

Rodney C Ewing

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

351
papers

14,929
citations

61
h-index

108
g-index

369
ext. papers

16,489
ext. citations

5.9
avg, IF

6.62
L-index

#	Paper	IF	Citations
351	Nuclear waste disposal by pyrochlore (A ₂ B ₂ O ₇): Nuclear waste form for the immobilization of plutonium and minor actinides. <i>Journal of Applied Physics</i> , 2004 , 95, 5949-5971	2.5	834
350	Solubility of gold in arsenian pyrite. <i>Geochimica Et Cosmochimica Acta</i> , 2005 , 69, 2781-2796	5.5	518
349	Colloid transport of plutonium in the far-field of the Mayak Production Association, Russia. <i>Science</i> , 2006 , 314, 638-41	33.3	348
348	The radiation-induced crystalline-to-amorphous transition in zircon. <i>Journal of Materials Research</i> , 1994 , 9, 688-698	2.5	346
347	Nuclear fuel in a reactor accident. <i>Science</i> , 2012 , 335, 1184-8	33.3	328
346	Radiation Effects in Glasses Used for Immobilization of High-level Waste and Plutonium Disposition. <i>Journal of Materials Research</i> , 1997 , 12, 1948-1978	2.5	323
345	The corrosion of uraninite under oxidizing conditions. <i>Journal of Nuclear Materials</i> , 1992 , 190, 133-156	3.3	300
344	Radiation effects in ceramics. <i>Journal of Nuclear Materials</i> , 1994 , 216, 291-321	3.3	271
343	Radiation-induced amorphization of rare-earth titanate pyrochlores. <i>Physical Review B</i> , 2003 , 68,	3.3	264
342	The coupled geochemistry of Au and As in pyrite from hydrothermal ore deposits. <i>Geochimica Et Cosmochimica Acta</i> , 2014 , 140, 644-670	5.5	257
341	Trace metal nanoparticles in pyrite. <i>Ore Geology Reviews</i> , 2011 , 42, 32-46	3.2	245
340	Long-term storage of spent nuclear fuel. <i>Nature Materials</i> , 2015 , 14, 252-7	27	223
339	Fluorescent, superparamagnetic nanospheres for drug storage, targeting, and imaging: a multifunctional nanocarrier system for cancer diagnosis and treatment. <i>ACS Nano</i> , 2010 , 4, 5398-404	16.7	222
338	Targeting Negative Surface Charges of Cancer Cells by Multifunctional Nanoprobe. <i>Theranostics</i> , 2016 , 6, 1887-98	12.1	207
337	Invisible gold revealed: Direct imaging of gold nanoparticles in a Carlin-type deposit. <i>American Mineralogist</i> , 2004 , 89, 1359-1366	2.9	206
336	A proposed new type of arsenian pyrite: Composition, nanostructure and geological significance. <i>Geochimica Et Cosmochimica Acta</i> , 2008 , 72, 2919-2933	5.5	195
335	Plutonium immobilization and radiation effects. <i>Science</i> , 2000 , 289, 2051-2	33.3	186

334	High pressure synthesis of a hexagonal close-packed phase of the high-entropy alloy CrMnFeCoNi. <i>Nature Communications</i> , 2017 , 8, 15634	17.4	177
333	Incorporation mechanisms of actinide elements into the structures of U6+ phases formed during the oxidation of spent nuclear fuel. <i>Journal of Nuclear Materials</i> , 1997 , 245, 1-9	3.3	176
332	Dual surface-functionalized Janus nanocomposites of polystyrene/Fe ₃ O ₄ /SiO ₂ for simultaneous tumor cell targeting and stimulus-induced drug release. <i>Advanced Materials</i> , 2013 , 25, 3485-9	24	168
331	Fluorescent Polystyrene/Fe ₃ O ₄ Composite Nanospheres for In Vivo Imaging and Hyperthermia. <i>Advanced Materials</i> , 2009 , 21, 2170-2173	24	163
330	Review of A2B2O7 pyrochlore response to irradiation and pressure. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2010 , 268, 2951-2959	1.2	154
329	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. <i>Environmental Science & Technology</i> , 2003 , 37, 786-91	10.3	149
328	Probing disorder in isometric pyrochlore and related complex oxides. <i>Nature Materials</i> , 2016 , 15, 507-11	27	133
327	First-principles calculation of defect-formation energies in the Y ₂ (Ti,Sn,Zr)O ₇ pyrochlore. <i>Physical Review B</i> , 2004 , 70,	3.3	123
326	Evolution of uranium and thorium minerals. <i>American Mineralogist</i> , 2009 , 94, 1293-1311	2.9	121
325	Patterning Metallic Nanostructures by Ion-Beam-Induced Dewetting and Rayleigh Instability. <i>Nano Letters</i> , 2006 , 6, 1047-1052	11.5	121
324	Direct identification of trace metals in fine and ultrafine particles in the Detroit urban atmosphere. <i>Environmental Science & Technology</i> , 2004 , 38, 2289-97	10.3	120
323	Single-ion tracks in Gd ₂ Zr _{2-x} Ti _x O ₇ pyrochlores irradiated with swift heavy ions. <i>Physical Review B</i> , 2009 , 79,	3.3	117
322	Geochemical alteration of pyrochlore group minerals; pyrochlore subgroup. <i>American Mineralogist</i> , 1995 , 80, 732-743	2.9	109
321	Metamictization of zircon: Raman spectroscopic study. <i>Journal of Physics Condensed Matter</i> , 2000 , 12, 1915-1925	1.8	108
320	The metamict state: 1993 - the centennial. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1994 , 91, 22-29	1.2	107
319	In vivo Imaging and Drug Storage by Quantum-Dot-Conjugated Carbon Nanotubes. <i>Advanced Functional Materials</i> , 2008 , 18, 2489-2497	15.6	101
318	Effect of spatial confinement on magnetic hyperthermia via dipolar interactions in Fe ₃ O ₄ nanoparticles for biomedical applications. <i>Materials Science and Engineering C</i> , 2014 , 42, 52-63	8.3	99
317	The role of pe, pH, and carbonate on the solubility of UO ₂ and uraninite under nominally reducing conditions. <i>Geochimica Et Cosmochimica Acta</i> , 1998 , 62, 2223-2231	5.5	98

