

William J Weber

List of Publications by Year in Descending Order

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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.

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	Engineering defect energy landscape of CoCrFeNi high-entropy alloys by the introduction of additional dopants. <i>Journal of Nuclear Materials</i> , 2022 , 561, 153573	3.3	1
659	Q-carbon as a new radiation-resistant material. <i>Carbon</i> , 2022 , 186, 253-261	10.4	7
658	Role of Chemical Disorder on Radiation-Induced Defect Production and Damage Evolution in NiFeCoCr. <i>Journal of Nuclear Materials</i> , 2022 , 153689	3.3	0
657	Effects of Fe atoms on hardening of a nickel matrix: Nanoindentation experiments and atom-scale numerical modeling. <i>Materials and Design</i> , 2022 , 110639	8.1	0
656	Light emission of self-trapped excitons from ion tracks in silica glass: Interplay between Auger recombination, exciton formation, thermal dissociation, and hopping. <i>Acta Materialia</i> , 2022 , 229, 117829	8.4	0
655	Role of electronic energy loss on defect production and interface stability: Comparison between ceramic materials and high-entropy alloys. <i>Current Opinion in Solid State and Materials Science</i> , 2022 , 26, 101001	12	0
654	Tunable Chemical Disorder in Concentrated Alloys: Defect Physics and Radiation Performance. <i>Chemical Reviews</i> , 2021 ,	68.1	9
653	Real-Time Identification of Oxygen Vacancy Centers in LiNbO ₃ and SrTiO ₃ during Irradiation with High Energy Particles. <i>Crystals</i> , 2021 , 11, 315	2.3	4
652	Effects of recoil spectra and electronic energy dissipation on defect survival in 3C-SiC. <i>Materialia</i> , 2021 , 15, 101023	3.2	3
651	Ion irradiation induced strain and structural changes in LiTaO ₃ perovskite. <i>Journal of Physics Condensed Matter</i> , 2021 , 33,	1.8	1
650	Non-radiative luminescence decay with self-trapped hole migration in strontium titanate: Interplay between optical and transport properties. <i>Applied Materials Today</i> , 2021 , 23, 101041	6.6	1
649	Origin of increased helium density inside bubbles in Ni(10%)Fe alloys. <i>Scripta Materialia</i> , 2021 , 191, 1-6	5.6	6
648	Temperature effect on irradiation damage in equiatomic multi-component alloys. <i>Computational Materials Science</i> , 2021 , 197, 110571	3.2	1
647	Parameter-free quantitative simulation of high-dose microstructure and hydrogen retention in ion-irradiated tungsten. <i>Physical Review Materials</i> , 2021 , 5,	3.2	6
646	Estimate for thermal diffusivity in highly irradiated tungsten using molecular dynamics simulation. <i>Physical Review Materials</i> , 2021 , 5,	3.2	1
645	Effect of thermochemical treatments on laser-induced luminescence spectra from strontium titanate: comparison with swift ion-beam irradiation experiments. <i>European Physical Journal D</i> , 2021 , 75, 1	1.3	0
644	Coupled effects of electronic and nuclear energy deposition on damage accumulation in ion-irradiated SiC. <i>Acta Materialia</i> , 2020 , 199, 96-106	8.4	14

