

# William J Weber

## List of Publications by Citations

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660  
papers

24,229  
citations

76  
h-index

127  
g-index

685  
ext. papers

26,645  
ext. citations

3.7  
avg, IF

7.14  
L-index

#	Paper	IF	Citations
660	Nuclear waste disposal by pyrochlore (A <sub>2</sub> B <sub>2</sub> O <sub>7</sub> ): Nuclear waste form for the immobilization of plutonium and minor actinides. <i>Journal of Applied Physics</i> , <b>2004</b> , 95, 5949-5971	2.5	834
659	Radiation effects in crystalline ceramics for the immobilization of high-level nuclear waste and plutonium. <i>Journal of Materials Research</i> , <b>1998</b> , 13, 1434-1484	2.5	758
658	Radiation effects in nuclear waste forms for high-level radioactive waste. <i>Progress in Nuclear Energy</i> , <b>1995</b> , 29, 63-127	2.3	495
657	Electrochemical Properties of Mixed Conducting Perovskites La <sub>1-x</sub> M <sub>x</sub> Co <sub>1-y</sub> Fe <sub>y</sub> O <sub>3</sub> (M = Sr, Ba, Ca). <i>Journal of the Electrochemical Society</i> , <b>1996</b> , 143, 2722-2729	3.9	490
656	Models and mechanisms of irradiation-induced amorphization in ceramics. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2000</b> , 166-167, 98-106	1.2	365
655	Radiation stability of gadolinium zirconate: A waste form for plutonium disposition. <i>Journal of Materials Research</i> , <b>1999</b> , 14, 4470-4473	2.5	351
654	The radiation-induced crystalline-to-amorphous transition in zircon. <i>Journal of Materials Research</i> , <b>1994</b> , 9, 688-698	2.5	346
653	Enhancing radiation tolerance by controlling defect mobility and migration pathways in multicomponent single-phase alloys. <i>Nature Communications</i> , <b>2016</b> , 7, 13564	17.4	336
652	Influence of chemical disorder on energy dissipation and defect evolution in concentrated solid solution alloys. <i>Nature Communications</i> , <b>2015</b> , 6, 8736	17.4	330
651	Radiation Effects in Glasses Used for Immobilization of High-level Waste and Plutonium Disposition. <i>Journal of Materials Research</i> , <b>1997</b> , 12, 1948-1978	2.5	323
650	Radiation damage in zircon and monazite. <i>Geochimica Et Cosmochimica Acta</i> , <b>1998</b> , 62, 2509-2520	5.5	298
649	Zircon: A host-phase for the disposal of weapons plutonium. <i>Journal of Materials Research</i> , <b>1995</b> , 10, 243-246	2.5	275
648	Radiation effects in SiC for nuclear structural applications. <i>Current Opinion in Solid State and Materials Science</i> , <b>2012</b> , 16, 143-152	12	264
647	Mechanism of Radiation Damage Reduction in Equiatomic Multicomponent Single Phase Alloys. <i>Physical Review Letters</i> , <b>2016</b> , 116, 135504	7.4	250
646	Materials Science of High-Level Nuclear Waste Immobilization. <i>MRS Bulletin</i> , <b>2009</b> , 34, 46-53	3.2	233
645	Primary radiation damage: A review of current understanding and models. <i>Journal of Nuclear Materials</i> , <b>2018</b> , 512, 450-479	3.3	208
644	Radiation detector materials: An overview. <i>Journal of Materials Research</i> , <b>2008</b> , 23, 2561-2581	2.5	206