3 ¹⁶	79Se: geochemical and crystallo-chemical retardation mechanisms. <i>Journal of Nuclear Materials</i> , 1999 , 275, 81-94	3.3	98
3 ¹⁵	Energetics of radiation damage in natural zircon (ZrSiO ₄). <i>Physics and Chemistry of Minerals</i> , 1994 , 21, 140-149	1.6	90
3 ¹⁴	The amorphization of complex silicates by ion-beam irradiation. <i>Journal of Materials Research</i> , 1992 , 7, 3080-3102	2.5	90
3 ¹³	Radiation damage in zircon. <i>American Mineralogist</i> , 2003 , 88, 770-781	2.9	89
3 ¹²	Ceramic matrices for plutonium disposition. <i>Progress in Nuclear Energy</i> , 2007 , 49, 635-643	2.3	87
3 ¹¹	Uraninite and fullerene in atmospheric particulates. <i>Environmental Science & Technology</i> , 2002 , 36, 4943-7	10.3	87
3 ¹⁰	Alpha-recoil damage in natural zirconolite (CaZrTi ₂ O ₇). <i>Journal of Nuclear Materials</i> , 1983 , 119, 102-109	3.3	86
3 ⁰⁹	Photoluminescence and photothermal effect of Fe ₃ O ₄ nanoparticles for medical imaging and therapy. <i>Applied Physics Letters</i> , 2014 , 105, 091903	3.4	82
3 ⁰⁸	SbBe under pressure. <i>Scientific Reports</i> , 2013 , 3, 2665	4.9	78
3 ⁰⁷	Enhanced radiation resistance of nanocrystalline pyrochlore Gd ₂ (Ti _{0.65} Zr _{0.35}) ₂ O ₇ . <i>Applied Physics Letters</i> , 2009 , 94, 243110	3.4	78
3 ⁰⁶	Nanoscale manipulation of the properties of solids at high pressure with relativistic heavy ions. <i>Nature Materials</i> , 2009 , 8, 793-7	27	77
3 ⁰⁵	O and Pb isotopic analyses of uranium minerals by ion microprobe and U ^B b ages from the Cigar Lake deposit. <i>Chemical Geology</i> , 2002 , 185, 205-225	4.2	77
3 ⁰⁴	Nanoscale phase transitions under extreme conditions within an ion track. <i>Journal of Materials Research</i> , 2010 , 25, 1344-1351	2.5	76
3 ⁰³	Thermal behavior of metal nanoparticles in geologic materials. <i>Geology</i> , 2006 , 34, 1033	5	75
3 ⁰²	Annealing of alpha-decay damage in zircon: a Raman spectroscopic study. <i>Journal of Physics Condensed Matter</i> , 2000 , 12, 3131-3148	1.8	75
3 ⁰¹	The Gibbs free energies and enthalpies of formation of U ⁶⁺ phases: An empirical method of prediction. <i>American Mineralogist</i> , 1999 , 84, 650-664	2.9	74
3 ⁰⁰	Geochemical alteration of pyrochlore group minerals; betafite subgroup. <i>American Mineralogist</i> , 1996 , 81, 1237-1248	2.9	74
299	The crystal structure of ianthinite, [U ₂₄ +(UO ₂) ₄ O ₆ (OH) ₄ (H ₂ O) ₄](H ₂ O) ₅ : a possible phase for Pu ⁴⁺ incorporation during the oxidation of spent nuclear fuel. <i>Journal of Nuclear Materials</i> , 1997 , 249, 199-206	2.3	73

298	Uraninite and UO ₂ in spent nuclear fuel: a comparison. <i>Journal of Nuclear Materials</i> , 1996 , 238, 121-130	3.3	73
297	Ion-beam irradiation of Gd ₂ Sn ₂ O ₇ and Gd ₂ Hf ₂ O ₇ pyrochlore: Bond-type effect. <i>Journal of Materials Research</i> , 2004 , 19, 1575-1580	2.5	72
296	Energy. Nuclear waste management in the United States--starting over. <i>Science</i> , 2009 , 325, 151-2	33.3	70
295	Caesium-rich micro-particles: A window into the meltdown events at the Fukushima Daiichi Nuclear Power Plant. <i>Scientific Reports</i> , 2017 , 7, 42731	4.9	66
294	A versatile multicomponent assembly via β -cyclodextrin host-guest chemistry on graphene for biomedical applications. <i>Small</i> , 2013 , 9, 446-56	11	65
293	Redox response of actinide materials to highly ionizing radiation. <i>Nature Communications</i> , 2015 , 6, 6133	17.4	64
292	YUCCA MOUNTAIN: Earth-Science Issues at a Geologic Repository for High-Level Nuclear Waste. <i>Annual Review of Earth and Planetary Sciences</i> , 2004 , 32, 363-401	15.3	64
291	Groundwater nanoparticles in the far-field at the Nevada Test Site: mechanism for radionuclide transport. <i>Environmental Science & Technology</i> , 2009 , 43, 1293-8	10.3	61
290	The chemical stability of coffinite, USiO ₄ ·nH ₂ O; 0 <i>Chemical Geology</i> , 2008 , 251, 33-49	4.2	60
289	High-level nuclear waste immobilization with ceramics. <i>Ceramics International</i> , 1991 , 17, 287-293	5.1	60
288	Low-temperature anisotropic diffusion of helium in zircon: Implications for zircon (U/Th)/He thermochronometry. <i>Geochimica Et Cosmochimica Acta</i> , 2007 , 71, 3119-3130	5.5	59
287	Chemical and structural characterization of As immobilization by nanoparticles of mackinawite (FeSm). <i>Chemical Geology</i> , 2009 , 268, 116-125	4.2	56
286	Mineral chemistry and oxygen isotopic analyses of uraninite, pitchblende and uranium alteration minerals from the Cigar Lake deposit, Saskatchewan, Canada. <i>Applied Geochemistry</i> , 1997 , 12, 549-565	3.5	56
285	Plutonium and minor actinides: safe sequestration. <i>Earth and Planetary Science Letters</i> , 2005 , 229, 165-181	18.3	56
284	Thermodynamics of formation of coffinite, USiO ₄ . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 6551-5	11.5	54
283	Phase Transformation of Nanosized ZrO ₂ upon Thermal Annealing and Intense Radiation. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 7193-7201	3.8	52
282	Magnetic alignment of carbon nanofibers in polymer composites and anisotropy of mechanical properties. <i>Journal of Applied Physics</i> , 2005 , 97, 064312	2.5	52
281	Image simulation of partially amorphous materials. <i>Ultramicroscopy</i> , 1993 , 48, 203-237	3.1	52

280	Nanoscale occurrence of Pb in an Archean zircon. <i>Geochimica Et Cosmochimica Acta</i> , 2004 , 68, 4679-4686	5.5	50
279	Isotopic signature and nano-texture of cesium-rich micro-particles: Release of uranium and fission products from the Fukushima Daiichi Nuclear Power Plant. <i>Scientific Reports</i> , 2017 , 7, 5409	4.9	49
278	Thermal annealing mechanisms of latent fission tracks: Apatite vs. zircon. <i>Earth and Planetary Science Letters</i> , 2011 , 302, 227-235	5.3	49
277	Adsorbed U(VI) surface species on muscovite identified by laser fluorescence spectroscopy and transmission electron microscopy. <i>Environmental Science & Technology</i> , 2006 , 40, 4646-52	10.3	49
276	Photothermal effect on Fe ₃ O ₄ nanoparticles irradiated by white-light for energy-efficient window applications. <i>Solar Energy Materials and Solar Cells</i> , 2017 , 161, 247-254	6.4	48
275	Similar local order in disordered fluorite and aperiodic pyrochlore structures. <i>Acta Materialia</i> , 2018 , 144, 60-67	8.4	48
274	Geological Disposal of Nuclear Waste: a Primer. <i>Elements</i> , 2016 , 12, 233-237	3.8	48
273	Uranium Dioxides and Debris Fragments Released to the Environment with Cesium-Rich Microparticles from the Fukushima Daiichi Nuclear Power Plant. <i>Environmental Science & Technology</i> , 2018 , 52, 2586-2594	10.3	47
272	Unusual rigidity and ideal strength of CrB ₄ and MnB ₄ . <i>Applied Physics Letters</i> , 2012 , 100, 111907	3.4	47
271	Ion beam-induced amorphous-to-tetragonal phase transformation and grain growth of nanocrystalline zirconia. <i>Nanotechnology</i> , 2009 , 20, 245303	3.4	46
270	Radiation damage and alteration of zircon from a 3.3 Ga porphyritic granite from the Jack Hills, Western Australia. <i>Chemical Geology</i> , 2007 , 236, 92-111	4.2	46
269	Structural response of titanate pyrochlores to swift heavy ion irradiation. <i>Acta Materialia</i> , 2016 , 117, 207-215	8.4	46
268	Multilayered YSZ/GZO films with greatly enhanced ionic conduction for low temperature solid oxide fuel cells. <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 1296-301	3.6	45
267	Near-field behavior of ⁹⁹ Tc during the oxidative alteration of spent nuclear fuel. <i>Journal of Nuclear Materials</i> , 2000 , 278, 225-232	3.3	45
266	A Critical Review of Existing Criteria for the Prediction of Pyrochlore Formation and Stability. <i>Inorganic Chemistry</i> , 2018 , 57, 12093-12105	5.1	45
265	Swift heavy ion track formation in Gd ₂ Zr ₂ O ₇ pyrochlore: Effect of electronic energy loss. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2014 , 336, 102-115	1.2	44
264	Quantum mechanical vs. empirical potential modeling of uranium dioxide (UO ₂) surfaces: (111), (110), and (100). <i>American Mineralogist</i> , 2006 , 91, 1761-1772	2.9	44
263	The structure of aperiodic, metamict (Ca, Th)ZrTi ₂ O ₇ (zirconolite): An EXAFS study of the Zr, Th, and U sites. <i>Journal of Materials Research</i> , 1993 , 8, 1983-1995	2.5	44