643	Symmetry degeneration and room temperature ferroelectricity in ion-irradiated SrTiO. <i>Journal of Physics Condensed Matter</i> , 2020 , 32, 355405	1.8	3
642	Dislocation loop evolution and radiation hardening in nickel-based concentrated solid solution alloys. <i>Journal of Nuclear Materials</i> , 2020 , 538, 152247	3.3	11
641	Segregation of Ni at early stages of radiation damage in NiCoFeCr solid solution alloys. <i>Acta Materialia</i> , 2020 , 196, 44-51	8.4	18
640	Structural disorder, phase stability and compressibility of refractory body-centered cubic solid-solution alloys. <i>Journal of Alloys and Compounds</i> , 2020 , 847, 155970	5.7	6
639	Local structure of NiX (X: Cr, Mn, Pd) solid-solution alloys and its response to ion irradiation. <i>Journal of Physics Condensed Matter</i> , 2020 , 32, 074002	1.8	1
638	Interpreting nanovoids in atom probe tomography data for accurate local compositional measurements. <i>Nature Communications</i> , 2020 , 11, 1022	17.4	16
637	High Entropy Alloys: Irradiation 2020 ,		5
636	Temperature effects on damage evolution in ion-irradiated NiCoCr concentrated solid-solution alloy. <i>Journal of Alloys and Compounds</i> , 2020 , 832, 154918	5.7	1
635	Defect evolution in Ni and solid-solution alloys of NiFe and NiFeCoCr under ion irradiation at 16 and 300K. <i>Journal of Nuclear Materials</i> , 2020 , 534, 152138	3.3	4
634	Adsorption-controlled growth of MnTe(Bi ₂ Te ₃) _n by molecular beam epitaxy exhibiting stoichiometry-controlled magnetism. <i>Physical Review Materials</i> , 2020 , 4,	3.2	7
633	High-Entropy Alloys: Irradiation-Induced Extremes Create Hierarchical Face-/Body-Centered-Cubic Phases in Nanostructured High Entropy Alloys (Adv. Mater. 39/2020). <i>Advanced Materials</i> , 2020 , 32, 2070294	24	8
632	Molecular dynamics simulations of the response of pre-damaged SrTiO ₃ and KTaO ₃ to fast heavy ions. <i>AIP Advances</i> , 2020 , 10, 015019	1.5	5
631	Electron-phonon coupling induced defect recovery and strain relaxation in Ni and equiatomic NiFe alloy. <i>Computational Materials Science</i> , 2020 , 173, 109394	3.2	4
630	Alloying effects on low-energy recoil events in concentrated solid-solution alloys. <i>Journal of Nuclear Materials</i> , 2020 , 529, 151941	3.3	5
629	From suppressed void growth to significant void swelling in NiCoFeCr complex concentrated solid-solution alloy. <i>Materialia</i> , 2020 , 9, 100603	3.2	15
628	Electronic stopping in molecular dynamics simulations of cascades in 3C2SiC. <i>Journal of Nuclear Materials</i> , 2020 , 540, 152371	3.3	14
627	Ion irradiation and modification: The role of coupled electronic and nuclear energy dissipation and subsequent nonequilibrium processes in materials. <i>Applied Physics Reviews</i> , 2020 , 7, 041307	17.3	28
626	Irradiation-Induced Extremes Create Hierarchical Face-/Body-Centered-Cubic Phases in Nanostructured High Entropy Alloys. <i>Advanced Materials</i> , 2020 , 32, e2002652	24	8

625	Two regimes of ionization-induced recovery in SrTiO ₃ under irradiation. <i>Scripta Materialia</i> , 2019 , 173, 154-157	5.6	4
624	Effects of electron-phonon coupling on damage accumulation in molecular dynamics simulations of irradiated nickel. <i>Materials Research Letters</i> , 2019 , 7, 490-495	7.4	9
623	Revealing irradiation damage along with the entire damage range in ion-irradiated SiC/SiC composites using Raman spectroscopy. <i>Journal of Nuclear Materials</i> , 2019 , 526, 151778	3.3	11
622	Channeling analysis in studying ion irradiation damage in materials containing various types of defects. <i>Journal of Nuclear Materials</i> , 2019 , 517, 9-16	3.3	13
621	Irradiation effects of medium-entropy alloy NiCoCr with and without pre-indentation. <i>Journal of Nuclear Materials</i> , 2019 , 524, 60-66	3.3	12
620	Strain engineering 4H-SiC with ion beams. <i>Applied Physics Letters</i> , 2019 , 114, 221904	3.4	5
619	The blue emission at 2.8 eV in strontium titanate: evidence for a radiative transition of self-trapped excitons from unbound states. <i>Materials Research Letters</i> , 2019 , 7, 298-303	7.4	13
618	Ionizing vs collisional radiation damage in materials: Separated, competing, and synergistic effects in Ti ₃ SiC ₂ . <i>Acta Materialia</i> , 2019 , 173, 195-205	8.4	6
617	Defect evolution in Ni and NiCoCr by in situ 2.8 MeV Au irradiation. <i>Journal of Nuclear Materials</i> , 2019 , 523, 502-509	3.3	8
616	Temperature-dependent defect accumulation and evolution in Ni-irradiated NiFe concentrated solid-solution alloy. <i>Journal of Nuclear Materials</i> , 2019 , 519, 1-9	3.3	9
615	Optical spectroscopy study of modifications induced in cerium dioxide by electron and ion irradiations. <i>Philosophical Magazine</i> , 2019 , 99, 1695-1714	1.6	6
614	Effects of electron-phonon coupling and electronic thermal conductivity in high energy molecular dynamics simulations of irradiation cascades in nickel. <i>Computational Materials Science</i> , 2019 , 162, 156-167	3.2	10
613	Effect of electronic energy dissipation on strain relaxation in irradiated concentrated solid solution alloys. <i>Current Opinion in Solid State and Materials Science</i> , 2019 , 23, 107-115	12	19
612	Recent Advances on Carrier and Exciton Self-Trapping in Strontium Titanate: Understanding the Luminescence Emissions. <i>Crystals</i> , 2019 , 9, 95	2.3	22
611	Thermal stability and irradiation response of nanocrystalline CoCrCuFeNi high-entropy alloy. <i>Nanotechnology</i> , 2019 , 30, 294004	3.4	24
610	Radiation stability of nanocrystalline single-phase multicomponent alloys. <i>Journal of Materials Research</i> , 2019 , 34, 854-866	2.5	5
609	PRELIMINARY CHARACTERIZATION AND PROJECTIONS OF PVD COATINGS ON SiC CLADDING FOR LIGHT WATER REACTORS. <i>Ceramic Engineering and Science Proceedings</i> , 2019 , 117-134	0.1	
608	Interpreting Voids in Atom Probe Tomography Data via Experiment and Theory. <i>Microscopy and Microanalysis</i> , 2019 , 25, 290-291	0.5	

