy (XANES), for uranium (V) study, 279
X-ray absorption spectroscopy (XAS)
 for actinide element study, 14
 for protactinium, 226–227
 for thorium ligand study, 131
X-ray atomic energy levels, of protactinium, 190, 190t
X-ray crystallography
 for actinide element detection, 11
 of protactinium, chloro and bromo complexes, 204, 205t
 of thorium
 borides, carbides, and silicides, 69, 71t–73t
 chalcogenides, 70, 75t
 complex anions, 101, 102t–103t
 halides, 78, 78t, 87t–89t
 hydrides, 65, 66t
 pnictides, 97–99, 98t
 of uranium
 intermetallic compounds and alloys, 325
 trichloride hydrates, 448–450
 trichloride hydrates hydrates, 450
X-ray detection, protactinium for, 188
X-ray diffraction (XRD)
 for coordination geometry study, 602–603
 of thorium hydrides, 64
 of thorium perchlorate, 101
X-ray fluorescence (XRF), of uranium, 636–637
X-ray photoelectron spectroscopy (XPS), of uraninite, 274
XRD. *See* X-ray diffraction
XRF. *See* X-ray fluorescence
- ‘Yellow cake,’ refinement of, 314–317, 315f–316f, 317t
- Zeolites, uranium compounds on, 301–302
Zippeite, uranium sulfates in, 291–292
Zircon, thorium in, 56t
Zirconium
 protactinium purification from, 178–186
 ion exchange, 180–181, 180f
 precipitation and crystallization, 178–179
 solvent extraction and extraction chromatography, 181–186, 183f
 UO_2 solid solutions with oxygen potentials, 394, 395t
 properties of, 390, 391t–392t
Zirconolite
 geochemical studies of, 278
 natural occurrence of, 277–278
 properties of, 278
 uranium (V) in, 279
Zone melting, for uranium metal preparation, 319

AUTHOR INDEX

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440.

Page numbers suffixed by t and f refer to Tables and Figures respectively.

- Aas, W., 589, 606, 608, 611, 612, 614, 617, 618
Aba, A., 180
Abaouz, A., 88, 91
Abazli, H., 511
Abdel Gawad, A. S., 176, 182, 184, 185
Abdel-Rahman, A., 181
Abdul-Hadi, A., 180
Abdullin, F. Sh., 14
Abe, M., 188, 226
Abelson, P. H., 4, 5
Aberg, M., 545, 570, 596, 598, 600
Abney, K. D., 97, 117, 398, 475, 495
Aboukais, A., 76
Abou-Kais, A., 76
Abraham, B. M., 329, 332, 333
Abraham, F., 298, 301
Abraham, J., 115
Abram, U., 597
Abramov, A. A., 37
Abrao, A., 410
Abriata, J. P., 355, 356
Ache, H. J., 227
Acker, F., 67, 71
Ackerman, D., 14
Ackermann, R. J., 60, 61, 63, 70, 75, 321, 322, 351, 352, 353, 355, 356, 362, 364, 365
Adachi, H., 99, 576, 577
Adachi, T., 355, 383
Adams, D. M., 93
Adams, F., 169, 170, 171
Adams, J. L., 185, 186
Adams, R. E., 406
Addison, C. C., 370, 378
Adi, M. B., 115
Adloff, J. P., 20, 25, 31
Adolphson, D. G., 83
Agakhanov, A. A., 261
Agarwal, H., 115
Agarwal, P., 407
Agarwal, R. K., 115
Agron, P. A., 528
Agruss, M. S., 163, 173, 174, 175
Ahilan, K., 407
Ahmad, I., 26, 167, 168
Ahmad, M. F., 114
Ahrland, S., 209
Aissi, C. F., 76
Aitken, E. A., 387, 393, 395, 396
Akber, R. A., 42
Akella, J., 61
Akhachinskij, V. V., 67, 68, 69, 74, 100, 325, 326, 398, 400, 401, 402, 405, 406, 407
Akin, G. A., 490
Aksel'rud, L. G., 69, 72
Aksenova, N. M., 30
Alami Talbi, M., 102, 110
Alario-Franco, M. A., 113
Albering, J. H., 70, 73, 100
Alberman, K. B., 377, 393
Albinsson, Y., 119, 120, 121, 122, 123, 124, 129, 130
Albrecht-Schmitt, T. E., 253, 298, 299, 412, 555
Albridge, R. G., 164
Alcock, C. B., 402, 421
Alcock, K., 342, 357, 358
Alcock, N. W., 108, 542, 549, 571, 583, 588
Al-Daher, A. G. M., 115
Aleksiev, V. A., 179
Aléonard, K. B., 281
Alexander, C. A., 364, 365, 393
Alexander, I. C., 98
Alexer, I. C., 98
Alhassanieh, O., 180
Alibegoff, G., 431
Aling, P., 355
Al-Jowder, O., 545
Al-Kazzaz, A. M. S., 206, 207
Al-Kazzaz, Z. M. S., 82
Allain, M., 92
Allard, B. I., 132
Allard, G., 67
Allegre, C. J., 231
Allemspach, P., 428, 436, 440, 444, 451
Allen, A. L., 484
Allen, G. C., 340, 344, 350, 375, 376, 504
Allen, J. W., 100
Allen, O. W., 314
Allen, P. B., 63
Allen, P. G., 118, 270, 277, 287, 289, 301, 579, 585, 589, 602
Allen, S., 593

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Allison, M., 29
 Alloy, H. P., 226
 Allpress, J. G., 373, 374, 375, 376, 380, 549, 550, 555
 Almond, P. M., 298, 299, 412
 Alonso, C. T., 6
 Alonso, J. R., 6
 Aly, H. F., 181, 184
 Amberger, H.-D., 505
 Amekraz, B., 120
 Amelinckx, S., 343
 American Society for Testing Materials, 634
 Amme, M., 289
 Ammentorp-Schmidt, F., 207
 Amonenko, V. M., 364
 Amrhein, C., 270
 Ananeva, L. A., 458
 Anderko, K., 325, 405, 408, 409
 Anders, E., 636
 Andersen, R. A., 116, 452
 Anderson, A., 580, 582
 Anderson, H. J., 343
 Anderson, J. S., 83, 344, 373, 374, 375, 377, 382, 383, 390, 393, 549, 550, 555
 Anderson, M. R., 107
 Anderson, R. W., 484
 Andersson, J. E., 223
 Andre, G., 402, 407
 Andreetti, G. D., 103, 110
 Andreev, A. M., 164
 Andreev, A. V., 334, 335, 339
 Andres, H. P., 428, 440
 Andresen, A. F., 66, 351
 Andrews, H. C., 30, 32
 Andrews, L., 405, 576
 Andreyev, A. N., 6, 14
 Andrieux, L., 398
 Andruchow, W. J., 115
 Angel, A., 225
 Angelucci, O., 76
 Anonymous, 163
 Anousis, I., 302
 Ansara, I., 67, 68, 69, 74, 100, 325, 326, 398, 400, 401, 402, 405, 406, 407
 Ansell, H. G., 103, 113
 Ansermet, S., 260, 285, 288
 Anson, C. E., 545
 Antalic, S., 14
 Anthony, A. M., 353, 360
 Antill, J. E., 319
 Antonio, M. R., 291, 584
 Antonoff, G. N., 163
 Aoki, D., 412
 Aoyagi, N., 625
 Apostolidis, C., 28, 43, 44, 102, 108, 223
 Appleman, D. E., 259, 266, 282
 Apraksin, I. A., 108
 Arai, Y., 396
 Arajs, S., 322
 Aramburu, I., 78, 82
 Arapaki, H., 222, 225
 Arapaki-Strapelias, H., 185, 209, 215, 222
 Arblaster, J. W., 34, 35
 Arbman, E., 164
 Arden, I. W., 225
 Ardisson, C., 170
 Ardisson, G., 170
 Ardois, C., 289
 Arendt, J., 560
 Arita, K., 78
 Arko, A. J., 412
 Armbruster, P., 6, 14, 164
 Armbruster, T., 260, 285, 288
 Arnold, G. P., 67, 69, 71, 98
 Arnold, Z., 334, 335
 Arnoux, M., 24, 31
 Aronson, S., 97, 100, 353, 360, 368, 369, 390, 394, 397
 Arora, K., 115
 Arsalane, S., 102, 110
 Artna-Cohen, A., 166
 Arutyunyan, E. G., 102, 105
 Asami, N., 366
 Asano, H., 407
 Asano, M., 68
 Aslan, A. N., 69, 72
 Asprey, L. B., 79, 191, 193, 201, 202, 203, 222, 457, 463, 502, 506, 507, 519, 520, 529, 530, 536
 Astheimer, L., 220
 Atencio, D., 260, 264, 293
 Atherton, N. J., 190, 226
 Atoji, M., 537
 Atwood, J. L., 116
 Au, C. T., 76
 Auerman, L. N., 221
 Augoustinik, A. I., 195
 Aukrust, E., 360
 Aupiais, J., 134
 Aurov, N. A., 431, 437, 450, 451, 454
 Auskern, A. B., 97
 Auzel, F., 483, 486, 491
 Avdeef, A., 116
 Avens, L. R., 439, 454, 455
 Avignant, D., 85, 86, 87, 88, 90, 91, 457, 458, 468
 Avogadro, A., 373
 Axe, J. D., 203
 Aymonino, P. J., 110
 Ayoub, E. J., 184
 Aziz, A., 41
 Babelot, J. F., 366, 367
 Bach, M. E., 268
 Bachelet, M., 179

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Bacher, W., 421, 423, 424, 425, 441, 446, 447, 457, 458, 460, 461, 462, 463, 464, 465, 466, 467, 469, 481, 484, 485, 486, 487, 489, 501, 502, 505, 506, 507, 517, 518, 520, 528, 530, 533, 534, 535, 536, 537, 538, 556, 557, 560, 561, 562, 563, 566
- Backe, H., 33
- Bacmann, J. J., 367
- Bacmann, M., 386
- Bacon, W. E., 101
- Badaev, Yu. V., 112
- Bader, S. D., 323, 324
- Baenziger, N. C., 70, 339, 399, 407
- Baer, Y., 421
- Baernighausen, H., 509
- Baes, C. F., 119, 120, 121
- Baes, C. F., Jr., 119, 120, 121, 123, 124, 313, 598, 599
- Baetslé, L. H., 20, 30, 31, 32, 33, 35, 42, 43
- Baglan, N., 109, 126, 128, 129
- Bagnall, K. W., 19, 81, 82, 94, 108, 115, 116, 179, 188, 201, 203, 204, 205, 206, 207, 208, 213, 215, 216, 221, 222, 224, 421, 473, 487, 494, 497, 498, 499, 510, 522, 524, 543, 565
- Baïchi, M., 351, 352, 365
- Baidron, M., 195
- Bailey, D. M., 78, 82
- Bailey, S. M., 34
- Baird, C. P., 626, 629
- Bajt, S., 270
- Bakac, A., 595, 619, 620, 630
- Bakakin, V. V., 458
- Bakel, A. J., 279
- Baker, F. B., 606
- Baker, R. D., 319
- Bakker, E., 298
- Balakayeva, T. A., 108, 109, 110
- Balcazar Pinal, J. L., 93
- Baldwin, N. L., 67
- Ballentine, C. J., 639
- Ballhausen, C. J., 376, 377, 378, 382, 501, 513, 526, 528
- Ballou, N. E., 180, 187
- Balzani, V., 629
- Ban, Z., 69, 70, 73
- Bandoli, G., 548
- Banik, G., 70
- Banks, C. V., 111
- Banks, R. H., 208
- Bannister, M. J., 352, 353, 357, 358
- Bansal, B. M., 191, 193
- Bányai, I., 596, 608, 609, 612, 613, 614
- Baptiste, Ph. J., 396
- Barackic, L., 87, 92
- Baraduc, L., 459
- Barak, J., 335
- Baran, E. J., 110
- Barandiaran, Z., 442
- Baranov, A. A., 164, 166
- Barash, Y. B., 335
- Barber, R. C., 13
- Barbieri, G. A., 112
- Bard, A. J., 371
- Bardeen, J., 62
- Bardin, N., 608, 609
- Barendregt, F., 164, 186
- Barinova, A. V., 268, 298
- Barkatt, A., 39
- Barker, M. G., 98
- Barlow, S., 593
- Barnard, R., 439, 445, 449, 452, 455, 585, 593
- Barnes, E., 319
- Barnett, G. A., 224
- Barnett, M. K., 224, 225
- Barracough, C. G., 373, 383
- Barre, M., 104, 105
- Barrett, C. S., 320
- Barry, J. A., 197
- Bartashevich, M. I., 334, 335, 339
- Barthe, M. F., 289
- Barthelet, K., 126
- Bartlett, N., 542
- Barton, C. J., 459
- Bartos, B., 32
- Bartram, S., 65
- Bartram, S. F., 376, 378, 387, 389, 393, 395
- Bartscher, W., 65, 66, 334, 335, 396
- Baskerville, C., 76, 80, 105
- Baskin, Y., 76, 99, 113, 412
- Basnakova, G., 297
- Basov, D. N., 100
- Bastein, P., 542
- Bastin, G., 164
- Bastin-Scoffier, G., 26
- Bates, J. K., 270, 272, 273, 274, 275, 292
- Bates, J. L., 352, 369
- Bathmann, U., 231
- Batley, G. E., 521
- Battles, J. E., 373
- Baud, G., 377
- Bauer, A. A., 325, 408, 410
- Bauer, E. D., 100
- Baugh, D. W., 493, 494
- Baumgärtner, F., 117, 208, 382
- Baybarz, R. D., 34, 35, 38, 118, 191
- Bayliss, P., 278
- Bayovlu, A. S., 367
- Bazan, C., 412
- Beals, R. J., 303, 391, 393, 395
- Bean, A. C., 555
- Bearden, J. A., 60, 190
- Beaudry, B. J., 412
- Bechara, R., 76
- Beck, H. P., 75, 78, 84, 89, 93, 94, 96, 413, 414, 415, 479

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Beck, K. M., 291
Beck, M. T., 590, 605
Beck, O. F., 206, 208
Becker, E. W., 557
Beckmann, W., 20
Becquerel, 3
Becquerel, H., 254
Bednarczyk, E., 343
Beetham, C., 162
Begg, B. D., 279, 280
Behesti, A., 115, 116
Beintema, C. D., 370
Belbeoch, B., 347, 353
Belford, R. L., 629
Bell, J. T., 380, 619
Bellamy, R. G., 303
Belle, J., 339, 340, 360, 367, 370
Belomestnykh, V. I., 566
Belova, L. N., 259
Belyakova, Z. V., 108
Belyatskii, A. F., 31
Ben Salem, A., 96, 415
Bénard, P., 103, 109, 110
Benard-Rocherulle, P., 472, 477
Bendall, P. J., 470, 471
Benedict, U., 100, 192, 409, 421
Benedict, V., 194
Benesovsky, F., 69, 72
Benetollo, F., 548
Benjamin, B. M., 116
Benjamin, T. M., 231
Benner, G., 78, 79
Benny, J. A., 186, 199
Benson, D. A., 366
Benz, R., 69, 71, 97, 98, 99, 100, 465, 466
Ber, N. H., 42, 43
Bereznikova, I. A., 372, 373, 374, 375, 376, 393
Berg, J. M., 270, 301
Berger, M., 423, 445
Bergman, A. G., 80, 86, 87, 90, 91
Bergsma, J., 66
Berlepsch, P., 260, 285, 288
Berlincourt, T. G., 324
Berman, R. M., 390, 391
Bernard, L., 81
Bernardinelli, R. J., 257
Berndt, U., 384, 389, 391, 393, 395, 423, 445
Bernhard, D., 626
Bernhardt, H. A., 521
Bernstein, E. R., 337
Berreth, J. R., 167, 169, 188, 195, 230
Berry, J. A., 485, 518, 520
Bertaut, F., 67, 71, 113
Berthet, J.-C., 576, 582, 583
Berthold, H. J., 407, 410, 435, 452
Bertino, J. P., 319
Bertrand, J., 265
Bertsch, P. M., 270
Berzelius, J. J., 52, 60, 61, 63, 79, 95, 108
Berznikova, N. A., 373, 375, 376
Besmann, T. M., 361
Besse, J. P., 377
Besson, J., 331
Beuthe, H., 226
Bevan, D. J. M., 345, 347, 354
Bevz, A. S., 545, 546
Beyerlein, R. A., 64, 66
Bhandari, A. M., 206, 208
Bharadwaj, P. K., 540, 566
Bhatki, K. S., 25, 31
Biel, T. J., 329
Biennewies, M., 492
Bigot, S., 131
Bilewicz, A., 32
Billard, I., 596, 627, 628, 629
Billinge, S. J. L., 97
Biltz, W., 63, 100, 413
Binnewies, M., 93
Biradar, N. S., 115
Birch, D. S. J., 629
Birch, W. D., 295
Birks, F. T., 226
Bittel, J. T., 368
Bittner, H., 66
Bjerrum, J., 597
Björnholm, S., 24, 31, 164, 170, 187
Black, L., 97
Blackburn, P. E., 353, 354, 355, 360, 373
Bladeau, J.-P., 577, 627
Blain, G., 109, 128, 129
Blaise, A., 207, 409, 412, 416
Blaise, J., 59
Blake, C. A., 312, 313
Blake, P. C., 116
Blakey, R. C., 377, 393
Blank, H., 347, 353
Blanke, B. C., 20
Blasse, G., 377
Blaton, N., 267, 268, 541
Blatov, V. A., 536
Blokhlma, V. K., 571
Blum, P., 67, 71, 398
Blum, P. L., 351, 352, 353, 402
Blumenthal, B., 319
Blumenthal, R. N., 396
Blunck, H., 98
Boatner, L. A., 113
Bober, M., 366
Bochmann, M., 162
Bock, E., 106
Bock, R., 106
Bodak, O. I., 69, 72
Bode, J. E., 254
Boden, R., 133
Boehme, D. R., 417, 418
Boeme, C., 596

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Boerio, J., 372
 Boeuf, A., 65, 66, 334, 335
 Boeyens, J. C. A., 551
 Bogacz, A., 469, 475
 Bogatskii, A. V., 108
 Bogdanovic, B., 116
 Boggs, J. E., 77
 Bogomolov, S. L., 14
 Bogranov, D. D., 164
 Bohet, J., 34, 35, 191, 193
 Bohrer, R., 477, 496, 515, 554
 Bohres, E. W., 114, 206, 208, 470
 Bois, C., 547
 Boivineau, J. C., 347, 353
 Bok, L. D. C., 115
 Bokelund, H., 405
 Bokolo, K., 618
 Bole, A., 86, 91
 Boll, R. A., 31
 Bollhofer, A., 231
 Bologna, J. P., 227
 Boltwood, B. B., 162
 Bombieri, G., 548, 554
 Bommer, H., 491
 Bonazzi, P., 261, 301
 Bones, R. J., 353, 360, 362, 364
 Bonnelle, C., 227
 Bonnelle, J. P., 76
 Bonnet, M., 215, 409, 412
 Bonthron, K. M., 297
 Booth, A. H., 186
 Booth, C. H., 277
 Booth, E., 225
 Boraopkova, M. N., 424
 Borhardt, P., 42, 43
 Bordallo, H. N., 338, 339
 Borène, J., 266
 Borg, J., 164
 Borggreen, J., 164, 170
 Borisov, S. K., 458, 487
 Borisov, S. V., 458, 487
 Borlera, M. L., 102, 109
 Born, H.-J., 164
 Boroujerdi, A., 394, 395
 Borsese, A., 100
 Borzone, G., 100
 Botbol, J., 187
 Bott, S. G., 439, 454, 455
 Böttcher, F., 89, 94, 95
 Botto, I. L., 110
 Boucher, E., 92
 Bouexiere, D., 97
 Bougon, R., 334, 503, 507, 533, 535, 536, 537, 561, 566, 567
 Bouissières, G., 37, 38, 162, 164, 167, 176, 178, 179, 184, 187, 191, 195, 200, 201, 207, 209, 210, 211, 215, 216, 218, 220, 221, 222, 225, 227, 229, 230
 Boukhalfa, H., 421
 Boulet, P., 97, 402, 407
 Bourcier, W. L., 292
 Bourdon, B., 231
 Bouree, F., 402, 407
 Bourion, F., 80, 81
 Bourion, R., 80
 Boutique, J.-P., 420, 423, 425, 435, 437, 457, 470, 473, 474, 478, 502, 509, 514, 515, 516, 538, 544, 551
 Bowen, R. B., 620
 Bower, K., 225
 Bowman, A. L., 67, 71, 98
 Bowman, M. G., 30, 34, 35
 Boyd, C. M., 634
 Brabers, M. J., 32, 33, 113
 Bradbury, M. H., 192
 Bradley, C. R., 275
 Bradley, D. C., 115
 Bradley, D. G., 93
 Bradley, J. P., 275
 Bradley, M. J., 404
 Braithwaite, D., 407
 Brandau, B. L., 224
 Brandel, V., 103, 109, 110, 128, 275, 472, 477
 Brandstätter, F., 266, 281
 Branica, M., 584, 601
 Brannon, J. C., 291
 Branstätter, F., 268
 Brater, D. C., 485, 559
 Bratsch, S. G., 38, 118
 Brauer, G., 69, 72, 474, 513, 537
 Braun, E., 62
 Braun, R., 377
 Braun, T. P., 89, 95
 Brcic, B. S., 506, 508
 Brébion, S., 133
 Brechbiel, M. W., 43, 44
 Bredig, M. A., 357
 Breeze, E. W., 415, 416, 417
 Breitung, W., 368
 Brendel, C., 94
 Brendel, W., 94
 Brendt, U., 445
 Brenner, I. B., 638
 Brese, N. E., 98
 Bressat, R., 114
 Brett, N. H., 415, 416, 417
 Brewer, L., 33, 67, 95, 96, 413
 Briand, J.-P., 164
 Bricker, C. E., 634
 Bridges, N. J., 421
 Bridgman, P. W., 61
 Briggs, G. G., 61, 78
 Briggs, R. B., 487
 Briggs-Piccoli, P. M., 97
 Brillard, L., 181, 211
 Brintzinger, H., 61

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Brisi, C., 373, 375, 377, 393
 Brisianes, G., 405
 Brit, D. W., 343
 Britton, H. T. S., 112
 Brixner, L., 376, 377, 378
 Brochu, R., 102, 110, 374, 377, 378, 380, 382, 393, 414
 Brodsky, M. B., 101, 324
 Broli, M., 353, 355, 360, 362, 396, 397
 Bromley, L. A., 95, 96, 413
 Brookins, D. G., 271
 Brooks, M. S., 191
 Brooks, M. S. S., 207
 Bros, J. P., 469, 475
 Brown, A., 69, 72
 Brown, C. F., 287
 Brown, D., 78, 81, 82, 86, 93, 94, 115, 162, 164, 166, 178, 179, 182, 183, 184, 186, 191, 194, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 213, 215, 216, 220, 221, 222, 224, 227, 379, 421, 423, 425, 435, 436, 439, 440, 441, 446, 451, 453, 455, 466, 469, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 484, 485, 487, 490, 491, 492, 494, 495, 496, 497, 498, 499, 500, 501, 502, 504, 505, 507, 509, 510, 512, 513, 514, 515, 516, 518, 520, 522, 523, 524, 525, 526, 527, 528, 533, 534, 535, 543, 544, 547, 552, 553, 554, 555, 556, 557, 566, 567, 569, 570, 571, 572, 573, 574, 575
 Brown, D. R., 578
 Brown, E. D., 76, 109
 Brown, G. E., 270, 276, 277, 286
 Brown, G. H., 101
 Brown, G. M., 521
 Brown, H. C., 337
 Brown, K. B., 312, 313
 Brown, N. R., 270, 297
 Brown, P. L., 119, 120, 121, 123, 124, 126
 Browne, C. I., 5, 227
 Browne, E., 20
 Browning, P., 357, 367
 Brozell, S. R., 577, 627
 Bruchle, W., 182, 185, 186
 Brück, E., 62
 Brueck, E., 70, 73
 Brugger, J., 260, 267, 285, 288, 292
 Brumme, G. D., 366
 Brun, C., 452
 Brun, T. O., 64, 66
 Brunn, H., 77
 Bruno, J., 117, 121, 124, 125, 127, 128, 130, 131, 293
 Brunton, G. D., 84, 86, 87, 88, 89, 90, 91, 92, 424, 458, 459, 460, 461, 462, 463, 464, 465, 487
 Brusentsev, F. A., 539, 542
 Brüser, W., 116
 Brusset, H., 539, 541
 Bryan, G. H., 466
 Bryner, J. S., 101
 Brynestad, J., 396
 Bryukher, E., 31
 Bublitz, D., 133
 Bublyaev, R. A., 546
 Buchardt, O., 630
 Bucher, E., 96
 Bucher, J. J., 118, 277, 287, 289, 579, 585, 589, 602
 Buchholtz ten Brink, M., 275
 Buchkremer-Hermanns, H., 89, 94
 Buck, E. C., 253, 270, 271, 273, 274, 275, 279, 280, 289, 291, 292, 297
 Budnikov, P. P., 395
 Bugl, J., 410
 Buhner, C. F., 412
 Buijs, K., 34, 35, 191, 194
 Bukhsh, M. N., 213, 217, 229
 Bukhtiyarova, T. N., 129
 Buklanov, G. V., 14
 Bullock, J. I., 439, 445, 449, 452, 455, 544, 585, 593
 Bulman, J. B., 63
 Bundschuh, T., 120, 125, 126
 Bunker, M. E., 227
 Bunnell, L. R., 404
 Bunney, L. R., 180, 187
 Burdese, A., 102, 109
 Burghard, H. P. G., 208
 Burgus, W. H., 166, 167, 169, 188, 195, 230
 Burk, W., 497
 Burlando, G. A., 393
 Burlet, P., 409, 412
 Burnett, J. L., 33, 38, 118
 Burns, C. J., 421
 Burns, J. H., 116, 462, 488, 502
 Burns, P. C., 103, 113, 257, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 270, 271, 272, 280, 281, 282, 283, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 299, 300, 301, 580, 582, 583, 584
 Burns, W. G., 39
 Burr, A. F., 60, 190
 Burrel, A. K., 605
 Burris, J. L., 97
 Burrows, H. D., 130, 131, 627, 629
 Bursten, B. E., 203, 405, 575
 Buryak, E. M., 335
 Burzo, E., 67
 Busch, G., 412
 Busch, J., 113
 Buschow, K. H. J., 65, 66, 69, 70, 71, 72, 73
 Bushuev, N. N., 112
 Butterfield, D., 35
 Buxton, S. R., 619

