Rodney C Ewing

List of Publications by Year
in descending order

360	18,712	14614 66	17546 121
papers	citations	h-index	g-index

369	369	369	13278
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Nuclear waste disposalâ€"pyrochlore (A2B2O7): Nuclear waste form for the immobilization of plutonium and â€œminorâ€•actinides. Journal of Applied Physics, 2004, 95, 5949-5971.	1.1	951
2	Solubility of gold in arsenian pyrite. Geochimica Et Cosmochimica Acta, 2005, 69, 2781-2796.	1.6	724
3	Nuclear Fuel in a Reactor Accident. Science, 2012, 335, 1184-1188.	6.0	417
4	The coupled geochemistry of Au and As in pyrite from hydrothermal ore deposits. Geochimica Et Cosmochimica Acta, 2014, 140, 644-670.	1.6	400
5	Colloid Transport of Plutonium in the Far-Field of the Mayak Production Association, Russia. Science, 2006, 314, 638-641.	6.0	395
6	Radiation Effects in Glasses Used for Immobilization of High-level Waste and Plutonium Disposition. Journal of Materials Research, 1997, 12, 1948-1978.	1.2	381
7	The radiation-induced crystalline-to-amorphous transition in zircon. Journal of Materials Research, 1994, 9, 688-698.	1.2	372
8	The corrosion of uraninite under oxidizing conditions. Journal of Nuclear Materials, 1992, 190, 133-156.	1.3	367
9	Long-term storage of spent nuclear fuel. Nature Materials, 2015, 14, 252-257.	13.3	330
10	Trace metal nanoparticles in pyrite. Ore Geology Reviews, 2011, 42, 32-46.	1.1	327
11	Radiation effects in ceramics. Journal of Nuclear Materials, 1994, 216, 291-321.	1.3	300
12	Radiation-induced amorphization of rare-earth titanate pyrochlores. Physical Review B, 2003, 68, .	1.1	296
13	Targeting Negative Surface Charges of Cancer Cells by Multifunctional Nanoprobes. Theranostics, 2016, 6, 1887-1898.	4.6	295
14	â€œInvisibleâ€•gold revealed: Direct imaging of gold nanoparticles in a Carlin-type deposit. American Mineralogist, 2004, 89, 1359-1366.	0.9	279
15	A proposed new type of arsenian pyrite: Composition, nanostructure and geological significance. Geochimica Et Cosmochimica Acta, 2008, 72, 2919-2933.	1.6	278
16	Fluorescent, Superparamagnetic Nanospheres for Drug Storage, Targeting, and Imaging: A Multifunctional Nanocarrier System for Cancer Diagnosis and Treatment. ACS Nano, 2010, 4, 5398-5404.	7.3	241
17	High pressure synthesis of a hexagonal close-packed phase of the high-entropy alloy CrMnFeCoNi. Nature Communications, 2017, 8, 15634.	5.8	241
18	Plutonium Immobilization and Radiation Effects. Science, 2000, 289, 2051-2052.	6.0	217

#	Article	IF	Citations
19	Review of A2B2O7 pyrochlore response to irradiation and pressure. Nuclear Instruments & Methods in Physics Research B, 2010, 268, 2951-2959.	0.6	202
20	Incorporation mechanisms of actinide elements into the structures of U6+ phases formed during the oxidation of spent nuclear fuel. Journal of Nuclear Materials, 1997, 245, 1-9.	1.3	197
21	Dual Surfaceâ€Functionalized Janus Nanocomposites of Polystyrene/Fe₃O₄@SiO₂ for Simultaneous Tumor Cell Targeting and Stimulusâ€Induced Drug Release. Advanced Materials, 2013, 25, 3485-3489.	11.1	186
22	Evolution of uranium and thorium minerals. American Mineralogist, 2009, 94, 1293-1311.	0.9	176
23	Fluorescent Polystyreneâ€“Fe₃O₄ Composite Nanospheres for In Vivo Imaging and Hyperthermia. Advanced Materials, 2009, 21, 2170-2173.	11.1	174
24	Application of High-Angle Annular Dark Field Scanning Transmission Electron Microscopy, Scanning Transmission Electron Microscopy-Energy Dispersive X-ray Spectrometry, and Energy-Filtered Transmission Electron Microscopy to the Characterization of Nanoparticles in the Environment. Environmental Science & Technology, 2003, 37, 786-791.	4.6	169
25	Geochemical alteration of pyrochlore group minerals; pyrochlore subgroup. American Mineralogist, 1995, 80, 732-743.	0.9	167
26	Probing disorder in isometric pyrochlore and related complex oxides. Nature Materials, 2016, 15, 507-511.	13.3	164
27	Metamictization of zircon: Raman spectroscopic study. Journal of Physics Condensed Matter, 2000, 12, 1915-1925.	0.7	163
28	First-principles calculation of defect-formation energies in theY2(Ti,Sn,Zr)2O7pyrochlore. Physical Review B, 2004, 70, .	1.1	139
29	Radiation damage in zircon. American Mineralogist, 2003, 88, 770-781.	0.9	133
30	Patterning Metallic Nanostructures by Ion-Beam-Induced Dewetting and Rayleigh Instability. Nano Letters, 2006, 6, 1047-1052.	4.5	133
31	The metamict state: 1993 â€" the centennial. Nuclear Instruments & Methods in Physics Research B, 1994, 91, 22-29.	0.6	132
32	Direct Identification of Trace Metals in Fine and Ultrafine Particles in the Detroit Urban Atmosphere. Environmental Science & Technology, 2004, 38, 2289-2297.	4.6	129
33	Photoluminescence and photothermal effect of Fe3O4 nanoparticles for medical imaging and therapy. Applied Physics Letters, 2014, 105, .	1.5	128
34	Single-ion tracks in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Gd</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:msu Physical Review B, 2009, 79, .	1.1	125
35	Effect of spatial confinement on magnetic hyperthermia via dipolar interactions in Fe3O4 nanoparticles for biomedical applications. Materials Science and Engineering C, 2014, 42, 52-63.	3.8	119
36	Nuclear Waste Management in the United Statesâ€"Starting Over. Science, 2009, 325, 151-152.	6.0	118

#	Article	IF	Citations
37	79Se: geochemical and crystallo-chemical retardation mechanisms. Journal of Nuclear Materials, 1999, 275, 81-94.	1.3	113
38	The role of pe, pH, and carbonate on the solubility of UO2 and uraninite under nominally reducing conditions. Geochimica Et Cosmochimica Acta, 1998, 62, 2223-2231.	1.6	110
39	In vivo Imaging and Drug Storage by Quantumâ€Dotâ€Conjugated Carbon Nanotubes. Advanced Functional Materials, 2008, 18, 2489-2497.	7.8	108
40	Thermal behavior of metal nanoparticles in geologic materials. Geology, 2006, 34, 1033.	2.0	105
41	Energetics of radiation damage in natural zircon (ZrSiO4). Physics and Chemistry of Minerals, 1994, 21, 140-149.	0.3	103
42	Ceramic matrices for plutonium disposition. Progress in Nuclear Energy, 2007, 49, 635-643.	1.3	103
43	Annealing of alpha-decay damage in zircon: a Raman spectroscopic study. Journal of Physics Condensed Matter, 2000, 12, 3131-3148.	0.7	102
44	The Gibbs free energies and enthalpies of formation of U (super 6+) phases; an empirical method of prediction. American Mineralogist, 1999, 84, 650-664.	0.9	101
45	Enhanced radiation resistance of nanocrystalline pyrochlore Gd2(Ti0.65Zr0.35)2O7. Applied Physics Letters, 2009, 94, .	1.5	98
46	The amorphization of complex silicates by ion-beam irradiation. Journal of Materials Research, 1992, 7, 3080-3102.	1.2	97
47	Sb2Se3 under pressure. Scientific Reports, 2013, 3, 2665.	1.6	97
48	Alpha-recoil damage in natural zirconolite (CaZrTi2O7). Journal of Nuclear Materials, 1983, 119, 102-109.	1.3	93
49	Uraninite and Fullerene in Atmospheric Particulates. Environmental Science & Technology, 2002, 36, 4943-4947.	4.6	93
50	Caesium-rich micro-particles: A window into the meltdown events at the Fukushima Daiichi Nuclear Power Plant. Scientific Reports, 2017, 7, 42731.	1.6	88
51	Nanoscale phase transitions under extreme conditions within an ion track. Journal of Materials Research, 2010, 25, 1344-1351.	1.2	87
52	Nanoscale manipulation of the properties of solids at high pressure with relativistic heavy ions. Nature Materials, 2009, 8, 793-797.	13.3	85
53	The crystal structure of ianthinite, [U24+(UO2)4O6(OH)4(H2O)4](H2O)5: a possible phase for Pu4+ incorporation during the oxidation of spent nuclear fuel. Journal of Nuclear Materials, 1997, 249, 199-206.	1.3	84
54	O and Pb isotopic analyses of uranium minerals by ion microprobe and Uâ€“Pb ages from the Cigar Lake deposit. Chemical Geology, 2002, 185, 205-225.	1.4	84