607	Investigating Effects of Alloy Chemical Complexity on Helium Bubble Formation by Accurate Segregation Measurements Using Atom Probe Tomography. <i>Microscopy and Microanalysis</i> , 2019 , 25, 1558-1559	0.5	4
606	Cascade overlap with vacancy-type defects in Fe. <i>European Physical Journal B</i> , 2019 , 92, 1	1.2	9
605	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> , 2019 , 23, 100757	12	85
604	Multi-axial and multi-energy channeling study of disorder evolution in ion-irradiated nickel. <i>Journal of Nuclear Materials</i> , 2019 , 525, 92-101	3.3	5
603	Effects of 3d electron configurations on helium bubble formation and void swelling in concentrated solid-solution alloys. <i>Acta Materialia</i> , 2019 , 181, 519-529	8.4	23
602	Dissipation of radiation energy in concentrated solid-solution alloys: Unique defect properties and microstructural evolution. <i>MRS Bulletin</i> , 2019 , 44, 798-811	3.2	30
601	Ionization-induced thermally activated defect-annealing process in SiC. <i>Physical Review Materials</i> , 2019 , 3,	3.2	6
600	Ion mass dependence of irradiation-induced damage accumulation in KTaO ₃ . <i>Journal of Materials Science</i> , 2019 , 54, 149-158	4.3	12
599	Amorphization kinetics in strontium titanate at 16 and 300 K under argon ion irradiation. <i>Journal of Materials Science</i> , 2019 , 54, 6066-6072	4.3	3
598	Effects of Fe concentration on helium bubble formation in NiFe _x single-phase concentrated solid solution alloys. <i>Materialia</i> , 2019 , 5, 100183	3.2	16
597	Energetic Ion Irradiation-Induced Disordered Nanochannels for Fast Ion Conduction. <i>Jom</i> , 2019 , 71, 103-108	1.8	4
596	Local structure and defects in ion irradiated KTaO. <i>Journal of Physics Condensed Matter</i> , 2018 , 30, 145401	1.8	3
595	Revealing ionization-induced dynamic recovery in ion-irradiated SrTiO ₃ . <i>Acta Materialia</i> , 2018 , 149, 256-264	2.4	12
594	Radiation-induced extreme elastic and inelastic interactions in concentrated solid solutions. <i>Materials and Design</i> , 2018 , 150, 1-8	8.1	11
593	Effect of atomic order/disorder on vacancy clustering in concentrated NiFe alloys. <i>Computational Materials Science</i> , 2018 , 147, 194-203	3.2	4
592	Two-stage synergy of electronic energy loss with defects in LiTaO ₃ under ion irradiation. <i>Materials Research Letters</i> , 2018 , 6, 339-344	7.4	16
591	Ab initio molecular dynamics simulations of AlN responding to low energy particle radiation. <i>Journal of Applied Physics</i> , 2018 , 123, 045904	2.5	18
590	Delayed damage accumulation by athermal suppression of defect production in concentrated solid solution alloys. <i>Materials Research Letters</i> , 2018 , 6, 136-141	7.4	31