262	Amorphous structure of metamict minerals observed by TEM. <i>Nature</i> , 1981 , 293, 449-450	50.4	44
261	Response of Gd ₂ Ti ₂ O ₇ and La ₂ Ti ₂ O ₇ to swift-heavy ion irradiation and annealing. <i>Acta Materialia</i> , 2015 , 93, 1-11	8.4	43
260	Uranium reduction on magnetite: Probing for pentavalent uranium using electrochemical methods. <i>Geochimica Et Cosmochimica Acta</i> , 2015 , 156, 194-206	5.5	41
259	First-principles study of electronic properties of La ₂ Hf ₂ O ₇ and Gd ₂ Hf ₂ O ₇ . <i>Journal of Applied Physics</i> , 2007 , 102, 063704	2.5	40
258	Zirconate pyrochlores under high pressure. <i>Physical Chemistry Chemical Physics</i> , 2010 , 12, 12472-7	3.6	39
257	The Oklbbondo natural fission reactor, southeast Gabon: Geology, mineralogy, and retardation of nuclear-reaction products. <i>Bulletin of the Geological Society of America</i> , 2001 , 113, 32-62	3.9	39
256	The energetics and kinetics of uranyl reduction on pyrite, hematite, and magnetite surfaces: A powder microelectrode study. <i>Geochimica Et Cosmochimica Acta</i> , 2013 , 118, 56-71	5.5	38
255	Irradiation-induced stabilization of zircon (ZrSiO ₄) at high pressure. <i>Earth and Planetary Science Letters</i> , 2008 , 269, 291-295	5.3	38
254	Role of composition, bond covalency, and short-range order in the disordering of stannate pyrochlores by swift heavy ion irradiation. <i>Physical Review B</i> , 2016 , 94,	3.3	37
253	Bulk Iodoapatite Ceramic Densified by Spark Plasma Sintering with Exceptional Thermal Stability. <i>Journal of the American Ceramic Society</i> , 2014 , 97, 2409-2412	3.8	37
252	Ion-irradiation-induced structural transitions in orthorhombic Ln ₂ TiO ₅ . <i>Acta Materialia</i> , 2013 , 61, 4191-4899	4.9	37
251	A self-consistent model describing the thermodynamics of Eu(III) adsorption onto hematite. <i>Geochimica Et Cosmochimica Acta</i> , 2013 , 122, 430-447	5.5	37
250	Nanoscale "liquid" inclusions of As-Fe-S in arsenian pyrite. <i>American Mineralogist</i> , 2009 , 94, 391-394	2.9	37
249	In situ TEM of radiation effects in complex ceramics. <i>Microscopy Research and Technique</i> , 2009 , 72, 165-81.8	1.8	37
248	Quantum dot conjugated hydroxylapatite nanoparticles for in vivo imaging. <i>Nanotechnology</i> , 2008 , 19, 175102	3.4	37
247	Theoretical investigation of structural, energetic and electronic properties of titanate pyrochlores. <i>Journal of Physics Condensed Matter</i> , 2007 , 19, 346203	1.8	37
246	Description and classification of uranium oxide hydrate sheet anion topologies. <i>Journal of Materials Research</i> , 1996 , 11, 3048-3056	2.5	37
245	Alteration of uranium minerals in the Koongarra deposit, Australia: Unweathered zone. <i>Journal of Nuclear Materials</i> , 1992 , 190, 174-187	3.3	37

244	Structural response of A ₂ TiO ₅ (A=La, Nd, Sm, Gd) to swift heavy ion irradiation. <i>Acta Materialia</i> , 2012 , 60, 4477-4486	8.4	36
243	Simultaneous formation of surface ripples and metallic nanodots induced by phase decomposition and focused ion beam patterning. <i>Applied Physics Letters</i> , 2006 , 88, 093112	3.4	36
242	Dissolution of radiation-damaged zircon in lateritic soils. <i>American Mineralogist</i> , 2007 , 92, 1978-1989	2.9	36
241	Defect accumulation in ThO ₂ irradiated with swift heavy ions. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2014 , 326, 169-173	1.2	35
240	Intrinsic Structural Disorder and Radiation Response of Nanocrystalline Gd ₂ (Ti _{0.65} Zr _{0.35}) ₂ O ₇ Pyrochlore. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 11810-11815	3.8	35
239	Structural and bonding properties of stannate pyrochlores: A density functional theory investigation. <i>Computational Materials Science</i> , 2008 , 42, 653-658	3.2	35
238	Novel Method of Quantifying Radioactive Cesium-Rich Microparticles (CsMPs) in the Environment from the Fukushima Daiichi Nuclear Power Plant. <i>Environmental Science & Technology</i> , 2018 , 52, 6390-6398	10.3	35
237	Fission tracks simulated by swift heavy ions at crustal pressures and temperatures. <i>Earth and Planetary Science Letters</i> , 2008 , 274, 355-358	5.3	34
236	Luminescent hydroxylapatite nanoparticles by surface functionalization. <i>Applied Physics Letters</i> , 2006 , 89, 183106	3.4	34
235	Size effects in the irradiation-induced crystalline-to-amorphous transformation. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2003 , 207, 28-35	1.2	34
234	Weathering of Natural Uranyl Oxide Hydrates: Schoepite Polytypes and Dehydration Effects. <i>Radiochimica Acta</i> , 1992 , 58-59, 433-444	1.9	34
233	Amorphization of nanocrystalline monoclinic ZrO ₂ by swift heavy ion irradiation. <i>Physical Chemistry Chemical Physics</i> , 2012 , 14, 12295-300	3.6	33
232	Coffinite, USiO ₄ , Is Abundant in Nature: So Why Is It So Difficult To Synthesize?. <i>Inorganic Chemistry</i> , 2015 , 54, 6687-96	5.1	32
231	Phase transformations in Ln ₂ O ₃ materials irradiated with swift heavy ions. <i>Physical Review B</i> , 2015 , 92,	3.3	32
230	Time-response relationship of nano and micro particle induced lung inflammation. Quartz as reference compound. <i>Human and Experimental Toxicology</i> , 2010 , 29, 915-33	3.4	32
229	Crystal Chemical Constraints on the Formation of Actinide Pyrochlores. <i>Materials Research Society Symposia Proceedings</i> , 1984 , 44, 641		32
228	Thermal annealing of unetched fission tracks in apatite. <i>Earth and Planetary Science Letters</i> , 2012 , 321-322, 121-127	5.3	31
227	Nuclear Fuel Cycle: Environmental Impact. <i>MRS Bulletin</i> , 2008 , 33, 338-340	3.2	31