643	Effects of self-radiation damage in Cm-doped Gd <sub>2</sub> Ti <sub>2</sub> O <sub>7</sub> and CaZrTi <sub>2</sub> O <sub>7</sub> . <i>Journal of Nuclear Materials</i> , <b>1986</b> , 138, 196-209	3.3	206
642	Atomic scale simulation of defect production in irradiated 3C-SiC. <i>Journal of Applied Physics</i> , <b>2001</b> , 90, 2303-2309	2.5	196
641	Plutonium immobilization and radiation effects. <i>Science</i> , <b>2000</b> , 289, 2051-2	33.3	186
640	Displacement energy surface in 3C and 6H SiC. <i>Journal of Nuclear Materials</i> , <b>2000</b> , 278, 258-265	3.3	180
639	Radiation-induced defects and amorphization in zircon. <i>Journal of Materials Research</i> , <b>1990</b> , 5, 2687-2692	2.5	180
638	Promise and challenges of SiCf/SiC composites for fusion energy applications. <i>Journal of Nuclear Materials</i> , <b>2002</b> , 307-311, 1057-1072	3.3	177
637	Structure and properties of ion-beam-modified (6H) silicon carbide. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>1998</b> , 253, 62-70	5.3	167
636	Local Structure and Short-Range Order in a NiCoCr Solid Solution Alloy. <i>Physical Review Letters</i> , <b>2017</b> , 118, 205501	7.4	156
635	Spectroscopic Investigations of the Structural Phase Transition in Gd <sub>2</sub> (Ti <sub>1-y</sub> Zr <sub>y</sub> ) <sub>2</sub> O <sub>7</sub> Pyrochlores. <i>Journal of Physical Chemistry B</i> , <b>2002</b> , 106, 4663-4677	3.4	156
634	Effects of compositional complexity on the ion-irradiation induced swelling and hardening in Ni-containing equiatomic alloys. <i>Scripta Materialia</i> , <b>2016</b> , 119, 65-70	5.6	156
633	Review of A <sub>2</sub> B <sub>2</sub> O <sub>7</sub> pyrochlore response to irradiation and pressure. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2010</b> , 268, 2951-2959	1.2	154
632	Improving atomic displacement and replacement calculations with physically realistic damage models. <i>Nature Communications</i> , <b>2018</b> , 9, 1084	17.4	146
631	Effects of Cation Substitution on Electrical and Thermal Transport Properties of YCrO <sub>3</sub> and LaCrO <sub>3</sub> . <i>Journal of the American Ceramic Society</i> , <b>1987</b> , 70, 265-270	3.8	140
630	Heavy-ion irradiation effects in Gd <sub>2</sub> (Ti <sub>2-x</sub> Zr <sub>x</sub> ) <sub>2</sub> O <sub>7</sub> pyrochlores. <i>Journal of Nuclear Materials</i> , <b>2001</b> , 289, 188-193	3.3	134
629	Ingrowth of lattice defects in alpha irradiated UO <sub>2</sub> single crystals. <i>Journal of Nuclear Materials</i> , <b>1981</b> , 98, 206-215	3.3	134
628	Quantification of actinide alpha-radiation damage in minerals and ceramics. <i>Nature</i> , <b>2007</b> , 445, 190-3	50.4	133
627	A Review of Radiation Effects in Solid Nuclear Waste Forms. <i>Nuclear Technology</i> , <b>1983</b> , 60, 178-198	1.4	133
626	Displacement threshold energies in SiC. <i>Journal of Nuclear Materials</i> , <b>1998</b> , 253, 47-52	3.3	131