589	Defects induced in cerium dioxide single crystals by electron irradiation. <i>Journal of Applied Physics</i> , 2018 , 123, 025901	2.5	12
588	Local structure of NiPd solid solution alloys and its response to ion irradiation. <i>Journal of Alloys and Compounds</i> , 2018 , 755, 242-250	5.7	6
587	Effects of precipitates and dislocation loops on the yield stress of irradiated iron. <i>Scientific Reports</i> , 2018 , 8, 6914	4.9	30
586	Sculpting Nanoscale Functional Channels in Complex Oxides Using Energetic Ions and Electrons. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 16731-16738	9.5	5
585	GeV ion irradiation of NiFe and NiCo: Insights from MD simulations and experiments. <i>Acta Materialia</i> , 2018 , 151, 191-200	8.4	22
584	Improving atomic displacement and replacement calculations with physically realistic damage models. <i>Nature Communications</i> , 2018 , 9, 1084	17.4	146
583	Synergistically-enhanced ion track formation in pre-damaged strontium titanate by energetic heavy ions. <i>Acta Materialia</i> , 2018 , 150, 351-359	8.4	15
582	Stability of vacancy-type defect clusters in Ni based on first-principles and molecular dynamics simulations. <i>Scripta Materialia</i> , 2018 , 145, 71-75	5.6	6
581	Interstitial migration behavior and defect evolution in ion irradiated pure nickel and Ni-xFe binary alloys. <i>Journal of Nuclear Materials</i> , 2018 , 509, 237-244	3.3	20
580	Synergistic effects of nuclear and electronic energy deposition on damage production in KTaO ₃ . <i>Materials Research Letters</i> , 2018 , 6, 531-536	7.4	13
579	Enhanced void swelling in NiCoFeCrPd high-entropy alloy by indentation-induced dislocations. <i>Materials Research Letters</i> , 2018 , 6, 584-591	7.4	27
578	Effects of electronic excitation in 150 keV Ni ion irradiation of metallic systems. <i>AIP Advances</i> , 2018 , 8, 015121	1.5	16
577	Why natural monazite never becomes amorphous: Experimental evidence for alpha self-healing. <i>American Mineralogist</i> , 2018 , 103, 824-827	2.9	34
576	Chemical complexity induced local structural distortion in NiCoFeMnCr high-entropy alloy. <i>Materials Research Letters</i> , 2018 , 6, 450-455	7.4	35
575	pysrim: Automation, Analysis, and Plotting of SRIM Calculations. <i>Journal of Open Source Software</i> , 2018 , 3, 829	5.2	6
574	Determination of gaseous fission product behavior near the cerium dioxide B (111)/[110] tilt grain boundary via first-principles study. <i>Journal of Nuclear Materials</i> , 2018 , 499, 377-382	3.3	2
573	Irradiation-induced defect formation and damage accumulation in single crystal CeO ₂ . <i>Journal of Nuclear Materials</i> , 2018 , 498, 400-408	3.3	14
572	Lattice Distortion and Phase Stability of Pd-Doped NiCoFeCr Solid-Solution Alloys. <i>Entropy</i> , 2018 , 20,	2.8	14

