

# William J Weber

## List of Publications by Year in descending order

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665  
papers

29,270  
citations

6233

80  
h-index

9839

141  
g-index

685  
all docs

685  
docs citations

685  
times ranked

12336  
citing authors

#	ARTICLE	IF	CITATIONS
1	Tunable Chemical Disorder in Concentrated Alloys: Defect Physics and Radiation Performance. <i>Chemical Reviews</i> , 2022, 122, 789-829.	23.0	47
2	Electron diffraction radial distribution function analysis of amorphous boron carbide synthesized by ion beam irradiation and chemical vapor deposition. <i>Journal of the European Ceramic Society</i> , 2022, 42, 376-382.	2.8	5
3	Q-carbon as a new radiation-resistant material. <i>Carbon</i> , 2022, 186, 253-261.	5.4	12
4	Engineering defect energy landscape of CoCrFeNi high-entropy alloys by the introduction of additional dopants. <i>Journal of Nuclear Materials</i> , 2022, 561, 153573.	1.3	9
5	Role of chemical disorder on radiation-induced defect production and damage evolution in NiFeCoCr. <i>Journal of Nuclear Materials</i> , 2022, 565, 153689.	1.3	3
6	Effects of Fe atoms on hardening of a nickel matrix: Nanoindentation experiments and atom-scale numerical modeling. <i>Materials and Design</i> , 2022, 217, 110639.	3.3	25
7	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.	3.8	2
8	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.	5.6	16
9	Selective amorphization of SiGe in Si/SiGe nanostructures via high energy Si <sup>+</sup> implant. <i>Journal of Applied Physics</i> , 2022, 132, .	1.1	0
10	Understanding effects of chemical complexity on helium bubble formation in Ni-based concentrated solid solution alloys based on elemental segregation measurements. <i>Journal of Nuclear Materials</i> , 2022, 569, 153902.	1.3	4
11	Effects of Au <sup>2+</sup> irradiation induced damage in a high-entropy pyrochlore oxide single crystal. <i>Scripta Materialia</i> , 2022, 220, 114916.	2.6	18
12	Origin of increased helium density inside bubbles in Ni alloys. <i>Scripta Materialia</i> , 2021, 191, 1-6.	2.6	14
13	Real-Time Identification of Oxygen Vacancy Centers in LiNbO <sub>3</sub> and SrTiO <sub>3</sub> during Irradiation with High Energy Particles. <i>Crystals</i> , 2021, 11, 315.	1.0	12
14	Effects of recoil spectra and electronic energy dissipation on defect survival in 3C-SiC. <i>Materialia</i> , 2021, 15, 101023.	1.3	7
15	Ion irradiation induced strain and structural changes in LiTaO <sub>3</sub> perovskite*. <i>Journal of Physics Condensed Matter</i> , 2021, 33, 185402.	0.7	5
16	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.	2.3	3
17	Temperature effect on irradiation damage in equiatomic multi-component alloys. <i>Computational Materials Science</i> , 2021, 197, 110571.	1.4	5
18	Parameter-free quantitative simulation of high-dose microstructure and hydrogen retention in ion-irradiated tungsten. <i>Physical Review Materials</i> , 2021, 5, .	0.9	26