226	Ion-beam-induced amorphization and order-disorder transition in the murataite structure. <i>Journal of Applied Physics</i> , 2005 , 97, 113536	2.5	31
225	Environmental impact of the nuclear fuel cycle: Fate of actinides. <i>MRS Bulletin</i> , 2010 , 35, 859-866	3.2	30
224	Radiation Effects in Crystalline Oxide Host Phases for the Immobilization of Actinides. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 713, 1		30
223	High-pressure behavior of A ₂ B ₂ O ₇ pyrochlore (A=Eu, Dy; B=Ti, Zr). <i>Journal of Applied Physics</i> , 2017 , 121, 045902	2.5	29
222	Inversion in MgNiAlO Spinel: New Insight into Local Structure. <i>Journal of the American Chemical Society</i> , 2017 , 139, 10395-10402	16.4	29
221	Size dependence of radiation-induced amorphization and recrystallization of synthetic nanostructured CePO ₄ monazite. <i>Acta Materialia</i> , 2013 , 61, 2984-2992	8.4	29
220	Energetic stability, structural transition, and thermodynamic properties of ZnSnO ₃ . <i>Applied Physics Letters</i> , 2011 , 98, 091914	3.4	29
219	Energetics and concentration of defects in Gd ₂ Ti ₂ O ₇ and Gd ₂ Zr ₂ O ₇ pyrochlore at high pressure. <i>Acta Materialia</i> , 2011 , 59, 1607-1618	8.4	29
218	Uraninite recrystallization and Pb loss in the Oklo and Bangombé natural fission reactors, Gabon. <i>Geochimica Et Cosmochimica Acta</i> , 2005 , 69, 1589-1606	5.5	29
217	Defect accumulation in swift heavy ion-irradiated CeO ₂ and ThO ₂ . <i>Journal of Materials Chemistry A</i> , 2017 , 5, 12193-12201	13	28
216	First experimental determination of the solubility constant of coffinite. <i>Geochimica Et Cosmochimica Acta</i> , 2016 , 181, 36-53	5.5	28
215	Radioactive Cs in the Severely Contaminated Soils Near the Fukushima Daiichi Nuclear Power Plant. <i>Frontiers in Energy Research</i> , 2015 , 3,	3.8	28
214	Liquid-like phase formation in Gd ₂ Zr ₂ O ₇ by extremely ionizing irradiation. <i>Journal of Applied Physics</i> , 2009 , 105, 113510	2.5	28
213	Grain size effects on irradiated CeO ₂ , ThO ₂ , and UO ₂ . <i>Acta Materialia</i> , 2018 , 160, 47-56	8.4	28
212	Average structure and local configuration of excess oxygen in UO(2+x). <i>Scientific Reports</i> , 2014 , 4, 4216	4.9	27
211	Radioactive Cs in the estuary sediments near Fukushima Daiichi Nuclear Power Plant. <i>Science of the Total Environment</i> , 2016 , 551-552, 155-62	10.2	27
210	Characterization of ion-induced radiation effects in nuclear materials using synchrotron x-ray techniques. <i>Journal of Materials Research</i> , 2015 , 30, 1366-1379	2.5	27
209	Swift heavy ion-induced amorphization of CaZrO ₃ perovskite. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2012 , 286, 271-276	1.2	27

208	Fate of trace elements during alteration of uraninite in a hydrothermal vein-type U-deposit from Marshall Pass, Colorado, USA. <i>Geochimica Et Cosmochimica Acta</i> , 2007 , 71, 4954-4973	5.5	27
207	Comparison of Ion-Beam Irradiation Effects in X ₂ YO ₄ Compounds. <i>Journal of the American Ceramic Society</i> , 2004 , 82, 3321-3329	3.8	27
206	Pressure-induced structural modifications of rare-earth hafnate pyrochlore. <i>Journal of Physics Condensed Matter</i> , 2017 , 29, 255401	1.8	26
205	Swift heavy ion-induced phase transformation in Gd ₂ O ₃ . <i>Nuclear Instruments & Methods in Physics Research B</i> , 2014 , 326, 121-125	1.2	26
204	14. Radiation Effects in Zircon 2003 , 387-426		26
203	Florencite-(La) with fissionogenic REEs from a natural fission reactor at Bangombe, Gabon. <i>American Mineralogist</i> , 1996 , 81, 1263-1269	2.9	26
202	The fate of the epsilon phase (Mo-Ru-Pd-Tc-Rh) in the UO ₂ of the Oklo natural fission reactors. <i>Radiochimica Acta</i> , 2006 , 94, 749-753	1.9	25
201	Nanoscale mineralogy of arsenic in a region of New Hampshire with elevated As-concentrations in the groundwater. <i>American Mineralogist</i> , 2003 , 88, 1844-1852	2.9	25
200	Microscale characterization of uranium(VI) silicate solids and associated neptunium(V). <i>Radiochimica Acta</i> , 2005 , 93,	1.9	25
199	Performance Assessments of Nuclear Waste Repositories: A Dialogue on Their Value and Limitations. <i>Risk Analysis</i> , 1999 , 19, 933-958	3.9	25
198	Phosphatian coffinite with rare earth elements and Ce-rich frančisite-(Nd) from sandstone beneath a natural fission reactor at Bangomb Gabon. <i>Mineralogical Magazine</i> , 1996 , 60, 665-669	1.7	25
197	Alpha-recoil damage in titanite (CaTiSiO ₅): Direct observation and annealing study using high resolution transmission electron microscopy. <i>Journal of Materials Research</i> , 1991 , 6, 560-564	2.5	25
196	Thermodynamic properties of ThxU _{1-x} O ₂ (0 Journal of Nuclear Materials, 2011 , 412, 13-21	3.3	24
195	Nuclear proliferation: Time to bury plutonium. <i>Nature</i> , 2012 , 485, 167-8	50.4	24
194	Actinide host phases as radioactive waste forms 2007 , 457-490		24
193	Quantum-mechanical evaluation of Np-incorporation into studtite. <i>American Mineralogist</i> , 2010 , 95, 1151-1160	2.3	23
192	Less Geology in the Geological Disposal of Nuclear Waste. <i>Science</i> , 1999 , 286, 415-417	33.3	23
191	In situdefect annealing of swift heavy ion irradiated CeO ₂ and ThO ₂ using synchrotron X-ray diffraction and a hydrothermal diamond anvil cell. <i>Journal of Applied Crystallography</i> , 2015 , 48, 711-717	3.8	22

190	Energetics of a Uranothorite (Th _{1-x} U _x SiO ₄) Solid Solution. <i>Chemistry of Materials</i> , 2016 , 28, 7117-7124	9.6	22
189	Biomarkerless targeting and photothermal cancer cell killing by surface-electrically-charged superparamagnetic FeO composite nanoparticles. <i>Nanoscale</i> , 2017 , 9, 1457-1465	7.7	22
188	Radiation-stability of smectite. <i>Environmental Science & Technology</i> , 2008 , 42, 8407-11	10.3	22
187	How does surface modification aid in the dispersion of carbon nanofibers?. <i>Journal of Physical Chemistry B</i> , 2005 , 109, 23351-7	3.4	22
186	Alteration products of uraninite from the Colorado Plateau. <i>Radiochimica Acta</i> , 2000 , 88, 739-750	1.9	22
185	Oxidation of uraninite: Does tetragonal U ₃ O ₇ occur in nature?. <i>Journal of Nuclear Materials</i> , 1993 , 207, 177-191	3.3	22
184	Natural Analogues: Their Application to the Prediction of the Long-Term Behavior of Nuclear Waste Forms. <i>Materials Research Society Symposia Proceedings</i> , 1986 , 84, 67		22
183	Tailoring the radiation tolerance of vanadate-phosphate fluorapatites by chemical composition control. <i>RSC Advances</i> , 2013 , 3, 15178	3.7	21
182	Effects of ionizing radiation on the hollandite structure-type: Ba _{0.85} Cs _{0.26} Al _{1.35} Fe _{0.77} Ti _{5.90} O ₁₆ . <i>American Mineralogist</i> , 2008 , 93, 241-247	2.9	21
181	Effects of plasma surface modification on interfacial behaviors and mechanical properties of carbon nanotube-Al ₂ O ₃ nanocomposites. <i>Applied Physics Letters</i> , 2007 , 91, 261903	3.4	21
180	U ₆₊ phases in the weathering zone of the Bangombé deposit: observed and predicted mineralogy. <i>Radiochimica Acta</i> , 2002 , 90, 761-769	1.9	21
179	Abundance and distribution of radioactive cesium-rich microparticles released from the Fukushima Daiichi Nuclear Power Plant into the environment. <i>Chemosphere</i> , 2020 , 241, 125019	8.4	21
178	Dissolution of radioactive, cesium-rich microparticles released from the Fukushima Daiichi Nuclear Power Plant in simulated lung fluid, pure-water, and seawater. <i>Chemosphere</i> , 2019 , 233, 633-644	8.4	20
177	Uranium diphosphonates templated by interlayer organic amines. <i>Journal of Solid State Chemistry</i> , 2013 , 198, 270-278	3.3	20
176	Nuclear waste. Yucca Mountain. <i>Science</i> , 2002 , 296, 659-60	33.3	20
175	Micro-structures associated with uraninite alteration. <i>Journal of Nuclear Materials</i> , 2000 , 277, 204-210	3.3	20
174	Three new silver uranyl diphosphonates: structures and properties. <i>Inorganic Chemistry</i> , 2014 , 53, 2787-961		19
173	Swift heavy ion irradiation-induced amorphization of La ₂ Ti ₂ O ₇ . <i>Nuclear Instruments & Methods in Physics Research B</i> , 2014 , 326, 145-149	1.2	19