571	Multiscale characterization of irradiation behaviour of ion-irradiated SiC/SiC composites. <i>Acta Materialia</i> , 2018 , 161, 207-220	8.4	21
570	Influence of electronic vs nuclear energy loss in radiation damage of Ti ₃ SiC ₂ . <i>Acta Materialia</i> , 2018 , 161, 302-310	8.4	8
569	Primary radiation damage: A review of current understanding and models. <i>Journal of Nuclear Materials</i> , 2018 , 512, 450-479	3.3	208
568	Isolated oxygen vacancies in strontium titanate shine red: Optical identification of Ti ³⁺ polarons. <i>Applied Materials Today</i> , 2018 , 12, 131-137	6.6	23
567	Pressure-induced fcc to hcp phase transition in Ni-based high entropy solid solution alloys. <i>Applied Physics Letters</i> , 2017 , 110, 011902	3.4	50
566	Amorphization due to electronic energy deposition in defective strontium titanate. <i>Acta Materialia</i> , 2017 , 127, 400-406	8.4	21
565	Radiation-induced segregation on defect clusters in single-phase concentrated solid-solution alloys. <i>Acta Materialia</i> , 2017 , 127, 98-107	8.4	128
564	Two-temperature model in molecular dynamics simulations of cascades in Ni-based alloys. <i>Journal of Alloys and Compounds</i> , 2017 , 700, 106-112	5.7	23
563	Strain effects on oxygen vacancy energetics in KTaO ₃ . <i>Physical Chemistry Chemical Physics</i> , 2017 , 19, 6264-6273	3.6	27
562	Effects of the electron-phonon coupling activation in collision cascades. <i>Journal of Nuclear Materials</i> , 2017 , 490, 317-322	3.3	17
561	X-ray absorption investigation of local structural disorder in Ni _{1-x} Fe _x (x = 0.10, 0.20, 0.35, and 0.50) alloys. <i>Journal of Applied Physics</i> , 2017 , 121, 165105	2.5	2
560	Irradiation-induced damage evolution in concentrated Ni-based alloys. <i>Acta Materialia</i> , 2017 , 135, 54-60	8.4	35
559	Effects of electronic excitation on cascade dynamics in nickel-iron and nickel-palladium systems. <i>Scripta Materialia</i> , 2017 , 138, 124-129	5.6	10
558	Diffusion of point defects near stacking faults in 3C-SiC via first-principles calculations. <i>Scripta Materialia</i> , 2017 , 139, 1-4	5.6	17
557	Role of oxygen vacancies on light emission mechanisms in SrTiO ₃ induced by high-energy particles. <i>Journal Physics D: Applied Physics</i> , 2017 , 50, 155303	3	26
556	Atomic-level heterogeneity and defect dynamics in concentrated solid-solution alloys. <i>Current Opinion in Solid State and Materials Science</i> , 2017 , 21, 221-237	12	110
555	New insights on ion track morphology in pyrochlores by aberration corrected scanning transmission electron microscopy. <i>Journal of Materials Research</i> , 2017 , 32, 928-935	2.5	12
554	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> , 2017 , 121, 975-981	3.8	41