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Buyers, W. J. L., 399
 Buykx, W. J., 353
 Bykhovskii, D. N., 176
 Bykov, V. N., 364, 402
- Cabell, M. J., 27, 30, 31
 Cabrini, A., 123
 Cacheris, W. P., 132
 Caciuffo, R., 65, 66, 334, 335
 Cagarda, P., 14
 Cahill, C. L., 259, 262, 282, 289, 290
 Cai, J. X., 76
 Caignol, E., 468
 Caillat, R., 329, 421, 487, 557
 Caillé, A., 444
 Caillet, P., 544
 Cairra, M. R., 472, 477, 512
 Calas, G., 270, 276, 277
 Calestani, G., 103, 110, 204, 207
 Caletka, R., 176
 Caley, E. R., 253
 Calvert, S. E., 225
 Calvin, M., 115
 Camarcat, M., 191
 Campana, C. F., 555
 Campbell, D. O., 215
 Campbell, T. J., 259, 260, 262, 263, 266, 267, 269
 Caneiro, A., 355, 356
 Canneri, G., 109
 Cannon, J. F., 67
 Cantle, J., 638
 Cantrell, K. J., 287
 Capocchi, J. D. T., 61
 Carassiti, V., 629
 Carbajo, J. J., 357
 Carlier, R., 220, 221
 Carlson, E. H., 492
 Carlson, O. N., 61
 Carlson, R. S., 332
 Carlson, T. A., 33
 Carlton, T. S., 86, 91
 Carnall, W. T., 350, 373, 380, 382, 421, 422, 425, 482, 483, 486, 501, 502, 503, 504, 505, 509, 521, 529, 549, 561
 Carr, E. M., 398
 Carrere, J. P., 219
 Carsell, O. J., 186
 Carswell, D. J., 187
 Carter, F. L., 66
 Carter, M. L., 279, 280, 291
 Carter, R. E., 368
 Carvalho, F. M. S., 260, 293
 Casas, I., 121, 124
 Casellato, U., 115
 Casey, A. T., 215, 218, 219, 227
 Casto, C. C., 632
- Catalano, J. G., 113, 286
 Catlow, C. R. A., 367, 368, 369
 Caton, R. H., 64, 66
 Cauchois, Y., 190, 227
 Caulder, D. L., 277
 Cavendish, J. H., 61, 78
 Caville, C., 545
 Cavin, O. B., 67
 Cazaussus, A., 208, 209
 Cejka, J., 264, 281, 289
 Cercignani, C., 366, 367
 Cesbron, F., 262, 266, 268, 272, 292
 Chackraburty, D. M., 371
 Chaigneau, M., 83
 Chaiko, D. J., 292
 Chakhmouradian, A. R., 113
 Chakoumakos, B. C., 278
 Chakravortii, M. C., 540, 566, 588
 Chakravorty, V., 182
 Chamberlain, D. B., 279
 Chamberlin, R. M., 117
 Champagnon, B., 277
 Champarnaud-Mesjard, J.-C., 281, 468
 Chandler, J. M., 80
 Chandrasekharaiah, M. S., 352, 355, 356, 365, 369
 Chang, A. T., 355, 356, 364
 Chang, H.-P., 176, 188
 Chao, G. Y., 103, 113
 Chapman, A. T., 343
 Chappell, L. L., 43
 Charistos, D., 302
 Charnock, J. M., 588, 589, 595
 Charpin, P., 102, 106, 345, 380, 468, 469, 503, 505, 533, 534, 535, 561
 Charvillat, J. P., 204, 377
 Chasanov, M. G., 356, 357, 366, 378
 Chassigneux, B., 109
 Chatalet, J., 421, 520, 529
 Chatt, J., 93
 Chattillon, C., 340, 351, 352, 353, 354, 355, 356, 363, 365
 Chauvenet, E., 61, 76, 78, 79, 80, 81, 82, 93, 108
 Chavastelon, R., 105, 106
 Chayawattanangkur, K., 25
 Cheda, J. A. R., 106
 Cheetham, A. K., 377, 383
 Chen, B., 108
 Chen, F., 270
 Chen, J. H., 638
 Chen, T., 189
 Chen Yingqiang, 231
 Chen, Z., 266
 Cheng, H., 171, 231
 Cheng, L., 291
 Chepigin, V. I., 164
 Cherer, U. W., 182

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Chernenkov, Yu. P., 546
 Chernorukov, N. G., 113
 Cherns, D., 123, 126
 Chernyayev, I. I., 109, 566, 585, 593
 Chervet, J., 303
 Chetham-Strode, A., Jr., 181
 Chevalier, B., 70, 73
 Chevalier, P.-Y., 351, 352
 Chevalier, R., 79, 86, 87, 90, 92, 459
 Chevallier, J., 331
 Chevallier, P., 164
 Chevrier, G., 102, 106
 Cheynet, B., 351, 352
 Chiappini, R., 133
 Chiarizia, R., 633
 Chieh, C., 580, 582
 Chien, S., 420
 Chikalla, T. D., 404
 Chilton, D. R., 342, 357, 358
 Chilton, J. M., 213, 256
 Chiotti, P., 63, 67, 68, 69, 70, 74, 78, 80, 81, 82, 97, 100, 325, 326, 332, 398, 399, 400, 401, 402, 405, 406, 407, 408, 409
 Chirkst, D. E., 424, 428, 429, 430, 431, 436, 437, 440, 450, 451, 454, 473, 475, 476, 495, 510, 511
 Chisholm-Brause, C. J., 270, 301
 Choca, M., 471, 512, 513
 Chodos, S. L., 476
 Choi, I.-K., 380
 Choi, K.-S., 97
 Chopin, T., 109
 Choppin, G. R., 5, 131, 132, 405
 Chourou, S., 541, 542
 Christ, C. L., 583
 Christensen, J. N., 639
 Chukanov, N. V., 268, 298
 Chuney, M., 602
 Churney, K. L., 34
 Chydenius, J. J., 60, 75, 76, 79, 80, 109
 Cinader, G., 336
 Clark, A. H., 280
 Clark, D. L., 289, 439, 454, 455, 580, 595, 602, 620, 621
 Clark, G. L., 115
 Clark, G. W., 343
 Clark, H. M., 186
 Clark, J. P., 116
 Clark, J. R., 583
 Clark, R. J., 83, 84
 Clarke, R. W., 19
 Claudel, B., 114
 Clausen, K. N., 357, 389, 399
 Clayton, J. C., 390, 394, 397
 Cleaves, H. E., 352
 Clegg, J. W., 303, 307, 308, 309, 311
 Clemente, D. A., 548
 Clève, P. T., 76, 77, 101, 105, 108, 109, 110
 Cleveland, J. M., 466
 Clifton, C. L., 371
 Clifton, J. R., 469, 491
 Cline, D., 80
 Clinton, J., 66
 Clinton, S. D., 256
 Clinton, S. O., 256
 Cloke, F. G. N., 117
 Coble, R. L., 343, 369
 Cockcroft, J. K., 89, 94
 Coddling, J. W., 167, 169, 188, 195, 230
 Cody, J. A., 97, 420
 Coffou, E., 102, 103, 110
 Cohen, D., 483
 Cohen, I., 390, 391
 Cohen, J. B., 344
 Cohen, N., 133
 Colani, A., 104
 Colella, M., 113, 271, 280, 291
 Coleman, C. F., 312, 313
 Coleman, J. S., 465, 466
 Coles, S. J., 117
 Colin-Blumenfeld, M., 129
 Collins, D. A., 164, 173, 177, 180, 227
 Collins, M., 526
 Collison, D., 588, 589, 595
 Collongues, R., 113
 Colson, L., 34, 35, 191
 Colvin, R. V., 322
 Compton, V., 319
 Conant, J. W., 333
 Condon, J. B., 332
 Condorelli, G., 116
 Conradi, E., 477, 496, 515, 554
 Conradson, S. D., 127, 128, 130, 131, 270, 580, 595, 620, 621
 Constantinescu, O., 181, 211
 Contamin, P., 367, 368
 Conte, P., 219
 Conway, J. G., 442, 457
 Cooper, L. N., 62
 Cooper, M. A., 259, 262, 268, 287, 289, 290, 298
 Cooper, W. C., 280
 Corbel, C., 289
 Corbett, J. D., 83, 84
 Cordfunke, E. H. P., 255, 339, 341, 350, 355, 356, 357, 358, 372, 373, 374, 375, 376, 378, 383, 514, 525, 543, 551, 552, 569
 Cordier, S., 435, 471
 Corey, A. S., 294
 Corington, A., 366
 Coriou, H., 329
 Corliss, C. H., 59, 60
 Corsini, A., 115
 Cort, B., 333, 457, 486
 Costa, N. L., 164, 166
 Costes, R. M., 535

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Cotiguola, J. M., 63
 Cotton, F. A., 162, 470
 Coudurier, G., 76
 Coughlin, J. U., 270
 Courbion, G., 92
 Cousseins, J. C., 85, 86, 87, 88, 90, 91, 92, 457, 458, 459, 468
 Cousson, A., 79, 86, 87, 90, 92, 113, 459, 460, 511
 Coutures, J.-P., 77
 Cox, J. D., 62, 322
 Cox, L. E., 333, 334, 335
 Crabtree, G. W., 412
 Cramer, J. J., 274
 Crane, W. W. T., 164
 Cranshaw, T. E., 53
 Cranston, J. A., 20, 163, 201
 Crawford, M.-J., 588
 Crea, J., 620
 Cremers, T. L., 103, 112
 Cripps, F. H., 225, 226
 Cristallini, O., 186, 219
 Croft, W. L., 190
 Cromer, D. T., 457, 464, 465
 Cron, M. M., 352
 Crookes, W., 186
 Crosswhite, H. M., 421, 422, 501, 505, 509, 521
 Crough, E. C., 389, 391, 392, 396
 Crouse, D. J., 312
 Crouthamel, C. E., 169, 170, 171
 Croxton, E. C., 399, 400
 Cullity, B., 405
 Culp, F. B., 638
 Cuneo, D. R., 77, 487
 Cunnane, J. C., 292
 Cunningham, B. B., 5, 179, 191, 193, 194, 226
 Cunningham, G. C., 364, 365
 Cunningham, J. E., 406
 Curcio, M. J., 42, 43, 44
 Curie, M., 3, 19, 172, 254
 Curie, P., 3, 19, 162, 254
 Currat, R., 81
 Curtis, M. L., 172, 178, 224, 225
 Cuthbert, F. L., 55, 58
 Czaynik, A., 414
 Czerwinski, K. R., 182, 185

 Da Graca, M., 627
 Daane, A. H., 329, 332, 399, 412
 Dabeka, R. V., 84
 Dabos, S., 409
 D'Acapito, F., 389
 Dacheux, N., 103, 109, 110, 126, 128, 134, 275, 472, 477
 Dadachova, K., 43
 Dahlke, O., 100

 D'Alessandro, G., 123
 Dalla Cort, A., 597
 Dallinger, R. P., 372
 Dalmaso, J., 25
 Damien, A., 403
 Damien, D., 99, 204, 207
 Damiens, A., 68
 Damir, D., 336
 Dams, R., 169, 170, 171
 Danan, J., 67
 Danebrock, M. E., 66, 67, 71
 Danesi, P. R., 123
 Danielson, P. M., 365
 Danilin, A. S., 364, 365
 Danon, J., 33
 d'Ans, J., 109
 Dantus, M., 97
 Dao, N. Q., 477, 539, 541, 542, 547
 Daoudi, A., 402, 407, 414
 Darby, J. B., Jr., 90, 398
 Darnell, A. J., 70
 Dartyge, J. M., 208
 Das, D. K., 67
 Dash, K. C., 182
 Date, M., 100
 Dauben, C. H., 67
 Dauelsberg, H.-J., 44
 Dauvois, V., 352
 David, F., 34, 37, 38, 118, 119, 167, 221
 Davidovich, R. L., 541, 542
 Davidsohn, J., 82, 90, 93, 105, 109
 Davies, D., 164, 170
 Davies, W., 633, 634
 Davis, I. A., 43
 Davis, W., Jr., 563
 Davydov, A. V., 161, 167, 178, 181, 184, 185, 187, 188, 195, 207, 209, 218, 219, 229
 Dawihl, W., 109
 Dawson, H. M., 101, 104
 Dawson, J. K., 342, 357, 358, 425, 431, 458, 469, 474, 484, 485, 491, 495
 Day, D. E., 277
 Day, J. P., 496, 574
 Day, R. A., 279, 280
 Day, R. A., Jr., 115
 Day, V. W., 116, 117
 de Alleluia, I. B., 395
 de Almeida Santos, R. H., 90
 de Boer, E., 203
 de Boer, F. R., 70, 73
 de Boer, J. H., 61
 de Boisbaudran, L., 77
 de Bruyne, R., 113
 de Coninck, R., 368
 de Haas, W. J., 62
 De Jong, W. A., 578
 De Long, L. E., 338, 339

- de Maayer, P., 113
 De Novion, E. H., 204, 207
 De Paoli, G., 198, 452
 De Regge, P., 20, 27, 31, 38, 133
 De Trey, P., 63
 De Troyer, A., 30, 32, 33
 De Vries, T., 634
 de Wet, J. F., 472, 477, 512, 543
 de Wolff, P. W., 342
 Deal, K. A., 43
 Deal, R. A., 167, 169, 188, 195, 230
 Dean, G., 391
 Dean, J. A., 632, 633, 635, 636, 637
 Dean, O. C., 61, 80
 Deane, A. M., 494
 Debbabi, M., 389, 391, 393, 395
 Debets, P. C., 342, 346, 357, 358, 543, 545
 Debierne, A., 19, 20
 Decker, W. R., 62
 Declerq, J.-P., 264, 265, 267
 Deely, K. M., 267, 268, 270, 287, 291, 583
 Deferne, J., 265
 D'Ege, R., 198, 201
 Degiorgi, L., 100
 Deißberger, R., 60
 Dejonghe, P., 30, 32, 33
 Delaeter, J. R., 164
 Delamoye, P., 81, 95, 469, 482, 491
 Delapalme, A., 409, 412
 Delaplane, R., 475, 495
 Deleon, A., 314
 Delepine, M., 61, 63, 64, 80, 97
 Deliens, M., 259, 260, 261, 262, 263, 264, 265, 268, 283, 288, 293, 294
 Dell, R. M., 342, 357
 Della Ventura, G., 261, 301
 Delliehausen, C., 407
 Delong, L. E., 96
 Delpuech, J.-J., 618
 deLumley, M. A., 189
 Demartin, F., 261, 264
 Demers, P., 53
 Demildt, A., 20, 31, 38
 Demildt, A. C., 30, 32, 33
 deMiranda, C. F., 162, 166, 176, 181, 182, 184, 209, 213, 215, 217, 218, 220, 221, 222, 227, 229
 Dempf, D., 207
 Dempster, A. J., 20, 55, 163, 256
 Denayer, M., 368
 Denecke, M. A., 118, 133, 586, 589
 Denes, G., 468
 Denig, R., 164
 Denisov, A. F., 30
 Denning, R. G., 546, 578
 Dennis, L. M., 76
 deNovion, C. H., 99, 195, 391
 Dent, A. J., 301
 Depaus, R., 637
 dePinke, A. G., 164, 166
 Deportes, J., 65, 66
 Deren, P., 422, 435, 443
 Dergunov, E. P., 80, 86, 87, 90, 91
 Dervin, J., 109, 131
 Deryagin, A. V., 339
 Desai, V. P., 382
 Deschaux, M., 627, 629
 deSilviera, E. F., 164, 166
 Desmoulin, J. P., 533, 534, 535
 Desmoulin, R., 503
 Destriau, M., 332
 Desyatnik, V. N., 86, 93
 Detourminé, R. J., 402
 Deutsch, W. J., 287
 Devalette, M., 77
 Devreese, J., 368
 Deworm, J. P., 33
 D'Eye, R. W. M., 75, 80, 82, 83, 96, 424, 458, 484, 485
 Dhar, S. K., 407
 Dharwadkar, S. R., 355, 356, 369
 Dhers, J., 195, 196, 216
 D'Huysser, A., 76
 Di Bella, S., 576
 Di Paoli, G., 200, 201
 Di Salvo, F. J., 98
 Di Sipio, L., 546, 547, 553, 554
 Diamond, H., 5, 633
 Dianoux, A.-J., 423, 445, 503, 505, 506
 Dickens, M. H., 357
 Dickens, P. G., 385, 388
 Diego, F., 371
 Diehl, H., 111
 Diehl, H. G., 393, 395
 Diella, V., 264
 Dietrich, M., 64, 97
 Dietrich, T. B., 301
 Dietz, M. L., 633
 Dietz, N. L., 270, 297
 Diguisto, R., 620
 Dilley, N. R., 100
 Dinness, A. M., 77
 Dion, C., 298, 301
 Ditts, R. V., 634
 Dixon, S. N., 166, 178, 182, 183
 Djogic, R., 584, 601
 Dobry, A., 123
 Dock, C. H., 81
 Docrat, T. I., 588, 595
 Dod, R. L., 191, 193, 194, 201
 Dodé, M., 353, 354, 355, 356, 360, 362, 363
 Dodge, R. P., 201
 Does, A. V., 226
 Dohnalkova, A., 274
 Dolechek, R. L., 193
 Dolejssek, V., 226

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Dolg, M., 34
 Doni, A., 428, 436, 440, 444, 451
 Donohue, J., 321
 Donohue, R. J., 580, 595, 620, 621
 Donzelli, S., 264
 Dooley, G. J., 68
 Dordevic, S. V., 100
 Dorhout, P. K., 52, 97, 398
 Dornberger, E., 102, 108, 117, 423, 445, 448
 Douglas, R. M., 275, 465, 466, 474
 Downs, A. J., 530
 Drago, A. L., 53, 67
 Dretzke, A., 33
 Drew Tait, C., 291
 Drobot, D. V., 81
 Droissart, A., 30, 31, 32, 33, 35, 42, 43
 Dronkowski, R., 88, 94
 Drowart, J., 322, 364, 365
 Drozdova, V. M., 516
 Drozdzyński, J., 253, 421, 422, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 453, 454, 482, 483, 493
 Druijn, V. A., 164
 Drulis, H., 334, 335, 338, 339
 du Jassonneix, B., 66
 du Preez, J. G. H., 94, 202, 204, 439, 472, 477, 482, 492, 496, 498, 499, 510, 522, 524, 543, 574
 Dubeck, L. W., 63
 Dubeck, M., 116
 Dubinchuk, V. T., 268, 298
 Duboin, A., 75, 78, 94, 95
 Dubrovskaya, G. N., 96
 Duchamp, D. J., 462
 Duchi, G., 269
 Ducroux, R., 396
 Dudley, N. J., 369
 Dueber, R. E., 385, 388
 Duff, M. C., 270, 274
 Duffield, J. R., 131, 132
 Dufour, C., 192, 194
 Dugne, O., 340, 351, 352, 353, 354, 355, 356, 363
 Dumont, G., 30, 32
 Duplessis, J., 183, 184
 Dupuis, T., 76, 109, 114
 Durif, A., 113
 Durrett, D. G., 376, 377, 378, 382, 501, 513, 526, 528
 Dusausoy, Y., 602
 Düsing, W., 97
 Duval, C., 76, 109, 114
 Duyckaerts, G., 31, 116, 117
 Dvoryantseva, G. G., 105
 D'yachkova, R. A., 180, 184, 188, 209, 214, 218, 219, 224, 226
 Dyll, K. G., 578
 Dye, D. H., 412
 Dzhelepov, B. S., 26
 Dzimitrowicz, D. J., 123, 126
 Eakins, I. D., 28, 31
 Earnshaw, A., 162
 Easey, J. F., 81, 82, 194, 201, 202, 203, 204, 473, 494, 497
 Eastman, D. E., 64
 Eastman, E. D., 95, 96, 413, 452
 Eastman, M. P., 382, 506
 Eastman, P., 501, 503, 504, 520
 Ebbinghaus B., 113
 Ebbsjö, I., 63
 Eberhardt, K., 33, 60
 Ebert, W. L., 276, 292
 Ebihara, M., 636
 Eccles, H., 589
 Edelman, F. T., 575
 Edelman, M. A., 116
 Edelson, M. C., 637
 Edelstein, N. M., 1, 34, 37, 94, 116, 118, 162, 203, 204, 208, 209, 287, 289, 382, 422, 425, 428, 429, 430, 436, 440, 442, 447, 450, 451, 453, 466, 469, 472, 476, 479, 482, 491, 492, 496, 498, 499, 501, 512, 515, 524, 527, 579, 585, 589, 602
 Edghill, R., 273
 Edgington, D. N., 390
 Eding, H. J., 398
 Edmiston, M. J., 588, 595
 Edmonds, H. N., 231
 Edwards, J., 435
 Edwards, P. G., 116
 Edwards, R. K., 352, 353, 365
 Edwards, R. L., 171, 231, 638
 Effenberger, H., 266, 281
 Efremova, A., 111
 Efremova, K. M., 372, 373, 374, 375, 383
 Ehemann, M., 67
 Ehrfeld, U., 557
 Ehrfeld, W., 557
 Ehrmann, W., 114
 Eichberger, K., 501, 515, 527
 Eichelberger, J. F., 30, 32
 Eick, H. A., 421
 Einspahr, H., 321
 Ekberg, C., 119, 120, 121, 122, 123, 124
 Ekberg, S. A., 289, 595, 602
 Ekeröth, E., 371
 Ekstrom, A., 521, 615
 El Ghozzi, M., 87, 90
 El-Dessouky, M. M., 180
 Elfakir, A., 110
 El-Ghozzi, M., 88, 91
 Eliav, E., 33