625	Processing and Electrical Properties of Alkaline Earth-Doped Lanthanum Gallate. <i>Journal of the Electrochemical Society</i> , <b>1997</b> , 144, 3613-3620	3.9	130
624	Radiation-induced segregation on defect clusters in single-phase concentrated solid-solution alloys. <i>Acta Materialia</i> , <b>2017</b> , 127, 98-107	8.4	128
623	Nature of the band gap and origin of the electro-/photo-activity of Co <sub>3</sub> O <sub>4</sub> . <i>Journal of Materials Chemistry C</i> , <b>2013</b> , 1, 4628	7.1	127
622	The kinetics of alpha-decay-induced amorphization in zircon and apatite containing weapons-grade plutonium or other actinides. <i>Journal of Nuclear Materials</i> , <b>1997</b> , 250, 147-155	3.3	124
621	Tailoring the physical properties of Ni-based single-phase equiatomic alloys by modifying the chemical complexity. <i>Scientific Reports</i> , <b>2016</b> , 6, 20159	4.9	124
620	Synergy of nuclear and electronic energy losses in ion-irradiation processes: The case of vitreous silicon dioxide. <i>Physical Review B</i> , <b>2011</b> , 83,	3.3	122
619	Alpha-irradiation damage in CeO <sub>2</sub> , UO <sub>2</sub> and PuO <sub>2</sub> . <i>Radiation Effects</i> , <b>1984</b> , 83, 145-156		122
618	Cascade overlap and amorphization in 3C <sub>2</sub> BiC: Defect accumulation, topological features, and disordering. <i>Physical Review B</i> , <b>2002</b> , 66,	3.3	120
617	Single-ion tracks in Gd <sub>2</sub> Zr <sub>2</sub> Ti <sub>x</sub> O <sub>7</sub> pyrochlores irradiated with swift heavy ions. <i>Physical Review B</i> , <b>2009</b> , 79,	3.3	117
616	Signal variance in gamma-ray detectors—a review. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , <b>2006</b> , 565, 637-649 <sup>1,2</sup>		115
615	Computer simulation of defects and oxygen transport in yttria-stabilized zirconia. <i>Solid State Ionics</i> , <b>2006</b> , 177, 1251-1258	3.3	115
614	Alpha-Decay-Induced Amorphization in Complex Silicate Structures. <i>Journal of the American Ceramic Society</i> , <b>1993</b> , 76, 1729-1738	3.8	115
613	Atomic-level heterogeneity and defect dynamics in concentrated solid-solution alloys. <i>Current Opinion in Solid State and Materials Science</i> , <b>2017</b> , 21, 221-237	12	110
612	The role of electronic energy loss in ion beam modification of materials. <i>Current Opinion in Solid State and Materials Science</i> , <b>2015</b> , 19, 1-11	12	106
611	New ion beam materials laboratory for materials modification and irradiation effects research. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2014</b> , 338, 19-30	1.2	106
610	Grain growth and phase stability of nanocrystalline cubic zirconia under ion irradiation. <i>Physical Review B</i> , <b>2010</b> , 82,	3.3	101
609	Heavy-ion irradiation effects on structures and acid dissolution of pyrochlores. <i>Journal of Nuclear Materials</i> , <b>2001</b> , 288, 208-216	3.3	101
608	Atomic-scale simulation of 50 keV Si displacement cascades in BiC. <i>Physical Review B</i> , <b>2000</b> , 63,	3.3	101

607	Ionization-induced annealing of pre-existing defects in silicon carbide. <i>Nature Communications</i> , <b>2015</b> , 6, 8049	17.4	100
606	Atomistic study of intrinsic defect migration in 3C-SiC. <i>Physical Review B</i> , <b>2004</b> , 69,	3.3	99
605	Defect production, multiple ion-solid interactions and amorphization in SiC. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2002</b> , 191, 487-496	1.2	98
604	Amorphization and recrystallization of the ABO <sub>3</sub> oxides. <i>Journal of Nuclear Materials</i> , <b>2002</b> , 300, 242-254	3.3	96
603	Point defect evolution in Ni, NiFe and NiCr alloys from atomistic simulations and irradiation experiments. <i>Acta Materialia</i> , <b>2015</b> , 99, 69-76	8.4	93
602	Ion-induced damage accumulation and electron-beam-enhanced recrystallization in SrTiO <sub>3</sub> . <i>Physical Review B</i> , <b>2005</b> , 72,	3.3	93
601	Computer simulation of a 10 keV Si displacement cascade in SiC. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>1998</b> , 141, 118-122	1.2	92
600	Irradiation-induced amorphization in SiC. <i>Journal of Nuclear Materials</i> , <b>1998</b> , 253, 53-59	3.3	92
599	Self-radiation damage in Gd <sub>2</sub> Ti <sub>2</sub> O <sub>7</sub> . <i>Materials Letters</i> , <b>1985</b> , 3, 173-180	3.3	91
598	Ab initio and empirical-potential studies of defect properties in 3C-SiC. <i>Physical Review B</i> , <b>2001</b> , 64,	3.3	89
597	Combustion synthesis of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-x</sub> : glycine/metal nitrate method. <i>Materials Letters</i> , <b>1991</b> , 10, 437-443	3.3	89
596	Predicting damage production in monoatomic and multi-elemental targets using stopping and range of ions in matter code: Challenges and recommendations. <i>Current Opinion in Solid State and Materials Science</i> , <b>2019</b> , 23, 100757	12	85
595	Recovery of close Frenkel pairs produced by low energy recoils in SiC. <i>Journal of Applied Physics</i> , <b>2003</b> , 94, 4348-4356	2.5	85
594	The temperature dependence of ion-beam-induced amorphization in SiC. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>1995</b> , 106, 298-302	1.2	85
593	Nanoscale engineering of radiation tolerant silicon carbide. <i>Physical Chemistry Chemical Physics</i> , <b>2012</b> , 14, 13429-36	3.6	83
592	Temperature dependence of disorder accumulation and amorphization in Au-ion-irradiated 6H-SiC. <i>Physical Review B</i> , <b>2004</b> , 70,	3.3	83
591	Damage evolution and recovery on both Si and C sublattices in Al-implanted 4H-SiC studied by Rutherford backscattering spectroscopy and nuclear reaction analysis. <i>Journal of Applied Physics</i> , <b>2002</b> , 91, 6388	2.5	83
590	Synergy of elastic and inelastic energy loss on ion track formation in SrTiO <sub>3</sub> . <i>Scientific Reports</i> , <b>2015</b> , 5, 7726	4.9	82