553	Suppression of vacancy cluster growth in concentrated solid solution alloys. <i>Acta Materialia</i> , 2017 , 125, 231-237	8.4	35
552	Coupled electronic and atomic effects on defect evolution in silicon carbide under ion irradiation. <i>Current Opinion in Solid State and Materials Science</i> , 2017 , 21, 285-298	12	40
551	Correlation between Cr ³⁺ Luminescence and Oxygen Vacancy Disorder in Strontium Titanate under MeV Ion Irradiation. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 19758-19766	3.8	22
550	Local segregation versus irradiation effects in high-entropy alloys: Steady-state conditions in a driven system. <i>Journal of Applied Physics</i> , 2017 , 122, 105106	2.5	36
549	Unique Challenges for Modeling Defect Dynamics in Concentrated Solid-Solution Alloys. <i>Jom</i> , 2017 , 69, 2084-2091	2.1	27
548	Ab Initio Study of Electronic Excitation Effects on SrTiO ₃ . <i>Journal of Physical Chemistry C</i> , 2017 , 121, 26627-26638	2.8	28
547	Synergistic effects of nuclear and electronic energy loss in KTaO ₃ under ion irradiation. <i>AIP Advances</i> , 2017 , 7, 015016	1.5	15
546	Evolution of irradiation-induced strain in an equiatomic NiFe alloy. <i>Scripta Materialia</i> , 2017 , 140, 35-39	5.6	19
545	Role of atomic-level defects and electronic energy loss on amorphization in LiNbO ₃ single crystals. <i>Journal Physics D: Applied Physics</i> , 2017 , 50, 325103	3	11
544	Effects of chemical alternation on damage accumulation in concentrated solid-solution alloys. <i>Scientific Reports</i> , 2017 , 7, 4146	4.9	24
543	Local Structure and Short-Range Order in a NiCoCr Solid Solution Alloy. <i>Physical Review Letters</i> , 2017 , 118, 205501	7.4	156
542	In-cascade ionization effects on defect production in 3C silicon carbide** This manuscript has been authored by UTBattelle, LLC under Contract No. DE-AC05-00OR22725 with the U.S. Department of Energy. The United States Government retains and the publisher, by accepting the article for publication, acknowledges that the United States Government retains a non-exclusive, non-transferable, irrevocable and exclusive authorization of the United States Government to reproduce and disseminate for government purposes, not withstanding any copyright notation that may appear hereon.	7.4	23
541	Ab initio molecular dynamics simulations of low energy recoil events in MgO. <i>Journal of Nuclear Energy: Part B</i> , 2017 , 148, 122-128	3.3	9
540	Synergy of inelastic and elastic energy loss: Temperature effects and electronic stopping power dependence. <i>Scripta Materialia</i> , 2016 , 110, 2-5	5.6	17
539	Influence of chemical disorder on energy dissipation and defect evolution in advanced alloys. <i>Journal of Materials Research</i> , 2016 , 31, 2363-2375	2.5	78
538	Bubble formation and lattice parameter changes resulting from He irradiation of defect-fluorite Gd ₂ Zr ₂ O ₇ . <i>Acta Materialia</i> , 2016 , 115, 115-122	8.4	26
537	Mechanism of Radiation Damage Reduction in Equiatomic Multicomponent Single Phase Alloys. <i>Physical Review Letters</i> , 2016 , 116, 135504	7.4	250
536	Insights on dramatic radial fluctuations in track formation by energetic ions. <i>Scientific Reports</i> , 2016 , 6, 27196	4.9	12

535	A coupled effect of nuclear and electronic energy loss on ion irradiation damage in lithium niobate. <i>Acta Materialia</i> , 2016 , 105, 429-437	8.4	34
534	Segregation and Migration of the Oxygen Vacancies in the B (111) Tilt Grain Boundaries of Ceria. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 6625-6632	3.8	9
533	Damage accumulation in ion-irradiated Ni-based concentrated solid-solution alloys. <i>Acta Materialia</i> , 2016 , 109, 17-22	8.4	75
532	Stopping power measurements with the Time-of-Flight (ToF) technique. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2016 , 366, 104-116	1.2	4
531	In-situ luminescence monitoring of ion-induced damage evolution in SiO ₂ and Al ₂ O ₃ . <i>Journal of Luminescence</i> , 2016 , 172, 208-218	3.8	48
530	Formation and growth of stacking fault tetrahedra in Ni via vacancy aggregation mechanism. <i>Scripta Materialia</i> , 2016 , 114, 137-141	5.6	35
529	Two-body potential model based on cosine series expansion for ionic materials. <i>Computational Materials Science</i> , 2016 , 111, 54-63	3.2	0
528	Modelling Effects of Radiation Damage. <i>Springer Series in Surface Sciences</i> , 2016 , 105-136	0.4	2
527	Defect Accumulation, Amorphization and Nanostructure Modification of Ceramics. <i>Springer Series in Surface Sciences</i> , 2016 , 287-318	0.4	2
526	Layered Structure Induced Anisotropic Low-Energy Recoils in Ti ₃ SiC ₂ . <i>Journal of the American Ceramic Society</i> , 2016 , 99, 2693-2698	3.8	9
525	Amorphization resistance of nano-engineered SiC under heavy ion irradiation. <i>Journal of Nuclear Materials</i> , 2016 , 478, 310-314	3.3	12
524	Ab initio study of point defects near stacking faults in 3C-SiC. <i>Computational Materials Science</i> , 2016 , 123, 131-138	3.2	26
523	Effects of two-temperature model on cascade evolution in Ni and NiFe. <i>Scripta Materialia</i> , 2016 , 124, 6-10	5.6	37
522	Tailoring the physical properties of Ni-based single-phase equiatomic alloys by modifying the chemical complexity. <i>Scientific Reports</i> , 2016 , 6, 20159	4.9	124
521	Effects of Fe concentration on the ion-irradiation induced defect evolution and hardening in Ni-Fe solid solution alloys. <i>Acta Materialia</i> , 2016 , 121, 365-373	8.4	54
520	Enhancing radiation tolerance by controlling defect mobility and migration pathways in multicomponent single-phase alloys. <i>Nature Communications</i> , 2016 , 7, 13564	17.4	336
519	STEM-EELS Study of Plasmonic Modes in Ag nanotriangles: Size and Dielectric Dependence. <i>Microscopy and Microanalysis</i> , 2016 , 22, 988-989	0.5	
518	Temperature measurements during high flux ion beam irradiations. <i>Review of Scientific Instruments</i> , 2016 , 87, 024902	1.7	43