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Eliseev, A. A., 114, 417
 Eliseev, S. S., 525
 Eliseeva, O. P., 188
 Ellens, A., 442
 Eller, P. G., 103, 112, 501, 502, 503, 504, 506, 519, 520, 528
 Ellern, A., 588
 Ellert, G. V., 416, 417, 575
 Ellinger, F. H., 329
 Elliot, R. P., 408, 409
 Ellis, J., 119, 120, 121, 123, 124, 126
 Ellis, Y. A., 170
 Ellison, A. J. G., 276
 Ellison, R. D., 488
 Elmlinger, A., 172, 178, 224, 225
 El-Reefy, S. A., 184
 Elson, R. E., 80, 162, 172, 175, 181, 201, 209, 219, 220, 509
 Elson, R. F., 191, 192, 193, 194, 195, 196, 198, 201, 206, 207, 229
 El-Sweify, F. H., 181
 El-Yacoubi, A., 102, 110
 El-Yamani, I. S., 186
 Emelyanov, A. M., 576
 Emel'yanov, N. M., 93
 Emiliani, C., 170
 Emmanuel-Zavizziano, H., 174, 191
 Engel, G., 113
 Engelhardt, J. J., 34
 Engerer, H., 389, 391, 393, 395
 Engkvist, I., 129, 130
 Engle, P. M., 28, 32
 Engles, M., 63
 English, A. C., 53
 Engmann, R., 342
 Ennaciri, A., 113
 Ensor, D. D., 502, 503, 519, 528
 Ephritikhine, M., 576, 582, 583
 Erann, B., 194
 Erbacher, O., 24, 25
 Erdman, B., 445
 Erdmann, B., 194
 Erdmann, N., 60
 Erdős, P., 421, 444, 448
 Erdtmann, G. L., 188
 Erfurth, H., 375, 376, 378, 382, 384, 385, 388, 389, 391, 392
 Ericsson, O., 190
 Eriksson, O., 63, 191
 Ernst, R. D., 116
 Erten, H. N., 131, 132
 Esch, U., 399
 Eskola, K., 6
 Eskola, P., 6
 Esmark, H. M. T., 52
 Espenson, J. H., 595, 606, 619, 620, 630
 Esperas, S., 108, 549, 571
 Essen, L. N., 129, 132
 Étard, A., 61, 63, 67, 68, 78, 80, 81, 82, 95
 Etourneau, J., 67, 70, 71, 73
 Etter, D. E., 487
 Ettmayer, P., 67, 70
 Etz, E. S., 634
 Evans, C. V., 231, 635
 Evans, D. S., 98
 Evans, H. T., 265, 266
 Evans, H. T., Jr., 583
 Evans, J. E., 166
 Evans, W. E., 34
 Evers, C. B. H., 66, 67, 71
 Evers, E. C., 485
 Evstaf'eva, O. N., 105
 Ewing, R. C., 55, 103, 113, 257, 259, 260, 262, 269, 270, 271, 272, 273, 274, 275, 277, 278, 280, 281, 283, 287, 288, 289, 290, 292, 293, 294, 298
 Eyal, Y., 278
 Eyring, H., 367
 Faber, J., Jr., 353, 357
 Faegri, J., 34
 Fagan, P. J., 116, 117
 Faile, S. P., 343
 Fairman, W. D., 184
 Fajans, 3
 Fajans, K., 162, 163, 170, 187, 254
 Falan, T., 265
 Falgueres, C., 189
 Falster, A. U., 269, 277
 Fang, K., 191
 Fanghänel, T., 120, 125, 126, 223, 421, 423, 425, 435, 439, 440, 441, 457, 458, 469, 473, 474, 477, 478, 480, 481, 497, 502, 503, 509, 513, 514, 515, 516, 517, 536, 538, 543, 544, 545, 551, 552, 556, 593, 594, 595, 596, 597, 598, 599, 601, 602, 603
 Farah, K., 176, 185
 Farges, F., 270, 276, 277
 Farkas, I., 596, 597, 608, 609, 612, 613, 614
 Farkes, I., 133
 Farnsworth, P. B., 67
 Farr, J. D., 30, 34, 35
 Fauble, L. G., 34
 Faucher, M. D., 482
 Faucherre, J., 109, 131
 Fauve-Chauvet, A., 43
 Fava, J., 77
 Fawcett, J., 536, 539
 Fazekas, Z., 626, 627
 Federico, A., 637
 Fedorov, P. I., 104
 Fedorov, P. P., 104

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Felmy, A. R., 125, 127, 128, 130, 131
Fender, B. E. F., 346, 351, 377, 383, 470, 471
Fendrick, C. M., 117
Feng, X., 292
Fenter, P., 291
Fenton, B. R., 273
Ferey, G., 87, 90
Ferguson, I. F., 344, 393
Fermi, 3, 4
Fernandes, L., 105
Ferraro, J. B., 471, 512, 513
Ferraro, J. R., 93, 106, 107
Ferri, D., 371, 596
Ferris, L. M., 404
Ferro, R., 53, 67, 98, 99, 100
Fertig, W. A., 62, 96
Fidelis, J., 188
Fiedler, K., 550, 570
Fields, M., 372, 373, 374
Fields, P. R., 5
Fietzke, J., 231
Fieuw, G., 33
Fife, J. L., 398
Figgins, P. E., 167, 172, 173, 175, 179, 215, 226, 257
Filippidis, A., 302
Fillmore, C. L., 377
Finch, C. B., 113
Finch, R. J., 257, 259, 260, 262, 270, 271, 272, 273, 277, 279, 281, 283, 287, 288, 289, 290, 292, 293, 294, 298, 299
Finch, W. I., 272, 297
Findley, J. R., 375
Fine, M. A., 319
Fink, J. K., 357, 359
Finn, P. A., 270, 273, 274
Finn, R. D., 44
Finnemore, D. K., 62
Finnie, K. S., 280, 291
Firestone, R. B., 24
Fischer, E., 351, 352
Fischer, E. A., 280, 291
Fischer, E. O., 116, 208, 630
Fischer, G., 231
Fischer, P., 69, 425, 428, 429, 436, 439, 440, 444, 447, 448, 451, 455, 479
Fischer, R. D., 207
Fischer, W., 80, 81, 82
Fisher, E. S., 323, 324
Fisher, R. W., 75, 107, 336
Fisk, Z., 406
Fitch, A. N., 470, 471
Fitzmaurice, J. C., 410, 412, 420
Fjellvag, H., 66
Flach, R., 63
Flagella, P. N., 357
Flahaut, J., 414
Flegenheimer, J., 186, 213, 217, 219, 229
Flerov, G. N., 6
Fletcher, H. G., 81
Fletcher, J. M., 213, 218
Fletcher, S., 436, 453
Flotow, H. E., 64, 65, 66, 328, 329, 331, 332, 333, 334, 372, 376, 378, 382
Flouquet, J., 407
Flynn, T. M., 264, 265, 266, 281, 294, 296
Foëx, M., 77
Fogg, P. G. T., 393
Folcher, G., 101
Folder, H., 164
Foley, D. D., 303, 307, 308, 309, 311
Folger, H., 6, 14, 164
Fontana, B. I., 452
Fonteneau, G., 425, 446, 468
Foord, E. E., 259, 262, 263, 264, 265, 266, 267, 268, 269, 275, 277
Foote, F., 321
Foreman, B. M., 29, 184
Førland, T., 360
Formosinho, S. J., 627
Foropoulos, J., 504, 505
Forrest, J. H., 187
Forrester, J. D., 78, 82, 83
Forsellini, E., 548, 554
Fortner, J. A., 279
Foster, K. W., 32, 34
Foster, L. S., 65
Foti, S., 180, 187
Fouché, K. F., 84
Fourest, B., 52, 109, 126, 128, 129
Fournier, J., 34, 65, 66, 207, 323, 334, 335, 347, 353, 357, 416
Fowler, R. D., 191, 193
Fowles, G. W. A., 94
Fragala, I., 116, 576
Frampton, O. D., 76
Francis, M., 193
Franck, J. C., 217, 218
Frank, A., 83
Frank, N., 231
Frank, R. K., 42, 43
Frantseva, K. E., 516
Fratiello, A., 118
Fray, D. J., 372, 373, 374
Frazer, M. J., 115
Fred, M., 33, 190, 226
Fredrickson, D. R., 357, 372, 378
Fredrickson, J. K., 274
Freeman, A. J., 60, 398
Freeman, R. D., 69, 72, 78
Freestone, N. P., 421, 441, 457, 484, 487, 507, 520, 521, 557, 563, 566
Frei, V., 616
Freinling, E. C., 225

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Freundlich, W., 103, 110, 111, 113
 Frick, B., 100
 Fricke, B., 213, 576
 Fried, S., 5, 35, 36, 163, 191, 192, 193, 194,
 195, 196, 198, 200, 201, 206, 207, 220,
 222, 227, 229
 Friedman, H. A., 423, 424, 444, 446, 459,
 461, 463
 Friedt, J. M., 192
 Friese, J. I., 607, 612
 Frit, B., 281, 467, 509
 Fritsche, S., 33
 Frlec, B., 506, 508
 Frolov, A. A., 606
 Fromage, F., 109, 131
 Fromager, E., 620, 622, 623
 Fronaeus, S., 209
 Frondel, C., 55, 264, 265
 Fruchart, D., 65, 66, 69, 71, 72
 Fryer, B. J., 584
 Fryxell, R. E., 352, 353, 376, 378
 Fuchs, L. H., 261, 276, 356, 586, 587
 Füchtenbusch, F., 410
 Fudge, A. J., 188, 225, 226
 Fuger, J., 1, 69, 73, 80, 81, 82, 116, 118, 119,
 121, 125, 128, 129, 379, 421, 423, 425,
 431, 435, 436, 437, 439, 440, 441, 451,
 457, 458, 469, 470, 471, 473, 474, 475,
 476, 477, 478, 480, 481, 486, 497, 502,
 503, 504, 505, 509, 510, 511, 513, 514,
 515, 516, 517, 536, 538, 539, 541, 543,
 544, 545, 546, 551, 552, 553, 556,
 593, 594, 595, 596, 597, 598, 599, 601,
 602, 603
 Fuhrman, N., 61
 Fuhse, O., 106
 Fuji, K., 382, 509, 524
 Fujikawa, N., 189
 Fujino, T., 253, 280, 355, 360, 361, 362, 364,
 368, 369, 373, 375, 377, 378, 380, 382,
 383, 387, 389, 390, 391, 392, 393, 395,
 396, 397, 398, 533, 534
 Fujioka, Y., 189
 Fujita, Y., 338
 Fujiwara, K., 120, 121
 Fukuda, K., 396, 397, 398
 Fukuhara, T., 407
 Fukusawa, T., 40
 Fukushima, S., 390, 391
 Fukutomi, H., 607, 608, 609, 616, 617, 618,
 620, 622
 Funahashi, S., 339
 Fuoss, R. M., 609
 Furman, F. J., 392, 396
 Furman, N. H., 634
 Furman, S. C., 377
 Furrer, A., 425, 428, 436, 439, 440, 444, 447,
 448, 451, 455
 Gabes, W., 544
 Gabuda, S. P., 458
 Gadd, K. F., 115, 493, 494
 Gaebell, H.-C., 450
 Gagarinskii, Yu. V., 458
 Gaggeler, H., 182, 185
 Gagliardi, L., 576, 589, 595, 596
 Gagnon, J. E., 584
 Gaines, R. V., 259, 262, 263, 264, 265, 266,
 267, 268, 269, 275
 Gajek, Z., 421, 422, 425, 426, 428, 432, 440,
 442, 443, 447, 449, 450, 453, 469
 Galateanu, I., 218, 219
 Gale, W. F., 322
 Galesic, N., 102, 103, 110
 Galkin, N. P., 303, 458
 Gallagher, C. J., 164
 Gallagher, F. X., 340, 342, 345, 346, 348, 355
 Galy, J., 268, 385
 Galzigna, L., 548
 Gambarotta, S., 117
 Gamp, E., 469, 482, 492
 Gan, Z., 164
 Ganchoff, J. G., 184
 Gaudreau, B., 537, 566, 567
 Ganguly, J., 116
 Gans, W., 100
 Gansow, O. A., 44
 Gantz, D. E., 67, 77
 Gantzel, P., 67
 Gao, L., 76, 77
 Gao, Y., 92
 Garcia, D., 482
 Garcia, E., 398
 Gardner, C. J., 530
 Gardner, M., 319
 Garg, S. P., 352
 Garmestani, K., 44
 Garnier, J. E., 396
 Garrett, A. B., 399, 400
 Garrido, F., 289, 340, 345, 348
 Gasche, T., 191
 Gaskill, E. A., 316, 317
 Gasparinetti, B., 105
 Gasperin, M., 87, 92, 113, 460
 Gateau, C., 598
 Gatehouse, B. M., 269
 Gatti, R. C., 5
 Gaudreau, B., 468, 537, 566, 567
 Gault, R. A., 262, 289, 290
 Gaumet, V., 88, 91
 Gaune-Escard, M., 469, 475
 Gautier-Soyer, M., 277
 Gavrilov, K. A., 6
 Geary, W. J., 636
 Gebauer, A., 605
 Gebert, E., 261, 276, 372, 373, 586, 587
 Geerlings, M. W., Jr., 44

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Geerlings, M. W., Sr., 28, 44
Geibert, W., 44
Geichman, J. R., 505, 506, 535
Geigert, W., 231
Geipel, G., 108, 626
Geise, J., 170
Geiss, J., 170
Gelbrich, T., 259, 287
Gellatly, B. J., 439, 445, 449, 452, 455, 472, 477, 482, 512, 543, 593
Genet, M., 103, 109, 110, 128, 220, 221, 275, 469, 472, 477, 482, 491, 492
Gens, R., 431, 451
Gentil, L. A., 110
George, A. M., 369
George, D. R., 305, 308
George, R. S., 465, 466
Gerard, V., 367
Gerdanian, P., 353, 354, 355, 356, 360, 362, 363, 364
Gerding, H., 544
Gerding, T. J., 272
Gerds, A. F., 393, 399, 410
Gergel, M. V., 175
Gerke, H., 98
Germain, G., 260, 263, 283
Gerratt, J., 93
Gershanovich, A. Y., 86, 88, 89, 93
Gerwald, L., 409
Gerward, L., 100
Gesing, T. M., 69, 71, 405
Gesland, J. Y., 422
Gestin, J.-F., 43
Gewehr, R., 80, 81, 82
Gey, W., 64
Ghafar, M., 180
Ghermain, N.-E., 602
Ghiorso, A., 5, 6, 13, 53, 164
Ghotra, J. S., 93
Giacchetti, A., 59
Giachetti, A., 190, 226
Giammar, D. E., 287
Giaon, A., 24, 31
Gibb, T. R. P., Jr., 329, 330, 331
Gibifski, T., 414
Gibson, G., 106, 370
Gibson, M. L., 482
Gibson, R., 225
Gieré, R., 277, 278, 279
Giese, H., 77
Giesel, F., 19, 20, 47
Giester, G., 265, 295
Gikal, B. N., 14
Gilbert, B., 116, 117
Gillan, M. J., 367
Gilles, P. W., 95, 96, 364, 413
Gillier-Pandraut, H., 539
Gilpatrick, L. O., 390
Ginderow, D., 261, 262, 268
Gindler, G. E., 632, 633
Gingerich, K. A., 98, 99, 100, 398
Giorgi, A. L., 30, 34, 35, 68, 333
Giorgio, G., 114
Girdhar, H. L., 350, 356
Girgis, C., 182
Girgis, K., 53, 67
Gitlitz, M. H., 115
Gittus, J. H., 303
Glamm, A., 319
Glaser, C., 76
Glaser, F. S., 66
Gläser, H., 372, 377, 378, 382
Glaser, J., 596, 607, 610
Glavic, P., 86, 91
Gleichman, J. R., 506
Glover, K. M., 166, 224
Glukhov, I. A., 525
Gmelin Handbook of Inorganic Chemistry, 19, 28, 30, 36, 38, 40, 42, 43, 52, 55, 56, 57, 58, 59, 60, 61, 63, 67, 69, 70, 75, 101, 105, 114, 115, 117, 133, 162, 178, 255, 264, 265, 275, 303, 318, 325, 328, 407, 417, 420
Gnandi, K., 297
Gober, M. K., 182, 185
Goble, A. G., 164, 173, 176, 179, 182, 213
Goddard, D. T., 297
Godelitsas, A., 302
Godfrey, J., 638
Godlewski, T., 20
Goedkoop, J. A., 66
Goffart, J., 116, 117, 470, 552, 553
Gofman, J. W., 164, 256
Gohdes, J. W., 289, 602
Göhring, O., 162, 170, 187
Gojnierac, A., 182
Golden, A. J., 224
Golden, J., 164, 173, 176, 179, 213
Gol'din, L. L., 20, 24
Goldstein, S. J., 171
Goldstone, J. A., 333, 334, 335
Gollnow, H., 190, 226
Golovnya, V. A., 105, 106, 109
Golub, A. M., 84
Golutvina, M. M., 184
Gomm, P. J., 28, 31
Gonella, C., 352
Gong, W., 265
Goode, J. H., 188
Googin, J. M., 319
Gopinathan, C., 215, 218
Gorban, Yu. A., 364
Gorbunov, L. V., 86, 93
Gordon, G., 592, 606, 609, 619, 622
Gordon, J., 356, 357
Gordon, J. E., 63

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Gorokhov, L. N., 576
 Gorshkov, N. G., 539
 Goryacheva, E. G., 30
 Gosset, D., 289
 Goto, T., 334, 335
 Gotoh, K., 382
 Gotoo, K., 340, 344, 347, 354
 Gottfriedsen, J., 575
 Goubitz, K., 514
 Gouder, T., 97
 Gracheva, N. V., 416, 419
 Graham, J., 75, 96
 Gramaccioli, C. M., 261, 264
 Grandjean, D., 414
 Grape, W., 505
 Graue, G., 163, 172, 174, 178
 Graw, D., 207
 Gray, A. L., 133
 Gray, C. W., 630
 Gray, H. B., 577, 609
 Gray, P. R., 27
 Gray, W., 633, 634
 Grayand, P. R., 171, 184
 Graziani, R., 548
 Grazotto, R., 554
 Greaves, C., 346, 351, 377, 383
 Gregor, R. B., 278
 Greek, B. F., 314
 Green, J. C., 116
 Greenberg, E., 478, 497
 Greenblatt, M., 77
 Greenwood, N. N., 13, 162
 Gregorich, K., 182, 185, 186
 Gregory, J. N., 375
 Gregory, N. W., 454, 456, 500
 Greiner, J. D., 61
 Greis, O., 114, 206
 Grenn, J. C., 117
 Grenthe, I., 118, 119, 120, 121, 124, 125, 127, 128, 130, 131, 211, 253, 270, 371, 421, 423, 425, 435, 439, 440, 441, 457, 458, 469, 473, 474, 477, 478, 480, 481, 497, 502, 503, 509, 513, 514, 515, 516, 517, 536, 538, 543, 544, 545, 551, 552, 556, 565, 577, 578, 580, 581, 586, 589, 590, 591, 593, 594, 595, 596, 597, 598, 599, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 616, 617, 618, 619, 620, 622, 623, 625, 626
 Grenthe, I. R., 589, 602, 612, 616, 621
 Grey, I. E., 113, 269, 345, 347, 354
 Grieveson, P., 402
 Griffin, N. J., 324
 Griffith, C. B., 328
 Griffith, W. L., 319
 Griffiths, A. J., 504
 Griffiths, G. C., 375, 376
 Griffiths, T. R., 372, 373, 374
 Grime, G. W., 297
 Grimes, W. R., 423, 444, 459, 463, 487
 Grimsditch, M., 277
 Gritschenko, I. A., 41
 Gritzner, N., 522
 Grobanski, Z., 113
 Grønvold, F., 340, 345, 347, 348, 351, 352, 353, 354, 355, 356, 357, 359, 362
 Gropen, O., 580, 596
 Grosche, F. M., 407
 Gross, E. B., 294
 Gross, G. M., 402, 407
 Grosse, A., 163, 172, 173, 174, 175, 178, 179, 181, 198, 200, 226, 229
 Grossman, L. N., 323, 393
 Grossmann, H., 105
 Grove, G. R., 27, 30, 32
 Gruber, J. B., 469, 491
 Grudpan, K., 225
 Gruehn, R., 113, 550, 570
 Gruen, D. M., 8, 292, 335, 342, 469, 490, 491, 492, 501, 510, 524
 Grundy, B. R., 170
 Grüning, C., 33
 Grunzweig-Genossar, J., 329, 333, 336
 Gryntakis, E. M., 106
 Gu, J., 164
 Gu, X., 266
 Gudaitis, M. N., 93
 Güdel, H. U., 428, 429, 436, 440, 442, 444, 451
 Gueguin, M. M., 527
 Guelton, M., 76
 Guéneau, C., 351, 352
 Guéneau, Le Ny, J., 365
 Guertin, R. P., 63
 Guery, C., 92
 Guery, J., 92
 Guest, R. J., 633
 Guesten, H., 227
 Guggenberger, L. J., 78, 83, 84
 Guibé, L., 81
 Guidotti, R. A., 83
 Guillaud, P., 596
 Guillaumont, R., 34, 37, 40, 82, 109, 117, 128, 129, 162, 176, 181, 183, 184, 185, 198, 199, 200, 207, 209, 211, 212, 215, 216, 217, 218, 219, 221, 222, 223, 225, 227, 421, 423, 425, 435, 439, 440, 441, 457, 458, 469, 473, 474, 477, 478, 480, 481, 497, 502, 503, 509, 513, 514, 515, 516, 517, 536, 538, 543, 544, 545, 551, 552, 556, 593, 594, 595, 596, 597, 598, 599, 601, 602, 603
 Guillot, P., 185, 215
 Guinand, S., 123
 Guinet, P., 351, 352, 353
 Guittet, M.-J., 277
 Gulbekian, G. G., 14

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Gulyas, E., 114
 Gumperz, A., 80, 104
 Gundlich, C., 82
 Guo, J., 164, 191
 Guo, Y., 164
 Gupta, A. R., 41
 Gupta, N. M., 110
 Gurevich, A. M., 583, 601
 Gusev, Yu. K., 549, 555, 556
 Güsten, H., 629
 Gutowska, M., 113
 Gutowski, K. E., 421
 Guy, W. G., 187
 Guymont, M., 76
 Guzman, F. M., 181, 211
 Guzzi, G., 637
 Gwinner, G., 33
 Gwozdz, R., 188
- Habash, J., 102, 104, 105
 Habenschuss, A., 448
 Haber, L., 110, 112
 Hadari, Z., 64, 336, 338
 Haegele, R., 551
 Haessler, M., 204, 207
 Hafey, F., 184
 Haga, Y., 412
 Hagberg, D., 596
 Hagee, G. R., 166
 Hagemann, F., 19, 27, 28, 30, 32, 35, 36, 37, 53
 Hagemark, K., 353, 355, 360, 362, 396, 397
 Hagenberg, W., 207
 Hagenmuller, P., 70, 73, 77, 110
 Hagrman, D. T., 357, 359
 Hagstrom, I., 184
 Hagström, S., 60
 Hahn, 3, 4
 Hahn, O., 20, 24, 25, 163, 164, 169, 170, 172, 187, 254, 255
 Hahn, R. L., 164
 Haire, R. G., 33, 79, 192
 Haïssinsky, M., 37, 162, 178, 179, 187, 191, 209, 216, 220, 221, 222, 225, 227
 Hakanen, M., 189
 Halachmy, M., 391
 Halasyamani, P. S., 593
 Halet, J.-F., 435
 Hall, C. M., 639
 Hall, D. A., 546
 Hall, F. M., 213, 217, 229
 Hall, H. T., 67
 Hall, N. F., 106, 107
 Hall, T. L., 78, 82
 Halla, F., 104
 Halliday, A. N., 639
 Halow, I., 34
 Halstead, G. W., 501, 503, 504, 506, 520
- Hamaguchi, Y., 347
 Hamaker, J. W., 77
 Hambly, A. N., 373, 374, 375, 549, 550, 555
 Hamer, A. N., 170
 Hamilton, J. H., 164
 Hamilton, W. C., 337
 Hanchar, J. M., 282, 293, 638
 Hancock, C., 67
 Hancock, G. J., 42
 Handa, M., 391
 Handler, P., 425, 509, 523
 Handley, T. H., 164, 169
 Handwerk, J. H., 76, 113, 303, 391, 393, 395
 Handy, N. C., 596
 Hanfland, C., 44
 Hannink, N. J., 182, 185
 Hansen, M., 325, 405, 408, 409
 Hansen, N. J. S., 164, 170
 Hanson, B. D., 289
 Hanson, P., 636
 Hanson, S. L., 269, 277
 Hanuza, J., 429, 430, 431, 444, 450
 Harada, M., 616, 626, 627
 Harada, Y., 76, 113
 Harari, A., 113
 Harbottle, G., 231, 635
 Harding, J. H., 367, 368
 Hardman, K., 66
 Hardman-Rhyne, K., 66
 Hardt, P., 116
 Hardy, A., 110
 Hardy, C. J., 213, 218
 Harnett, O., 261
 Harrington, C. D., 303, 315, 317, 319, 559, 560
 Harris, H. B., 80
 Harris, J., 6
 Harris, L. A., 86, 87, 90, 91, 113, 342, 357
 Hart, F. A., 93, 452
 Hart, K. P., 278
 Hartmann, W., 164
 Harvey, B. G., 5, 164, 186, 187
 Harvey, J. A., 53
 Haschke, F. M., 64, 65
 Haschke, J. M., 328, 331, 332, 333, 334, 337
 Hasegawa, Y., 40
 Haselwimmer, R. K. W., 407
 Hash, M. C., 279
 Hashitani, H., 383
 Hasty, R. A., 77
 Hatcher, C., 279
 Hattori, H., 76
 Haubach, W. J., 173
 Hauback, B. C., 66, 338, 339
 Haubenreich, P. N., 487
 Hauck, J., 208, 372, 373, 375, 378
 Haug, H., 395
 Hauser, O., 104
 Hauske, H., 35, 36, 38