589	Radiation-induced swelling and amorphization in $\text{Ca}_2\text{Nd}_8(\text{SiO}_4)_6\text{O}_2$ . <i>Radiation Effects</i> , <b>1983</b> , 77, 295-308		82
588	Effects of implantation temperature on damage accumulation in Al-implanted 4H-SiC. <i>Journal of Applied Physics</i> , <b>2004</b> , 95, 4012-4018	2.5	81
587	Atomistic modeling of displacement cascades in $\text{La}_2\text{Zr}_2\text{O}_7$ pyrochlore. <i>Physical Review B</i> , <b>2003</b> , 67,	3.3	80
586	Influence of chemical disorder on energy dissipation and defect evolution in advanced alloys. <i>Journal of Materials Research</i> , <b>2016</b> , 31, 2363-2375	2.5	78
585	Nanoscale phase transitions under extreme conditions within an ion track. <i>Journal of Materials Research</i> , <b>2010</b> , 25, 1344-1351	2.5	76
584	Theoretical study of disorder in Ti-substituted $\text{La}_2\text{Zr}_2\text{O}_7$ . <i>Physical Review B</i> , <b>2002</b> , 65,	3.3	76
583	Damage accumulation in ion-irradiated Ni-based concentrated solid-solution alloys. <i>Acta Materialia</i> , <b>2016</b> , 109, 17-22	8.4	75
582	Effects of Cation Disorder on Oxygen Vacancy Migration in $\text{Gd}_2\text{Ti}_2\text{O}_7$ <b>1999</b> , 3, 409-424		75
581	The irradiation-induced crystalline-to-amorphous phase transition in SiC. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>1996</b> , 116, 322-326	1.2	73
580	Damage profile and ion distribution of slow heavy ions in compounds. <i>Journal of Applied Physics</i> , <b>2009</b> , 105, 104901	2.5	72
579	Molecular dynamics simulations of swift heavy ion induced defect recovery in SiC. <i>Computational Materials Science</i> , <b>2013</b> , 67, 261-265	3.2	71
578	Molecular dynamic simulation of disorder induced amorphization in pyrochlore. <i>Physical Review Letters</i> , <b>2005</b> , 94, 025505	7.4	71
577	Threshold displacement energy in GaN: Ab initio molecular dynamics study. <i>Journal of Applied Physics</i> , <b>2009</b> , 105, 123527	2.5	70
576	Response of strontium titanate to ion and electron irradiation. <i>Journal of Nuclear Materials</i> , <b>2009</b> , 389, 303-310	3.3	70
575	Combined experimental and computational study of the recrystallization process induced by electronic interactions of swift heavy ions with silicon carbide crystals. <i>Physical Review B</i> , <b>2012</b> , 86,	3.3	69
574	Empirical potential approach for defect properties in 3C-SiC. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2002</b> , 191, 504-508	1.2	67
573	Defect-enhanced charge transfer by ion-solid interactions in SiC using large-scale ab initio molecular dynamics simulations. <i>Physical Review Letters</i> , <b>2009</b> , 103, 027405	7.4	66
572	Radiation effects in nuclear waste glasses. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>1988</b> , 32, 471-479	1.2	66