- 172 Effect of orientation on ion track formation in apatite and zircon. *American Mineralogist*, **2014**, 99, 1127-1132 19
- 171 Np-incorporation into uranyl phases: A quantum-mechanical evaluation. *Journal of Nuclear Materials*, **2013**, 434, 440-450 3.3 19
- 170 Geochemical fixation of rare earth elements into secondary minerals in sandstones beneath a natural fission reactor at Bangombé-Gabon. *Geochimica Et Cosmochimica Acta*, **2005**, 69, 685-694 5.5 19
- 169 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 1.8 19
- 168 Accommodation of Uranium into the Garnet Structure. *Materials Research Society Symposia Proceedings*, **2002**, 713, 1 19
- 167 Electronic structure and stability of hyperstoichiometric UO_{2+x} under pressure. *Physical Review B*, **2013**, 88, 3.3 18
- 166 Safe management of actinides in the nuclear fuel cycle: Role of mineralogy. *Comptes Rendus - Geoscience*, **2011**, 343, 219-229 1.4 18
- 165 Porous fission fragment tracks in fluorapatite. *Physical Review B*, **2010**, 82, 3.3 18
- 164 Irradiation of synthetic garnet by heavy ions and α -decay of ^{244}Cm . *Journal of Nuclear Materials*, **2010**, 407, 137-142 3.3 18
- 163 Distinguishing among schoepite, $[(UO_2)_8O_2(OH)_{12}](H_2O)_{12}$, and related minerals by X-ray powder diffraction. *Powder Diffraction*, **1997**, 12, 230-238 1.8 18
- 162 Particulate plutonium released from the Fukushima Daiichi meltdowns. *Science of the Total Environment*, **2020**, 743, 140539 10.2 17
- 161 Facile low temperature solid state synthesis of iodoapatite by high-energy ball milling. *RSC Advances*, **2014**, 4, 38718-38725 3.7 17
- 160 Multi-scale simulation of structural heterogeneity of swift-heavy ion tracks in complex oxides. *Journal of Physics Condensed Matter*, **2013**, 25, 135001 1.8 17
- 159 Characterization and dissolution behavior of a becquerelite from Shinkolobwe, Zaire. *Geochimica Et Cosmochimica Acta*, **1997**, 61, 3879-3884 5.5 17
- 158 Microstructural evolution and nanocrystal formation in Pb⁺-implanted ZrSiO₄ single crystals. *Journal of Applied Physics*, **2003**, 94, 5695-5703 2.5 17
- 157 Cesium and Strontium Incorporation into Uranophane, $Ca[(UO_2)(SiO_3OH)]_2 \cdot 5H_2O$. *Journal of Nuclear Science and Technology*, **2002**, 39, 504-507 1 17
- 156 The effect of H⁺ irradiation on the Cs-ion exchange capacity of zeolite-NaY. *Journal of Materials Chemistry*, **2000**, 10, 2610-2616 17
- 155 Disorder in HoTi Zr O: pyrochlore to defect fluorite solid solution series.. *RSC Advances*, **2020**, 10, 34632-34650 17

154	Role of the X and n factors in ion-irradiation induced phase transformations of Mn+1AXn phases. <i>Acta Materialia</i> , 2018 , 144, 432-446	8.4	17
153	Strain engineered pyrochlore at high pressure. <i>Scientific Reports</i> , 2017 , 7, 2236	4.9	16
152	Displacive radiation-induced structural contraction in nanocrystalline ZrN. <i>Applied Physics Letters</i> , 2012 , 101, 041904	3.4	16
151	18. Phosphates as Nuclear Waste Forms 2002 , 673-700		16
150	Leachability of Zircon as a Function of Alpha Dose. <i>Materials Research Society Symposia Proceedings</i> , 1981 , 11, 389		16
149	He diffusion and closure temperatures in apatite and zircon: A density functional theory investigation. <i>Geochimica Et Cosmochimica Acta</i> , 2012 , 86, 228-238	5.5	15
148	Conjugation of quantum dots and Fe ₃ O ₄ on carbon nanotubes for medical diagnosis and treatment. <i>Applied Physics Letters</i> , 2009 , 95, 223702	3.4	15
147	Oxidation state of uranium in metamict and annealed zircon: near-infrared spectroscopic quantitative analysis. <i>Journal of Physics Condensed Matter</i> , 2003 , 15, 3445-3470	1.8	15
146	Effect of doping on the radiation response of conductive NbBrTiO ₃ . <i>Nuclear Instruments & Methods in Physics Research B</i> , 2013 , 302, 40-47	1.2	14
145	Origin of the rigidity in tetragonal MB (M = Cr, Mo and W) and softening of defective WB: First-principles investigations. <i>Computational Materials Science</i> , 2012 , 53, 460-463	3.2	14
144	Micro-Raman and micro-infrared spectroscopic studies of Pb- and Au-irradiated ZrSiO ₄ : Optical properties, structural damage, and amorphization. <i>Physical Review B</i> , 2008 , 77,	3.3	14
143	Predicting short-range order and correlated phenomena in disordered crystalline materials. <i>Science Advances</i> , 2020 , 6, eabc2758	14.3	14
142	Policy: Reassess New Mexico's nuclear-waste repository. <i>Nature</i> , 2016 , 529, 149-51	50.4	14
141	In situ TEM observation of alpha-particle induced annealing of radiation damage in Durango apatite. <i>Scientific Reports</i> , 2017 , 7, 14108	4.9	13
140	Disorder in MAX phases at the atomic scale. <i>Nature Communications</i> , 2019 , 10, 622	17.4	13
139	Radiation Stability of Spark-Plasma-Sintered Lead Vanadate Iodoapatite. <i>Journal of the American Ceramic Society</i> , 2015 , 98, 3361-3366	3.8	13
138	Barium uranyl diphosphonates. <i>Journal of Solid State Chemistry</i> , 2012 , 192, 153-160	3.3	13
137	Lead in zircon at the atomic scale. <i>American Mineralogist</i> , 2012 , 97, 1094-1102	2.9	13