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Hausman, E., 172, 174, 182
 Havela, L., 97, 338, 339
 Hawkinson, D. E., 180
 Hawthorne, F. C., 259, 261, 262, 268, 272, 283, 286, 287, 289, 290, 298
 Hay, P. J., 576, 580, 589, 596, 620, 621
 Hayden, L. A., 267, 268, 289, 291, 580, 582, 583
 Hayek, E., 82, 83
 Hayes, W., 357, 389
 Hayward, B. R., 319
 Hayward, J., 457, 486
 Hazemann, J. L., 389
 He, P., 29
 Heald, S. M., 291
 Heathman, S., 97, 192
 Heatley, F., 115, 116
 Hebert, G. M., 461
 Hecht, F., 109, 114
 Hecht, H. G., 382, 469, 491, 502, 503, 504, 505
 Heckers, U., 410
 Heckley, P. R., 204
 Heckly, J., 541
 Heger, G., 380
 Heidt, L. J., 595
 Heimbach, P., 116
 Hein, R. A., 352, 357
 Heindl, F., 96
 Heinrich, G., 227
 Helean, K., 113, 270, 287
 Hellberg, K.-H., 421, 485, 557
 Helliwell, M., 578, 589
 Helm, L., 609, 614
 Henche, G., 550, 570
 Hendricks, M. E., 203, 425, 431, 435, 439, 469, 474
 Henkie, Z., 100, 412
 Hennig, C., 389, 589, 596, 602, 612, 616, 621
 Henrich, E., 382
 Henry, W. E., 335
 Hentz, F. C., 123
 Herak, M. J., 182
 Herak, R., 356
 Hering, J. G., 287
 Herman, J. S., 129, 130, 131, 132
 Hermann, G., 182, 209, 215, 224
 Hermann, J. A., 490
 Hermanowicz, K., 430, 444, 450
 Hermansson, K., 118
 Herment, M., 25
 Herpin, P., 109
 Herrick, C. C., 103, 112
 Herrmann, G., 25, 60, 164
 Herrmann, H., 413
 Herschel, W., 253
 Hertogen, J., 636
 Hertz, M. R., 172, 173, 175
 Hery, Y., 195, 204, 207
 Hess, N. J., 127, 128, 130, 131, 270, 595
 Hess, R. F., 97
 Hess, W. P., 291
 Hessberger, F. P., 6, 14, 164
 Heuer, T., 428, 429, 436, 440, 451
 Heumann, K. G., 164
 Hewat, A. W., 469, 475
 Heydemann, A., 27, 170
 Hicks, H. G., 180
 Hidaka, H., 271
 Hiebl, K., 67, 71
 Hien, H. G., 407
 Hiernaut, J. P., 357
 Hietanen, S., 120, 121, 123, 124
 Higa, K., 631
 Higgins, G. H., 5
 Higgins, L. R., 484
 Hildenbrand, D., 70, 82, 420
 Hill, C., 598
 Hill, D. C., 303, 391, 393, 395
 Hill, F. C., 257, 281, 282, 288
 Hill, H. H., 35, 68, 191, 193
 Hill, J., 200, 204, 527
 Hill, M. W., 164, 180, 182
 Hill, N. A., 67, 303
 Hill, R., 133
 Hillary, J. J., 164, 173, 177, 180
 Himes, R. C., 415
 Hinatsu, Y., 382, 387, 389, 390, 391, 392
 Hincks, E. P., 53
 Hindman, J. C., 220, 222, 227, 606
 Hines, M. A., 615
 Hingmann, R., 6
 Hinman, C. A., 369
 Hirashima, K., 395
 Hirota, M., 410
 Hirsch, A., 5
 Hitachi Metals Ltd., 188
 Hitchcock, P. B., 116, 117
 Hitterman, R. L., 102, 106, 320
 Hlousek, J., 264, 281
 Ho, C. L., 322
 Ho, C.-K., 188
 Hoard, J. L., 530, 560
 Hoch, M., 392, 396
 Hochheimer, H. D., 97
 Hocks, L., 116
 Hodge, M., 421
 Hodge, N., 370
 Hodgeson, T., 639
 Hodgson, K. O., 116
 Hoehner, M., 605
 Hoekstra, H., 341, 342, 346, 350, 356, 357, 358, 372, 375, 378, 380, 393
 Hoekstra, H. R., 340, 342, 343, 345, 346, 348, 350, 355, 356, 357, 358, 371, 372, 373, 374, 376, 378, 380, 382, 383, 384, 385, 386, 387, 388, 389, 392

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Hoff, J. A., 231
Hoffman, D. C., 182, 185, 186, 227
Hoffman, G., 200
Hoffman, S., 6, 7, 164
Hoffmann, A., 77
Hoffmann, C. G., 97
Hoffmann, R., 113, 378
Hoffmann, R.-D., 69, 70, 72, 73
Högfeldt, E., 129, 597
Hohorst, F. A., 32
Hoisington, D., 457, 486
Hojo, T., 631
Holah, D. G., 115, 202, 204, 436, 453
Holah, D. H., 204
Holc, J., 597
Holden, A. N., 321
Holden, N. E., 27, 164, 255, 256
Holden, R. B., 61, 319
Holland, R. F., 485, 518
Hollander, J. M., 164
Holliger, P., 271
Holloway, J. H., 186, 197, 199, 379, 421, 441, 457, 484, 485, 487, 507, 518, 520, 521, 536, 539, 543, 557, 563, 566
Holmberg, R. W., 120, 121
Holmes, J. A., 319
Holmes, N. R., 350
Holtkamp, H., 101
Holtzman, R. B., 226
Honan, G. J., 620
Hönigschmid, O., 61
Hopkins, H. H., Jr., 164
Hopkins, T. E., 423
Hoppe, R., 77, 450
Hor, P. H., 77
Horen, D. J., 25
Horwitz, E. P., 633
Hoshi, M., 109, 395
Hoshino, Y., 338
Hoskins, P. W. O., 287
Hovey, J. K., 119
Howard, C. J., 502, 503
Howes, K. R., 595, 619, 620
Howlett, B., 398
Hristidu, Y., 630
Hryniewicz, A., 13
Hsini, S., 468
Hu, J., 116
Hubbard, W. N., 80, 81, 421, 436, 437, 470, 471, 473, 475, 476, 486, 502, 504, 505, 510, 511, 539, 541, 546, 553
Huber, G., 33, 60
Huber, J. G., 62, 63, 333
Hubert, S., 81, 120, 126, 422, 430, 431, 450, 451, 469, 482, 492
Hubin, R., 109, 113
Hudgens, C. R., 487
Hudson, E. A., 287, 289, 301, 602
Huffman, A. A., 487
Hüfken, T., 70
Hughes, A. E., 39
Hughes, K.-A., 259, 262, 281, 288, 290
Hughes-Kubatko, K.-A., 270, 287
Huie, R. E., 371
Huizenga, J. R., 5
Hulet, E. K., 6
Hull, G., 319
Hulliger, F., 100, 412
Hulubel, H., 227
Hummel, P., 577
Hummel, W., 590
Hund, F., 395
Hung, S.-T., 472
Hüniger, M., 97
Hunt, E. B., 67, 71
Hunt, P. D., 352, 365, 367
Hunter, D. B., 270, 274
Huntley, D. J., 225
Huntzicker, J. J., 353, 357, 359
Hursthouse, M. B., 117
Hussonnois, M., 181, 211
Hutchings, M. T., 357, 389
Hutchison, C. A., 425, 509, 523
Huxley, A., 407
Huyghe, M., 103, 112
Huys, D., 31, 32
Hwang, I.-C., 535
Hwerk, J. H., 76, 113
Hyde, E. K., 25, 55, 107, 164, 167, 181, 182, 187, 224
Hyeon, J.-Y., 575
Hyland, G. J., 357, 359
Hyman, H. H., 317, 506, 508
IAEA, 303, 314, 345, 367, 398
Iandelli, A., 411
Ibberson, R. M., 340, 345, 348
Ibers, J. A., 97, 420
Ibrahim, S. A., 133
Iddings, G. M., 164
Idiri, M., 97, 192
Ifill, R. O., 280
Iguchi, T., 338
Ihde, A. J., 19
Ikawa, M., 167
Ikeda, S., 627
Ikeda, Y., 608, 609, 617, 618, 620
Ikezoe, H., 164
Ildefonse, P., 272, 292
Iliev, S., 14
Iliff, J. E., 61, 78
Ilin, E. G., 82
Illies, A. J., 412
Il'menkova, L. I., 214
Imai, H., 621

- Imoto, S., 382, 389, 509, 524
 Imre, L., 106
 Inaba, H., 347, 353, 354, 356
 Inada, Y., 412
 Ingamells, C. O., 632
 Ingleto, G., 546, 547, 553, 554
 Inoue, Y., 180, 209, 217, 224
 Insley, H., 84, 86, 87, 88, 89, 90, 424, 459, 460, 461, 462, 463, 464, 465
 International Critical Tables, 119
 Ioannou, A. G., 596
 Ionova, G., 117, 213, 221
 Ippolitova, E. A., 372, 373, 374, 375, 376, 377, 383, 384, 385, 393
 Irish, D. E., 580, 582
 Ishida, K. J., 225
 Ishida, V., 188
 Ishida, Y. E., 173
 Ishigame, M., 343
 Ishii, T., 345, 347, 355, 369
 Ishii, Y., 338
 Ishikawa, N., 533, 534
 Isnard, O., 65, 66, 69, 71, 72
 Isobe, H., 273
 Itaki, T., 352
 Itkis, M. G., 14
 Ito, T., 631
 Ivanov, O. V., 14
 Ivanov, R. B., 26
 Ivanov, S. B., 539, 541, 542
 Ivanov, V. E., 364
 Ivanov, V. K., 357
 Ivanova, L. A., 179, 185, 198, 199, 200, 230
 Ivanova, O. M., 82, 105, 108, 114
 Ivanovich, M., 635
 Iwasaki, M., 460, 461, 462, 463, 467, 533, 534
 Iwasieczko, W., 338, 339
 Iyer, P. N., 195

 Jablonski, A., 377
 Jackson, J. M., 260, 281, 292
 Jackson, N., 164, 173, 180, 224
 Jackson, R. A., 367, 368
 Jacob, E., 421, 423, 424, 425, 441, 446, 447, 457, 458, 460, 461, 462, 463, 464, 465, 466, 467, 469, 481, 484, 485, 486, 487, 489, 501, 502, 503, 504, 505, 506, 507, 517, 518, 520, 528, 530, 533, 534, 535, 536, 537, 538, 556, 557, 560, 561, 562, 563, 566
 Jacob, I., 66, 338
 Jacobi, E., 187
 Jacoboni, C., 92
 Jacobs, H., 410
 Jacobs, T. H., 69, 71, 72
 Jacobson, E. L., 69, 72, 78
 Jacobson, R. A., 78, 83, 84
 Jacoby, R., 108
 Jakes, D., 272, 372, 373, 374, 375
 Jakovac, Z., 209
 Jakubowski, N., 638
 Jalilehvand, F., 118, 586
 James, W. J., 61
 Janczak, J., 449, 450
 Janeczek, J., 259, 271, 274, 275
 Jangida, B. L., 58
 Janik, R., 6, 14
 Jannasch, P., 76
 Janssens, M.-J., 636
 Jardine, C. N., 117
 Jarry, R. L., 563
 Jaulmes, S., 103, 109, 110, 112
 Jaussaud, C., 211
 Javorsky, C. A., 99, 100
 Jayadevan, N. G., 371
 Jayasooriya, U. A., 545
 Jeannin, Y. P., 13
 Jeffries, C. D., 203
 Jeitschko, W., 66, 67, 69, 70, 71, 72, 73, 100, 399, 405
 Jellinek, F., 415, 416, 417, 419
 Jelly, J. V., 53
 Jenkins, I. L., 178, 181
 Jensen, K. A., 271
 Jensen, M. P., 607, 612
 Jeppesen, C., 630
 Jerden, J. L., 297
 Jere, G. V., 77
 Jetha, A., xvi
 Jha, M. C., 78, 80, 82
 Jiang, F. S., 133
 Jiang, J., 589
 Jin, J. N., 108
 Jin, Z., 108
 Joao, A., 130, 131
 Jochem, O., 398
 Jocher, W. G., 395, 396
 Johanson, W. R., 412
 Johansson, B., 63, 191
 Johansson, G., 102, 106, 118, 123, 595
 Johns, I. B., 329, 332, 336
 Johnson, D. A., 521, 615
 Johnson, G. K., 357, 358
 Johnson, G. L., 77
 Johnson, J. S., 123
 Johnson, K. D. B., 393
 Johnson, K. R., 109
 Johnson, O., 75, 107, 329, 332, 336, 421, 509
 Johnson, Q., 80, 201, 329
 Johnston, D. C., 67, 71, 96
 Johnston, D. R., 471, 476, 482, 496
 Jollivet, P., 277

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Jones, C., 588, 595
 Jones, D. W., 67, 71
 Jones, E. R., Jr., 203, 425, 431, 435, 439, 469
 Jones, L. H., 350, 380, 502, 519, 529, 530
 Jones, L. V., 30, 32, 487
 Jones, P. J., 94, 178, 179, 182, 183, 194, 195, 201, 203, 204, 205, 206, 207, 213, 215, 216, 221, 222, 498, 499
 Jones, W. M., 356, 357
 Jonsson, M., 371
 Jordan, K. C., 20
 Jorgensen, J. D., 64, 66
 Joron, J. L., 231
 Joseph, R. A., 396
 Jost, D., 182, 185
 Joubert, J. C., 113
 Joubert, P., 537, 566, 567
 Jové, J., 391, 459
 Judd, B. R., 190
 Judge, A. I., 379
 Juenke, E. F., 387, 393, 395
 Julian, S. R., 407
 Jung, B., 162, 428, 429, 436, 440, 451
 Jung, W.-S., 466, 489, 616
 Jurado Vargas, M., 133
 Juza, R., 89, 98, 466, 473, 476, 479, 489, 497, 500
- Kabachenko, A. P., 164
 Kackenmaster, H. P., 490
 Kading, H., 163, 172, 174, 178
 Kadkhodan, B. D. M., 185
 Kadkhodayan, B., 182
 Kadoya, H., 407
 Kaffnell, N., 164
 Kahn, A., 103, 110, 113
 Kahn, M., 38
 Kahn, S., 180
 Kahn-Harari, A., 113
 Kaldor, U., 33
 Kalibabchuk, V. A., 84
 Kalina, D. G., 117
 Kalpana, G., 63, 100
 Kaltsyoannis, N., 203, 204, 289, 577, 578, 602
 Kalvius, G. M., 192
 Kamagashira, N., 343
 Kamarád, J., 334, 335
 Kamaratseva, N. I., 355
 Kameda, O., 343
 Kamegashira, N., 364
 Kamenskaya, A. N., 28, 38, 61, 188, 220, 221, 443
 Kamiyama, T., 407
 Kanamaru, M., 389
 Kanatzidis, M. G., 97
- Kandil, A. T., 184
 Kanellakopoulos, B., 102, 108, 117, 208, 382, 421, 423, 445, 448
 Kanetsova, G. N., 424
 Kanno, M., 473
 Kansalaya, B., 63
 Kant, A., 336
 Kaplan, G. E., 61, 85, 90
 Kaplan, L., 63, 70
 Kapshukov, I. I., 108, 545, 546
 Karabasch, A. G., 63, 80
 Karabulut, M., 277
 Karalova, Z. K., 29, 30, 42, 185
 Karbowski, M., 421, 422, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 440, 442, 443, 444, 445, 447, 448, 449, 450, 451, 453, 482, 483
 Karchevski, A. I., 335
 Karelin, Ye. A., 14
 Karkhanavala, M. D., 355, 356, 369
 Karlström, G., 596
 Karmazin, L., 598
 Karow, H. U., 366
 Karraker, D. G., 115, 203, 425, 431, 435, 439, 469, 501
 Karstens, H., 63
 Kartasheva, N. A., 108
 Kasar, U. M., 104
 Kascheyev, N. F., 175
 Kasper, J. S., 67, 71
 Kaspersen, F. M., 28
 Kasuya, T., 100
 Katakis, D., 606, 609
 Kato, Y., 622
 Katsura, M., 338, 410
 Katz, J. J., xv, xvi, 1, 19, 162, 255, 317, 318, 328, 339, 340, 342, 356, 370, 374, 378, 383, 392, 421, 558, 622
 Katz, S., 533
 Katzin, L. I., 53, 63, 70, 75, 98, 106, 107, 108, 114, 161, 166, 172, 174, 175, 182, 187, 188, 255, 256
 Kauffmann, O., 109
 Kaufman, A., 171, 335, 405
 Kawada, K., 369
 Kawamura, K., 93
 Kawasaki, O., 382
 Kawasuji, I., 40
 Kay, P., 391, 396
 Kaya, A., 637
 Kayano, H., 338, 339
 Kazakevich, M. Z., 220, 221
 Keding, L., 265
 Keenan, K., 520
 Keenan, T. K., 87, 90, 457, 458
 Keiderling, T. A., 337
 Keijzers, C. P., 203

- Keil, R., 133
 Keim, W., 116
 Keller, C., 19, 20, 35, 41, 86, 88, 91, 113, 162, 181, 185, 194, 195, 197, 208, 373, 375, 376, 377, 378, 379, 380, 382, 383, 384, 385, 386, 387, 389, 390, 391, 392, 393, 394, 395, 396, 467, 487
 Keller, E. L., 428, 436, 440, 444, 451, 560
 Keller, J., 6
 Keller, L., 428, 429, 436, 440, 451
 Keller, O. L., Jr., 181
 Keller, W. H., 61, 78
 Kelley, K. K., 357
 Kelley, W. E., 320
 Kelly, M. I., 77
 Kelly, P. R., 269
 Kelly, S. D., 291
 Kelmy, M., 109
 Kemmler, S., 376, 377
 Kemmler-Sack, S., 375, 376, 377, 378, 382, 384, 385, 386, 388, 389, 391, 392, 393, 469, 508, 521
 Kemner, K. M., 291
 Kemp, T. J., 542, 626, 629
 Kemper, C. P., 68, 71
 Kenneally, J. M., 14
 Kennedy, D. W., 274
 Kennedy, J. H., 634
 Kennedy, J. W., 5, 8
 Kennel, S. J., 43
 Kennelly, W. J., 116
 Keogh, W. D., 580, 595, 620, 621
 Kepert, D. L., 494, 586, 588
 Kern, D. M. H., 621
 Kern, S., 457, 486
 Kertes, A. S., 58
 Keskar, M., 69, 104, 105
 Kester, F., 67
 Kettle, S. F. A., 201
 Keys, J. D., 164
 Khalkin, C., 28, 43
 Khalkin, V. A., 28, 43
 Khan, A. S., 95
 Khan Malek, C., 81, 469, 492
 Khanaev, E. I., 458
 Kharitonov, Yu. Ya., 108, 109, 575
 Khlebnikov, V. P., 184, 209, 214, 218, 219
 Khodadad, P., 414, 415
 Khodakovsky, I. L., 129
 Khodeev, Y. S., 576
 Khosrawan-Sazedj, F., 264
 Kido, H., 77
 Kieffer, R., 67
 Kikuchi, M., 219
 Kim, B.-I., 576
 Kim, J. B., 181
 Kim, J. I., 106, 119, 120, 121, 122, 125, 126, 127, 130, 133
 Kim, K. C., 367
 Kimura, E., 394
 Kimura, K., 167
 Kimura, Y., 407
 Kindler, B., 14
 Kindo, K., 407
 King, E. G., 376
 King, E. L., 109
 Kinman, W. S., 265, 295
 Kinsman, P. R., 280, 291, 366, 367
 Kirby, H. W., 18, 19, 20, 23, 25, 26, 27, 28, 32, 33, 35, 38, 40, 41, 42, 43, 161, 162, 163, 166, 167, 170, 172, 174, 178, 179, 180, 182, 187, 195, 213, 215, 226, 230
 Kirchner, J. A., 319
 Kiriyama, T., 58
 Kirslis, S. S., 521
 Kitamura, A., 120, 121
 Kiukkola, K., 353, 360, 362
 Kiyoura, R., 353, 360
 Kiziyarov, G. P., 259
 Kjaerheim, G., 352
 Kjems, J. K., 357
 Klapö tke, T. M., 117, 118
 Klaproth, M. H., 253, 254
 Klein-Haneveld, A. J., 415, 416, 417, 419
 Kleinschmidt, P. D., 34, 192, 195
 Klemm, J., 164
 Klenze, R., 223
 Kleykamp, H., 393
 Klíma, J., 372, 373, 374
 Klinkenberg, P. F. A., 60
 Kluge, E., 180
 Klyuchnikov, V. M., 108
 Knacke, O., 80, 81, 83, 100
 Knapp, J. A., 64
 Knecht, H., 410, 435, 452
 Knobeloch, D., 225
 Knopp, R., 120, 125, 126
 Knudsen, F. P., 377
 Knyazeva, N. A., 575
 Ko, R., 234
 Koch, C. W., 77
 Koch, F., 344
 Koch, L., 44, 195, 378
 Koch, W. F., 634
 Kockelmann, W., 410
 Koczy, F. F., 170
 Koehler, W. C., 342
 Koelling, D. D., 60
 Kohgi, M., 407
 Köhler, E., 116
 Köhler, S., 60
 Kohlmann, H., 75, 96, 413, 414, 415
 Kohlschütter, V., 63
 Koike, Y., 28, 29, 40
 Kojic-Prodic, B., 102, 103, 110
 Kojouharova, J., 14

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Kokaji, K., 631
Kolar, D., 597
Kolarich, R. T., 209, 214, 215, 217, 218
Kolb, A., 106, 107
Kolesov, I. V., 6
Kolitsch, U., 259, 265, 295
Kolitsch, W., 413, 509, 510, 512, 522
Kolomiets, A. V., 338, 339
Komatsubara, T., 407
Komura, K., 170
König, E., 382
Konings, R. J. M., 121, 125, 128, 421, 423,
425, 435, 440, 441, 457, 458, 469, 473,
474, 477, 478, 480, 481, 497, 502, 503,
509, 513, 514, 515, 516, 517, 536, 538,
543, 544, 545, 551, 552, 556, 593, 594,
595, 596, 597, 598, 599, 601, 602, 603
Konishi, K., 170
Konovalova, N. A., 221
Konrad, T., 66, 67, 71, 399
Koppel, I., 101
Koppenol, W. H., 14
Korba, V. M., 474
Korbitz, F. W., 68
Korobkov, I., 117
Korotkin, Y. S., 31
Korshunov, B. G., 81
Korst, W. L., 64
Kortright, F. L., 76
Kosynkin, V. D., 30, 373, 393
Kot, W. K., 204, 209
Kotlar, A., 353, 354, 355, 356, 360
Kottenhahn, G., 395
Koulke's-Pujo, A. M., 101
Kouzaki, M., 407
Kovacevic, S., 208
Kovacs, J., 182, 185
Koval, V. T., 84
Kovalchuk, E. L., 133
Kovalev, I. T., 364, 365
Kovba, L. M., 111, 113, 345, 346, 355, 366,
372, 373, 374, 375, 376, 377, 384,
385, 393
Kovtun, G. P., 364
Kozai, N., 294
Kozak, R. W., 44
Kozhina, I. I., 436, 437, 454, 471, 475, 495
Kozina, L. E., 114
Kramer, G. M., 618
Krämer, K., 428, 429, 434, 435, 436, 440, 442,
444, 450, 451, 453
Krasnoyarskaya, A. A., 376, 377
Krasser, W., 470
Kratz, J. V., 33, 60, 182, 185, 186, 213
Kraus, H., 206, 208
Kraus, K. A., 31, 120, 121, 152, 180, 182
Krause, W., 266, 281
Kravchenko, E. A., 82
Krebs, B., 94
Kremer, R. K., 89, 94
Kremers, H. E., 18, 37
Kressin, I. K., 86, 88, 91, 632, 635
Krikorian, N. H., 67, 68, 71
Krivovichev, S. V., 103, 113, 260, 266, 268,
285, 287, 288, 290, 299, 300, 301
Krivý, I., 372, 373, 374, 375
Krol, D. M., 372, 375
Kröner, M., 116
Kropf, A. J., 279
Kruger, O. L., 414, 415
Krugich, A. A., 364
Krupa, C., 203
Krupa, J. C., 81, 95, 203, 204, 209, 221, 469,
482, 491
Krupa, J. P., 422, 443
Krupka, K. M., 287
Krupka, M. C., 68
Kruse, F. H., 201, 202, 222, 463, 465,
466, 488
Krüss, G., 80, 95, 96, 101, 104
Ku, H. C., 67, 71
Ku, T. L., 171
Kubaschewski, O., 321, 421, 425, 435, 469,
478, 486, 497, 502, 516
Kubatko, K.-A., 584
Kube, G., 33
Kubica, B., 30
Kubo, K., 68
Küchle, W., 34
Küchler, 132
Kuchumova, A. N., 109, 110
Kudo, H., 182
Kudritskaya, L. N., 121, 125
Kudryashov, V. L., 510, 511
Kuehn, F., 479
Kühl, H., 105
Kühn, F., 89, 93
Kuhs, W. F., 65, 66, 334, 335
Kuki, T., 99
Kulakov, V. M., 164, 166
Kulikov, E. V., 40
Kulkarni, D. K., 206, 208
Kulkarni, V. H., 115
Kulmala, S., 189
Kulyukhin, S. A., 38, 61, 220, 221
Kumagai, K., 63
Kumar, N., 84, 339, 470, 493, 496, 568, 571,
572, 574
Kumar, S. R., 180
Kumok, V. N., 40, 109
Kunz, P., 33
Kunzl, V., 226
Kuppers, G., 188
Kurbatov, N. N., 93
Kurnakova, A. G., 185
Kuroda, K., 631