#	Article	IF	Citations
55	Geological Disposal of Nuclear Waste: a Primer. Elements, 2016, 12, 233-237.	0.5	84
56	Uraninite and UO2 in spent nuclear fuel: a comparison. Journal of Nuclear Materials, 1996, 238, 121-130.	1.3	80
57	Geochemical alteration of pyrochlore group minerals; betafite subgroup. American Mineralogist, 1996, 81, 1237-1248.	0.9	79
58	Ion-beam irradiation of Gd2Sn2O7 and Gd2Hf2O7 pyrochlore: Bond-type effect. Journal of Materials Research, 2004, 19, 1575-1580.	1.2	79
59	A Critical Review of Existing Criteria for the Prediction of Pyrochlore Formation and Stability. Inorganic Chemistry, 2018, 57, 12093-12105.	1.9	78
60	YUCCA MOUNTAIN: Earth-Science Issues at a Geologic Repository for High-Level Nuclear Waste. Annual Review of Earth and Planetary Sciences, 2004, 32, 363-401.	4.6	76
61	High-level nuclear waste immobilization with ceramics. Ceramics International, 1991, 17, 287-293.	2.3	74
62	Mineral chemistry and oxygen isotopic analyses of uraninite, pitchblende and uranium alteration minerals from the Cigar Lake deposit, Saskatchewan, Canada. Applied Geochemistry, 1997, 12, 549-565.	1.4	74
63	A Versatile Multicomponent Assembly via Î²â€cyclodextrin Hostâ€“Guest Chemistry on Graphene for Biomedical Applications. Small, 2013, 9, 446-456.	5.2	73
64	Thermodynamics of formation of coffinite, USiO ₄. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 6551-6555.	3.3	72
65	Redox response of actinide materials to highly ionizing radiation. Nature Communications, 2015, 6, 6133.	5.8	72
66	Low-temperature anisotropic diffusion of helium in zircon: Implications for zircon (Uâ€“Th)/He thermochronometry. Geochimica Et Cosmochimica Acta, 2007, 71, 3119-3130.	1.6	69
67	Groundwater Nanoparticles in the Far-Field at the Nevada Test Site: Mechanism for Radionuclide Transport. Environmental Science & Technology, 2009, 43, 1293-1298.	4.6	69
68	Isotopic signature and nano-texture of cesium-rich micro-particles: Release of uranium and fission products from the Fukushima Daiichi Nuclear Power Plant. Scientific Reports, 2017, 7, 5409.	1.6	68
69	Photothermal effect on Fe3O4 nanoparticles irradiated by white-light for energy-efficient window applications. Solar Energy Materials and Solar Cells, 2017, 161, 247-254.	3.0	66
70	The chemical stability of coffinite, USiO4Â·nH2O; 0<n<2, associated with organic matter: A case study from Grants uranium region, New Mexico, USA. Chemical Geology, 2008, 251, 33-49.	1.4	64
71	Structural response of titanate pyrochlores to swift heavy ion irradiation. Acta Materialia, 2016, 117, 207-215.	3.8	64
72	Plutonium and â€œminorâ€•actinides: safe sequestration. Earth and Planetary Science Letters, 2005, 229, 165-181.	1.8	63

#	Article	IF	Citations
73	Chemical and structural characterization of As immobilization by nanoparticles of mackinawite (FeSm). Chemical Geology, 2009, 268, 116-125.	1.4	63
74	Uranium Dioxides and Debris Fragments Released to the Environment with Cesium-Rich Microparticles from the Fukushima Daiichi Nuclear Power Plant. Environmental Science & Technology, 2018, 52, 2586-2594.	4.6	63
75	Response of Gd2Ti2O7 and La2Ti2O7 to swift-heavy ion irradiation and annealing. Acta Materialia, 2015, 93, 1-11.	3.8	62
76	Similar local order in disordered fluorite and aperiodic pyrochlore structures. Acta Materialia, 2018, 144, 60-67.	3.8	60
77	Image simulation of partially amorphous materials. Ultramicroscopy, 1993, 48, 203-237.	0.8	58
78	Thermal annealing mechanisms of latent fission tracks: Apatite vs. zircon. Earth and Planetary Science Letters, 2011, 302, 227-235.	1.8	58
79	Near-field behavior of 99Tc during the oxidative alteration of spent nuclear fuel. Journal of Nuclear Materials, 2000, 278, 225-232.	1.3	57
80	Magnetic alignment of carbon nanofibers in polymer composites and anisotropy of mechanical properties. Journal of Applied Physics, 2005, 97, 064312.	1.1	57
81	Phase Transformation of Nanosized ZrO₂ upon Thermal Annealing and Intense Radiation. Journal of Physical Chemistry C, 2011, 115, 7193-7201.	1.5	56
82	Nanoscale occurrence of Pb in an Archean zircon. Geochimica Et Cosmochimica Acta, 2004, 68, 4679-4686.	1.6	55
83	Adsorbed U(VI) Surface Species on Muscovite Identified by Laser Fluorescence Spectroscopy and Transmission Electron Microscopy. Environmental Science & Technology, 2006, 40, 4646-4652.	4.6	55
84	Radiation damage and alteration of zircon from a 3.3ÂGa porphyritic granite from the Jack Hills, Western Australia. Chemical Geology, 2007, 236, 92-111.	1.4	55
85	Unusual rigidity and ideal strength of CrB4 and MnB4. Applied Physics Letters, 2012, 100, .	1.5	54
86	Novel Method of Quantifying Radioactive Cesium-Rich Microparticles (CsMPs) in the Environment from the Fukushima Daiichi Nuclear Power Plant. Environmental Science & Technology, 2018, 52, 6390-6398.	4.6	54
87	The structure of aperiodic, metamict (Ca, Th)ZrTi₂O₇ (zirconolite): An EXAFS study of the Zr, Th, and U sites. Journal of Materials Research, 1993, 8, 1983-1995.	1.2	53
88	The OkÃ©lobondo natural fission reactor, southeast Gabon: Geology, mineralogy, and retardation of nuclear-reaction products. Bulletin of the Geological Society of America, 2001, 113, 32-62.	1.6	53
89	Nanoscale "liquid" inclusions of As-Fe-S in arsenian pyrite. American Mineralogist, 2009, 94, 391-394.	0.9	53
90	Role of composition, bond covalency, and short-range order in the disordering of stannate pyrochlores by swift heavy ion irradiation. Physical Review B, 2016, 94, .	1.1	53