136	Nanosized Rutile (TiO ₂) Thin Film upon Ion Irradiation and Thermal Annealing. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 22755-22760	3.8	13
135	Nuclear Waste Form Glasses: The Evaluation of Very Long-Term Behaviour. <i>Materials Technology</i> , 2001 , 16, 30-36	2.1	13
134	Performance assessments of nuclear waste repositories: a dialogue on their value and limitations. <i>Risk Analysis</i> , 1999 , 19, 933-58	3.9	13
133	Effects of irradiation temperature on the response of CeO ₂ , ThO ₂ , and UO ₂ to highly ionizing radiation. <i>Journal of Nuclear Materials</i> , 2019 , 525, 83-91	3.3	12
132	Carbonate orientational order and superlattice structure in vaterite. <i>Journal of Crystal Growth</i> , 2014 , 407, 78-86	1.6	12
131	Stability of uranium (VI) peroxide hydrates under ionizing radiation. <i>American Mineralogist</i> , 2009 , 94, 229-235	2.9	12
130	Self-assembly of well-aligned 3C-SiC ripples by focused ion beam. <i>Applied Physics Letters</i> , 2008 , 92, 193107	3.4	12
129	Radiation-induced decomposition of U(VI) phases to nanocrystals of UO ₂ . <i>Earth and Planetary Science Letters</i> , 2005 , 240, 521-528	5.3	12
128	Plasma deposition of thin carbonfluorine films on aligned carbon nanotube. <i>Applied Physics Letters</i> , 2005 , 86, 043107	3.4	12
127	The thermal stability and consolidation of perovskite variant Cs ₂ SnCl ₆ using spark plasma sintering. <i>Journal of the American Ceramic Society</i> , 2018 , 101, 2060-2065	3.8	12
126	Amorphization of Ta ₂ O ₅ under swift heavy ion irradiation. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2017 , 407, 25-33	1.2	11
125	Role of vein-phases in nanoscale sequestration of U, Nb, Ti, and Pb during the alteration of pyrochlore. <i>Geochimica Et Cosmochimica Acta</i> , 2015 , 150, 226-252	5.5	11
124	Thermal annealing of natural, radiation-damaged pyrochlore. <i>Zeitschrift Fur Kristallographie - Crystalline Materials</i> , 2017 , 232, 25-38	1	11
123	Formation of nanoscale Th-coffinite. <i>American Mineralogist</i> , 2012 , 97, 681-693	2.9	11
122	Crystal chemistry and radiation-induced amorphization of P-coffinite from the natural fission reactor at Bangombé, Gabon. <i>American Mineralogist</i> , 2009 , 94, 827-837	2.9	11
121	12. Radiation-Induced Amorphization 2000 , 319-362		11
120	Local order of orthorhombic weberite-type Y ₃ TaO ₇ as determined by neutron total scattering and density functional theory calculations?. <i>Acta Materialia</i> , 2020 , 196, 704-709	8.4	11
119	Ultrafast laser and swift heavy ion irradiation: Response of Gd ₂ O ₃ and ZrO ₂ to intense electronic excitation. <i>Applied Physics Letters</i> , 2015 , 106, 171914	3.4	10

118	Review of recent experimental results on the behavior of actinide-bearing oxides and related materials in extreme environments. <i>Progress in Nuclear Energy</i> , 2018 , 104, 342-358	2.3	10
117	Precipitation and alteration of coffinite (USiO ₄ nH ₂ O) in the presence of apatite. <i>European Journal of Mineralogy</i> , 2010 , 22, 75-88	2.2	10
116	Enhanced thermal stability of carbon nanotubes by plasma surface modification in Al ₂ O ₃ composites. <i>Journal of Applied Physics</i> , 2008 , 104, 074302	2.5	10
115	Anisotropic mechanical properties of zircon and the effect of radiation damage. <i>Physics and Chemistry of Minerals</i> , 2016 , 43, 627-638	1.6	10
114	Phase transformations of Al-bearing high-entropy alloys Al _x CoCrFeNi (x = 0, 0.1, 0.3, 0.75, 1.5) at high pressure. <i>Applied Physics Letters</i> , 2019 , 114, 091902	3.4	9
113	Facile diamond synthesis from lower diamondoids. <i>Science Advances</i> , 2020 , 6, eaay9405	14.3	9
112	Mechanical properties of natural radiation-damaged titanite and temperature-induced structural reorganization: A nanoindentation and Raman spectroscopic study. <i>American Mineralogist</i> , 2016 , 101, 399-406	2.9	9
111	Molten salts activated by high-energy milling: A useful, low-temperature route for the synthesis of multiferroic compounds. <i>Journal of Alloys and Compounds</i> , 2014 , 584, 93-100	5.7	9
110	Dipole-interaction mediated hyperthermia heating mechanism of nanostructured Fe ₃ O ₄ composites. <i>Materials Letters</i> , 2014 , 129, 57-60	3.3	9
109	First principles investigation of structural, electronic, elastic and thermal properties of rare-earth-doped titanate Ln ₂ TiO ₅ . <i>AIP Advances</i> , 2012 , 2, 032114	1.5	9
108	The effect of ionizing radiation on uranophane. <i>American Mineralogist</i> , 2003 , 88, 159-166	2.9	9
107	Anisotropic expansion and amorphization of Ga ₂ O ₃ irradiated with 946 MeV Au ions. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2016 , 374, 40-44	1.2	8
106	C ₆₀ and U ion irradiation of Gd ₂ Ti _x Zr _{2-2x} O ₇ pyrochlore. <i>Journal of Materials Research</i> , 2015 , 30, 2456-2466.5	6.5	8
105	Pressure-induced splitting and buckling of Cu-O chains in the low-dimensional structure of SrCuO ₂ . <i>Journal of the American Chemical Society</i> , 2007 , 129, 13923-6	16.4	8
104	Oxygen isotopic composition of nano-scale uraninite at the Oklo-Oklobondo natural fission reactors, Gabon. <i>American Mineralogist</i> , 2003 , 88, 1583-1590	2.9	8
103	Colloid Transport of Radionuclides: Yucca Mountain Performance Assessment. <i>Materials Research Society Symposia Proceedings</i> , 2003 , 807, 206		8
102	Is a Probabilistic Performance Assessment Enough?. <i>Ground Water</i> , 1999 , 37, 481-482	2.4	8
101	Formation of Secondary Uranium Minerals in the Koongarra Deposit, Australia. <i>Materials Research Society Symposia Proceedings</i> , 1993 , 333, 653		8

100	Natural Pyrochlores: Analogues For Actinide Host Phases in Radioactive Waste Forms. <i>Materials Research Society Symposia Proceedings</i> , 1984 , 44, 647		8
99	Coffinite formation from UO ₂ . <i>Scientific Reports</i> , 2020 , 10, 12168	4.9	8
98	Mission Impossible? Socio-Technical Integration of Nuclear Waste Geological Disposal Systems. <i>Sustainability</i> , 2018 , 10, 4390	3.6	8
97	Structure and bulk modulus of Ln-doped UO ₂ (Ln = La, Nd) at high pressure. <i>Journal of Nuclear Materials</i> , 2017 , 490, 28-33	3.3	7
96	Measurement of UO ₂ surface oxidation using grazing-incidence x-ray diffraction: Implications for nuclear forensics. <i>Journal of Nuclear Materials</i> , 2018 , 502, 68-75	3.3	7
95	Radiation-induced disorder in compressed lanthanide zirconates. <i>Physical Chemistry Chemical Physics</i> , 2018 , 20, 6187-6197	3.6	7
94	Combined high pressure and heavy-ion irradiation: a novel approach. <i>Journal of Synchrotron Radiation</i> , 2009 , 16, 773-7	2.4	7
93	Freshwater Alteration of Basaltic Glass, Hanauma Bay, Oahu, Hawaii: A Natural Analogue for the Alteration of Borosilicate Glass in Fresh Water. <i>Materials Research Society Symposia Proceedings</i> , 1988 , 127, 49		7
92	Solution-Gelation Method for Preparing Polycrystalline Zircon. <i>Journal of the American Ceramic Society</i> , 1981 , 64, C-149-C-149	3.8	7
91	Radiation-damage-induced transitions in zircon: Percolation theory applied to hardness and elastic moduli as a function of density. <i>Applied Physics Letters</i> , 2018 , 112, 201901	3.4	7
90	Thermal defect annealing of swift heavy ion irradiated ThO ₂ . <i>Nuclear Instruments & Methods in Physics Research B</i> , 2017 , 405, 15-21	1.2	6
89	Ion-beam irradiation and ²⁴⁴ Cm-doping investigations of the radiation response of actinide-bearing crystalline waste forms. <i>Journal of Materials Research</i> , 2015 , 30, 1516-1528	2.5	6
88	Swift-heavy ion irradiation response and annealing behavior of A ₂ TiO ₅ (A = Nd, Gd, and Yb). <i>Journal of Solid State Chemistry</i> , 2018 , 258, 108-116	3.3	6
87	ZrSi formation at ZrN/Si interface induced by ballistic and ionizing radiations. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2012 , 286, 266-270	1.2	6
86	Pb ⁺ irradiation of synthetic zircon (ZrSiO ₄): Infrared spectroscopic investigation. <i>American Mineralogist</i> , 2008 , 93, 1418-1423	2.9	6
85	The effects of radiation on the retention of strontium in zeolite-NaSrY. <i>Journal of Materials Chemistry</i> , 2002 , 12, 233-238		6
84	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. <i>Materials Research Society Symposia Proceedings</i> , 1989 , 176, 355		6
83	Thermodynamics of CeSiO: Implications for Actinide Orthosilicates. <i>Inorganic Chemistry</i> , 2020 , 59, 13174-13183	5.1	6