517	Microstructure design for fast oxygen conduction. <i>Journal of Materials Research</i> , 2016 , 31, 2-16	2.5	19
516	Dose dependence of helium bubble formation in nano-engineered SiC at 700°C. <i>Journal of Nuclear Materials</i> , 2016 , 472, 153-160	3.3	17
515	Effects of compositional complexity on the ion-irradiation induced swelling and hardening in Ni-containing equiatomic alloys. <i>Scripta Materialia</i> , 2016 , 119, 65-70	5.6	156
514	Combined effects of radiation damage and He accumulation on bubble nucleation in Gd ₂ Ti ₂ O ₇ . <i>Journal of Nuclear Materials</i> , 2016 , 479, 542-547	3.3	13
513	Color-center production and recovery in electron-irradiated magnesium aluminate spinel and ceria. <i>Journal of Physics Condensed Matter</i> , 2016 , 28, 325901	1.8	19
512	Atomistic structures of nano-engineered SiC and radiation-induced amorphization resistance. <i>Journal of Nuclear Materials</i> , 2015 , 465, 433-437	3.3	10
511	Chemical expansion affected oxygen vacancy stability in different oxide structures from first principles calculations. <i>Computational Materials Science</i> , 2015 , 99, 298-305	3.2	36
510	Segregation and trapping of oxygen vacancies near the SrTiO ₃ B (1 1 2) [100] tilt grain boundary. <i>Acta Materialia</i> , 2015 , 90, 394-399	8.4	22
509	Electronic effects in high-energy radiation damage in tungsten. <i>Journal of Physics Condensed Matter</i> , 2015 , 27, 135401	1.8	29
508	Effects of He Irradiation on Yttria-Stabilized Zirconia Ceramics. <i>Journal of the American Ceramic Society</i> , 2015 , 98, 1314-1322	3.8	14
507	Ionization-induced annealing of pre-existing defects in silicon carbide. <i>Nature Communications</i> , 2015 , 6, 8049	17.4	100
506	Predictive modeling of synergistic effects in nanoscale ion track formation. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 22538-42	3.6	22
505	Point defect evolution in Ni, NiFe and NiCr alloys from atomistic simulations and irradiation experiments. <i>Acta Materialia</i> , 2015 , 99, 69-76	8.4	93
504	Ag out-surface diffusion in crystalline SiC with an effective SiO ₂ diffusion barrier. <i>Journal of Nuclear Materials</i> , 2015 , 464, 294-298	3.3	1
503	Influence of chemical disorder on energy dissipation and defect evolution in concentrated solid solution alloys. <i>Nature Communications</i> , 2015 , 6, 8736	17.4	330
502	The role of electronic energy loss in ion beam modification of materials. <i>Current Opinion in Solid State and Materials Science</i> , 2015 , 19, 1-11	12	106
501	Radiation damage in cubic ZrO ₂ and yttria-stabilized zirconia from molecular dynamics simulations. <i>Scripta Materialia</i> , 2015 , 98, 16-19	5.6	15
500	Short-Range Atomic Ordering in Amorphous Ion-Tracks in Pyrochlores. <i>Microscopy and Microanalysis</i> , 2015 , 21, 1333-1334	0.5	3

499	Fast ion conductivity in strained defect-fluorite structure created by ion tracks in Gd ₂ Ti ₂ O ₇ . <i>Scientific Reports</i> , 2015 , 5, 16297	4.9	30
498	Additive effects of electronic and nuclear energy losses in irradiation-induced amorphization of zircon. <i>Applied Physics Letters</i> , 2015 , 107, 261902	3.4	18
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