#	Article	IF	Citations
91	A self-consistent model describing the thermodynamics of Eu(III) adsorption onto hematite. Geochimica Et Cosmochimica Acta, 2013, 122, 430-447.	1.6	52
92	Uranium reduction on magnetite: Probing for pentavalent uranium using electrochemical methods. Geochimica Et Cosmochimica Acta, 2015, 156, 194-206.	1.6	52
93	Amorphous structure of metamict minerals observed by TEM. Nature, 1981, 293, 449-450.	13.7	50
94	The energetics and kinetics of uranyl reduction on pyrite, hematite, and magnetite surfaces: A powder microelectrode study. Geochimica Et Cosmochimica Acta, 2013, 118, 56-71.	1.6	50
95	Inversion in Mg_{1â€“x}Ni_xAl₂O₄ Spinel: New Insight into Local Structure. Journal of the American Chemical Society, 2017, 139, 10395-10402.	6.6	50
96	Description and classification of uranium oxide hydrate sheet anion topologies. Journal of Materials Research, 1996, 11, 3048-3056.	1.2	49
97	Ion beam-induced amorphous-to-tetragonal phase transformation and grain growth of nanocrystalline zirconia. Nanotechnology, 2009, 20, 245303.	1.3	49
98	Thermal annealing of unetched fission tracks in apatite. Earth and Planetary Science Letters, 2012, 321-322, 121-127.	1.8	49
99	Multilayered YSZ/GZO films with greatly enhanced ionic conduction for low temperature solid oxidefuel cells. Physical Chemistry Chemical Physics, 2013, 15, 1296-1301.	1.3	49
100	Swift heavy ion track formation in Gd2Zr2â^'Ti O7 pyrochlore: Effect of electronic energy loss. Nuclear Instruments & Methods in Physics Research B, 2014, 336, 102-115.	0.6	48
101	Quantum mechanical vs. empirical potential modeling of uranium dioxide (UO2) surfaces: (111), (110), and (100). American Mineralogist, 2006, 91, 1761-1772.	0.9	47
102	Alteration of uranium minerals in the Koongarra deposit, Australia: Unweathered zone. Journal of Nuclear Materials, 1992, 190, 174-187.	1.3	45
103	Grain size effects on irradiated CeO2, ThO2, and UO2. Acta Materialia, 2018, 160, 47-56.	3.8	45
104	Weathering of Natural Uranyl Oxide Hydrates: Schoepite Polytypes and Dehydration Effects. Radiochimica Acta, 1992, 58-59, 433-444.	0.5	44
105	Displaced by radiation. Nature, 2007, 445, 161-162.	13.7	44
106	Irradiation-induced stabilization of zircon (ZrSiO4) at high pressure. Earth and Planetary Science Letters, 2008, 269, 291-295.	1.8	44
107	Structural and bonding properties of stannate pyrochlores: A density functional theory investigation. Computational Materials Science, 2008, 42, 653-658.	1.4	44
108	Dissolution of radiation-damaged zircon in lateritic soils. American Mineralogist, 2007, 92, 1978-1989.	0.9	43

#	Article	IF	Citations
109	Zirconate pyrochlores under high pressure. Physical Chemistry Chemical Physics, 2010, 12, 12472.	1.3	43
110	Bulk Iodoapatite Ceramic Densified by Spark Plasma Sintering with Exceptional Thermal Stability. Journal of the American Ceramic Society, 2014, 97, 2409-2412.	1.9	43
111	First-principles study of electronic properties of La2Hf2O7 and Gd2Hf2O7. Journal of Applied Physics, 2007, 102, 063704.	1.1	42
112	Quantum dot conjugated hydroxylapatite nanoparticles forin vivoimaging. Nanotechnology, 2008, 19, 175102.	1.3	42
113	In situ TEM of radiation effects in complex ceramics. Microscopy Research and Technique, 2009, 72, 165-181.	1.2	42
114	Structural response of A2TiO5 (A = La, Nd, Sm, Gd) to swift heavy ion irradiation. Acta Materialia, 2012, 60, 4477-4486.	3.8	42
115	Amorphization of nanocrystalline monoclinic ZrO2 by swift heavy ion irradiation. Physical Chemistry Chemical Physics, 2012, 14, 12295.	1.3	42
116	High-pressure behavior of A2B2O7 pyrochlore (A=Eu, Dy; B=Ti, Zr). Journal of Applied Physics, 2017, 121, .	1.1	42
117	Theoretical investigation of structural, energetic and electronic properties of titanate pyrochlores. Journal of Physics Condensed Matter, 2007, 19, 346203.	0.7	41
118	Ion-irradiation-induced structural transitions in orthorhombic Ln2TiO5. Acta Materialia, 2013, 61, 4191-4199.	3.8	41
119	Defect accumulation in ThO2 irradiated with swift heavy ions. Nuclear Instruments & Methods in Physics Research B, 2014, 326, 169-173.	0.6	41
120	Phase transformations in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Ln</mml:mi><mml:mn>2</mml:mn></mml:r mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>materials irradiated with swift heavy ions. Physical Review B, 2015, 92, .	1.1	41
121	Disorder in Mn+1AXn phases at the atomic scale. Nature Communications, 2019, 10, 622.	5.8	41
122	Fission tracks simulated by swift heavy ions at crustal pressures and temperatures. Earth and Planetary Science Letters, 2008, 274, 355-358.	1.8	40
123	Crystal Chemical Constraints on the Formation of Actinide Pyrochlores. Materials Research Society Symposia Proceedings, 1984, 44, 641.	0.1	38
124	Size effects in the irradiation-induced crystalline-to-amorphous transformation. Nuclear Instruments & Methods in Physics Research B, 2003, 207, 28-35.	0.6	38
125	Luminescent hydroxylapatite nanoparticles by surface functionalization. Applied Physics Letters, 2006, 89, 183106.	1.5	38
126	Intrinsic Structural Disorder and Radiation Response of Nanocrystalline Gd₂(Ti_{0.65}Zr_{0.35})₂O₇ Pyrochlore. Journal of Physical Chemistry C, 2010, 114, 11810-11815.	1.5	38