- Kuroda, P. K., 133
 Kuroda, R., 58
 Kurodo, R., 188
 Kushakovsky, V. I., 395
 Kushto, G. P., 576
 Kusnetsov, V. G., 542
 Kutty, K. V. G., 396
 Kuz'micheva, E. U., 345, 346, 355, 366
 Kuzmina, M. A., 176
 Kuznetsov, V. G., 539, 541, 542, 552, 575
 Kuznetsova, N. N., 259
 Kuznietz, M., 329, 333, 336
 Kveseth, N. J., 347, 354, 357, 359
 Kwon, O., 555
 Kyi, R.-T., 203
- La Gamma de Bastioni, A. M., 187
 Labeau, M., 113
 Labroche, D., 340, 351, 352, 353, 354, 355, 356, 363
 LaChapelle, T. J., 5
 Lacombe, P., 324
 Laerdahl, J. K., 34
 Lafferty, J. M., 66
 Lagarde, G., 126, 128
 Lagerman, B., 119, 120, 121, 124, 128
 Lagowski, J. J., 38, 118
 Lai, L. T., 42, 43
 Lakner, J. F., 331
 Laligant, Y., 87, 90
 Lally, A. E., 633
 Lam, D. J., 90, 338
 Lambert, J. L., 67, 77
 Lambertson, W. H., 372
 Lamble, G. M., 291
 Lance, M., 102, 106
 Landau, B. S., 463
 Lander, G. H., 320, 321, 322, 323, 324, 353, 357, 409, 412, 457, 486
 Lane, M. R., 185, 186
 Lang, R. J., 60
 Lang, S. M., 377
 Lange, R. C., 166
 Lange, R. G., 43
 Langer, S., 67
 Langford, C. H., 609
 Langmuir, D., 129, 130, 131, 132
 Lankford, T. K., 43
 Lanza, G., 576
 Lanzirotti, A., 291
 Lapitskii, A. V., 184, 218, 219
 LaPlaca, S. J., 337
 Lappert, M. F., 116
 Larkworthy, L. F., 439, 445, 449, 452, 455, 585, 593
 Larsh, A. E., 6
 Larson, A. C., 86, 92, 457, 502, 503, 519, 528
- Larson, E. A., 332
 Larson, E. M., 103, 112
 Larson, R. G., 166, 172, 174, 182
 Lasarev, Y. A., 6
 Lassen, J., 33
 Latimer, R. M., 6
 Latta, R. E., 352, 353, 365
 Lau, K. F., 64
 Lau, K. H., 82, 420
 Laubeneau, P., 208
 Laubereau, P. G., 116
 Laubscher, A. E., 84
 Laud, K. R., 109
 Laue, C., 14, 185, 186
 Laugier, J., 402
 Läügt, 110
 Launay, J., 193
 Launay, S., 103, 109, 110, 112
 Laurelle, P., 113
 Laurens, W., 164
 Lauth, W., 33
 Laval, J. P., 88, 91, 467
 Laveissière, J., 503
 Lavut, E. G., 346
 Lawrence, J. J., 186, 187
 Lawson, A. C., 333, 334, 335
 Lay, K. W., 368
 Laycock, D., 539
 Lazarevic, M., 314
 Lazkhina, G. S., 176
 Le Bail, A., 87, 90
 Le Berre, F., 92
 Le Bihan, T., 192, 406
 Le Cloarec, M.-F., 206, 208, 217, 218
 Le Coustumer, P., 128
 Le Doux, R. A., 566
 Le Du, J. F., 109, 128
 Le Flem, G., 77, 110, 113
 Le Fur, Y., 281
 Le Marouille, J. Y., 413, 414, 415, 514, 516, 528, 551
 Le Naour, C., 181, 211
 Le Vanda, C., 116
 Leang, C. F., 164, 166
 Leary, J. A., 357
 Leask, M. J. M., 356
 Lebeau, P., 68, 403
 Lebedev, I. A., 180
 Leber, A., 61
 Leciejewicz, J., 69, 73
 Leciejewicz, L., 414
 Lecocq-Robert, A., 353, 354
 Lecoin, M., 27
 Lederer, C. M., 164
 Lederer, M., 209
 Lee, D. M., 182, 185, 186
 Lee, D.-C., 639
 Lee, H. M., 369

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Lee, J. A., 191
 Lee, M.-R., 103, 112
 Lee Nurmia, M. J., 185
 Lee, R. E., 118
 Lefe'bvre, J., 123
 Lefort, M., 13
 Legoux, Y., 37, 129, 200, 201
 Leibowitz, L., 357
 Leicester, H. M., 19, 20, 52
 Leider, H. R., 329
 Leikena, E. V., 539
 Leino, M., 6, 14
 Leipoldt, J. G., 115
 Leitner, L., 389
 Lejeune, R., 31
 Lémanski, R., 421, 444, 448
 Lemire, R. J., 121, 125, 128, 421, 423, 425, 435, 440, 441, 457, 458, 469, 473, 474, 477, 478, 480, 481, 497, 502, 503, 509, 513, 514, 515, 516, 517, 536, 538, 543, 544, 545, 551, 552, 556, 593, 594, 595, 596, 597, 598, 599, 601, 602, 603
 Leonidov, V. Y., 373, 376
 Lesinsky, J., 82
 Leslie, B. W., 272, 293
 Leung, A. F., 501, 509, 523
 Leutner, H., 376, 377
 Leuze, R. E., 256
 LeVanda, C., 116
 Levet, J.-C., 402, 407, 414, 416, 417, 420, 423, 425, 435, 437, 440, 456, 457, 470, 473, 474, 478, 479, 499, 502, 509, 514, 515, 516, 525, 527, 528, 538, 544, 551
 Levy, H. A., 488
 Levy, J. H., 435, 439, 453, 455, 474, 478, 498, 515, 530, 536, 560
 Lewis, B. M., 357, 358
 Lewis, J. E., 393
 Lewis, R. H., 226
 Lewis, W. B., 382, 529, 530
 Li, J., 405, 578
 Li, S., 77
 Li, S.-C., 80, 81
 Li, Y., 259, 282, 287
 Li, Y.-P., 103, 113, 262, 268, 283, 287, 289, 290
 Li, Z., 164, 191
 Lian, J., 113
 Liang, B., 405
 Libowitz, G. G., 328, 329, 330, 331, 332
 Lichte, F. E., 269, 277
 Lidster, P., 94, 208, 471, 472, 498
 Lieser, K. H., 133, 180
 Liezers, M., 638
 Light, M. E., 259, 287
 Liley, P. E., 322
 Liljenzin, G., 184
 Liljenzin, J. O., 209, 218, 220
 Lima, F. W., 182
 Liminga, R., 103, 110
 Lin Chao, 231
 Lin, G. D., 76
 Lin, S. T., 335
 Lincoln, S. F., 607, 620
 Lindbaum, A., 192
 Lindberg, M. J., 287
 Lindecker, C., 103, 109, 110
 Lindemer, T. B., 361, 389, 396
 Lindgerg, A., 189
 Lindquist- Reis, P., 118
 Lindsay, J. D., 191, 193
 Lingane, J. J., 634
 Lipkind, H., 65, 75, 78, 80, 81, 83, 95, 100, 107
 Lipp, A., 67
 Lippard, S. J., 337
 Lipponen, M., 130, 131
 Lipschutz, M. E., 638
 Lis, T., 426, 427, 438, 448, 454
 Litteral, E., 357
 Litz, L. M., 399, 400, 404
 Liu, C., 76, 274
 Liu, G. K., 483, 486
 Liu, H., 164
 Liu Husheng, 186
 Liu, M. Z., 108
 Liu, X., 108
 Liu, Y., 76
 Liu, Y. D., 76
 Livens, F. R., 588, 589, 595
 Lobanov, M. V., 77
 Lobanov, Y. V., 6, 14
 Locock, A. J., 263, 264, 265, 266, 281, 294, 295, 296
 Lofgren, N. A., 413
 Lofgren, N. L., 95, 96
 Lohr, H. R., 333, 486, 502
 Lombard, L., 405
 Long, E. A., 356, 357
 Long, K. A., 366, 367
 Lonnel, B., 14
 Lonzarich, G. G., 407
 Loopstra, B. O., 341, 346, 349, 350, 351, 356, 357, 358, 372, 373, 374, 375, 376, 383, 392, 514
 Lopez, M., 629
 Lorenz, R., 195
 Lorenzelli, R., 367, 391, 392
 Loriers, J., 96
 Lott, U., 396
 Louer, D., 102, 103, 109, 110, 472, 477
 Louer, M., 102, 110, 472, 477
 Loughheed, R. W., 6, 14
 Louis, M., 422
 Louis, R. A., 82
 Loukah, M., 76
 Loussouarn, A., 43
 Loye, O., 113

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Lu, W. C., 367
 Lucas, F., 103, 112
 Lucas, J., 372, 374, 376, 377, 378, 380, 382, 393, 425, 446, 468, 575
 Lucchini, J. F., 289
 Luengo, C. A., 63
 Lugovskaya, E. S., 112
 Lukens, W. W., 289, 602
 Luk'yanenko, N. G., 108
 Lukyanova, L. A., 458
 Lumpkin, G. R., 113, 271, 273, 277, 278, 280, 291
 Lundgren, G., 102, 103, 104, 112, 586
 Lundqvist, R., 222, 223
 Luo, H., 100
 Luo, K., 266
 Luo, S. D., 171
 Luo, X., 639
 Lupinetti, A. J., 398
 Lützenkirchen, K., 596, 627, 628, 629
 Lux, F., 204, 205, 206, 207, 208, 501, 515, 527
 Lychev, A. A., 539, 549, 555, 556
 Lyle, S. J., 41, 187
 Lynch, V., 605
 Lyon, W. G., 376, 382
 Lyon, W. S., 164, 169
 Lytle, F. W., 278
 Lyzwa, R., 444
- Ma, D., 42, 43
 Maas, E. T., Jr., 618
 Maatta, E. A., 117
 Mac Cordick, J., 452
 MacLeod, A. C., 353
 Mac Wood, G. E., 440, 441, 477, 480, 499
 Macak, P., 620, 622, 623
 Macalik, L., 444
 Macaskie, L. E., 297
 Macdonald, J. E., 389
 Madariaga, G., 78, 82
 Maddock, A. G., 162, 164, 173, 176, 177, 178, 179, 180, 182, 184, 187, 198, 201, 208, 209, 213, 215, 217, 218, 219, 220, 224, 227, 229, 230
 Madic, C., 117, 576, 608, 609
 Maeda, A., 390, 391
 Maeland, A. J., 66
 Maghrawy, H. B., 184
 Magill, J., 366, 367
 Magini, M., 118, 123
 Maglic, K., 356
 Magnusson, L. B., 5
 Mahalingham, A., 63
 Mahe, P., 103, 110
 Maillet, C. P., 195
 Mair, M. A., 633
- Mak, T. C. W., 472
 Makarova, T. P., 41
 Malek, C. K., 469, 482, 491
 Maletka, K., 475, 476, 478, 479, 495
 Malik, S. K., 66, 339
 Malkemus, D., 31
 Mallett, M. W., 328, 331, 399, 410
 Malm, J. G., 163, 174, 182, 200, 502, 503, 504, 505, 533, 534, 535, 537
 Malta, O., 483, 486, 491
 Maly, J., 37
 Malyshev, N. A., 31
 Malyshev, O. N., 164
 Manchanda, V. K., 182, 184
 Mandolini, L., 597
 Manes, L., 421
 Manfrinetti, P., 407
 Mangaonkar, S. S., 110
 Mangini, A., 231
 Manier, M., 220, 221
 Mann, R., 14
 Manning, W. M., 5
 Manohar, S. B., 182, 184
 Manriquez, J. M., 116, 117
 Manske, W. J., 76
 Mansouri, I., 457
 Mansuetto, M. F., 420
 Manuelli, C., 105
 Maple, M. B., 62, 63, 100
 Maples, C., 26
 Marakov, E. S., 402
 Marasinghe, G. K., 277
 Marcantonatos, M. D., 627, 629
 Marchidan, D. I., 360, 362
 Marckwald, W., 20
 Marcon, J.-P., 378, 414
 Marcus, R. B., 333
 Marcus, Y., 58
 Marden, J. W., 61, 80
 Margherita, S., 123
 Marie, S. A., 184
 Marin, J. F., 367, 368
 Marinenko, G., 634
 Marinsky, J. A., 484
 Markin, T. L., 353, 360, 362, 364, 389, 391, 392, 396
 Markowski, P. J., 100
 Marks, T. J., 116, 117, 576
 Marlein, J., 33
 Marler, D. O., 470
 Maron, L., 580, 596
 Marov, I. N., 218, 219
 Marples, J. A. C., 39, 191, 193, 230, 353
 Marquardt, C. M., 133, 223
 Marquet-Ellis, H., 423, 445, 503, 505
 Marquez, L. N., 287
 Marrus, R., 190
 Marshall, R. H., 384, 385, 386, 387, 388

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Martell, A., 121, 124, 132, 510, 597, 602, 604, 606
Martin, A. E., 352, 353, 378, 391
Martin, F. S., 424
Martin, G. R., 187
Martin, P., 42, 389
Martin, R. L., 580, 589, 596, 620, 621
Martin Sanchez, A., 133
Martinot, L., 118, 119, 421, 423, 445, 487, 492
Martin-Rovet, D., 101
Martinsen, M., 78, 80, 81, 82, 96, 100
Marty, N., 184, 187
Martynova, N. S. Z., 516
Marusin, E. P., 69, 72
Marzano, C., 319
Marzotto, A., 548, 554
Masaki, N., 377, 387, 389, 409
Mashirov, L. G., 539, 548, 549, 555, 556, 571
Mason, B., 259, 262, 263, 264, 265, 266, 267, 268, 269, 275
Mason, D. M., 76
Mason, G. W., 27, 115, 171, 172, 175, 184, 219
Mason, J. T., 78, 80, 82
Mason, M. J., 125, 127, 128, 130, 131
Mason, T., 170, 187
Mason, T. E., 399
Mass, E. T., 565
Masson, J. P., 503, 561
Mastal, E. F., 43
Masters, B. J., 621, 622
Masuda, A., 231
Matei-Tanasescu, S., 360, 362
Matheis, D. P., 417, 418
Mathew, K. A., 40, 41
Mathews, C. K., 355
Mathieu-Sicaud, A., 123
Mathur, B. K., 540, 566
Mathur, P. K., 180
Matignon, C., 61, 63, 64, 80, 97
Matioli, P. A., 260, 293
Matkovic, B., 102, 103, 110
Matonic, J. H., 593
Matsika, S., 577, 627
Matson, L. K., 415
Matsui, T., 347, 353, 360, 369, 394, 396
Matsuoka, H., 410
Matsutsin, A. A., 458
Matthews, C. K., 396
Matthews, J. M., 102, 110
Matthias, B. T., 34, 191, 193
Matzke, H. J., 367, 368
Matzner, R. A., 301
Maulden, J. J., 187
Maxim, P., 64
Maximov, V., 398
May, A. N., 53
Mayankutty, P. C., 58
Mayer, H., 262
Mayer, P., 588
Mayerle, J. J., 337
Mayne, K., 192
Mazeina, L., 113
Mazer, J. J., 276
Mazurak, M., 431
Mazus, M. D., 69, 72
Mazzanti, M., 598
Mazzi, F., 269, 278
McBeth, R. L., 107, 292, 490, 492, 501, 510, 524
McCollum, W. A., 70
McColm, I. J., 67, 71
McCormac, J. J., 225, 226
McCoy, J. D., 164
McCue, M. C., 106, 119
McDermott, M. J., 537
McDevitt, M. R., 42, 43, 44
McDonald, R. A., 70, 339, 399, 407
McDonald, R. O., 309
McDowell, J. F., 33
McDowell, R. S., 502, 519, 529, 530
McDowell, W. J., 107
McEachern, R. J., 348
McEwen, D. J., 634
McGill, R. M., 484
McGlinn, P., 278
McGrath, C. A., 185, 186
McIsaac, L. D., 225
McKay, H. A. C., 164, 171, 173, 177, 180, 227
McLaughlin, R., 469
McLeod, K. C., 634
McMillan, 4
McMillan, E. M., 5
McMillan, T. S., 521
McNamara, B. K., 289
McTaggart, F. K., 75, 96
McVay, T. N., 84, 86, 87, 88, 89, 90, 424, 460, 461, 462, 463, 464, 465
Mech, A., 422, 425, 426, 427, 442, 447, 448, 482
Mech, J. F., 5, 27, 171, 184
Medenbach, O., 262
Medvedev, V. A., 62, 129, 322
Meerovici, B., 329, 333, 336
Meerschaut, A., 96, 415
Meggers, W. F., 33
Mehrbach, A. E., 609, 614
Meinke, W. W., 164, 182, 184, 187
Meisel, K., 63, 98, 100
Meisen, U., 100
Meisner, G. P., 67, 71
Meisser, N., 260, 267, 285, 288, 292
Meissner, W., 62
Meites, L., 632
Meitner, L., 3, 4, 20, 163, 164, 169, 172, 255
Mellor, J. W., 101, 253, 255
Melzer, G., 107

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Mendelev, D., 161, 162, 254
Mendelson, A., 319
Menis, O., 634
Mentink, S. A. M., 399
Mentzen, B., 114
Menzer, W., 376, 382, 523
Menzies, C., 367
Merckle, A., 107
Mercurio, D., 509
Mereiter, K., 261, 262, 266, 267, 281
Merigou, C., 109
Merinis, J., 200, 201
Merkusheva, S. A., 109
Merlino, S., 268, 298
Merritt, R. C., 303, 304, 307, 308, 309, 311, 312, 313, 314
Mertig, I., 63
Mertz, C., 292
Mesmer, R. E., 119, 120, 121, 598, 599
Metin, J., 468
Metsentsev, A. N., 14
Metzger, F. J., 111
Meunier, G., 268, 385
Meusemann, H., 332
Meyer, G., 425, 428, 429, 431, 434, 435, 436, 440, 444, 447, 450, 451, 453, 456, 469, 471
Meyer, N. J., 119, 120, 121, 123, 124
Meyer, R. A., 367
Meyer, R. J., 63, 80, 104, 108
Meyer, W., 473, 476, 479, 497, 500
Meyerson, G. A., 61
Meyrowitz, R., 292, 363, 367
Mhatre, B. G., 110
Michel, D., 113
Michel, J., 535
Miedema, A. R., 66
Miederer, M., 42, 43
Miekeley, N., 132
Miernik, D., 428, 429, 450, 451, 493
Mighell, A. D., 459, 460, 461, 463
Mignanelli, M. A., 391
Miguel, M., 627
Miguta, A. K., 280
Mikhailichenko, A. I., 30
Mikhailov, V. A., 175, 184, 219
Mikhailov, Yu. N., 539, 541, 542, 552, 575
Mikhailova, M. A., 26
Mikheev, N. B., 28, 38, 61, 220, 221
Mikou, A., 88, 91, 467
Miles, G. L., 184, 187, 219, 230
Milic, N. A., 123
Milicic-Tang, A., 95
Miller, D., 367
Miller, J. F., 64
Miller, M. L., 257, 259, 270, 272, 280, 281, 283
Miller, N. H., 274, 289
Miller, R. A., 224, 225
Miller, S. A., 264
Mills, K. C., 413
Milner, G. W. C., 226
Minakawa, N., 339
Miner, W. N., 398, 408, 409
Mintz, E. A., 116, 117
Mintz, M. H., 335
Miquel, Y., 576
Miraglia, S., 65, 66
Miranda, C. F., 198, 225, 227
Mirzadeh, S., 31, 43
Misaelides, P., 302
Misciatelli, P., 106
Misdolea, C., 367
Mishler, L. W., 357
Mitchell, R. H., 113
Mitchell, R. S., 294
Mitius, A., 69, 72
Mitsubishi Materials Corporation, 179
Mitsugashira, T., 30, 37, 40
Mitsuji, T., 209, 217, 220, 221, 222
Miyake, C., 382, 389, 390, 391, 396, 397, 421, 509, 524
Miyake, K., 412
Miyake, M., 410
Mize, J. P., 227
Mockel, S., 268, 298
Mody, T. D., 605
Moeller, T., 18, 37
Moens, L., 638
Mohammed, A. K., 132
Mohanly, S. R., 182
Moine, B., 81
Moiseev, S. D., 30
Moissan, H., 61, 63, 67, 68, 78, 80, 81, 82, 95, 96, 100
Molinet, R., 44
Moll, H., 118, 133, 490, 580, 581, 586, 589, 591, 596, 602, 605, 612, 616, 621, 626
Molochnikova, N. P., 179, 182, 184, 187, 207, 219, 229, 230
Molodkin, A. K., 102, 105, 106, 108, 109, 110, 114
Moloy, K. G., 116
Mondange, H., 113
Money, R. K., 30, 34, 35
Monroy-Guzman, F., 181
Monsecour, M., 20, 27, 31, 38
Montenero, A., 103, 110, 546, 547, 553, 554
Montgomery, H., 63
Monthoux, P., 407
Montignie, E., 97, 417
Montoloy, F., 468, 469, 506
Montorsi, M., 393
Moodenbaugh, A. R., 62, 96
Moody, D. C., 452
Moody, J. W., 415
Moody, K. J., 14

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Moon, H. C., 121, 123, 124, 125, 126, 127
 Moon, K. A., 595
 Mooney, R. C. L., 80
 Mooney, R. W., 110
 Moore, D. A., 127, 128, 131
 Moore, F. L., 182, 184, 185, 187, 225, 226
 Moore, F. S., 185
 Moore, G. E., 180, 357
 Moore, J. G., 188
 Moore, R. E., 459
 Moore, R. L., 227
 Moore, R. W., 29
 Moravec, J., 372, 373, 374, 375
 Moreau, C., 355
 Moreau, L., 43
 Moren, S. B., 231
 Moreno, N. O., 406
 Morfeld, P., 274
 Morgan, A. R., 164
 Morgan, J., 162
 Morgan, J. W., 636
 Morgan, L. O., 5
 Morgenstern, A., 223
 Morimoto, T., 395
 Morin, J., 324
 Morinaga, H., 164
 Moriyama, H., 120, 121
 Moriyama, J., 394
 Moriyasu, M., 627
 Morozova, Z. E., 179
 Morris, D. E., 270, 291, 301, 580, 595,
 620, 621
 Morris, D. F. C., 163
 Morss, L. R., xv, xvii, 1, 18, 33, 80, 106, 117,
 119, 339, 380, 425, 431, 447, 451, 469,
 471, 622
 Morterat, J. P., 405
 Mortimer, M. J., 192
 Mosdzielewski, K., 35, 41
 Moseley, P. T., 78, 82, 106, 205
 Moser, J. B., 414, 415
 Moskowitz, D., 66
 Moskvichev, E. P., 113
 Moskvin, A. I., 129, 132, 218, 219, 504,
 584, 602
 Moskvin, L. N., 26
 Moss, M. A., 69, 72
 Mosselmans, J. F. W., 588, 593, 595
 Motoyama, G., 407
 Mou, W., 164
 Moukhamet-Galeev, A., 606, 611, 612
 Moulin, C., 120
 Moulin, V., 120
 Moulton, W. G., 455
 Moune, O. K., 482
 Moutte, A., 40
 Moze, O., 70, 73
 Mozumi, Y., 391, 396
 Mrad, O., 211
 Mrazek, F. C., 378
 Mrosan, E., 63
 Mucke, A., 269
 Mucker, K., 80
 Mueller, M. H., 64, 66, 102, 106, 320, 372
 Mueller, W., 161, 192, 193, 204, 207
 Mukaibo, T., 473
 Mukoyama, T., 576, 577
 Mulak, J., 470, 471, 491, 505
 Mulford, R. N. R., 97, 329
 Müller, A., 76
 Muller, A. B., 121, 125, 128, 421, 423, 425,
 435, 440, 441, 457, 458, 469, 473, 474,
 477, 478, 480, 481, 497, 502, 503, 509,
 513, 514, 515, 516, 517, 536, 538, 543,
 544, 545, 551, 552, 556, 593, 594, 595,
 596, 597, 598, 599, 601, 603, 612
 Müller, B. G., 78, 79
 Müller, F., 80, 81, 100
 Müller, G., 116
 Müller, M. H., 320, 321, 322
 Muller, P. M., 301
 Müller, R., 64
 Müller, U., 413, 477, 496, 509, 510, 512, 515,
 522, 554
 Müller, W., 34, 35, 191, 343
 Müller-Westerhoff, U., 630
 Mumme, I. A., 283
 Mumme, W. G., 295
 Munno, R., 269, 278
 Munoz, M., 121, 124
 Münstermann, E., 83
 Münzenberg, G., 6, 14, 164
 Murad, E., 70
 Murakami, T., 257, 270, 273, 277, 288, 290,
 292, 294, 298, 299
 Murakawa, M., 412
 Murasik, A., 414, 425, 439, 444, 447, 448, 455,
 476, 479
 Murav'eva, I. A., 374, 376, 377
 Murbach, E. W., 193
 Murch, G. E., 367, 368
 Murdoch, K., 422, 430
 Murillo, C. A., 162
 Murphy, W. F., 321, 323
 Murphy, W. M., 272, 293
 Murray, A., 367, 368, 635
 Murray, J. R., 75, 96
 Murrell, M. T., 171, 189, 231
 Murthy, M. S., 60
 Murthy, P. R., 101
 Murty, A. S. R., 115
 Muse, L., 224
 Musella, M., 357, 359
 Musgrave, J. A., 270
 Musikas, C., 43, 209, 220, 227
 Mutter, A., 286, 290