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19	Estimate for thermal diffusivity in highly irradiated tungsten using molecular dynamics simulation. <i>Physical Review Materials</i> , 2021, 5, .	0.9	7
20	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.	0.6	2
21	Molecular dynamics simulations of the response of pre-damaged SrTiO <sub>3</sub> and KTaO <sub>3</sub> to fast heavy ions. <i>AIP Advances</i> , 2020, 10, 015019.	0.6	11
22	Electron-phonon coupling induced defect recovery and strain relaxation in Ni and equiatomic NiFe alloy. <i>Computational Materials Science</i> , 2020, 173, 109394.	1.4	9
23	Alloying effects on low-energy recoil events in concentrated solid-solution alloys. <i>Journal of Nuclear Materials</i> , 2020, 529, 151941.	1.3	12
24	From suppressed void growth to significant void swelling in NiCoFeCr complex concentrated solid-solution alloy. <i>Materialia</i> , 2020, 9, 100603.	1.3	22
25	Electronic stopping in molecular dynamics simulations of cascades in 3C-SiC. <i>Journal of Nuclear Materials</i> , 2020, 540, 152371.	1.3	23
26	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.	5.5	85
27	Irradiation-Induced Extremes Create Hierarchical Face-Centered Cubic Phases in Nanostructured High Entropy Alloys. <i>Advanced Materials</i> , 2020, 32, 2002652.	11.1	14
28	Coupled effects of electronic and nuclear energy deposition on damage accumulation in ion-irradiated SiC. <i>Acta Materialia</i> , 2020, 199, 96-106.	3.8	26
29	Symmetry degeneration and room temperature ferroelectricity in ion-irradiated SrTiO <sub>3</sub> . <i>Journal of Physics Condensed Matter</i> , 2020, 32, 355405.	0.7	6
30	Dislocation loop evolution and radiation hardening in nickel-based concentrated solid solution alloys. <i>Journal of Nuclear Materials</i> , 2020, 538, 152247.	1.3	22
31	Segregation of Ni at early stages of radiation damage in NiCoFeCr solid solution alloys. <i>Acta Materialia</i> , 2020, 196, 44-51.	3.8	39
32	Structural disorder, phase stability and compressibility of refractory body-centered cubic solid-solution alloys. <i>Journal of Alloys and Compounds</i> , 2020, 847, 155970.	2.8	7
33	Local structure of Ni <sub>80</sub> X <sub>20</sub> (X: Cr, Mn, Pd) solid-solution alloys and its response to ion irradiation. <i>Journal of Physics Condensed Matter</i> , 2020, 32, 074002.	0.7	2
34	Interpreting nanovoids in atom probe tomography data for accurate local compositional measurements. <i>Nature Communications</i> , 2020, 11, 1022.	5.8	23
35	High Entropy Alloys: Irradiation. , 2020, , .		8
36	Temperature effects on damage evolution in ion-irradiated NiCoCr concentrated solid-solution alloy. <i>Journal of Alloys and Compounds</i> , 2020, 832, 154918.	2.8	9

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37	Defect evolution in Ni and solid-solution alloys of NiFe and NiFeCoCr under ion irradiation at 16 and 300ÅK. Journal of Nuclear Materials, 2020, 534, 152138.	1.3	10
38	Adsorption-controlled growth of $\text{MnTe}$ by molecular beam epitaxy exhibiting stoichiometry-controlled magnetism. Physical Review Materials, 2020, 4, .	0.9	15
39	High-Entropy Alloys: Irradiation-Induced Extremes Create Hierarchical Face-Centered Cubic Phases in Nanostructured High Entropy Alloys (Adv. Mater. 39/2020). Advanced Materials, 2020, 32, .	11.1	0
40	Interpreting Voids in Atom Probe Tomography Data via Experiment and Theory. Microscopy and Microanalysis, 2019, 25, 290-291.	0.2	0
41	Investigating Effects of Alloy Chemical Complexity on Helium Bubble Formation by Accurate Segregation Measurements Using Atom Probe Tomography. Microscopy and Microanalysis, 2019, 25, 1558-1559.	0.2	6
42	Cascade overlap with vacancy-type defects in Fe. European Physical Journal B, 2019, 92, 1.	0.6	12
43	Predicting damage production in monoatomic and multi-elemental targets using stopping and range of ions in matter code: Challenges and recommendations. Current Opinion in Solid State and Materials Science, 2019, 23, 100757.	5.6	159
44	Multi-axial and multi-energy channeling study of disorder evolution in ion-irradiated nickel. Journal of Nuclear Materials, 2019, 525, 92-101.	1.3	8
45	Effects of 3d electron configurations on helium bubble formation and void swelling in concentrated solid-solution alloys. Acta Materialia, 2019, 181, 519-529.	3.8	40
46	Dissipation of radiation energy in concentrated solid-solution alloys: Unique defect properties and microstructural evolution. MRS Bulletin, 2019, 44, 798-811.	1.7	51
47	Two regimes of ionization-induced recovery in SrTiO <sub>3</sub> under irradiation. Scripta Materialia, 2019, 173, 154-157.	2.6	13
48	Effects of electron-phonon coupling on damage accumulation in molecular dynamics simulations of irradiated nickel. Materials Research Letters, 2019, 7, 490-495.	4.1	13
49	Revealing irradiation damage along with the entire damage range in ion-irradiated SiC/SiC composites using Raman spectroscopy. Journal of Nuclear Materials, 2019, 526, 151778.	1.3	26
50	Channeling analysis in studying ion irradiation damage in materials containing various types of defects. Journal of Nuclear Materials, 2019, 517, 9-16.	1.3	20
51	Irradiation effects of medium-entropy alloy NiCoCr with and without pre-indentation. Journal of Nuclear Materials, 2019, 524, 60-66.	1.3	25
52	Strain engineering 4H-SiC with ion beams. Applied Physics Letters, 2019, 114, .	1.5	11
53	The blue emission at 2.8 eV in strontium titanate: evidence for a radiative transition of self-trapped excitons from unbound states. Materials Research Letters, 2019, 7, 298-303.	4.1	21
54	Ionizing vs collisional radiation damage in materials: Separated, competing, and synergistic effects in Ti <sub>3</sub> SiC <sub>2</sub> . Acta Materialia, 2019, 173, 195-205.	3.8	10