#	Article	IF	Citations
127	Radioactive Cs in the Severely Contaminated Soils Near the Fukushima Daiichi Nuclear Power Plant. Frontiers in Energy Research, 2015, 3, .	1.2	38
128	Coffinite, USiO₄, Is Abundant in Nature: So Why Is It So Difficult To Synthesize?. Inorganic Chemistry, 2015, 54, 6687-6696.	1.9	38
129	Radiation Effects in Crystalline Oxide Host Phases for the Immobilization of Actinides. Materials Research Society Symposia Proceedings, 2002, 713, 1.	0.1	37
130	Simultaneous formation of surface ripples and metallic nanodots induced by phase decomposition and focused ion beam patterning. Applied Physics Letters, 2006, 88, 093112.	1.5	37
131	Nuclear Fuel Cycle: Environmental Impact. MRS Bulletin, 2008, 33, 338-340.	1.7	37
132	Time-response relationship of nano and micro particle induced lung inflammation. Quartz as reference compound. Human and Experimental Toxicology, 2010, 29, 915-933.	1.1	37
133	Characterization of ion-induced radiation effects in nuclear materials using synchrotron x-ray techniques. Journal of Materials Research, 2015, 30, 1366-1379.	1.2	36
134	Defect accumulation in swift heavy ion-irradiated CeO₂ and ThO₂. Journal of Materials Chemistry A, 2017, 5, 12193-12201.	5.2	36
135	Abundance and distribution of radioactive cesium-rich microparticles released from the Fukushima Daiichi Nuclear Power Plant into the environment. Chemosphere, 2020, 241, 125019.	4.2	36
136	Uraninite recrystallization and Pb loss in the Oklo and BangombÃ© natural fission reactors, Gabon. Geochimica Et Cosmochimica Acta, 2005, 69, 1589-1606.	1.6	35
137	Ion-beam-induced amorphization and order-disorder transition in the murataite structure. Journal of Applied Physics, 2005, 97, 113536.	1.1	35
138	Average structure and local configuration of excess oxygen in UO2+x. Scientific Reports, 2014, 4, 4216.	1.6	35
139	Radioactive Cs in the estuary sediments near Fukushima Daiichi Nuclear Power Plant. Science of the Total Environment, 2016, 551-552, 155-162.	3.9	35
140	First experimental determination of the solubility constant of coffinite. Geochimica Et Cosmochimica Acta, 2016, 181, 36-53.	1.6	35
141	Phosphatian coffinite with rare earth elements and Ce-rich franÃ§oisite-(Nd) from sandstone beneath a natural fission reactor at BangombÃ©, Gabon. Mineralogical Magazine, 1996, 60, 665-669.	0.6	34
142	Infrared spectra of Si-O overtones, hydrous species, and U ions in metamict zircon: radiation damage and recrystallization. Journal of Physics Condensed Matter, 2002, 14, 3333-3352.	0.7	34
143	Energetic stability, structural transition, and thermodynamic properties of ZnSnO3. Applied Physics Letters, 2011, 98, .	1.5	34
144	Energetics and concentration of defects in Gd2Ti2O7 and Gd2Zr2O7 pyrochlore at high pressure. Acta Materialia, 2011, 59, 1607-1618.	3.8	34

#	Article	IF	Citations
145	Size dependence of radiation-induced amorphization and recrystallization of synthetic nanostructured CePO4 monazite. Acta Materialia, 2013, 61, 2984-2992.	3.8	34
146	Microscale characterization of uranium(VI) silicate solids and associated neptunium(V). Radiochimica Acta, 2005, 93, .	0.5	33
147	Environmental impact of the nuclear fuel cycle: Fate of actinides. MRS Bulletin, 2010, 35, 859-866.	1.7	33
148	Swift heavy ion-induced amorphization of CaZrO3 perovskite. Nuclear Instruments & Methods in Physics Research B, 2012, 286, 271-276.	0.6	33
149	Dissolution of radioactive, cesium-rich microparticles released from the Fukushima Daiichi Nuclear Power Plant in simulated lung fluid, pure-water, and seawater. Chemosphere, 2019, 233, 633-644.	4.2	33
150	Florencite-(La) with fissiogenic REEs from a natural fission reactor at Bangombe, Gabon. American Mineralogist, 1996, 81, 1263-1269.	0.9	33
151	Nuclear waste from small modular reactors. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	33
152	Pressure-induced structural modifications of rare-earth hafnate pyrochlore. Journal of Physics Condensed Matter, 2017, 29, 255401.	0.7	32
153	Nanoscale mineralogy of arsenic in a region of New Hampshire with elevated As-concentrations in the groundwater. American Mineralogist, 2003, 88, 1844-1852.	0.9	31
154	Comparison of Ionâ€Beam Irradiation Effects in X2YO4 Compounds. Journal of the American Ceramic Society, 1999, 82, 3321-3329.	1.9	31
155	Swift heavy ion-induced phase transformation in Gd2O3. Nuclear Instruments & Methods in Physics Research B, 2014, 326, 121-125.	0.6	31
156	Energetics of a Uranothorite (Th_{1â€“x}U_xSiO₄) Solid Solution. Chemistry of Materials, 2016, 28, 7117-7124.	3.2	31
157	Disorder in Ho₂Ti_{2â^'x}Zr_xO₇: pyrochlore to defect fluorite solid solution series. RSC Advances, 2020, 10, 34632-34650.	1.7	31
158	Alpha-recoil damage in titanite (CaTiSiO₅): Direct observation and annealing study using high resolution transmission electron microscopy. Journal of Materials Research, 1991, 6, 560-564.	1.2	30
159	Performance Assessments of Nuclear Waste Repositories: A Dialogue on Their Value and Limitations. Risk Analysis, 1999, 19, 933-958.	1.5	30
160	14. Radiation Effects in Zircon. , 2003, , 387-426.		30
161	The fate of the epsilon phase (Mo-Ru-Pd-Tc-Rh) in the UO2 of the Oklo natural fission reactors. Radiochimica Acta, 2006, 94, 749-753.	0.5	30
162	Fate of trace elements during alteration of uraninite in a hydrothermal vein-type U-deposit from Marshall Pass, Colorado, USA. Geochimica Et Cosmochimica Acta, 2007, 71, 4954-4973.	1.6	30

#	Article	IF	Citations
163	Actinide host phases as radioactive waste forms. , 2007, , 457-490.		30
164	Liquid-like phase formation in Gd2Zr2O7 by extremely ionizing irradiation. Journal of Applied Physics, 2009, 105, .	1.1	30
165	Biomarkerless targeting and photothermal cancer cell killing by surface-electrically-charged superparamagnetic Fe₃O₄composite nanoparticles. Nanoscale, 2017, 9, 1457-1465.	2.8	30
166	Particulate plutonium released from the Fukushima Daiichi meltdowns. Science of the Total Environment, 2020, 743, 140539.	3.9	30
167	Less Geology in the Geological Disposal of Nuclear Waste. Science, 1999, 286, 415-417.	6.0	29
168	U6+ phases in the weathering zone of the BangombÃ© U-deposit: observed and predicted mineralogy. Radiochimica Acta, 2002, 90, 761-769.	0.5	29
169	NUCLEAR WASTE: Yucca Mountain. Science, 2002, 296, 659-660.	6.0	28
170	Irradiation of synthetic garnet by heavy ions and Î±-decay of 244Cm. Journal of Nuclear Materials, 2010, 407, 137-142.	1.3	28
171	Time to bury plutonium. Nature, 2012, 485, 167-168.	13.7	28
172	Predicting short-range order and correlated phenomena in disordered crystalline materials. Science Advances, 2020, 6, eabc2758.	4.7	28
173	Leachability of Zircon as a Function of Alpha Dose. Materials Research Society Symposia Proceedings, 1981, 11, 389.	0.1	27
174	Oxidation state of uranium in metamict and annealed zircon: near-infrared spectroscopic quantitative analysis. Journal of Physics Condensed Matter, 2003, 15, 3445-3470.	0.7	27
175	Radiation-Stability of Smectite. Environmental Science & Technology, 2008, 42, 8407-8411.	4.6	27
176	Thermodynamic properties of Th U1â^'O2 (0 <x< 1) based on quantumâ€“mechanical calculations and Monte-Carlo simulations. Journal of Nuclear Materials, 2011, 412, 13-21.	1.3	27
177	Natural Analogues: Their Application to the Prediction of the Long-Term Behavior of Nuclear Waste Forms. Materials Research Society Symposia Proceedings, 1986, 84, 67.	0.1	26
178	Quantum-mechanical evaluation of Np-incorporation into studtite. American Mineralogist, 2010, 95, 1151-1160.	0.9	26
179	Tailoring the radiation tolerance of vanadateâ€“phosphate fluorapatites by chemical composition control. RSC Advances, 2013, 3, 15178.	1.7	26
180	Effect of orientation on ion track formation in apatite and zircon. American Mineralogist, 2014, 99, 1127-1132.	0.9	26