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Muxart, R., 162, 164, 166, 167, 182, 184, 185, 195, 196, 197, 198, 199, 200, 207, 208, 209, 213, 215, 216, 217, 218, 219, 221, 222, 225, 227, 228, 229, 230
- Myasoedov, B. F., 29, 30, 161, 178, 179, 181, 182, 183, 184, 185, 187, 188, 195, 198, 199, 200, 207, 209, 219, 221, 224, 227, 228, 229, 230
- Mydlarz, T., 416
- Nabar, M. A., 110
- Nabivanets, B. I., 121, 125
- Nagame, Y., 164
- Nagarajan, K., 396
- Nagasaki, S., 625
- Nagatoro, Y., 637
- Nagels, P., 368
- Nagypál, I., 590, 605
- Naik, R. C., 203
- Nairn, J. S., 164, 173, 177, 180, 227
- Naito, K., 340, 343, 344, 345, 347, 353, 354, 355, 356, 357, 360, 364, 369, 377, 378, 391, 393, 394, 396
- Nakagawa, T., 410
- Nakagawa, Y., 392
- Nakahara, H. T., 164
- Nakajima, K., 396
- Nakama, S., 396, 398
- Nakamatsu, H., 576, 577
- Nakamura, A., 360, 361, 362, 364
- Nakamura, S., 407
- Nakamura, T., 77
- Nakashima, T., 120, 121
- Nakatani, A., 382
- Nakotte, H., 338, 339, 409, 412
- Naramoto, H., 294
- Narayanan, K., 76
- Naray-Szabo, L., 77
- Narducci, A. A., 97, 420
- Narumi, K., 294
- Nash, K. L., 607, 612, 615
- Naslain, R., 67, 71
- Nassimbeni, L. R., 549
- Nasu, S., 343
- Nathan, O., 24
- Natsume, H., 375
- Naulin, C., 561
- Naumann, D., 497
- Navaza, A., 380
- Navratil, J. D., 129
- Navrotsky, A., 113, 270, 287
- Nawada, H. P., 355
- Nazarenko, O. M., 26
- Nazarov, P. P., 180
- Nebel, D., 132
- Neck, V., 119, 120, 121, 122, 125, 126, 127, 130, 421, 423, 425, 435, 439, 440, 441, 457, 458, 469, 473, 474, 477, 478, 480, 481, 497, 502, 503, 509, 513, 514, 515, 516, 517, 536, 538, 543, 544, 545, 551, 552, 556, 593, 594, 595, 596, 597, 598, 599, 601, 602, 603
- Neckel, A., 69, 72
- Neher, C., 61
- Neish, A. C., 110, 114
- Nekrasova, V. V., 30, 161, 185
- Nelms, S., 638
- Nelson, D. M., 633
- Nelson, F., 30, 180
- Nelson, H. R., 399
- Nelson, R. S., 39
- Nereson, N. G., 67, 71
- Nervik, W. E., 19, 28, 29
- Nesper, R., 98, 100
- Nestasi, M. J. C., 182
- Nestor, C. W. J., 33
- Neta, P., 371
- Neu, M. P., 289, 421, 593, 595, 602
- Neubert, A., 70
- Neuefeind, J., 596, 602
- Neufeldt, S. J., 350, 373, 380, 382, 383
- Neuhaus, A., 372, 373
- Neumann, F., 66
- Neumann, R., 264
- Neurock, M. J., 576
- Nevitt, M. V., 90
- Newkome, G. R., 526
- Newton, A. S., 63, 64, 65, 75, 78, 80, 81, 83, 95, 100, 107, 329, 332, 336
- Newton, T. W., 590, 606, 622
- Newville, M. G., 291
- Ng, W. L., 70, 73
- Nguyen, S. N., 287
- Nguyen-Nghi, H., 423, 445, 503, 505
- Nguyen-Trung, C., 121, 125, 128, 421, 423, 425, 435, 440, 441, 457, 458, 469, 473, 474, 477, 478, 480, 481, 497, 502, 503, 509, 513, 514, 515, 516, 517, 536, 538, 543, 544, 545, 551, 552, 556, 593, 594, 595, 596, 597, 598, 599, 601, 602, 603
- Nichols, M. C., 417, 418
- Niedrach, C. W., 319
- Nielsen, B., 31
- Nielsen, H. S., 164, 170, 187
- Nielsen, J. B., 117, 475, 495
- Nielsen, O. B., 24, 164, 170, 187
- Nielsen, P. E., 630
- Nierenberg, W. A., 190
- Nierlich, M., 102, 106, 468, 469, 576, 582, 583
- Nieupoort, W. C., 578
- Nieva, G., 62
- Niinistö, L., 580, 581
- Niitsuma, N., 100
- Nikolaev, A. V., 185
- Nikolotova, Z. A., 108

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Nikula, T. K., 44
Nilov, V., 164
Nilson, L. F., 61, 63, 80, 81, 82, 95, 101, 104
Ninov, V., 6, 14, 164
Nishikawa, M., 366
Nishina, Y., 167
Nishinaka, I., 164
Nishioka, T., 407
Nissen, M. K., 225
NIST, 132, 597, 602, 639
Nitsche, H., 589
Nitschke, J. M., 6
Noël, H., 75, 96, 97, 402, 406, 407, 413, 414, 415, 416, 417, 420, 423, 425, 435, 437, 440, 456, 457, 470, 473, 474, 478, 479, 499, 502, 509, 514, 515, 516, 538, 544, 551
Noer, R. J., 63
Noland, R. A., 319
Nomura, Y., 343
Nordenskjöld, A. E., 75
Nordling, C., 60
Norreys, J. J., 69
Norris, D. I. R., 391, 396
Norseev, Y., 28, 43
Northrup, C. J. M., Jr., 330, 331
Nöth, H., 67
Nottorf, R., 64, 421
Nottorf, R. W., 63, 64, 65, 329, 332, 336
Novak, C. F., 127
Novák, M., 264, 281
Novgorodov, A. F., 40
Novichenko, V. L., 28, 38, 220
Novikov, G. I., 80, 81, 82
Novikov, Yu. P., 184, 188
Novikova, G. I., 20, 24
Novoselova, A. B., 424
Nowicki, L., 340, 345, 348
Nowikow, J., 214, 217
Nowotny, H., 67, 69, 71, 72
Nozaki, Y., 44, 231
Nriagu, J. O., 297
Nugent, L. J., 33, 38, 118
Nugent, M., 291
Nunnemann, M., 60
Nurmia, M., 6
Nurmia, M. J., 182
Nuttall, R. L., 34

Obbade, S., 298, 301
Oberkirch, W., 116
Oberti, R., 261, 301
Ochiai, A., 407
Ochiai, K., 637
Odie, M. D., 324
Odom, J. D., 452
O'Donnell, T. A., 198, 562

OECD-NEA, 310
Oesterreicher, H., 66
Oetting, F. H., 321, 322
Oetting, F. L., 61, 80, 81, 351, 352, 353, 362, 421, 436, 437, 470, 471, 473, 475, 476, 486, 502, 504, 505, 510, 511, 539, 541, 546, 553
Oganessian, Y. T., 6
Oganessian, Yu. Ts., 14
Ogard, A. E., 357
Ogden, J. S., 364, 365
Ogle, P. R., 505, 506, 535
Ogliaro, F., 435
Oguma, M., 390, 394, 396, 397
O'Hare, D., 593
O'Hare, P. A. G., 357, 358, 372, 378
Ohmichi, T., 390, 391, 396
Ohmori, T., 352
Ohnesorge, W. E., 115
Ohnuki, T., 273, 294
Ohse, R. W., 280, 291, 364, 366, 367
Ohta, T., 77
Ohtaki, H., 118
Ohtsuki, T., 164
Ohwada, K., 372, 373, 375, 460, 461, 462, 463, 467, 520, 533, 534
Ohya, F., 356
Ohya-Nishiguchi, H., 382
Oikawa, K., 407
Oishi, Y., 395
Ojima, H., 189
Okazaki, M., 397
Olander, D. R., 366, 367
Ollier, N., 277
Olmi, F., 269
Olsen, C. E., 191, 193, 334, 335
Olsen, T., 409
Olson, R. A., 293
Olson, W. M., 97
Omejec, L., 69, 70, 73
Omori, T., 219
Ondik, H. M., 459, 460, 461, 463
Ondrus, P., 262, 263
Ono, S., 339
Onoe, J., 576, 577
Onosov, V. N., 119
Onuki, Y., 406, 407, 412
Oosawa, M., 225, 226
Opalovskii, A. A., 539, 542
Orlandi, P., 269
Orleman, E. F., 621
Orlinkova, O. L., 374, 375
Orlova, A. S., 374
Orlova, I. M., 539, 565
Ortego, J., 501, 523
Ortego, J. D., 522
Osawa, S., 189
Osborn, R., 389

- Osborne, D. W., 64, 66, 333, 372, 376, 378, 382, 486, 502
 Oshima, K., 345, 347, 355, 369
 Osicheva, N. P., 583, 601
 Oster, F., 62
 Östhols, E., 125, 127, 128, 129, 130, 131, 132
 Otey, M. G., 566
 Otto, K., 329, 330, 331, 332
 Ottolini, L., 261, 301
 Ouadi, A., 43
 Ouchi, K., 375, 391, 395, 396
 Ouillon, N., 109
 Ouqour, A., 76
 Outebridge, W. F., 292
 Ouvrard, L., 75, 81, 109
 Ouweltjes, W., 551, 552
 Overman, R. T., 186
 Oweltjes, W., 514, 543
 Owens, D. R., 103, 113
 Oyamada, R., 93
- Pabalan, R. T., 301
 Pabst, A., 269
 Padiou, J., 414, 417
 Pagès, M., 79, 86, 87, 90, 92, 111, 113, 391, 459, 460, 511
 Pagoaga, M. K., 259, 282
 Pai, M. R., 110
 Paine, R. T., 502, 519, 529, 530, 536
 Paixão, J. A., 409, 412
 Palanivel, B., 63, 100
 Palei, P. N., 185, 188, 218, 219, 228
 Palenik, C. S., 271
 Palenzona, A., 407
 Paley, P. N., 184
 Palisaar, A.-P., 98
 Palmer, C., 110, 112
 Palmer, C. E. A., 287
 Palmer, D., 421, 423, 425, 435, 439, 440, 441, 457, 458, 469, 473, 474, 477, 478, 480, 481, 497, 502, 503, 509, 513, 514, 515, 516, 517, 536, 538, 543, 544, 545, 551, 552, 556, 593, 594, 595, 596, 597, 598, 599, 601, 602, 603
 Palmer, P. D., 580, 595, 620, 621
 Palmer, P. P., 289, 602
 Palmy, C., 63
 Palsgard, E., 297
 Pal'shin, E. S., 161, 178, 179, 181, 182, 183, 184, 185, 187, 188, 195, 198, 199, 200, 207, 209, 219, 224, 228, 229, 230
 Pan, Q., 191
 Panak, P. J., 223
 Panczer, G., 277
 Pandit, S. C., 540, 566
 Panlener, R. J., 396
- Pannetier, J., 467
 Paolucci, G., 452, 548
 Papiernik, R., 509
 Park, I.-L., 626, 627
 Park, K., 397
 Parker, V. B., 34, 80, 81, 421, 436, 437, 470, 471, 473, 475, 476, 486, 502, 504, 505, 510, 511, 539, 541, 546, 553
 Parkin, I. P., 410, 412, 420
 Parks, R. D., 63
 Parks, S. I., 455
 Parry, J. S., 117
 Parry, S. J., 635, 636
 Parsons, B. I., 164, 186, 187
 Parsons, R., 371
 Parsons, T. C., 116
 Parthasarathy, R., 180
 Partington, J. R., 19, 367
 Pascal, J., 324
 Pascal, J. L., 101
 Pascal, P., 421
 Pascual, J., 180, 187
 Pasero, M., 268, 269, 298
 Passler, G., 33, 60
 Pastor, R. C., 78
 Paszek, A. P., 422, 453
 Patat, S., 385, 388
 Patel, C. C., 101
 Patel, S. K., 182
 Patel, T., 466
 Pathak, P. N., 182, 184
 Patin, J. J., 14
 Patnaik, D., 86, 91
 Patschke, R., 97
 Patton, F. S., 319
 Pattoret, A., 322, 351, 352, 353, 362, 364, 365
 Paul, R., 390, 392
 Paul, R. C., 105
 Paulka, S., 42
 Paulus, W., 185, 186
 Pautov, L. A., 261
 Pavlikov, V. N., 112
 Pavlinov, L. V., 364
 Pavlov, V. C., 364
 Payne, T. E., 273
 Percy, E. C., 272, 293
 Pearson, W. B., 98
 Pecaut, J., 598
 Pedersen, J., 164, 170
 Pedregosa, J. C., 110
 Pedrini, C., 81
 Pedziwiatr, A. T., 67
 Peeters, O., 267, 268
 Peetz, U., 395
 Pekov, I. V., 268, 298
 Péligot, E., 254, 413, 421
 Pell, M. A., 97, 420
 Pellegrini, V., 42, 43

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Pellizzi, G., 546, 547, 553, 554
Pelsmaekers, J., 353, 354
Péneau, A., 81
Peng, Q. X., 108
Penneman, R. A., 78, 86, 87, 88, 90, 91, 92,
103, 112, 201, 202, 222, 424, 446, 451,
452, 458, 459, 461, 465, 466, 488, 502,
504, 505, 506, 507, 519, 520
Pennington, W. T., 475, 495
Peny, Z., 263
Peper, S. M., 298
Peppard, D. F., 27, 107, 115, 171, 172, 175,
184, 219
Pepper, R. T., 378
Peretz, M., 64, 336
Perey, M., 20, 27
Perez-Mato, J. M., 78, 82
Perezy Jorba, M., 113
Pério, P., 329, 347, 348, 353, 355
Perkins, M., 225
Perlman, I., 5, 25
Perlman, J., 164
Perlman, M. N., 194
Pérodeaud, P., 352
Perrin, A., 544, 550, 551, 552, 555
Perrin, C., 435, 471
Perrin, D. D., 132, 597
Perrone, J., 128
Pershina, V., 185, 186, 213
Person, J. L., 535
Persson, G., 184
Persson, I., 118
Petcher, T. J., 201
Peters, O. M., 541
Peterson, D. A., 316, 317
Peterson, D. E., 34
Peterson, D. T., 29, 61, 64, 65, 66, 95
Peterson, J. R., 421, 502, 503, 519, 528
Peterson, S., 27, 452, 572
Peterson, S. W., 372, 373
Petit, T., 389
Petrov, K. I., 109, 114
Petrynski, W., 338, 339
Pettke, T., 639
Pezerat, H., 195, 196, 197, 216, 225, 230
Pfeil, P. C. L., 325
Pfitzer, F., 372, 373, 374, 375, 376, 377
Pfrepper, G., 214, 217
Philippot, J., 355
Phillips, G. M., 164, 173, 177, 180
Phillips, L., 5
Picard, C., 353, 354, 362, 363
Piccard, A., 163
Pichot, E., 109
Pickett, D. A., 189, 231
Pickett, G. R., 63
Picon, M., 414
Piehler, D., 204
Piekarski, C., 274
Pierce, W. E., 226
Pijunowski, S. W., 372, 373
Pilati, T., 261, 264
Pillinger, W. L., 190
Piltz, G., 510, 511
Pippin, C. G., 44, 615
Pires de Matos, A., 208
Piret, P., 259, 260, 261, 262, 263, 264, 265, 267,
282, 283, 288, 293
Piret-Meunier, J., 116, 260, 263, 264, 283
Pirozhkov, S. V., 164, 166, 180
Pissarsjewski, L., 77
Pissot, A. M., 198, 225
Pitard, F., 632
Pitman, D. T., 67
Pitzer, R. M., 254, 577, 627
Plaisance, M. L., 215, 218
Plakhtii, V. P., 546
Plant, J., 270, 271
Platzner, I. T., 637
Plesko, E. P., 293
Plissionier, M., 101
Plotko, V. M., 6
Pluchet, E., 220
Plüddemann, W., 104
Plumer, M. L., 444
Plurien, P., 504, 505, 506, 507
Plyushcheva, N. A., 31
Podnebesnova, G. V., 539, 565
Podor, R., 109, 128, 602
Poettgen, R., 70, 73
Poinsot, R., 192
Pollard, F. H., 636
Polligkeit, W., 536
Pollmeier, P. G., 100
Pollock, E. N., 636
Polozhenskaya, L. P., 583, 601
Poluboyarinov, Y. V., 6
Polunina, G. P., 372, 373, 374, 375, 376,
384, 385
Polyakov, A. N., 14
Pommer, A. M., 292
Ponader, C. W., 270, 276, 277
Poole, R. T., 520
Poon, Y.-M., 501, 509, 523
Popeko, A. G., 6, 14, 164
Popov, S. G., 357
Popovic, S., 103, 110
Poppensieker, K., 6
Porai-Koshits, M. A., 102, 105
Porcher, P., 113
Posey, J. C., 518
Poskanzer, A. M., 29, 184
Poskin, M., 32, 33
Post, B., 66
Potel, M., 75, 96, 97, 402, 407, 414, 415, 416,
417, 514, 516, 528

- Potter, P. E., 367, 391
 Poulet, H., 545
 Powell, A. K., 545
 Powell, E. W., 484, 560
 Powell, F. W., 484
 Powell, J. E., 63, 64, 65
 Powell, R. W., 322
 Powell, T., 421
 Prescott, A., 520
 Prescott, C. H., 319
 Price, C. E., 100
 Priceman, S., 323
 Prigent, J., 372, 374, 376, 413, 551
 Prikryl, J. D., 272, 301
 Prince, E., 66
 Prins, G., 373, 374, 375, 514, 525, 543, 544, 551, 552, 569
 Privalov, T., 565, 577, 578, 595, 596, 606, 613, 619, 620, 622, 623
 Probst, H., 83
 Proceedings, 405, 420
 Prodic, B., 102, 108, 110
 Prokryl, J. D., 272, 293
 Proux, O., 389
 Prpic, I., 182
 Pugh, E., 407
 Pugh, W., 180
 Puigdomenech, I., 211, 590
 Puigdomenech, L., 270
 Pulcinelli, S. H., 90
 Pullen, F., 102, 110
 Punyodom, W., 225
 Purushotham, D. S. C., 182, 184
 Pushcharovskii, D. Y., 102, 109
 Pushcharovsky, D. Y., 266, 268, 298
 Putnis, A., 286, 290
 Pyle, G. L., 5
 Pyper, N. C., 369
 Pyykkö, I., 576
 Pyykkö, P., 578
 Pyzhova, Z. I., 29, 30
- Quarton, M., 103, 109, 110, 112
- Rabardel, L., 77
 Rabideau, S. W., 529, 530
 Rabinovich, D., 117, 475, 495
 Rabinowitch, E., 255, 318, 328, 339, 340, 558, 629
 Racah, G., 60
 Råde, D., 77
 Radzewitz, H., 113
 Rae, A. D., 546
 Raekelboom, E., 298
 Raetsky, V. M., 324
 Rafaja, D., 338, 339
- Rai, D., 125, 126, 127, 128, 130, 131
 Rai, H. C., 86, 91
 Raich, B., 319
 Rainey, R. H., 188
 Raj, P., 339
 Rajagopalan, M., 63, 100
 Rajagopalan, S., 396
 Raje, N., 180
 Rajnak, K., 203, 482, 491
 Ralph, J., 357
 Rama Rao, G. A., 182, 184
 Ramadan, A., 184
 Ramakrishna, V. V., 182
 Ramamurthy, P., 101
 Raman, V., 77
 Ramaniah, M. V., 40, 41
 Rammelsberg, C., 75
 Ramos Alonso, V., 93
 Ramsey, J. D. F., 301
 Rand, M., 421, 423, 425, 435, 439, 440, 441, 457, 458, 469, 473, 474, 477, 478, 480, 481, 497, 502, 503, 509, 513, 514, 515, 516, 517, 536, 538, 543, 544, 545, 551, 552, 556, 593, 594, 595, 596, 597, 598, 599, 601, 602, 603
 Rand, M. H., 53, 61, 67, 68, 69, 74, 100, 270, 321, 322, 325, 326, 351, 352, 353, 362, 364, 398, 400, 401, 402, 405, 406, 407, 425, 435, 469, 478, 486, 497, 502, 516
 Randall, C. H., 198
 Rao, C. L., 40, 41, 42
 Rao, C. R. V., 339
 Rao, P. M., 60
 Rao, P. R. V., 396
 Rao, V. K., 40, 41
 Rapp, G. R., 259, 260, 262, 263, 266, 267, 279
 Rapp, K. E., 518
 Rasilainen, K., 273
 Raspopin, S. P., 86, 93
 Rastsvetaeva, R. K., 266
 Ratho, T., 466
 Raub, E., 63
 Rauchle, R. F., 64
 Rauh, E. G., 60, 63, 70, 75, 322, 352, 364, 365
 Ray, C. S., 277
 Raymond, C. C., 412
 Raymond, D. P., 131, 132
 Raymond, K. N., 116
 Raynor, G. V., 98
 Rebenko, A. N., 539, 542
 Rebizant, J., 65, 66, 69, 73, 97, 102, 108, 192, 204, 207, 334, 335, 409, 412, 431, 451, 552, 553
 Rebizant, J. G., 470
 Recker, K., 372
 Reddy, A. S., 182
 Reddy, A. V. R., 182, 184
 Reddy, S. K., 182

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Redhead, P. A., 60
 Rediess, K., 505, 509, 510, 543
 Ree, T., 367
 Reeder, R. J., 291
 Reedy, G. T., 356, 366
 Rehkämper, M., 639
 Rehner, T., 82, 83
 Reich, T., 118, 289, 389, 580, 589, 596, 602, 612, 616, 621, 626
 Reid, A. F., 116
 Reid, M. F., 422, 483, 486
 Reilly, J. J., 338
 Reinhoudt, D. N., 597
 Reis, A. H., Jr., 372, 373
 Reisdorf, W., 6
 Remaud, P., 43
 Renshaw, J. C., 589
 Rentschler, H. C., 61, 80
 Repnow, R., 33
 Reshetov, K. V., 373, 375
 Reshitko, S., 14
 Ressouche, E., 475, 476, 495
 Reul, J., 34, 35, 191
 Reusser, E., 279
 Reuter, H., 407
 Rexer, J., 64
 Reymond, F., 172
 Reynolds, C. T., 205
 Reynolds, F. L., 319
 Reynolds, L. T., 630
 Reynolds, M. B., 485
 Reynolds, S. A., 164, 169, 225, 226
 Rhinehammer, T. B., 487
 Rhyné, J. J., 66
 Ribas Bernat, J. G., 93
 Richards, E. W. T., 190, 226
 Richards, R. B., 530
 Richardson, A. E., 29
 Richardson, J. W., Jr., 457, 486
 Rickard, C. E. F., 108, 115, 200, 201, 204, 205, 208, 527
 Ridgely, A., 226
 Riegel, J., 60
 Rietschel, A., 64
 Rietveld, H. M., 373, 375, 376, 392
 Rietz, R. R., 208
 Rigny, P., 504, 505, 506, 560
 Rimmer, B., 115
 Rimsky, A., 102, 103, 109, 111, 112, 131, 587, 588
 Rimsky, H., 103, 110
 Riou, M., 27
 Ripert, M., 389
 Rivers, M. L., 270
 Rivière, C., 576
 Rizzo da Rocha, S. M., 410
 Robert, F., 103, 112
 Robert, F. J., 103, 110
 Robert, J., 166
 Roberts, A. C., 103, 113
 Roberts, C. E., 119, 120, 121, 123, 124
 Roberts, Emma, xvi
 Roberts, J. T., 484
 Roberts, L. E. J., 195, 196, 226, 340, 353, 354, 356, 360, 362, 390
 Roberts, M. M., 588
 Roberts, S., 457, 486
 Roberts, W. L., 259, 260, 262, 263, 266, 267, 269
 Robins, R. G., 343
 Robinson, R. A., 333
 Robinson, T., 225
 Roche, M. F., 164
 Rodden, C. J., 632
 Rodehüser, L. R., 618
 Roden, B., 62
 Rodgers, A. L., 549
 Rodier, N., 542, 547
 Rodinov Yu, F., 164, 166
 Rodionov, V. F., 26
 Rodionova, I. M., 185
 Rodionova, L. M., 29, 30
 Rodrigues de Aquino, A., 410
 Rodriguez de Sastre, M. S., 355
 Roell, E., 63, 64
 Rogers, F. J. G., 164, 166, 173, 180, 224
 Rogers, N. E., 487
 Rogers, R. D., 421, 580, 595, 620, 621
 Rogl, P., 67, 68, 69, 71, 406
 Rogova, V. P., 259
 Roll, W., 55
 Rollefson, G. K., 104
 Roller, H., 377
 Rolstad, E., 352
 Ron, A., 469, 491
 Rona, E., 224, 621
 Ronchi, C., 347, 353, 357, 359
 Roof, R. B., 457
 Rooney, D. M., 393
 Roos, B. O., 576, 589, 595, 596
 Roozeboom, H. W. B., 101, 104
 Rosén, A., 576
 Rosengren, A., 63
 Rosenheim, A., 82, 90, 93, 105, 109
 Rosenthal, M. W., 487
 Rosenzweig, A., 78, 86, 88, 90, 91, 92, 259, 261, 262, 263, 264, 265, 266, 267, 268, 269, 275, 451, 458, 461, 464, 465, 488, 504, 505, 506, 507
 Roshalt, J. N., 170
 Ross, M., 265
 Rossberg, A., 589, 596, 602, 612, 616, 621
 Rossetto, G., 452
 Rossini, I., 596
 Rossotti, F. J. C., 209
 Rossotti, F. J. R., 589, 598