571	Effect of temperature and recoil-energy spectra on irradiation-induced amorphization in Ca <sub>2</sub> La <sub>8</sub> (SiO <sub>4</sub> ) <sub>6</sub> O <sub>2</sub> . <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>1994</b> , 91, 63-66	1.2	64
570	Thermal recovery of lattice defects in alpha-irradiated UO <sub>2</sub> crystals. <i>Journal of Nuclear Materials</i> , <b>1983</b> , 114, 213-221	3.3	63
569	Crystalline Ceramics: Waste Forms for the Disposal of Weapons Plutonium <b>1996</b> , 65-83		63
568	First-principles study of defects and phase transition in UO <sub>2</sub> . <i>Journal of Physics Condensed Matter</i> , <b>2009</b> , 21, 435401	1.8	62
567	Temperature and dose dependence of ion-beam-induced amorphization in SiC. <i>Journal of Nuclear Materials</i> , <b>1997</b> , 244, 258-265	3.3	61
566	Computer simulation of disordering and amorphization by Si and Au recoils in 3C-SiC. <i>Journal of Applied Physics</i> , <b>2001</b> , 89, 4275-4281	2.5	61
565	Response of nanocrystalline 3C silicon carbide to heavy-ion irradiation. <i>Physical Review B</i> , <b>2009</b> , 80,	3.3	60
564	Displacement damage in silicon carbide irradiated in fission reactors. <i>Journal of Nuclear Materials</i> , <b>2004</b> , 327, 175-181	3.3	58
563	The ion beam materials analysis laboratory at the environmental molecular sciences laboratory. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , <b>1999</b> , 420, 81-89	1.2	58
562	Self-radiation damage and recovery in Pu-doped zircon. <i>Radiation Effects and Defects in Solids</i> , <b>1991</b> , 115, 341-349	0.9	56
561	Radiation Damage in a Rare-Earth Silicate With the Apatite Structure. <i>Journal of the American Ceramic Society</i> , <b>1982</b> , 65, 544-548	3.8	56
560	Irradiation-induced nanostructures. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2000</b> , 286, 72-80	5.3	55
559	Atomistic simulations of the mechanical properties of silicon carbide nanowires. <i>Physical Review B</i> , <b>2008</b> , 77,	3.3	54
558	Effects of Fe concentration on the ion-irradiation induced defect evolution and hardening in Ni-Fe solid solution alloys. <i>Acta Materialia</i> , <b>2016</b> , 121, 365-373	8.4	54
557	Ab initio molecular dynamics simulations of low-energy recoil events in ThO <sub>2</sub> , CeO <sub>2</sub> , and ZrO <sub>2</sub> . <i>Physical Review B</i> , <b>2012</b> , 86,	3.3	52
556	Radiation tolerance of ceramics: Insights from atomistic simulation of damage accumulation in pyrochlores. <i>Energy and Environmental Science</i> , <b>2010</b> , 3, 1551	35.4	52
555	The effect of electronic energy loss on irradiation-induced grain growth in nanocrystalline oxides. <i>Physical Chemistry Chemical Physics</i> , <b>2014</b> , 16, 8051-9	3.6	51
554	Structural modification of nanocrystalline ceria by ion beams. <i>Physical Chemistry Chemical Physics</i> , <b>2011</b> , 13, 11946-50	3.6	51