#	Article	IF	Citations
181	Facile diamond synthesis from lower diamondoids. Science Advances, 2020, 6, eaay9405.	4.7	26
182	Oxidation of uraninite: Does tetragonal U3O7 occur in nature?. Journal of Nuclear Materials, 1993, 207, 177-191.	1.3	25
183	Accommodation of Uranium into the Garnet Structure. Materials Research Society Symposia Proceedings, 2002, 713, 1.	0.1	25
184	Safe management of actinides in the nuclear fuel cycle: Role of mineralogy. Comptes Rendus - Geoscience, 2011, 343, 219-229.	0.4	25
185	Swift heavy ion irradiation-induced amorphization of La2Ti2O7. Nuclear Instruments & Methods in Physics Research B, 2014, 326, 145-149.	0.6	25
186	In situ defect annealing of swift heavy ion irradiated CeO₂ and ThO₂ using synchrotron X-ray diffraction and a hydrothermal diamond anvil cell. Journal of Applied Crystallography, 2015, 48, 711-717.	1.9	25
187	Characterization and dissolution behavior of a becquerelite from Shinkolobwe, Zaire. Geochimica Et Cosmochimica Acta, 1997, 61, 3879-3884.	1.6	24
188	Alteration products of uraninite from the Colorado Plateau. Radiochimica Acta, 2000, 88, 739-750.	0.5	24
189	How Does Surface Modification Aid in the Dispersion of Carbon Nanofibers?. Journal of Physical Chemistry B, 2005, 109, 23351-23357.	1.2	24
190	Geochemical fixation of rare earth elements into secondary minerals in sandstones beneath a natural fission reactor at BangombÃ©, Gabon. Geochimica Et Cosmochimica Acta, 2005, 69, 685-694.	1.6	24
191	Micro-Raman and micro-infrared spectroscopic studies of Pb- and Au-irradiated<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvariant="normal">Zr</mml:mi><mml:mi mathvariant="normal">Si</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>4</mml:mn></mml:msub></mml:mrow></mml:math>: Optical properties, structural damage, and amorphization. Physical Review B, 2008, 77, .	1.1	23
192	Three New Silver Uranyl Diphosphonates: Structures and Properties. Inorganic Chemistry, 2014, 53, 2787-2796.	1.9	23
193	Micro-structures associated with uraninite alteration. Journal of Nuclear Materials, 2000, 277, 204-210.	1.3	22
194	Effects of plasma surface modification on interfacial behaviors and mechanical properties of carbon nanotube-Al2O3 nanocomposites. Applied Physics Letters, 2007, 91, .	1.5	22
195	Effects of ionizing radiation on the hollandite structure-type: Ba0.85Cs0.26Al1.35Fe0.77Ti5.90O16. American Mineralogist, 2008, 93, 241-247.	0.9	22
196	Porous fission fragment tracks in fluorapatite. Physical Review B, 2010, 82, .	1.1	22
197	He diffusion and closure temperatures in apatite and zircon: A density functional theory investigation. Geochimica Et Cosmochimica Acta, 2012, 86, 228-238.	1.6	22
198	Electronic structure and stability of hyperstoichiometric UO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>2</mml:mn><mml:mo>+</mml:mo><mml:mi>x</mml:mi></mml:mrow></mml:msub></mml:math>under pressure. Physical Review B, 2013, 88, .	1.1	22

#	Article	IF	Citations
199	Amorphization of Ta2O5 under swift heavy ion irradiation. Nuclear Instruments & Methods in Physics Research B, 2017, 407, 25-33.	0.6	22
200	The effect of H+ irradiation on the Cs-ion exchange capacity of zeolite-NaY. Journal of Materials Chemistry, 2000, 10, 2610-2616.	6.7	21
201	Np-incorporation into uranyl phases: A quantumâ€“mechanical evaluation. Journal of Nuclear Materials, 2013, 434, 440-450.	1.3	21
202	Multi-scale simulation of structural heterogeneity of swift-heavy ion tracks in complex oxides. Journal of Physics Condensed Matter, 2013, 25, 135001.	0.7	21
203	Role of the X and n factors in ion-irradiation induced phase transformations of Mn+1AXn phases. Acta Materialia, 2018, 144, 432-446.	3.8	21
204	Radiation effects in Mn+1AXn phases. Applied Physics Reviews, 2020, 7, .	5.5	21
205	Cesium and Strontium Incorporation into Uranophane, Ca[(UO₂)(SiO₃OH)]₂.5H₂O. Journal of Nuclear Science and Technology, 2002, 39, 504-507.	0.7	20
206	Uranium diphosphonates templated by interlayer organic amines. Journal of Solid State Chemistry, 2013, 198, 270-278.	1.4	20
207	Distinguishing among schoepite, [(UO₂)₈O₂(OH)₁₂](H₂O)₁₂ and related minerals by X-ray powder diffraction. Powder Diffraction, 1997, 12, 230-238.	0.4	19
208	Facile low temperature solid state synthesis of iodoapatite by high-energy ball milling. RSC Advances, 2014, 4, 38718-38725.	1.7	19
209	Strain engineered pyrochlore at high pressure. Scientific Reports, 2017, 7, 2236.	1.6	19
210	Microstructural evolution and nanocrystal formation in Pb+-implanted ZrSiO4 single crystals. Journal of Applied Physics, 2003, 94, 5695-5703.	1.1	18
211	Pb+ irradiation of synthetic zircon (ZrSiO4): Infrared spectroscopic investigation. American Mineralogist, 2008, 93, 1418-1423.	0.9	18
212	Crystal chemistry and radiation-induced amorphization of P-coffinite from the natural fission reactor at Bangombe, Gabon. American Mineralogist, 2009, 94, 827-837.	0.9	18
213	Displacive radiation-induced structural contraction in nanocrystalline ZrN. Applied Physics Letters, 2012, 101, 041904.	1.5	18
214	In situ TEM observation of alpha-particle induced annealing of radiation damage in Durango apatite. Scientific Reports, 2017, 7, 14108.	1.6	18
215	Thermodynamics of CeSiO₄: Implications for Actinide Orthosilicates. Inorganic Chemistry, 2020, 59, 13174-13183.	1.9	18
216	The Role of Water and Hydroxyl Groups in the Structures of Stetindite and Coffinite, MSiO₄ (M = Ce, U). Inorganic Chemistry, 2021, 60, 718-735.	1.9	18

#	Article	IF	Citations
217	New highly radioactive particles derived from Fukushima Daiichi Reactor Unit 1: Properties and environmental impacts. Science of the Total Environment, 2021, 773, 145639.	3.9	18
218	18. Phosphates as Nuclear Waste Forms. , 2002, , 673-700.		17
219	Conjugation of quantum dots and Fe3O4 on carbon nanotubes for medical diagnosis and treatment. Applied Physics Letters, 2009, 95, 223702.	1.5	17
220	Lead in zircon at the atomic scale. American Mineralogist, 2012, 97, 1094-1102.	0.9	17
221	Effect of doping on the radiation response of conductive Nbâ€“SrTiO3. Nuclear Instruments & Methods in Physics Research B, 2013, 302, 40-47.	0.6	17
222	Thermal annealing of natural, radiation-damaged pyrochlore. Zeitschrift Fur Kristallographie - Crystalline Materials, 2017, 232, 25-38.	0.4	17
223	Local order of orthorhombic weberite-type Y3TaO7 as determined by neutron total scattering and density functional theory calculationsâœ°. Acta Materialia, 2020, 196, 704-709.	3.8	16
224	Nuclear Waste Form Glasses: The Evaluation of Very Long-Term Behaviour. Materials Technology, 2001, 16, 30-36.	1.5	15
225	The effect of ionizing radiation on uranophane. American Mineralogist, 2003, 88, 159-166.	0.9	15
226	Plasma deposition of thin carbonfluorine films on aligned carbon nanotube. Applied Physics Letters, 2005, 86, 043107.	1.5	15
227	Origin of the rigidity in tetragonal MB (M=Cr, Mo and W) and softening of defective WB: First-principles investigations. Computational Materials Science, 2012, 53, 460-463.	1.4	15
228	Carbonate orientational order and superlattice structure in vaterite. Journal of Crystal Growth, 2014, 407, 78-86.	0.7	15
229	Radiation Stability of Sparkâ€Plasmaâ€Sintered Lead Vanadate Iodoapatite. Journal of the American Ceramic Society, 2015, 98, 3361-3366.	1.9	15
230	Anisotropic expansion and amorphization of Ga2O3 irradiated with 946 MeV Au ions. Nuclear Instruments & Methods in Physics Research B, 2016, 374, 40-44.	0.6	15
231	The thermal stability and consolidation of perovskite variant Cs₂SnCl₆ using spark plasma sintering. Journal of the American Ceramic Society, 2018, 101, 2060-2065.	1.9	15
232	Effects of irradiation temperature on the response of CeO2, ThO2, and UO2 to highly ionizing radiation. Journal of Nuclear Materials, 2019, 525, 83-91.	1.3	15
233	Performance assessments of nuclear waste repositories: a dialogue on their value and limitations. Risk Analysis, 1999, 19, 933-958.	1.5	14
234	Radiation-induced decomposition of U(VI) phases to nanocrystals of UO2. Earth and Planetary Science Letters, 2005, 240, 521-528.	1.8	14