82	Ion-irradiation-induced structural evolution in Ti ₄ AlN ₃ . <i>Scripta Materialia</i> , 2017 , 133, 19-23	5.6	5
81	Mechanical and structural properties of radiation-damaged allanite-(Ce) and the effects of thermal annealing. <i>Physics and Chemistry of Minerals</i> , 2019 , 46, 921-933	1.6	5
80	ATiO (A = Dy, Gd, Er, Yb) at High Pressure. <i>Inorganic Chemistry</i> , 2018 , 57, 2269-2277	5.1	5
79	Uranyl peroxide nanoclusters at high-pressure. <i>Journal of Materials Research</i> , 2017 , 32, 3679-3688	2.5	5
78	Lanthanide stannate pyrochlores (LnSnO; Ln = Nd, Gd, Er) at high pressure. <i>Journal of Physics Condensed Matter</i> , 2017 , 29, 504005	1.8	5
77	Defect formation energy in pyrochlore: the effect of crystal size. <i>Materials Research Express</i> , 2014 , 1, 035501	1.7	5
76	Controlling the structure and size of Au nanocrystals by annealing and ion sputtering. <i>Langmuir</i> , 2012 , 28, 51-5	4	5
75	Hydrogen incorporation in crystalline zircon: Insight from ab initio calculations. <i>American Mineralogist</i> , 2013 , 98, 745-751	2.9	5
74	Is nuclear fission a sustainable source of energy?. <i>MRS Bulletin</i> , 2012 , 37, 417-424	3.2	5
73	Horizontally aligned Cu ₅ Si polycrystalline nanorods on Si. <i>Applied Physics Letters</i> , 2008 , 92, 253113	3.4	5
72	Trace element immobilization by uranyl minerals in granite-hosted uranium ores: Evidences from the Xiazhuang ore field of Guangdong province, China. <i>Radiochimica Acta</i> , 2007 , 95, 25-32	1.9	5
71	Zirconolites from Sri Lanka, South Africa and Brazil. <i>Materials Research Society Symposia Proceedings</i> , 1981 , 6, 249		5
70	New highly radioactive particles derived from Fukushima Daiichi Reactor Unit 1: Properties and environmental impacts. <i>Science of the Total Environment</i> , 2021 , 773, 145639	10.2	5
69	The Role of Water and Hydroxyl Groups in the Structures of Stetindite and Coffinite, MSiO (M = Ce, U). <i>Inorganic Chemistry</i> , 2021 , 60, 718-735	5.1	5
68	OH species, U ions, and CO/CO ₂ in thermally annealed metamict zircon (ZrSiO ₄). <i>American Mineralogist</i> , 2010 , 95, 1717-1724	2.9	4
67	Source-to-receptor pathways of anthropogenic PM _{2.5} in Detroit, Michigan: Comparison of two inhalation exposure studies. <i>Atmospheric Environment</i> , 2009 , 43, 1805-1813	5.3	4
66	Radiation-induced decomposition of U(VI) alteration phases of UO ₂ . <i>Materials Research Society Symposia Proceedings</i> , 2006 , 932, 1		4
65	Environmental impact of the nuclear fuel cycle. <i>Geological Society Special Publication</i> , 2004 , 236, 7-23	1.7	4

64	Radiation effects in Mn+1AXn phases. <i>Applied Physics Reviews</i> , 2020 , 7, 041311	17.3	4
63	Radiation-damage in multi-layered zircon: Mechanical properties. <i>Applied Physics Letters</i> , 2019 , 115, 081902	3.3	3
62	Thermodynamic mixing properties of the UO ₂ HfO ₂ solid solution: Density functional theory and Monte Carlo simulations. <i>Journal of Nuclear Materials</i> , 2015 , 458, 296-303	3.3	3
61	Scanning Transmission Electron Microscopy and Related Techniques for Research on Actinide and Radionuclide Nanomaterials 2011 , 33-62		3
60	Ion-Induced Amorphization of Murataite. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 713, 1		3
59	The Long-Term Performance of Nuclear Waste Forms: Natural Materials - Three Case Studies. <i>Materials Research Society Symposia Proceedings</i> , 1992 , 294, 559		3
58	Long-Term Release from High Level Waste Glass - Part IV: The Effect of Leaching Mechanism. <i>Materials Research Society Symposia Proceedings</i> , 1984 , 44, 99		3
57	Metamict columbite re-examined. <i>Mineralogical Magazine</i> , 1976 , 40, 898-899	1.7	3
56	Constraints on Hf and Zr mobility in high-sulfidation epithermal systems: formation of kosnarite, KZr ₂ (PO ₄) ₃ , in the Chaquicocha gold deposit, Yanacocha district, Peru. <i>Mineralium Deposita</i> , 2015 , 50, 429-436	4.8	2
55	Annealing of ion tracks in apatite under pressure characterized in situ by small angle x-ray scattering. <i>Scientific Reports</i> , 2020 , 10, 1367	4.9	2
54	Initial stages of ion beam-induced phase transformations in Gd ₂ O ₃ and Lu ₂ O ₃ . <i>Applied Physics Letters</i> , 2018 , 112, 073904	3.4	2
53	Phase transformation pathways of ultrafast-laser-irradiated Ln ₂ O ₃ (Ln=ErLu). <i>Physical Review B</i> , 2018 , 97,	3.3	2
52	Synchrotron x-ray diffraction analysis of gadolinium and lanthanum titanate oxides irradiated by xenon and tantalum swift heavy ions. <i>Materials Research Society Symposia Proceedings</i> , 2015 , 1743, 26		2
51	Nuclear-waste management and disposal 178-193		2
50	Electronic structure and energetics of tetragonal SrCuO ₄ and its high-pressure superstructure phase. <i>Journal of Physics Condensed Matter</i> , 2011 , 23, 465503	1.8	2
49	Ion Beam Irradiation-induced Amorphization in Nano-sized KxLnyTa ₂ O _{7-v} Tantalate Pyrochlore. <i>Materials Research Society Symposia Proceedings</i> , 2011 , 1298, 147		2
48	Thermodynamic Properties of Actinide Oxide Solid Solutions. <i>Materials Research Society Symposia Proceedings</i> , 2008 , 1125, 1		2
47	Ion Irradiation Effects in Synthetic Garnets Incorporating Actinides. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 713, 1		2