553	Computer simulation of displacement energies for several ceramic materials. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>1998</b> , 141, 94-98	1.2	51
552	Pressure-induced fcc to hcp phase transition in Ni-based high entropy solid solution alloys. <i>Applied Physics Letters</i> , <b>2017</b> , 110, 011902	3.4	50
551	Energetic recoils in UO <sub>2</sub> simulated using five different potentials. <i>Journal of Chemical Physics</i> , <b>2009</b> , 130, 174502	3.9	50
550	Accumulation, dynamic annealing and thermal recovery of ion-beam-induced disorder in silicon carbide. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2001</b> , 175-177, 26-30	1.2	50
549	Evolution of spent nuclear fuel in dry storage conditions for millennia and beyond. <i>Journal of Nuclear Materials</i> , <b>2014</b> , 451, 198-206	3.3	49
548	In-situ luminescence monitoring of ion-induced damage evolution in SiO <sub>2</sub> and Al <sub>2</sub> O <sub>3</sub> . <i>Journal of Luminescence</i> , <b>2016</b> , 172, 208-218	3.8	48
547	In situ ion channeling study of gallium disorder and gold profiles in Au-implanted GaN. <i>Journal of Applied Physics</i> , <b>2000</b> , 87, 7671-7678	2.5	48
546	Competing effects of electronic and nuclear energy loss on microstructural evolution in ionic-covalent materials. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2014</b> , 327, 33-43	1.2	47
545	Irradiation effects on microstructure change in nanocrystalline ceria [Phase, lattice stress, grain size and boundaries. <i>Acta Materialia</i> , <b>2012</b> , 60, 5408-5416	8.4	47
544	Damage accumulation and annealing in 6H-SiC irradiated with Si <sup>+</sup> . <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>1998</b> , 143, 333-341	1.2	47
543	Ion beam-induced amorphous-to-tetragonal phase transformation and grain growth of nanocrystalline zirconia. <i>Nanotechnology</i> , <b>2009</b> , 20, 245303	3.4	46
542	Effects of implantation temperature and ion flux on damage accumulation in Al-implanted 4H-SiC. <i>Journal of Applied Physics</i> , <b>2003</b> , 93, 1954-1960	2.5	45
541	Accumulation and recovery of disorder on silicon and carbon sublattices in ion-irradiated 6H-SiC. <i>Journal of Nuclear Materials</i> , <b>2001</b> , 289, 96-101	3.3	45
540	An X-ray and neutron powder diffraction study of the Ca <sub>2+x</sub> Nd <sub>8-x</sub> (SiO <sub>4</sub> ) <sub>6</sub> O <sub>20.5x</sub> system. <i>Journal of Solid State Chemistry</i> , <b>1985</b> , 60, 145-158	3.3	45
539	Composition dependent intrinsic defect structures in SrTiO <sub>3</sub> . <i>Physical Chemistry Chemical Physics</i> , <b>2014</b> , 16, 15590-6	3.6	44
538	Swift heavy ion track formation in Gd <sub>2</sub> Zr <sub>2</sub> O <sub>7</sub> pyrochlore: Effect of electronic energy loss. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2014</b> , 336, 102-115	1.2	44
537	Threshold displacement energies and defect formation energies in Y <sub>2</sub> Ti <sub>2</sub> O <sub>7</sub> . <i>Journal of Physics Condensed Matter</i> , <b>2010</b> , 22, 415801	1.8	44
536	Irradiation damage in Gd <sub>2</sub> Ti <sub>2</sub> O <sub>7</sub> single crystals: Ballistic versus ionization processes. <i>Physical Review B</i> , <b>2011</b> , 84,	3.3	44



535	Ab initio investigation of phase stability of Y <sub>2</sub> Ti <sub>2</sub> O <sub>7</sub> and Y <sub>2</sub> Zr <sub>2</sub> O <sub>7</sub> under high pressure. <i>Physical Review B</i> , <b>2009</b> , 80,	3.3	44
534	Defect clustering in GaN irradiated with O <sup>+</sup> ions. <i>Journal of Materials Research</i> , <b>2002</b> , 17, 2945-2952	2.5	43
533	Temperature measurements during high flux ion beam irradiations. <i>Review of Scientific Instruments</i> , <b>2016</b> , 87, 024902	1.7	43
532	Oxygen vacancy formation and migration in Ce(x)Th(1-x)O <sub>2</sub> solid solution. <i>Journal of Physical Chemistry B</i> , <b>2011</b> , 115, 6524-33	3.4	42
531	Atomic-scale simulation of displacement cascades and amorphization in $\beta$ -SiC. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2001</b> , 180, 176-186	1.2	42
530	Forging Fast Ion Conducting Nanochannels with Swift Heavy Ions: The Correlated Role of Local Electronic and Atomic Structure. <i>Journal of Physical Chemistry C</i> , <b>2017</b> , 121, 975-981	3.8	41
529	Electron-beam induced recrystallization in amorphous apatite. <i>Applied Physics Letters</i> , <b>2007</b> , 90, 021912	3.4	41
528	Native defect properties in $\beta$ -SiC: Ab initio and empirical potential calculations. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2001</b> , 180, 286-292	1.2	41
527	Coupled electronic and atomic effects on defect evolution in silicon carbide under ion irradiation. <i>Current Opinion in Solid State and Materials Science</i> , <b>2017</b> , 21, 285-298	12	40
526	Intrinsic defect properties in GaN calculated by ab initio and empirical potential methods. <i>Physical Review B</i> , <b>2004</b> , 70,	3.3	40
525	Multiaxial channeling study of disorder accumulation and recovery in gold-irradiated 6H $\beta$ -SiC. <i>Physical Review B</i> , <b>2001</b> , 64,	3.3	40
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