#	Article	IF	Citations
235	Stability of uranium (VI) peroxide hydrates under ionizing radiation. American Mineralogist, 2009, 94, 229-235.	0.9	14
236	Nanosized Rutile (TiO₂) Thin Film upon Ion Irradiation and Thermal Annealing. Journal of Physical Chemistry C, 2011, 115, 22755-22760.	1.5	14
237	Barium uranyl diphosphonates. Journal of Solid State Chemistry, 2012, 192, 153-160.	1.4	14
238	Dipole-interaction mediated hyperthermia heating mechanism of nanostructured Fe3O4 composites. Materials Letters, 2014, 129, 57-60.	1.3	14
239	Role of vein-phases in nanoscale sequestration of U, Nb, Ti, and Pb during the alteration of pyrochlore. Geochimica Et Cosmochimica Acta, 2015, 150, 226-252.	1.6	14
240	Policy: Reassess New Mexico's nuclear-waste repository. Nature, 2016, 529, 149-151.	13.7	14
241	Anisotropic mechanical properties of zircon and the effect of radiation damage. Physics and Chemistry of Minerals, 2016, 43, 627-638.	0.3	14
242	Self-assembly of well-aligned 3C-SiC ripples by focused ion beam. Applied Physics Letters, 2008, 92, .	1.5	13
243	Ultrafast laser and swift heavy ion irradiation: Response of Gd2O3 and ZrO2 to intense electronic excitation. Applied Physics Letters, 2015, 106, .	1.5	13
244	Phase transformations of Al-bearing high-entropy alloys AlxCoCrFeNi (xâ€‰=â€‰0, 0.1, 0.3, 0.75, 1.5) at high pressure. Applied Physics Letters, 2019, 114, .	1.5	13
245	Coffinite formation from UO2+x. Scientific Reports, 2020, 10, 12168.	1.6	13
246	Natural Pyrochlores: Analogues For Actinide Host Phases in Radioactive Waste Forms. Materials Research Society Symposia Proceedings, 1984, 44, 647.	0.1	12
247	Oxygen isotopic composition of nano-scale uraninite at the Oklo-OkÃ©lobondo natural fission reactors, Gabon. American Mineralogist, 2003, 88, 1583-1590.	0.9	12
248	First principles investigation of structural, electronic, elastic and thermal properties of rare-earth-doped titanate Ln2TiO5. AIP Advances, 2012, 2, .	0.6	12
249	Formation of nanoscale Th-coffinite. American Mineralogist, 2012, 97, 681-693.	0.9	12
250	Ion-beam irradiation and ²⁴⁴Cm-doping investigations of the radiation response of actinide-bearing crystalline waste forms. Journal of Materials Research, 2015, 30, 1516-1528.	1.2	12
251	Review of recent experimental results on the behavior of actinide-bearing oxides and related materials in extreme environments. Progress in Nuclear Energy, 2018, 104, 342-358.	1.3	12
252	Mission Impossible? Socio-Technical Integration of Nuclear Waste Geological Disposal Systems. Sustainability, 2018, 10, 4390.	1.6	12

#	Article	IF	Citations
253	Formation of Secondary Uranium Minerals in the Koongarra Deposit, Australia. Materials Research Society Symposia Proceedings, 1993, 333, 653.	0.1	11
254	12. Radiation-Induced Amorphization. , 2000, , 319-362.		11
255	OH species, U ions, and CO/CO2 in thermally annealed metamict zircon (ZrSiO4). American Mineralogist, 2010, 95, 1717-1724.	0.9	11
256	Structure and bulk modulus of Ln-doped UO2 (LnÂ= La, Nd) at high pressure. Journal of Nuclear Materials, 2017, 490, 28-33.	1.3	11
257	Lanthanide stannate pyrochlores (Ln₂Sn₂O₇; Lnâ€‰â€‰=â€‰â€‰Nd, Gd, Er) at high pressure. Journal of Physics Condensed Matter, 2017, 29, 504005.	0.7	11
258	Mechanical and structural properties of radiation-damaged allanite-(Ce) and the effects of thermal annealing. Physics and Chemistry of Minerals, 2019, 46, 921-933.	0.3	11
259	Solution-Gelation Method for Preparing Polycrystalline Zircon. Journal of the American Ceramic Society, 1981, 64, C-149-C-149.	1.9	10
260	Colloid Transport of Radionuclides: Yucca Mountain Performance Assessment. Materials Research Society Symposia Proceedings, 2003, 807, 206.	0.1	10
261	Enhanced thermal stability of carbon nanotubes by plasma surface modification in Al[sub 2]O[sub 3] composites. Journal of Applied Physics, 2008, 104, 074302.	1.1	10
262	Precipitation and alteration of coffinite (USiO4nH2O) in the presence of apatite. European Journal of Mineralogy, 2010, 22, 75-88.	0.4	10
263	Mechanical properties of natural radiation-damaged titanite and temperature-induced structural reorganization: A nanoindentation and Raman spectroscopic study. American Mineralogist, 2016, 101, 399-406.	0.9	10
264	Measurement of UO2 surface oxidation using grazing-incidence x-ray diffraction: Implications for nuclear forensics. Journal of Nuclear Materials, 2018, 502, 68-75.	1.3	10
265	Radiation-induced disorder in compressed lanthanide zirconates. Physical Chemistry Chemical Physics, 2018, 20, 6187-6197.	1.3	10
266	Swift-heavy ion irradiation response and annealing behavior of A2TiO5 (A = Nd, Gd, and Yb). Journal of Solid State Chemistry, 2018, 258, 108-116.	1.4	10
267	The Long-Term Performance of Nuclear Waste Forms: Natural Materials - Three Case Studies. Materials Research Society Symposia Proceedings, 1992, 294, 559.	0.1	9
268	Is a Probabilistic Performance Assessment Enough?. Ground Water, 1999, 37, 481-482.	0.7	9
269	The effects of radiation on the retention of strontium in zeolite-NaSrY. Journal of Materials Chemistry, 2002, 12, 233-238.	6.7	9
270	Pressure-Induced Splitting and Buckling of Cuâ^'O Chains in the Low-Dimensional Structure of SrCuO2. Journal of the American Chemical Society, 2007, 129, 13923-13926.	6.6	9