- Rossotti, H., 209, 589, 598
 Rotella, F. J., 457, 486
 Roth, R. S., 377
 Roth, W. L., 344
 Rothschild, B. F., 106, 107
 Rothwarf, F., 63
 Rough, F. A., 325, 408
 Rough, F. H., 325
 Roullet, G., 467
 Roussel, P., 575
 Roux, M. T., 281
 Rouxel, J., 96, 415
 Roy, R., 77
 Rozanov, I. A., 416, 419
 Rozen, A. M., 108
 Rubini, P., 608, 609
 Rubini, P. R., 618
 Rubinstein-Auban, A., 539
 Ruch, W. C., 316, 317
 Rudenko, N. P., 184
 Rüdorff, W., 372, 373, 374, 375, 376, 377, 378, 382, 384, 385, 386, 388, 389, 391, 392, 393, 523
 Ruehle, A. E., 303, 315, 317, 319, 559, 560
 Ruf, M., 555
 Ruff, O., 61
 Ruh, R., 113
 Ruikar, P. B., 182, 184
 Rulli, J. E., 353, 368, 369
 Rumer, I. A., 28, 38, 220, 221
 Rumer, I. A. R., 221
 Rummyantseva, Z. G., 185
 Runde, W., 595
 Rundle, R. E., 63, 64, 65, 67, 70, 71, 329, 330, 334, 335, 339, 399, 407
 Rundloef, H., 475, 478, 479, 495
 Runeberg, N. J., 578
 Runnals, O. J. C., 423, 444
 Rupert, G. N., 97
 Russell, A. S., 162, 187, 226
 Russell, D. R., 536, 539
 Rustichelli, F., 65, 66, 334, 335
 Rutgers van der Loeff, M. M., 44
 Rutherford, E., 3, 19, 20, 254
 Rutledge, G. P., 563
 Ruzic Toros, Z., 103, 110
 Ryan, A. D., 312
 Ryan, J. L., 38, 118, 125, 126, 127, 130, 310, 312
 Ryan, R. R., 78, 86, 87, 88, 90, 91, 92, 259, 261, 451, 458, 461, 464, 465, 466, 488, 497, 501, 502, 504, 505, 506, 507, 508, 512, 513, 515, 516, 517, 519, 520, 521, 524, 526, 527, 528, 536
 Ryan, V. A., 209, 214, 215, 217, 218
 Ryba-Romanowski, W., 422
 Rybka, R., 263
 Rycerz, L., 476, 478
 Rydberg, J., 209, 218, 220, 223
 Rykov, A. G., 606
 Saadi, M., 298, 301
 Sabatier, R., 457
 Saboungi, M.-L., 277
 Sachs, A., 108
 Sackett, W. M., 163, 170, 226
 Sadikov, G. G., 541
 Saed, A. Gavad, 184
 Saha, R., 396
 Sahm, C. C., 6
 Sahoo, B., 86, 91, 466
 Saibaba, M., 396
 Saiki, M., 182
 Saiki, W., 338
 Saillard, J.-Y., 435
 Saita, K., 392, 395
 Saito, Y., 353, 360, 362
 Sakai, M., 13
 Sakai, T., 225
 Sakairi, M., 28, 29, 40, 41
 Sakakibara, T., 100
 Sakanoue, M., 170, 188, 225, 226
 Sakurai, T., 343
 Salazar, K. V., 452
 Sales Grande, M. R., 230
 Sallach, R. A., 543
 Saller, H. A., 325
 Salmon, P., 416
 Salutsky, M. L., 19, 33, 34, 38, 162, 172, 178, 224, 225
 Salvatore, F., 371
 Salzer, M., 86, 88, 91, 467, 487
 Samadfam, M., 294
 Samartzis, T., 94
 Samhoun, K., 34, 37
 Samilov, P. S., 164, 166
 Samson, S., 373
 Samsonov, G. V., 323
 Samter, V., 82, 90, 93, 105, 109
 Sanchez, J. P., 409, 412
 Sandell, E. B., 632
 Sanderson, S. W., 106
 Sandino, A., 293
 Sandino, M. C. A., 270
 Sandström, M., 118, 123, 586
 Sani, A. R., 28
 Santhamma, M. T., 77
 Santini, P., 421, 444, 448
 Santoro, A., 340, 345, 346, 348
 Santos, I. G., 597
 Sara, K. H., 496
 Sari, C., 69, 73, 396
 Saro, S., 6, 14, 164
 Sarp, H., 265, 266
 Sarsfield, M. J., 578, 589

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Sasaki, N., 68
 Sata, T., 77, 353, 360
 Sathe, R. M., 109
 Sathyamoorthy, A., 339
 Sato, A., 40
 Sato, H., 407
 Sato, N., 396, 397, 398
 Sato, N. K., 407
 Sato, T., 215, 227, 273
 Satoh, K., 407
 Satoh, T., 63
 Satonnay, G., 289
 Satpathy, K. C., 86, 91
 Sattelberger, A. P., 439, 454, 455
 Satten, R. A., 471, 476, 482, 496
 Satterthwaite, C. B., 64, 65, 66
 Saue, T., 34
 Savage, A. W., 474
 Savage, D. J., 633
 Sawa, M., 410
 Sawai, H., 631
 Sawodny, W., 505, 509, 510, 543
 Sawwin, S. B., 188
 Sawyer, D. L., 67
 Sawyer, J. O., 373, 375
 Saxena, S. S., 407
 Saylor, H., 560
 Scaife, D. E., 83, 84
 Scapolan, S., 631
 Scargell, D., 178, 181
 Scargill, D., 213, 218
 Scavnicar, S., 102, 108, 113
 Schädel, M., 14, 182, 185, 186
 Schaef, H. F., 287
 Schäfer, H., 93, 492
 Schaner, B. E., 353, 354, 368, 369, 391
 Schauer, V., 372
 Schausten, B., 185, 186
 Scheetz, B. E., 293
 Scheinberg, D. A., 42, 43, 44
 Schenk, H. J., 208, 470
 Scherbakov, V. A., 575
 Scherer, U. W., 185
 Scherer, V., 199, 201
 Scherff, H.-L., 182, 195, 209, 215, 224
 Schertz, L. D., 117
 Schiaffino, L., 597
 Schild, D., 133
 Schilling, J., 76, 82, 93
 Schimek, G. L., 475, 495
 Schimmelpfennig, B., 565, 580, 589, 596, 610, 620, 622, 623
 Schimpf, E., 182, 185
 Schindler, M., 286, 290
 Schleid, T., 80, 425, 431, 435, 447, 456, 469, 471
 Schlemper, E. O., 268
 Schlesinger, H. I., 337
 Schlyter, K., 445
 Schmid, B., 444, 455
 Schmid, W. F., 110
 Schmidt, F. A., 61
 Schmidt, H. G., 64, 113
 Schmidt, K. H., 6
 Schmieder, H., 423, 445, 448
 Schmitz, F., 391
 Schmitz-Dumont, O., 410
 Schnabel, B., 64
 Schnabel, P., 389
 Schnabel, P. G., 357
 Schneider, A., 399
 Schneider, H., 421, 485, 557
 Schneider, J. H. R., 6
 Schneider, O., 413
 Schneider, W. F. W., 6
 Schneiders, H., 410
 Schoebrechts, J. P., 431, 451
 Schoenes, J., 100
 Scholder, R., 77, 372, 375, 376, 377, 378, 382
 Schoonover, J. R., 97
 Schott, H. J., 6, 14
 Schrader, R. J., 490
 Schreck, H., 41
 Schreckenbach, G., 580, 589, 596, 620, 621
 Schreiber, C. L., 471, 476, 482, 496
 Schreiber, D. S., 64
 Schretzmann, K., 366
 Schrieffler, J. R., 62
 Schuler, F. W., 63
 Schüler, H., 190, 226
 Schull, C. G., 64
 Schulz, A., 117, 118
 Schulz, W. W., 188
 Schuman, R. P., 167, 169, 187, 188, 195, 209, 214, 215, 217, 218, 230
 Schumann, D., 40
 Schumm, R. H., 34
 Schuster, M., 89, 93, 94
 Schuster, R. E., 118
 Schwalm, D., 33
 Schwamb, P., 33
 Schwarcz, H. P., 189
 Schwartz, C. M., 377, 378
 Schwartz, D. F., 319
 Schwartz, L. L., 621, 622
 Schwarz, H., 77
 Schwarz, R., 77
 Schwarzenbach, G., 597
 Schweiger, J. S., 180
 Schwetz, K., 67
 Schwochau, K., 114, 206, 208, 220, 470
 Schwochau, V., 220
 Schwotzer, W., 470
 Scibona, G., 123
 Scott, B. L., 117, 593
 Scott, P., 575

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Scott, T. E., 61
 Scotti, A., 366, 367
 Seaborg, G. T., xv, xvi, xvii, 3, 4, 5, 6, 8, 10, 18, 19, 25, 53, 162, 164, 184, 255, 256, 622
 Searcy, A. W., 69, 72, 78
 Sears, D. R., 87, 92
 Sechovský, V., 339
 Secoy, C. H., 390
 Sedláková, L., 373, 374, 375
 Sedlet, J., 19, 38, 42, 162, 172, 181, 182
 Seemann, I., 375, 376, 377
 Segnit, E. R., 295
 Segrè, E., 5, 8, 166
 Seidel, D., 605
 Seijo, L., 442
 Seitz, T., 63, 70
 Sejkora, J., 262, 264, 281
 Sekine, R., 576, 577
 Sekine, T., 28, 29, 40, 41
 Selbin, J., 116, 376, 377, 378, 382, 501, 508, 513, 516, 517, 521, 522, 523, 526, 528
 Selig, H., 533
 Sellers, P. A., 191, 192, 193, 194, 195, 196, 198, 201, 206, 207, 229
 Sellers, P. O., 172, 175, 219
 Sellman, P. G., 75, 96
 Semochkin, V. M., 180
 Sémon, L., 596
 Sen Gupta, P. K., 268
 Seppelt, K., 535, 542
 Serebrennikov, V. V., 109
 Sereni, J. G., 62, 63
 Serezhkin, V. N., 536
 Serezhkina, L. B., 536
 Sergeant, M., 435, 471
 Sergeeva, E. I., 129
 Serghini, A., 102, 110
 Sériot, J., 332
 Serizawa, H., 396, 397, 398
 Sessler, J. L., 605
 Seta, K., 347
 Settai, R., 407
 Sevast'yanov, V. G., 416
 Severing, A., 333, 334, 335
 Sewtz, M., 33
 Seyam, A. M., 116, 117
 Shabana, E. I., 186
 Shabana, R., 176, 181, 182, 184, 185
 Shahani, C. I., 40, 41
 Shahani, C. J., 40, 41
 Shalek, P. D., 95, 407, 412
 Shamir, J., 471, 512, 513
 Shankar, J., 215, 218
 Shanker Das, M., 109
 Shannon, R. D., 18, 34, 55
 Sharp, D. W. A., 520
 Shashikala, K., 339
 Shatinskii, V. M., 166
 Shaughnessy, D. A., 14
 Shaughnessy, D. K., 185, 186
 Shaver, K., 172, 178, 224, 225
 Shchelokov, R. N., 539, 565, 566
 Shcherbakova, L. L., 575
 Shchukarev, S. A., 82, 516
 Sheft, I., 317, 421
 Sheikin, I., 407
 Sheindlin, M., 357, 359
 Sheline, R. K., 24, 31
 Shelton, R. N., 96
 Shen, J., 263
 Shen, Y. F., 76
 Shepelev, Yu. F., 539
 Shepel'kov, S. V., 113
 Sherrill, H. J., 508, 516, 517, 521, 526, 528
 Sherry, E., 346
 Shestakov, B. I., 31, 41
 Shestakova, I. A., 31, 38, 39, 40, 41
 Shetty, S. Y., 109
 Shevchenko, V. B., 175, 184
 Shiba, K., 394
 Shibusawa, T., 631
 Shikama, M., 407
 Shilov, V. P., 626
 Shimazu, M., 631
 Shimizu, H., 356
 Shimojima, H., 215, 216, 224
 Shinn, W. A., 373, 378, 391
 Shinomoto, R., 482
 Shinozuka, K., 631
 Shiokawa, T., 219
 Shiokawa, Y., 37
 Shiratori, T., 394, 396, 397, 398
 Shirley, V. S., 24, 164
 Shirokovsky, I. V., 14
 Shlyk, L., 415
 Shmulyian, S., 33
 Shoesmith, D. W., 289, 371
 Short, J. F., 164, 173, 180, 224
 Shoun, R. R., 107
 Shuh, D. K., 118, 277, 287, 289, 579, 585, 589, 602
 Shull, C. G., 334, 335
 Shunk, F. A., 325, 405, 407, 408, 409, 411
 Siba, O. V., 545, 546
 Sibieude, F., 77
 Sibrina, G. F., 113
 Sichere, M.-C., 272, 292
 Siddham, S., 76
 Siegel, S., 88, 89, 93, 340, 341, 342, 343, 345, 346, 348, 350, 355, 356, 357, 358, 372, 375, 378, 380, 384, 389, 393, 471, 533
 Siek, S., 69, 73
 Siekierski, S., 188
 Sienko, M. J., 423, 445
 Sienko, R. J., 67, 71

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Sievers, R., 89, 98, 473, 500
 Sieverts, A., 63, 64
 Sigmon, G., 584
 Sikirica, M., 69, 73
 Sikkeland, T., 5, 6
 Silberstein, A., 471, 472, 512, 513
 Sillén, L. G., 103, 112, 120, 121, 123, 124, 132, 373, 510, 597, 602
 Silva, A. J. G. C., 264
 Silva, R. J., 287
 Silverman, L., 543
 Silvestre, J. P., 113, 208
 Silvestre, J. P. F., 477
 Simanov, Yu. P., 372, 373, 374, 375, 376, 377, 383, 384, 385, 393
 Sime, R. L., 162, 169
 Simmons, W. B., 269, 277
 Simon, A., 89, 94, 95
 Simon, J., 42, 43
 Simoni, E., 422, 430, 431, 450, 451, 482
 Simpson, F. B., 166, 230
 Simpson, J. J., 189
 Simpson, K. A., 348
 Simpson, P. R., 270, 271
 Sinaga, S., 339
 Singer, J., 472
 Singer, N., 115
 Singh Mudher, K. D., 69, 104, 105, 371
 Singh, N. P., 133
 Singh, R. N., 343
 Singh, S., 105
 Singjanusong, P., 225
 Sinha, A. K., 297
 Sinha, D. N., 76, 106
 SinitSYna, G. S., 31, 41
 Sizoo, G. J., 164, 187
 Sjodahl, L. H., 352, 357, 368
 Skála, P., 262
 Skalberg, M., 24
 Skanthakumar, S., 270, 287, 596, 602
 Skarnemark, G., 24
 Skiba, O. V., 546
 Skinner, C. W., 259, 262, 263, 264, 265, 266, 267, 268, 269, 275
 Skoblo, A. I., 575
 Skorik, N. A., 109
 Skotnikova, E. G., 105
 Skriver, H. L., 63
 Skylaris, C.-K., 596
 Slain, H., 319
 Sleight, A. W., 376
 Slivnik, J., 86, 91, 506, 508
 Sliwa, A., 335
 Sljukic, M., 102, 103, 110
 Slovyanskikh, V. K., 416, 417, 419
 Slukic, M., 103, 110
 Smets, E., 343
 Smiley, S. H., 485, 559
 Smith, A. J., 102, 104, 105, 164, 184, 195, 201, 215, 220, 221, 222, 227
 Smith, B., 225, 270, 271
 Smith, C., 357
 Smith, D. K., 261, 292
 Smith, E. A., 505, 506, 535
 Smith, E. F., 80
 Smith, G., 224
 Smith, G. S., 80, 201, 509
 Smith, H. K., 66
 Smith, H. L., 5, 227
 Smith, J. F., 61
 Smith, J. L., 161, 192, 193, 333, 334, 335
 Smith, J. N., 231
 Smith, K., 66
 Smith, K. L., 271, 280, 291
 Smith, R. M., 604, 606
 Smith, R. R., 226
 Smithells, C. J., 63, 75
 Smoes, S., 322, 364, 365
 Smolin, Yu. I., 539
 Smolnikov, A. A., 133
 Snellgrove, T. R., 546
 Snow, A. I., 399
 Snyder, R. L., 417, 418
 Sobczyk, M., 422, 425, 435, 442, 447
 Soddy, F., 3, 20, 162, 163, 201, 254
 Soderholm, L., 291, 457, 486, 584, 596, 602
 Soderling, P., 191
 Sofrononova, R. M., 373, 375
 Sofronova, R. M., 393
 Soga, T., 460, 461, 462, 463, 467
 Sokai, H., 231
 Sokolova, E., 261
 Solar, J. P., 208
 Solar, J. R., 116
 Sollman, T., 76, 109
 Solntseva, L. F., 583, 601
 Sorby, M. H., 66
 Sostero, S., 542
 Sotobayashi, T., 182
 Soubeyroux, J. L., 65, 66, 69, 71, 72
 Souka, N., 176, 182, 184, 185
 Soulié, E., 520
 Souron, J. P., 110
 Sousanpour, W., 39
 Souter, P. F., 576
 Soya, S., 608, 609
 Spangberg, D., 118
 Spedding, F. H., 61, 329, 332, 336, 448
 Speer, J. A., 275
 Spence, R. W., 5
 Spencer, A. J., 297
 Spencer, S., 596
 Speváckova, V., 176
 Spirlet, C., 207
 Spirlet, J. C., 34, 35, 69, 73, 161, 191, 192, 193, 204, 343, 412

- Spirlet, M. R., 102, 108, 431, 451, 470, 552, 553
- Spitsyn, V. I., 180, 184, 188, 209, 214, 218, 219, 224, 226, 345, 346, 366, 372, 373, 374, 375, 383
- Spötl, C., 291
- Spotswood, T. M., 620
- Srein, V., 264, 281
- Srirama Murti, P., 355
- Sriyotha, U., 389
- St. John, D. S., 25
- Staatz, M. H., 292
- Stabin, M., 43
- Stackelberg, M. V., 66
- Stadlbauer, E., 396
- Stalinski, B., 335, 338, 339
- Stalinski, S. P., 338
- Stanik, I. E., 214
- Stanner, J. W., 227
- Stapleton, H. J., 203
- Staritzky, E., 472, 474
- Starks, D. V., 116
- Starynowicz, P., 438, 454
- Staun Olsen, J., 100
- Staudenmann, J. L., 96
- Staunton, G. M., 485, 518
- Stchouzkoy, T., 195, 196, 197, 216, 218, 225, 229, 230
- Steadman, R., 67, 71
- Steahly, F. L., 63
- Stecher, P., 69, 72
- Stein, L., 32, 180, 201, 207
- Steiner, J. J., 407
- Steinrücke, E., 116
- Stepanov, A. V., 41
- Stephen, J., 190
- Stephens, F. M., Jr., 309
- Sterling, J. T., 352
- Sterner, S. M., 127, 128, 130, 131
- Sterns, M., 389
- Stevenson, P. C., 19, 28, 29, 180
- Stewart, D. F., 562
- Stewart, G. R., 192, 333, 334, 335
- Stewart, J. M., 259, 282
- Stirling, C., 639
- Stites, J. G., Jr., 34
- Stoewe, K., 417, 418, 420
- Stohl, F. V., 261, 292
- Stoll, H., 34
- Stoller, S. M., 530
- Stone, B. D., 34
- Stone, H. H., 390
- Stone, J. A., 190, 203, 425, 431, 435, 439, 469
- Stoneham, A. M., 39
- Storms, E. K., 68, 365, 366
- Stoughton, R. W., 63, 115, 175, 188, 256
- Stoyer, M. A., 14
- Stoyer, N. J., 14
- Straka, M., 578
- Strassmann, F., 4, 164, 169, 255
- Straumanis, M. E., 61
- Streck, W., 422, 430, 431, 451
- Street, K., Jr., 5
- Street, R. S., 344, 389, 391, 392
- Streitwieser, A., 208, 630
- Streitwieser, A., Jr., 68, 116
- Strek, W., 450
- Strellis, D. A., 185, 186
- Stricos, D. P., 225
- Stringer, C. B., 189
- Stringham, W. S., 172
- Strittmatter, R. J., 575
- Strobel, C., 78, 84
- Strohecker, J. W., 490
- Stronski, I., 191
- Strotzer, E. F., 63, 96, 100, 413
- Stroupe, J. D., 530, 560
- Strub, E., 185, 186
- Struchkova, M. I., 105
- Strumane, R., 343
- Strunz, H., 269
- Struss, A. W., 83
- Stryer, L., 631
- Stuart, W. I., 283
- Studd, B. F., 115
- Studier, M. H., 5, 53, 164, 172, 175, 219
- Stumpp, E., 376, 377, 378, 382, 505, 510, 511, 524
- Sturchio, N. C., 291
- Sturgeon, G. D., 506, 507
- Stuttard, G. P., 385, 388
- Subbotin, V. G., 14
- Subotic, K., 14
- Subrahmanyam, V. B., 164
- Suckling, C. W., 504
- Sudarikov, B. N., 303
- Sueki, K., 164
- Sueyoshi, T., 397
- Sugar, J., 33, 60
- Sugisaki, M., 395, 397
- Sugiyama, K., 406, 407
- Suglobov, D. N., 548, 549, 555, 556, 571, 575
- Suglobova, I. G., 86, 88, 89, 93, 424, 428, 429, 430, 431, 436, 437, 440, 450, 454, 470, 471, 473, 475, 476, 495, 510, 511, 571
- Sukhov, A. M., 14
- Suksi, J., 273
- Sullivan, J. C., 606, 607, 612, 615
- Sundaresan, M., 58
- Sunder, S., 274, 289, 371
- Sundman, B., 351, 352
- Suner, A., 187
- Sung-Ching-Yang, G. Y., 164
- Surac, J. G., 184

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Suranji, T. M., 123
 Surbeck, H., 133
 Suski, W., 333, 414, 416
 Suttle, J. F., 490
 Sutton, A. L., Jr., 389, 396
 Sutton, S., 473
 Sutton, S. R., 270, 291
 Suvorov, A. V., 82
 Suzuki, A., 589, 595, 613
 Suzuki, K., 622
 Suzuki, S., 30, 40, 180, 209, 217, 224
 Suzuki, T., 100, 182, 428, 436, 440, 444, 451
 Svantesson, J., 184
 Sveen, A., 347, 354, 357, 359
 Swain, K. K., 180
 Swallow, A. G., 115
 Swaney, L. R., 506
 Swanson, J. L., 126, 127, 130
 Swanton, S. W., 301
 Sweedler, A. R., 63
 Swihart, G. H., 268
 Sylva, R. N., 119, 120, 121, 123, 124, 126
 Sylwester, E. R., 185, 186, 301
 Szabó, Z., 580, 581, 589, 590, 591, 596, 597,
 602, 604, 605, 607, 608, 609, 610, 612,
 614, 616, 617, 618, 621, 625
 Szczepaniak, W., 425, 439, 444, 447, 448, 455,
 469, 475, 476, 478, 479, 495
 Szełowski, Z., 30
 Szilard, B., 76
 Szklarz, E. G., 68
 Szwarc, R., 352, 357, 365
 Szymanski, J. T., 103, 113
 Szytula, A., 69, 70, 73
- Tabata, K., 77
 Tabuteau, A., 87, 92, 391, 460, 511
 Tachibana, T., 352
 Tagawa, H., 280, 306, 355, 368, 369, 373, 377,
 378, 380, 383, 391, 392, 393, 395, 396,
 409, 490
 Taguchi, M., 366
 Taillade, J. M., 133
 Taira, H., 631
 Tait, C. D., 270, 289, 291, 580, 595, 602,
 620, 621
 Tajik, M., 452
 Takagi, E., 226
 Takagi, J., 215, 216, 224
 Takagi, S., 100
 Takahashi, K., 164
 Takahashi, S., 356
 Takahashi, Y., 354
 Takano, Y., 294
 Takayanagi, S., 407
 Takegahara, K., 100
 Takeuchi, H., 382
- Takeuchi, K., 576, 577
 Takeuchi, T., 407
 Talley, C. E., 412
 Tame, J. R. H., 630
 Tamhina, B., 182
 Tan, F., 266
 Tan Fuwen, 231
 Tanabe, K., 76
 Tanaka, H., 394
 Tanaka, K., 116
 Tanaka, S., 339, 625
 Tanaka, Y., 76
 Tanamas, R., 384, 385, 386, 393
 Tananaev, I. G., 161
 Tani, B., 343, 357, 358
 Tani, B. S., 272
 Taniguchi, K., 389
 Tanikawa, M., 164
 Tanner, P., 482
 Tanner, P. A., 472, 477
 Taoudi, A., 88, 91
 Tarafder, M. T. H., 93
 Tasker, I. R., 357, 358
 Tatarinov, A. N., 14
 Tate, R. E., 490
 Tateno, J., 368, 369, 373, 378, 383, 396
 Tatsumi, K., 378
 Taube, H., 592, 619, 622
 Taylor, A. J., 342, 357
 Taylor, J. C., 78, 86, 102, 106, 264, 283, 342,
 357, 358, 423, 425, 435, 439, 445, 453,
 455, 469, 473, 474, 475, 478, 495, 498,
 502, 503, 511, 515, 529, 530, 536, 543,
 544, 560, 567, 568, 569, 573, 594
 Taylor, M., 55, 103
 Taylor, P., 348
 Taylor, S. R., 26, 170
 Teetsov, A., 275
 Teillac, J., 27, 184, 187
 Teillas, J., 164
 Tellgren, R., 475, 478, 479, 495
 Temmoev, A. H., 133
 Tempest, P. A., 344, 348
 Templeton, D. H., 208
 Templeton, C. C., 106, 107
 Templeton, D. H., 67, 71, 78, 82, 83, 106, 116,
 423, 542, 580
 Templeton, L. K., 542, 580
 Ten Brink, B. O., 164
 Tepp, H. G., 316, 317
 Ter Akopian, T. A., 164
 Ter Haar, G. L., 116
 Ter Meer, N., 200
 Teshigawara, M., 339
 Tetenbaum, M., 352, 364, 365, 367
 Teterin, E. G., 458
 Teufel, C., 107
 Tevebaugh, R., 80