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55	Defect evolution in Ni and NiCoCr by in situ 2.8 MeV Au irradiation. Journal of Nuclear Materials, 2019, 523, 502-509.	1.3	15
56	Temperature-dependent defect accumulation and evolution in Ni-irradiated NiFe concentrated solid-solution alloy. Journal of Nuclear Materials, 2019, 519, 1-9.	1.3	16
57	Optical spectroscopy study of modifications induced in cerium dioxide by electron and ion irradiations. Philosophical Magazine, 2019, 99, 1695-1714.	0.7	9
58	Effects of electron-phonon coupling and electronic thermal conductivity in high energy molecular dynamics simulations of irradiation cascades in nickel. Computational Materials Science, 2019, 162, 156-161.	1.4	14
59	Effect of electronic energy dissipation on strain relaxation in irradiated concentrated solid solution alloys. Current Opinion in Solid State and Materials Science, 2019, 23, 107-115.	5.6	25
60	Recent Advances on Carrier and Exciton Self-Trapping in Strontium Titanate: Understanding the Luminescence Emissions. Crystals, 2019, 9, 95.	1.0	32
61	Thermal stability and irradiation response of nanocrystalline CoCrCuFeNi high-entropy alloy. Nanotechnology, 2019, 30, 294004.	1.3	38
62	Radiation stability of nanocrystalline single-phase multicomponent alloys. Journal of Materials Research, 2019, 34, 854-866.	1.2	9
63	Preliminary Characterization and Projections of PVD Coatings On SiC Cladding for Light Water Reactors. Ceramic Engineering and Science Proceedings, 2019, , 117-134.	0.1	0
64	Ion mass dependence of irradiation-induced damage accumulation in KTaO <sub>3</sub> . Journal of Materials Science, 2019, 54, 149-158.	1.7	21
65	Amorphization kinetics in strontium titanate at 16 and 300 K under argon ion irradiation. Journal of Materials Science, 2019, 54, 6066-6072.	1.7	5
66	Effects of Fe concentration on helium bubble formation in NiFe single-phase concentrated solid solution alloys. Materialia, 2019, 5, 100183.	1.3	21
67	Energetic Ion Irradiation-Induced Disordered Nanochannels for Fast Ion Conduction. Jom, 2019, 71, 103-108.	0.9	5
68	Ionization-induced thermally activated defect-annealing process in SiC. Physical Review Materials, 2019, 3, .	0.9	12
69	Local structure and defects in ion irradiated KTaO <sub>3</sub> . Journal of Physics Condensed Matter, 2018, 30, 145401.	0.7	4
70	Revealing ionization-induced dynamic recovery in ion-irradiated SrTiO <sub>3</sub> . Acta Materialia, 2018, 149, 256-264.	3.8	18
71	Radiation-induced extreme elastic and inelastic interactions in concentrated solid solutions. Materials and Design, 2018, 150, 1-8.	3.3	15
72	Effect of atomic order/disorder on vacancy clustering in concentrated NiFe alloys. Computational Materials Science, 2018, 147, 194-203.	1.4	9