#	Article	IF	Citations
271	ZrSi formation at ZrN/Si interface induced by ballistic and ionizing radiations. Nuclear Instruments & Methods in Physics Research B, 2012, 286, 266-270.	0.6	9
272	Molten salts activated by high-energy milling: A useful, low-temperature route for the synthesis of multiferroic compounds. Journal of Alloys and Compounds, 2014, 584, 93-100.	2.8	9
273	C₆₀ and U ion irradiation of Gd₂Ti_xZr_{2â^'x}O₇ pyrochlore. Journal of Materials Research, 2015, 30, 2456-2466.	1.2	9
274	Ion-irradiation-induced structural evolution in Ti4AlN3. Scripta Materialia, 2017, 133, 19-23.	2.6	9
275	Radiation-damage-induced transitions in zircon: Percolation theory applied to hardness and elastic moduli as a function of density. Applied Physics Letters, 2018, 112, .	1.5	9
276	Freshwater Alteration of Basaltic Glass, Hanauma Bay, Oahu, Hawaii: A Natural Analogue for the Alteration of Borosilicate Glass in Fresh Water. Materials Research Society Symposia Proceedings, 1988, 127, 49.	0.1	8
277	Alpha-decay induced shortening of fission tracks simulated by in situ ion irradiation. Geochimica Et Cosmochimica Acta, 2021, 299, 1-14.	1.6	8
278	Volatilization of B4C control rods in Fukushima Daiichi nuclear reactors during meltdown: Bâ€“Li isotopic signatures in cesium-rich microparticles. Journal of Hazardous Materials, 2022, 428, 128214.	6.5	8
279	Zirconolites from Sri Lanka, South Africa and Brazil. Materials Research Society Symposia Proceedings, 1981, 6, 249.	0.1	7
280	Environmental impact of the nuclear fuel cycle. Geological Society Special Publication, 2004, 236, 7-23.	0.8	7
281	Trace element immobilization by uranyl minerals in granite-hosted uranium ores: Evidences from the Xiazhuang ore field of Guangdong province, China. Radiochimica Acta, 2007, 95, 25-32.	0.5	7
282	Combined high pressure and heavy-ion irradiation: a novel approach. Journal of Synchrotron Radiation, 2009, 16, 773-777.	1.0	7
283	Is nuclear fission a sustainable source of energy?. MRS Bulletin, 2012, 37, 417-424.	1.7	7
284	Hydrogen incorporation in crystalline zircon: Insight from ab initio calculations. American Mineralogist, 2013, 98, 745-751.	0.9	7
285	Uranyl peroxide nanoclusters at high-pressure. Journal of Materials Research, 2017, 32, 3679-3688.	1.2	7
286	Radiation-damage in multi-layered zircon: Mechanical properties. Applied Physics Letters, 2019, 115, .	1.5	7
287	Comparison of Surface Layers Formed on Synthetic Basaltic Glass, French R7T7 and HMI Borosilicate Nuclear Waste form Glasses - Materials Interface Interactions Tests, Waste Isolation Pilot Plant. Materials Research Society Symposia Proceedings, 1989, 176, 355.	0.1	6
288	Horizontally aligned Cu5Si polycrystalline nanorods on Si. Applied Physics Letters, 2008, 92, 253113.	1.5	6

#	Article	IF	Citations
289	Source-to-receptor pathways of anthropogenic PM2.5 in Detroit, Michigan: Comparison of two inhalation exposure studies. Atmospheric Environment, 2009, 43, 1805-1813.	1.9	6
290	Defect formation energy in pyrochlore: the effect of crystal size. Materials Research Express, 2014, 1, 035501.	0.8	6
291	Thermal defect annealing of swift heavy ion irradiated ThO2. Nuclear Instruments & Methods in Physics Research B, 2017, 405, 15-21.	0.6	6
292	A₂TiO₅ (A = Dy, Gd, Er, Yb) at High Pressure. Inorganic Chemistry, 2018, 57, 2269-2277.	1.9	6
293	Recent advances in the global rare-earth supply chain. MRS Bulletin, 2022, 47, 244-249.	1.7	6
294	Controlling the Structure and Size of Au Nanocrystals by Annealing and Ion Sputtering. Langmuir, 2012, 28, 51-55.	1.6	5
295	The Concept of Geological Disposal of Highly Radioactive Nuclear Waste. , 2021, , 588-602.		5
296	Metamiet columbite re-examined. Mineralogical Magazine, 1976, 40, 898-899.	0.6	5
297	Long-Term Release from High Level Waste Glass - Part IV: The Effect of Leaching Mechanism. Materials Research Society Symposia Proceedings, 1984, 44, 99.	0.1	4
298	The Crystal Structure of Ianthinite, a Mixed-Valence Uranium Oxide Hydrate. Materials Research Society Symposia Proceedings, 1996, 465, 1193.	0.1	4
299	Radiation and Thermal Effects in Zeolite-NaY. Materials Research Society Symposia Proceedings, 1999, 608, 493.	0.1	4
300	Ion-Induced Amorphization of Murataite. Materials Research Society Symposia Proceedings, 2002, 713, 1.	0.1	4
301	Radiation-induced decomposition of U(VI) alteration phases of UO2. Materials Research Society Symposia Proceedings, 2006, 932, 1.	0.1	4
302	Phase transformation pathways of ultrafast-laser-irradiated <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Ln</mml:mi><mml:mn>2</mml:mn></mml:r mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow><mml:mspace width="4pt" /><mml:mo>(</mml:mo><mml:mrow><mml:mi>Ln</mml:mi><mml:mo>=</mml:mo><mml:mi>Er</mml:mi><mml:mo>â€“</mml:mo><r Physical Review B, 2018, 97, .	1.1	4
303	Evolution and Structure of the Scientific Basis for Nuclear Waste Management. MRS Advances, 2019, 4, 959-964.	0.5	4
304	Heavy Ion Irradiation of Brannerite-type Ceramics. Materials Research Society Symposia Proceedings, 2000, 650, 3171.	0.1	3
305	Ion Irradiation Effects in Synthetic Garnets Incorporating Actinides. Materials Research Society Symposia Proceedings, 2002, 713, 1.	0.1	3
306	In Situ Isotopic Analysis of Uraninite Microstructures from the Oklo-OkÃ©lobondo Natural Fission Reactors, Gabon. Materials Research Society Symposia Proceedings, 2002, 713, 1.	0.1	3