- Thakur, A. K., 114
 Thakur, L., 114
 Thalheimer, W., 164
 Tharp, A. G., 69, 72, 78
 Theng-Da Tchang, 193
 Thern, G. G., 185, 187
 Thewalt, U., 505, 510
 Thibault, Y., 293
 Thibaut, E., 420, 423, 425, 435, 437, 457, 470, 473, 474, 478, 502, 509, 514, 515, 516, 538, 544, 551
 Thiel, W., 89, 93, 94
 Thiele, K.-H., 116
 Thoma, R. E., 84, 85, 86, 87, 88, 89, 90, 91, 424, 446, 459, 460, 461, 462, 463, 464, 465, 487, 489
 Thomas, A. C., 128
 Thomé, L., 340, 348
 Thomke, K., 76
 Thompson, J. D., 406
 Thompson, R. C., 172, 174, 182, 215, 226
 Thompson, S. G., 5
 Thomson, J., 170, 225
 Thoret, J., 111, 112, 113
 Thörle, P., 33
 Thorn, R. J., 364, 365
 Thuma, B., 6
 Tian, S., 116
 Tichý, J., 347, 354, 357, 359
 Tiffany-Jones, L., 44
 Timma, D. L., 27
 Ting, G., 176, 188
 Tinkle, M., 457, 486
 Tishchenko, A. F., 112
 Tiwari, R. N., 76, 106
 Tobóu, R., 63
 Tobschall, H. J., 297
 Toepke, I. L., 64
 Toivonen, J., 580, 581
 Tom, S., 164, 186, 187
 Tomas, A. M., 226
 Tomiyasu, H., 607, 608, 609, 616, 617, 618, 620, 622, 626, 627
 Tomkins, F. S., 33, 190, 226
 Tomkowicz, Z., 69, 70, 73
 Toms, D. I., 198, 201
 Toms, D. J., 164, 173, 176, 179, 213, 224
 Tondello, E., 116, 546, 547, 553, 554
 Tong, J. P. K., 580, 582
 Toops, E. C., 25
 Topic, M., 102, 103, 110
 Toraishi, T., 597, 625
 Toropchenova, G. A., 175
 Toshiba Denshi Eng KK, 189
 Totemeier, T. C., 322, 327
 Toth, K. S., 164
 Tougait, O., 75, 97, 416, 417
 Toussaint, C. J., 373
 Toussaint, J. C., 34, 35, 194
 Toussaint, N., 195
 Tousset, J., 29
 Touzelin, B., 353, 391, 392
 Trauger, D. B., 53
 Trautmann, N., 25, 33, 60, 164
 Traverso, O., 542
 Treiber, A., 116
 Tresvyatsky, S. G., 395
 Tret'yakov, E. F., 20, 24
 Tretyakova, S. P., 6
 Trifonov, I. I., 86, 93
 Troc, R., 323, 333, 347, 353, 357, 412, 414, 415
 Trofimov, A. S., 164
 Tromp, R. L., 167, 187
 Trond, S. S., 505, 506
 Troost, L., 67, 75, 81, 109
 Trottier, D., 459
 Troxel, J. E., 69
 Trubert, D., 181, 211
 Trunov, V. K., 111, 112, 113, 536
 Trunova, V. I., 372, 374
 Truswell, A. E., 458, 484, 485
 Trzebiatowski, W., 335, 377, 470, 471, 491
 Trzeciak, M. J., 328, 331
 Tsai, H. C., 366
 Tsai, K. R., 76
 Tsapkin, V. V., 575
 Tsaryov, S. A., 175
 Tshigunov, A. N., 345, 346, 355, 366
 Tsirlin, V. A., 31
 Tsivadze, A. Yu., 565
 Tso, C., 206, 208
 Tso, T. C., 191, 379
 Tsoupko-Sitnikov, V., 28, 43
 Tsuji, T., 347, 356
 Tsukada, K., 164
 Tsupko-Sitnikov, V. V., 28, 43
 Tsushima, S., 589, 595, 613
 Tsyganov, Yu. Ts., 14
 Tuck, D. G., 84, 470, 493, 496, 568, 571, 572, 574
 Tucker, P. M., 348
 Tucker, W., 75, 107
 Tuller, H. L., 368, 369
 Turler, A., 185
 Turler, E. A., 182
 Turnbull, A. G., 83
 Turos, A., 340, 348
 Tutov, A. G., 546
 Tverdokhlebov, V. N., 105, 106
 Tyler, J. W., 340, 344, 348
 Tynan, D. E., 314
 U. S. Department of Energy, 43
 U. S. Nuclear Regulatory Commission, 32

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Udovenko, A. A., 541
 Ueda, R., 391, 396
 Ueki, T., 106
 Ueno, F., 89, 95
 Ueno, K., 109
 Ugajin, M., 360, 362, 394
 Uhelea, I., 13
 Uhl, E., 67, 71
 Ukon, I., 407
 Umehara, I., 407
 Une, K., 390, 394, 396, 397
 United Nations, 303
 Uno, M., 338
 Upali, A., 545
 Urbain, G., 115
 Urban, G., 132
 Ushakov, S. V., 113
 Usov, O. A., 546
 Utyonkov, V. K., 14
 Uusitalo, J., 14
 Uvarova, Y. A., 261

 Vaezi- Nasr, F., 183
 Vakhrushin, YuA., 113
 Valkiers, S., 405
 Valkonen, J., 580, 581
 Vallet, V., 577, 578, 580, 581, 589, 590, 591,
 595, 596, 606, 607, 610, 612, 613, 616,
 617, 619, 625
 Valli, K., 25, 164
 van Alphen, P. V., 62
 van Arkel, A. E., 61, 62
 Van Axeel Castelli, V., 597
 Van den Bossche, G., 470, 552, 553
 Van Der Hout, R., 28
 van der Loeff, M. M. R., 231
 van Egmond, A. B., 372, 374, 375, 378, 383
 van Geel, J., 44
 Van Ghemen, M., 199, 201
 Van Houten, R., 65
 Van Impe, J., 484, 485
 van Lierde, W., 343, 353, 354
 Van Mal, H. H., 66
 van Rensen, E., 80, 81
 van Springel, K., 541
 van Vlaanderen, P., 514, 525
 van Voorst, G., 374, 375, 378, 383
 van Vucht, J. H. N., 66
 Van Winkle, Q., 152, 166, 172, 174, 182
 Vance, E. R., 279, 280, 291
 Vance, J. E., 255, 303
 Vander Sluis, K. L., 33
 Varnell, L., 164
 Vasaikar, A. P., 110
 Vasilega, N. D., 112
 Vasil'ev, V. Ya., 108
 Vasilkova, I. V., 516

 Vasudeva Rao, P. R., 355
 Vaughan, R. W., 64
 Vaughen, V. C. A., 256
 Vaugoyeau, H., 351, 352, 353, 405
 Vdovenko, V. M., 86, 93, 436, 437, 454, 470,
 471, 473, 475, 476, 495, 548, 549,
 571, 575
 Vdovichev, V. S., 30
 Védrine, A., 86, 87, 92, 457, 458, 459
 Vedrine, J. C., 76
 Veeraraghavan, R., 182, 184
 Veleckis, E., 272
 Veleshko, I. E., 28, 38
 Venanzi, L. M., 496, 574
 Vendl, A., 70
 Venkateswarlu, K. S., 215, 218
 Venugopal, V., 69, 105
 Ver Sluis, K. L., 33
 Vera Tome', F., 133
 Verbist, J. J., 420, 423, 425, 435, 437, 457, 470,
 473, 474, 478, 502, 509, 514, 515, 516,
 538, 544, 551
 Verma, R. D., 105
 Vermeulen, D., 6
 Verneuil, A., 76, 77, 104
 Vernois, J., 188, 207, 209, 215, 219
 Veslovský, F., 262, 263
 Vidali, M., 115
 Vidanskii, L. M., 346
 Vigato, P. A., 115
 Vigner, D., 102, 106, 380
 Vilcu, R., 367
 Vincent, H., 113
 Visscher, L., 34, 578
 Viste, A., 343, 357, 358
 Viswanathan, K., 261
 Viswanathan, R., 96
 Vita, O. A., 357
 Vitti, C., 262
 Vivian, A. E., 605
 Vochten, R., 262, 267, 268, 294, 541
 Vodovatov, V. A., 539
 Vogt, O., 100, 409, 412
 Vohra, Y. K., 61
 Voight, A. F., 29
 Voinov, A. A., 14
 Voitekhova, E. A., 373, 375
 Vokhmin, V., 118, 119
 Vokhmyakov, A. N., 93
 Volck, C., 95, 110
 Voliotis, S., 102, 109, 131, 587, 588
 Volkov, V. A., 424, 430, 431, 437, 450, 454,
 470, 471, 473
 Volkov, Yu. F., 108, 109
 Volkova, E. A., 20, 24
 Volkovich, V. A., 372, 373, 374
 Voloshin, A. V., 102, 109
 von Bolton, W., 61, 63, 80, 115

- von Erichsen, L., 332
 von Goldbeck, O., 53, 67
 von Schnering, H. G., 98, 100
 von Wartenberg, H., 61, 63, 80
 von Welsbach, C. A., 52
 Vorobei, M. P., 545, 546
 Voronov, N. M., 364, 365, 373, 375, 393
 Vozhdaeva, E. E., 525
 Vu, D., 98
- Waber, J. T., 398, 408, 409
 Wacher, W. A., 117
 Wachter, P., 420
 Wachter, W. A., 116, 117
 Wachtmann, K. H., 69, 72
 Wada, N., 407
 Waddill, G. D., 277
 Wadier, J. F., 391, 396
 Wadsley, A. D., 113
 Wadt, W. R., 576, 578
 Wagman, D. D., 34, 62, 322
 Wagner, W., 466, 472, 476, 479, 482, 496, 499
 Wahl, A. C., 4, 5, 8
 Wahlgren, U., 565, 577, 578, 580, 581, 589, 590, 591, 595, 596, 606, 608, 609, 610, 612, 613, 616, 617, 619, 620, 622, 623
 Wailes, P. C., 116
 Wain, A. G., 178, 181
 Wait, E., 342, 346, 357, 358, 390
 Waite, T. D., 273
 Wakerley, M. W., 494
 Waldek, A., 33
 Walder, A. J., 638, 639
 Waldhart, J., 70
 Walen, R. J., 164
 Walenta, K., 261, 262, 263, 265, 267, 288, 293, 294
 Walker, A., 350, 373, 380, 382
 Walker, A. J., 356
 Walker, C. R., 357
 Walker, C. T., 69, 73
 Walker, F. W., 164
 Walker, I. R., 407
 Walker, L. A., 521
 Walker, S., 593
 Wall, I., 377
 Wallace, T. C., 67, 71
 Wallace, W. E., 66, 67
 Wallman, J. C., 5
 Wallroth, K. A., 110
 Walter, A. J., 178, 179, 195, 196, 226, 340, 353, 354, 360, 362
 Walter, D., 116
 Walter, H. J., 231
 Walter, K. H., 195, 378
 Walther, C., 223
 Walton A., 170
 Walton, J. R., 5
 Walton, R. A., 94
 Walton, R. I., 593
 Wan, A., 265
 Wan, H. L., 76
 Waner, M. J., 97
 Wang, A., 108
 Wang, H.-Y., 108
 Wang, J., 133
 Wang, Q., 577, 627
 Wang, R.-J., 472
 Wang, W., 108
 Wang, W.-D., 630
 Wang, X. Z., 70, 73
 Wangersky, P. J., 170
 Wani, B. N., 110
 Wanklyn, B. M., 113
 Wanner, H., 121, 125, 128, 421, 423, 425, 435, 440, 441, 457, 458, 469, 473, 474, 477, 478, 480, 481, 497, 502, 503, 509, 513, 514, 515, 516, 517, 536, 538, 543, 544, 545, 551, 552, 556, 593, 594, 595, 596, 597, 598, 599, 601, 602, 603
 Wapstra, A. H., 13, 164
 Ward, J. W., 34, 192, 195, 328, 333, 334, 335
 Ward, R., 376
 Wardman, P., 371
 Ware, M. J., 93
 Warf, J., 80
 Warf, J. C., 107, 329, 332, 336, 423, 444, 632
 Warner, J. C., 255, 303, 318, 319
 Warner, J. K., 269, 278
 Warren, I. H., 100
 Wasserburg, G. J., 638
 Wasserman, N., 33
 Wastin, F., 69, 73, 97
 Watanabe, H., 390, 391
 Watanabe, K., 392, 395
 Watanabe, N., 412
 Watanabe, T., 407
 Waters, T. N., 546
 Watkin, J. G., 439, 454, 455
 Watrous, R. M., 172, 175
 Watson, J. N., 279, 280
 Watt, G. W., 115, 493, 494
 Waugh, A. B., 198, 478, 498, 502, 503, 511, 530
 Wauters-Stoop, D., 267
 Wawryk, R., 100
 Wayman, R., xvi
 Weaver, C. F., 423, 444, 461
 Weaver, J. H., 64
 Webb, G. W., 34
 Weber, A., 182, 185
 Wedekind, E., 398
 Wedermeyer, H., 339, 340
 Weeks, A. D., 363, 367
 Weeks, M. E., 19, 20, 52

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Weghorn, S. J., 605
 Weigel, F., 35, 36, 38, 162, 199, 200, 201, 383, 395, 559, 593
 Weinland, R. F., 105
 Weisman, S. J., 194
 Weiss, A. R., 319
 Weitzel, H., 391
 Weldrick, G., 375
 Weller, M. T., 259, 287
 Wells, A. F., 569, 579, 600
 Wells, H. L., 90
 Wendlandt, W. W., 107
 Wendt, H., 616
 Wendt, K., 60
 Weng, W. Z., 76
 Werner, L. B., 5
 Wessels, G. F. S., 115
 West, M., 457, 486
 Westgaard, L., 170, 187
 Westlake, D. G., 64
 Westland, A. D., 93
 Westrum, E. F., Jr., 106, 340, 345, 348, 350, 353, 354, 355, 356, 357, 359, 378, 478, 486, 497, 502
 Weulersse, J. M., 537, 566, 567
 Wharton, J. H., 526
 Wheeler, V. I., 342, 357
 Wheeler, V. J., 106
 White, G. D., 87, 90
 White, G. M., 115
 White, J., 415, 416, 417
 White, J. C., 313
 White, J. F., 368
 White, R. W., 68, 191, 193
 White, T. J., 278
 White, W. B., 293
 Whitley, M. W., 588, 595
 Whitman, C. I., 61, 319
 Whittaker, B., 94, 186, 191, 198, 199, 200, 201, 203, 206, 207, 208, 466, 471, 472, 476, 479, 482, 496, 498, 499, 501, 512, 515, 524, 527
 Wiblin, W. A., 225, 226
 Wichmann, U., 396
 Wick, G. C., 164
 Wicke, E., 329, 330, 331, 332
 Wickleder, M. S., 52
 Wild, J. F., 14
 Wilhelm, H. A., 61, 63, 67, 319, 399
 Wilke, G., 116
 Wilkins, R. G., 164, 184, 215, 220, 221, 222, 227, 606, 609, 613
 Wilkinson, D. H., 13
 Wilkinson, G., 162, 630
 Wilkinson, M. K., 334, 335
 Wilkinson, W. D., 255, 313, 317, 318, 321, 323, 325, 327, 403
 Willets, A., 596
 Willett, R. D., 102, 110
 Williams, A., 334, 335
 Williams, C. T., 277, 278
 Williams, C. W., 380, 483, 486
 Williams, D. R., 131, 132
 Williams, E. H., 620
 Williams, P., 101, 104
 Williams, R. W., 231
 Willis, B. T. M., 340, 344, 345, 347, 348, 354
 Willis, J. M., 90
 Wills, J. M., 190
 Wilmarth, W. R., 421
 Wilson, A., 70
 Wilson, A. S., 63, 64, 65, 339, 399, 407
 Wilson, D. W., 98, 99, 100
 Wilson, M., 190, 199
 Wilson, P. W., 425, 435, 439, 453, 455, 469, 473, 474, 495, 515, 530, 536, 543, 544, 560, 562, 567, 568, 569, 573, 594
 Wilson, W. B., 393
 Wilson, W. W., 561
 Windley, B. F., 270, 271
 Winfield, J. M., 520
 Wingchen, H., 80, 81, 82
 Winkler, C., 61, 63, 64
 Winkler, J. R., 577
 Winocur, J., 190
 Winslow, G. H., 345, 351
 Winter, H., 63
 Winter, P. W., 369
 Wipff, G., 596
 Wirth, F., 104
 Wirth, G., 204, 205
 Wise, H. S., 190, 226
 Wiseman, P. J., 123, 126
 Wishnevsky, V., 200
 Wisniewski, P., 412
 Wisnyi, L. G., 372, 373
 Witte, A. M., 70
 Wittenberg, L. J., 487
 Wittmann, M., 98, 100
 Wlodzimirska, B., 32
 Wöhler, L., 104
 Wöhler, P., 104
 Wohlleben, D., 62
 Wojakowski, A., 195, 204, 414, 416
 Wolf, A. S., 518
 Wolf, G., 64
 Wolf, M. J., 107, 181, 182, 187
 Wolf, R., 636
 Wolf, S. F., 253, 273, 637, 638
 Wolf, W. P., 356
 Wolfe, B. E., 367
 Wollan, E. O., 64
 Wolzak, G., 164
 Wong, E., 471, 476, 482, 496
 Wood, J. H., 333, 334, 335
 Wood, P., 348

- Woodall, M. J., 385, 388
 Woodhead, J. L., 188, 225, 226
 Woodley, R. E., 396, 404
 Woodrow, A. B., 636
 Woodward, L. A., 93
 Woodwark, D. R., 546
 Woody, R. J., 305, 308
 Woolard, D. C., 108
 Woollatt, R., 35
 Wrenn, M. E., 133
 Wright, H. W., 164, 169
 Wrobel, G., 76
 Wronkiewicz, D. J., 270, 272, 273
 Wu, C., 44
 Wu, E. J., 97
 Wu, K., 42, 43
 Wu, S.-C., 188
 Wu, Y., 76, 77
 Wyatt, E. I., 164, 169
 Wylie, A. W., 83, 84
 Wyrouboff, G., 76, 77, 104
- Xia Kailan, 186
 Xia, Y.-X., 131, 132
 Xiaofa, G., 265
 Xu, D. Q., 108
 Xu, J., 29
 Xu, S. C., 108
- Yadav, R. B., 355, 396
 Yaffe, L., 106
 Yakovlev, G. N., 180
 Yamada, K., 396, 397, 398
 Yamada, M., 397
 Yamagami, S., 473
 Yamaguchi, A., 394
 Yamakuchi, Y., 189
 Yamamoto, S., 294
 Yamamoto, E., 412
 Yamamoto, T., 338, 339
 Yamamura, T., 626, 627
 Yamana, H., 30, 37, 120, 121
 Yamanaka, S., 338
 Yamanouchi, S., 352
 Yamashita, T., 375, 391, 392, 393
 Yamauchi, S., 64, 65, 328, 331, 332, 333, 334
 Yamawaki, M., 338, 339
 Yamnova, N. A., 102, 109
 Yanase, A., 100
 Yang, H. S., 231
 Yang, T., 589, 595, 613
 Yang, W., 164, 191
 Yang, X., 76
 Yanir, E., 115
 Yap, G. P. A., 117
- Yarembash, E. L., 417
 Yartys, V. A., 66, 338, 339
 Yasaki, T., 167
 Yasuda, R., 294
 Ye, X., 76
 Yen, K.-F., 80, 81
 Yeremin, A. V., 6, 14, 164
 Yeremin, V., 14
 Yerkess, J., 67, 71
 Yi, W., 639
 Yi, Z., 265
 Yoder, G. L., 357
 Yokoyama, Y., 189, 627
 Yong, P., 297
 Yoshida, N., 68
 Yoshida, S., 93
 Yoshihara, K., 473
 Yoshihara, S., 395
 Young, A. P., 377, 378
 Young, E. J., 363, 367
 Young, G. A., 303
 Young, J. P., 502, 503, 519, 528
 Young, R. C., 62, 81, 82
 lyres, J. A., 336
 Ythier, C., 25
 Yu, M., 108
 Yu, X., 164
 Yu, Z., 77
 Yuan, S., 77, 164, 189, 191
 Yun, S. W., 407
 Yusov, A. B., 626
- Zablocka-Malicka, M., 475, 495
 Zachara, J. M., 274
 Zachariasen, W. H., 34, 35, 36, 69, 71, 75, 79, 80, 87, 90, 91, 95, 96, 97, 98, 191, 192, 193, 194, 195, 196, 198, 201, 206, 207, 229, 329, 350, 372, 373, 379, 380, 405, 413, 414, 423, 439, 447, 455, 459, 460, 461, 462, 463, 488, 502, 503, 529, 539, 543, 567
 Zachwieja, U., 410
 Zadeii, J. M., 133
 Zadneporovskii, G. M., 458, 487
 Zadneprovskii, G. M., 458
 Zadov, A. E., 268, 298
 Zadvorkin, S. M., 334, 335
 Zagrebaev, V. I., 14
 Zaitsev, L. M., 108
 Zaitseva, L. L., 113
 Zaitseva, N. G., 28, 43
 Zaitseva, V. P., 504
 Zalkin, A., 67, 71, 78, 82, 83, 106, 116, 208, 423, 580
 Zalubas, R., 59, 60
 Zambonini, F., 111
 Zamir, D., 64

Vol. 1: 1–698, Vol. 2: 699–1395, Vol. 3: 1397–2111, Vol. 4: 2113–2798, Vol. 5: 2799–3440

- Zanella, P., 116, 452
Zauner, S., 185, 186
Zavalsky, Yu. P., 184
Zavizziano, H., 174
Zdanowicz, E., 100
Zeelie, B., 482, 492, 496, 498, 574
Zelenkov, A. G., 164, 166
Zelinski, A., 191
Zeltman, A. H., 529, 530
Zeyen, C. M. E., 81
Zhang, H., 116
Zhang, H. B., 76
Zhang, J., 265
Zhang Qingwen, 231
Zhang, X., 164
Zhang Xianlu, 186
Zhang, Y., 266
Zhang, Z., 254, 271, 280, 291, 577, 627
Zhangru, C., 265
Zhao, D., 298
Zhao, Z., 76
Zhou, M. L., 108
Zhu, W. J., 77
Zhu, Y., 29
Zhuk, M. I., 113
Zielen, A. J., 606
Zigmunt, A., 338, 339
Zijp, W. L., 164, 187
Zikovsky, L., 130, 131
Zimmer, E., 120, 121
Zimmerman, H. P., 185
Zimmerman, J. B., 633
Zimmermann, H., 116
Zimmermann, H. P., 182
Zimmermann, J. I. C., 254
Zingeno, R. A., 313
Ziv, D. M., 20, 24, 38, 39, 40
Ziv, V. S., 179
Ziyad, M., 102, 110
Zmbov, K. F., 70
Zogal, O. J., 338
Zolnierek, Z., 469, 491, 505
Zolotulcha, S. I., 175
Zons, F. W., 111
Zozulin, A. J., 452
Zumbusch, M., 96, 98
Zunic, T. B., 113
Zwanenburg, G. J., 203
Zwick, B. D., 289, 439, 454, 455, 602
Zych, E., 422, 427, 428, 429, 435, 436, 437,
438, 440, 444, 449, 451, 453, 454
Zygmunt, A., 338