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73	Two-stage synergy of electronic energy loss with defects in LiTaO <sub>3</sub> under ion irradiation. <i>Materials Research Letters</i> , 2018, 6, 339-344.	4.1	20
74	<i>Ab initio</i> molecular dynamics simulations of AlN responding to low energy particle radiation. <i>Journal of Applied Physics</i> , 2018, 123, .	1.1	32
75	Delayed damage accumulation by athermal suppression of defect production in concentrated solid solution alloys. <i>Materials Research Letters</i> , 2018, 6, 136-141.	4.1	39
76	Defects induced in cerium dioxide single crystals by electron irradiation. <i>Journal of Applied Physics</i> , 2018, 123, 025901.	1.1	15
77	Local structure of NiPd solid solution alloys and its response to ion irradiation. <i>Journal of Alloys and Compounds</i> , 2018, 755, 242-250.	2.8	10
78	Effects of precipitates and dislocation loops on the yield stress of irradiated iron. <i>Scientific Reports</i> , 2018, 8, 6914.	1.6	45
79	Sculpting Nanoscale Functional Channels in Complex Oxides Using Energetic Ions and Electrons. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 16731-16738.	4.0	7
80	GeV ion irradiation of NiFe and NiCo: Insights from MD simulations and experiments. <i>Acta Materialia</i> , 2018, 151, 191-200.	3.8	28
81	Improving atomic displacement and replacement calculations with physically realistic damage models. <i>Nature Communications</i> , 2018, 9, 1084.	5.8	241
82	Synergistically-enhanced ion track formation in pre-damaged strontium titanate by energetic heavy ions. <i>Acta Materialia</i> , 2018, 150, 351-359.	3.8	20
83	Stability of vacancy-type defect clusters in Ni based on first-principles and molecular dynamics simulations. <i>Scripta Materialia</i> , 2018, 145, 71-75.	2.6	15
84	Determination of gaseous fission product behavior near the cerium dioxide $\langle 111 \rangle$ tilt grain boundary via first-principles study. <i>Journal of Nuclear Materials</i> , 2018, 499, 377-382.	1.3	3
85	Irradiation-induced defect formation and damage accumulation in single crystal CeO <sub>2</sub> . <i>Journal of Nuclear Materials</i> , 2018, 498, 400-408.	1.3	19
86	Lattice Distortion and Phase Stability of Pd-Doped NiCoFeCr Solid-Solution Alloys. <i>Entropy</i> , 2018, 20, 900.	1.1	27
87	Multiscale characterization of irradiation behaviour of ion-irradiated SiC/SiC composites. <i>Acta Materialia</i> , 2018, 161, 207-220.	3.8	36
88	Influence of electronic vs nuclear energy loss in radiation damage of Ti <sub>3</sub> SiC <sub>2</sub> . <i>Acta Materialia</i> , 2018, 161, 302-310.	3.8	10
89	Primary radiation damage: A review of current understanding and models. <i>Journal of Nuclear Materials</i> , 2018, 512, 450-479.	1.3	358
90	Isolated oxygen vacancies in strontium titanate shine red: Optical identification of Ti <sup>3+</sup> polarons. <i>Applied Materials Today</i> , 2018, 12, 131-137.	2.3	32