46	In Situ Isotopic Analysis of Uraninite Microstructures From the Oklo-Oklobondo Natural Fission Reactors, Gabon. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 713, 1		2
45	Heavy Ion Irradiation of Brannerite-type Ceramics. <i>Materials Research Society Symposia Proceedings</i> , 2000 , 650, 3171		2
44	Radiation and Thermal Effects in Zeolite-NaY. <i>Materials Research Society Symposia Proceedings</i> , 1999 , 608, 493		2
43	The Crystal Structure of Ianthinite, a Mixed-Valence Uranium Oxide Hydrate. <i>Materials Research Society Symposia Proceedings</i> , 1996 , 465, 1193		2
42	Evolution and Structure of the Scientific Basis for Nuclear Waste Management. <i>MRS Advances</i> , 2019 , 4, 959-964	0.7	2
41	Radiation-induced effects on the mechanical properties of natural ZrSiO ₄ : double cascade-overlap damage accumulation. <i>Physics and Chemistry of Minerals</i> , 2018 , 45, 435-442	1.6	2
40	Socio-technical multi-criteria evaluation of long-term spent nuclear fuel management strategies: A framework and method. <i>Science of the Total Environment</i> , 2021 , 777, 146086	10.2	2
39	The Concept of Geological Disposal of Highly Radioactive Nuclear Waste 2021 , 588-602		2
38	Integration of the Back-end of the Nuclear Fuel Cycle: An Overview. <i>MRS Advances</i> , 2020 , 5, 253-264	0.7	1
37	Ion Beam Irradiation-Induced Amorphization of Nano-Sized KxLnyTa ₂ O _{7-v} Tantalate Pyrochlore. <i>Frontiers in Energy Research</i> , 2014 , 2,	3.8	1
36	Swift heavy ion irradiation of diamond powder. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2012 , 286, 262-265	1.2	1
35	Effect of interstitial atoms on the stability and electronic structure of Re ₃ Zn alloy: First-principles calculations. <i>Intermetallics</i> , 2012 , 24, 95-98	3.5	1
34	Np-Incorporation Into K-boltwoodite. <i>Materials Research Society Symposia Proceedings</i> , 2008 , 1107, 1		1
33	Performance Assessments of Geologic Repositories for High-Level Nuclear Waste: Are they Necessary or Sufficient?. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 824, 137		1
32	⁷⁹ Se: Geochemical and Crystallo-Chemical Retardation Mechanisms. <i>Materials Research Society Symposia Proceedings</i> , 1999 , 556, 1115		1
31	Annealing of Alpha-Recoil Damage in Natural Titanite, CaTiSiO ₅ .. <i>Materials Research Society Symposia Proceedings</i> , 1990 , 183, 297		1
30	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
29	Alpha-decay induced shortening of fission tracks simulated by in situ ion irradiation. <i>Geochimica Et Cosmochimica Acta</i> , 2021 , 299, 1-14	5.5	1

28	Recent advances in the global rare-earth supply chain. <i>MRS Bulletin</i> ,	3.2	1
27	Nanocrystallites via Direct Melt Spinning of Fe ₇₇ Ni _{5.5} Co _{5.5} Zr ₇ B ₄ Cu for Enhanced Magnetic Softness. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2020 , 217, 1900680	1.6	0
26	Processing of Soft Magnetic Fine Powders Directly From As-Spun Partial Crystalline Fe ₇₇ Ni _{5.5} Co _{5.5} Zr ₇ B ₄ Cu Ribbon via Ball Mill Without Devitrification. <i>IEEE Transactions on Magnetics</i> , 2020 , 56, 1-9	2	0
25	Swift Heavy Ion-Induced Decomposition and Phase Transformation in Nanocrystalline SnO ₂ . <i>Materials Research Society Symposia Proceedings</i> , 2014 , 1715, 13		0
24	Volatilization of BC control rods in Fukushima Daiichi nuclear reactors during meltdown: B-Li isotopic signatures in cesium-rich microparticles.. <i>Journal of Hazardous Materials</i> , 2022 , 428, 128214	12.8	0
23	Geologic Analysis of the Democratic People's Republic of Korea's Uranium Resources and Mines. <i>Science and Global Security</i> , 2020 , 28, 80-109	0.1	0
22	Phase stability of pre-irradiated CeO ₂ with swift heavy ions under high pressure up to 45 GPa. <i>Journal of the American Ceramic Society</i> , 2022 , 105, 2889-2902	3.8	0
21	Probabilistic Performance Assessment vs. the Safety Case Approach. <i>MRS Advances</i> , 2019 , 4, 987-992	0.7	
20	Structural evolution of Lu _{2-x} Ce _x Ti ₂ O ₇ pyrochlores under 400 keV Ne irradiation. <i>Journal of the American Ceramic Society</i> , 2020 , 103, 5525-5535	3.8	
19	Acceptance of Distinguished Public Service Award of the Mineralogical Society of America for 2019. <i>American Mineralogist</i> , 2020 , 105, 774-775	2.9	
18	Acceptance of the 2015 Roebling Medal of the Mineralogical Society of America. <i>American Mineralogist</i> , 2016 , 101, 1002-1004	2.9	
17	Phase transformation and chemical decomposition of nanocrystalline SnO ₂ under heavy ion irradiation. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2017 , 407, 10-19	1.2	
16	Presentation of the Distinguished Public Service Award for 2013 of the Mineralogical Society of America to Pierrette Tremblay. <i>American Mineralogist</i> , 2014 , 99, 1185-1185	2.9	
15	New Actinide Waste Forms with Pyrochlore and Garnet Structures. <i>Advances in Science and Technology</i> , 2010 , 73, 142-147	0.1	
14	In situ AFM and XPS Investigation of U ⁶⁺ Reduction by Fe ²⁺ on Hematite and Pyrite. <i>Materials Research Society Symposia Proceedings</i> , 2012 , 1444, 243		
13	Magnetic Alignment of Carbon Nanofibers in Polymer Composites. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 858, 248		
12	Nanoscale Heavy Metal Phases on Atmospheric and Groundwater Colloids. <i>ACS Symposium Series</i> , 2004 , 97-101	0.4	
11	Materials Research in Nuclear Waste Management: Reflections on Twenty-Five MRS Symposia. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 713, 1		

- 10 Microanalysis of Radiation Damage Across a Zoned Zircon Crystal. *Materials Research Society Symposia Proceedings*, **2002**, 713, 1
- 9 Effect of Iodine and Strontium Ion Implantation on the Microstructure of Cubic Zirconia. *Materials Research Society Symposia Proceedings*, **2000**, 647, 1
- 8 Effects of Proton Irradiation in Zeolite-Y. *Materials Research Society Symposia Proceedings*, **2000**, 650, 3161
- 7 Structural Contributions to the Third-Law Entropy of Uranyl Phases. *Materials Research Society Symposia Proceedings*, **1999**, 556, 1017
- 6 Radiation Effects Issues Related to U.S. Doe Site Remediation and Nuclear Waste Storage. *Materials Research Society Symposia Proceedings*, **1994**, 353, 1389
- 5 The Alteration of Uraninite to Clarkeite. *Materials Research Society Symposia Proceedings*, **1992**, 294, 513
- 4 Machine learning improves satellite imagery analysis of North Korean nuclear activity. *Bulletin of the Atomic Scientists*, **2022**, 78, 26-37 1.6
- 3 Assessing Uranium Ore Processing Activities Using Satellite Imagery at Pyongsan in the Democratic People's Republic of Korea. *Science and Global Security*, 1-34 0.1
- 2 Environmental Electron Microscopy Imaging 1390-1399
- 1 Fracture toughness of radiation-damaged zircon studied by nanoindentation pillar-splitting. *Applied Physics Letters*, **2021**, 119, 231903 3.4