#	Article	IF	Citations
307	Electronic structure and energetics of tetragonal SrCuO2and its high-pressure superstructure phase. Journal of Physics Condensed Matter, 2011, 23, 465503.	0.7	3
308	Scanning Transmission Electron Microscopy and Related Techniques for Research on Actinide and Radionuclide Nanomaterials. , 2011, , 33-62.		3
309	Ion Beam Irradiation-Induced Amorphization of Nano-Sized KxLnyTa2O7-v Tantalate Pyrochlore. Frontiers in Energy Research, 2014, 2, .	1.2	3
310	Thermodynamic mixing properties of the UO2â€“HfO2 solid solution: Density functional theory and Monte Carlo simulations. Journal of Nuclear Materials, 2015, 458, 296-303.	1.3	3
311	Constraints on Hf and Zr mobility in high-sulfidation epithermal systems: formation of kosnarite, KZr2(PO4)3, in the Chaquicocha gold deposit, Yanacocha district, Peru. Mineralium Deposita, 2015, 50, 429-436.	1.7	3
312	Radiation-induced effects on the mechanical properties of natural ZrSiO4: double cascade-overlap damage accumulation. Physics and Chemistry of Minerals, 2018, 45, 435-442.	0.3	3
313	Structural evolution of Lu_{2â€x}Ce_xTi₂O₇ pyrochlores under 400 keV Ne irradiation. Journal of the American Ceramic Society, 2020, 103, 5525-5535.	1.9	3
314	Socio-technical multi-criteria evaluation of long-term spent nuclear fuel management strategies: A framework and method. Science of the Total Environment, 2021, 777, 146086.	3.9	3
315	Fracture toughness of radiation-damaged zircon studied by nanoindentation pillar-splitting. Applied Physics Letters, 2021, 119, .	1.5	3
316	Phase stability of preâ€irradiated CeO ₂ with swift heavy ions under high pressure up to 45ÂGPa. Journal of the American Ceramic Society, 2022, 105, 2889-2902.	1.9	3
317	Annealing of Alpha-Recoil Damage in Natural Titanite, CaTiSiO5.. Materials Research Society Symposia Proceedings, 1990, 183, 297.	0.1	2
318	Performance Assessments of Geologic Repositories for High-Level Nuclear Waste: Are TheyNecessaryorSufficient?. Materials Research Society Symposia Proceedings, 2004, 824, 137.	0.1	2
319	Thermodynamic Properties of Actinide Oxide Solid Solutions. Materials Research Society Symposia Proceedings, 2008, 1125, 1.	0.1	2
320	Nuclear-waste management and disposal. , 0, , 178-193.		2
321	Ion Beam Irradiation-induced Amorphization in Nano-sized KxLnyTa2O7-v Tantalate Pyrochlore. Materials Research Society Symposia Proceedings, 2011, 1298, 147.	0.1	2
322	Swift heavy ion irradiation of diamond powder. Nuclear Instruments & Methods in Physics Research B, 2012, 286, 262-265.	0.6	2
323	Effect of interstitial atoms on the stability and electronic structure of Re3Zn alloy: First-principles calculations. Intermetallics, 2012, 24, 95-98.	1.8	2
324	Synchrotron x-ray diffraction analysis of gadolinium and lanthanum titanate oxides irradiated by xenon and tantalum swift heavy ions. Materials Research Society Symposia Proceedings, 2015, 1743, 26.	0.1	2

#	Article	IF	Citations
325	Initial stages of ion beam-induced phase transformations in Gd2O3 and Lu2O3. Applied Physics Letters, 2018, 112, 073904.	1.5	2
326	Nanocrystallites via Direct Melt Spinning of Fe₇₇Ni_{5.5}Co_{5.5}Zr₇B₄Cu for Enhanced Magnetic Softness. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 1900680.	0.8	2
327	Annealing of ion tracks in apatite under pressure characterized in situ by small angle x-ray scattering. Scientific Reports, 2020, 10, 1367.	1.6	2
328	The Alteration of Uraninite to Clarkeite. Materials Research Society Symposia Proceedings, 1992, 294, 513.	0.1	1
329	79Se: Geochemical and Crystallo-Chemical Retardation Mechanisms. Materials Research Society Symposia Proceedings, 1999, 556, 1115.	0.1	1
330	Effects of Proton Irradiation in Zeolite-Y. Materials Research Society Symposia Proceedings, 2000, 650, 3161.	0.1	1
331	Materials Research in Nuclear Waste Management: Reflections on Twenty-Five MRS Symposia. Materials Research Society Symposia Proceedings, 2002, 713, 1.	0.1	1
332	Microanalysis of Radiation Damage Across a Zoned Zircon Crystal. Materials Research Society Symposia Proceedings, 2002, 713, 1.	0.1	1
333	Np-Incorporation Into K-boltwoodite. Materials Research Society Symposia Proceedings, 2008, 1107, 1.	0.1	1
334	Swift Heavy Ion-Induced Decomposition and Phase Transformation in Nanocrystalline SnO2. Materials Research Society Symposia Proceedings, 2014, 1715, 13.	0.1	1
335	Gauging the risk from US nuclear waste. Nature, 2017, 552, 31-31.	13.7	1
336	Geologic Analysis of the Democratic Peopleâ€™s Republic of Koreaâ€™s Uranium Resources and Mines. Science and Global Security, 2020, 28, 80-109.	0.1	1
337	Integration of the Back-end of the Nuclear Fuel Cycle: An Overview. MRS Advances, 2020, 5, 253-264.	0.5	1
338	Processing of Soft Magnetic Fine Powders Directly From As-Spun Partial Crystalline Fe77Ni5.5Co5.5Zr7B4Cu Ribbon via Ball Mill Without Devitrification. IEEE Transactions on Magnetics, 2020, 56, 1-9.	1.2	1
339	Reflections of a Scientist Laboring in the Nuclear Waste Field. Ground Water, 2021, 59, 154-155.	0.7	1
340	Application of Electron Microscopy to Understanding Colloid-Facilitated Transport of Radionuclides at the Mayak Production Association Facility, Near Lake Karachai, Russia. , 2020, , 177-200.		1
341	Assessing Uranium Ore Processing Activities Using Satellite Imagery at Pyongsan in the Democratic Peopleâ€™s Republic of Korea. Science and Global Security, 2021, 29, 111-144.	0.1	1
342	Thermal annealing of fission and ion tracks in epidote. Physics and Chemistry of Minerals, 2022, 49, .	0.3	1

#	Article	IF	Citations
343	Radiation Effects Issues Related to U.S. Doe Site Remediation and Nuclear Waste Storage. Materials Research Society Symposia Proceedings, 1994, 353, 1389.	0.1	0
344	Structural Contributions to the Third-Law Entropy of Uranyl Phases. Materials Research Society Symposia Proceedings, 1999, 556, 1017.	0.1	0
345	Effect of Iodine and Strontium Ion Implantation on the Microstructure of Cubic Zirconia. Materials Research Society Symposia Proceedings, 2000, 647, 1.	0.1	0
346	Magnetic Alignment of Carbon Nanofibers in Polymer Composites. Materials Research Society Symposia Proceedings, 2004, 858, 248.	0.1	0
347	Nanoscale Heavy Metal Phases on Atmospheric and Groundwater Colloids. ACS Symposium Series, 2004, , 97-101.	0.5	0
348	New Actinide Waste Forms with Pyrochlore and Garnet Structures. Advances in Science and Technology, 2010, 73, 142-147.	0.2	0
349	In situ AFM and XPS Investigation of U6+ Reduction by Fe2+ on Hematite and Pyrite. Materials Research Society Symposia Proceedings, 2012, 1444, 243.	0.1	0
350	Presentation of the Distinguished Public Service Award for 2013 of the Mineralogical Society of America to Pierrette Tremblay. American Mineralogist, 2014, 99, 1185-1185.	0.9	0
351	Acceptance of the 2015 Roebling Medal of the Mineralogical Society of America. American Mineralogist, 2016, 101, 1002-1004.	0.9	0
352	Phase transformation and chemical decomposition of nanocrystalline SnO2 under heavy ion irradiation. Nuclear Instruments & Methods in Physics Research B, 2017, 407, 10-19.	0.6	0
353	Probabilistic Performance Assessment vs. the Safety Case Approach. MRS Advances, 2019, 4, 987-992.	0.5	0
354	Anomalous behavior of nonequilibrium excitations in UO2. Physical Review B, 2019, 99, .	1.1	0
355	Acceptance of Distinguished Public Service Award of the Mineralogical Society of America for 2019. American Mineralogist, 2020, 105, 774-775.	0.9	0
356	MSA DISTINGUISHED PUBLIC SERVICE MEDALIST LECTURE: RESET OF AMERICAâ€™S NUCLEAR WASTE MANAGEMENT STRATEGY AND POLICY. , 2019, , .		0
357	RADIATION-INDUCED CHANGES IN THE MECHANICAL PROPERTIES OF ZIRCON. , 2019, , .		0
358	Experimental Evidence for Coffinite Formation from UO₂+x. , 2020, , .		0
359	Thermodynamics of CeSiOâ„„. , 2020, , .		0
360	Machine learning improves satellite imagery analysis of North Korean nuclear activity. Bulletin of the Atomic Scientists, 2022, 78, 26-37.	0.2	0