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91	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.	1.3	34
92	Synergistic effects of nuclear and electronic energy deposition on damage production in $\text{KTaO}_3$ . <i>Materials Research Letters</i> , 2018, 6, 531-536.	4.1	22
93	Enhanced void swelling in NiCoFeCrPd high-entropy alloy by indentation-induced dislocations. <i>Materials Research Letters</i> , 2018, 6, 584-591.	4.1	46
94	Effects of electronic excitation in 150 keV Ni ion irradiation of metallic systems. <i>AIP Advances</i> , 2018, 8, 015121.	0.6	22
95	Why natural monazite never becomes amorphous: Experimental evidence for alpha self-healing. <i>American Mineralogist</i> , 2018, 103, 824-827.	0.9	53
96	Chemical complexity induced local structural distortion in NiCoFeMnCr high-entropy alloy. <i>Materials Research Letters</i> , 2018, 6, 450-455.	4.1	54
97	pysrim: Automation, Analysis, and Plotting of SRIM Calculations. <i>Journal of Open Source Software</i> , 2018, 3, 829.	2.0	13
98	Pressure-induced fcc to hcp phase transition in Ni-based high entropy solid solution alloys. <i>Applied Physics Letters</i> , 2017, 110, .	1.5	62
99	Amorphization due to electronic energy deposition in defective strontium titanate. <i>Acta Materialia</i> , 2017, 127, 400-406.	3.8	29
100	Radiation-induced segregation on defect clusters in single-phase concentrated solid-solution alloys. <i>Acta Materialia</i> , 2017, 127, 98-107.	3.8	212
101	Two-temperature model in molecular dynamics simulations of cascades in Ni-based alloys. <i>Journal of Alloys and Compounds</i> , 2017, 700, 106-112.	2.8	37
102	Strain effects on oxygen vacancy energetics in $\text{KTaO}_3$ . <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 6264-6273.	1.3	30
103	Effects of the electron-phonon coupling activation in collision cascades. <i>Journal of Nuclear Materials</i> , 2017, 490, 317-322.	1.3	18
104	X-ray absorption investigation of local structural disorder in Ni <sub>1-x</sub> Fe <sub>x</sub> (x=0.10, 0.20, 0.35, and 0.50) alloys. <i>Journal of Applied Physics</i> , 2017, 121, 165105.	1.1	4
105	Irradiation-induced damage evolution in concentrated Ni-based alloys. <i>Acta Materialia</i> , 2017, 135, 54-60.	3.8	46
106	Effects of electronic excitation on cascade dynamics in nickel-iron and nickel-palladium systems. <i>Scripta Materialia</i> , 2017, 138, 124-129.	2.6	13
107	Diffusion of point defects near stacking faults in 3C-SiC via first-principles calculations. <i>Scripta Materialia</i> , 2017, 139, 1-4.	2.6	24
108	Role of oxygen vacancies on light emission mechanisms in $\text{SrTiO}_3$ induced by high-energy particles. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 155303.	1.3	35

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109	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.	5.6	155
110	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.	1.2	13
111	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.	1.5	44
112	Suppression of vacancy cluster growth in concentrated solid solution alloys. <i>Acta Materialia</i> , 2017, 125, 231-237.	3.8	45
113	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.	5.6	57
114	Correlation between Cr <sup>3+</sup> Luminescence and Oxygen Vacancy Disorder in Strontium Titanate under MeV Ion Irradiation. <i>Journal of Physical Chemistry C</i> , 2017, 121, 19758-19766.	1.5	28
115	Local segregation versus irradiation effects in high-entropy alloys: Steady-state conditions in a driven system. <i>Journal of Applied Physics</i> , 2017, 122, .	1.1	61
116	Unique Challenges for Modeling Defect Dynamics in Concentrated Solid-Solution Alloys. <i>Jom</i> , 2017, 69, 2084-2091.	0.9	33
117	Ab Initio Study of Electronic Excitation Effects on SrTiO <sub>3</sub> . <i>Journal of Physical Chemistry C</i> , 2017, 121, 26622-26628.	1.5	7
118	Synergistic effects of nuclear and electronic energy loss in KTaO <sub>3</sub> under ion irradiation. <i>AIP Advances</i> , 2017, 7, .	0.6	21
119	Evolution of irradiation-induced strain in an equiatomic NiFe alloy. <i>Scripta Materialia</i> , 2017, 140, 35-39.	2.6	27
120	Role of atomic-level defects and electronic energy loss on amorphization in LiNbO <sub>3</sub> single crystals. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 325103.	1.3	12
121	Effects of chemical alternation on damage accumulation in concentrated solid-solution alloys. <i>Scientific Reports</i> , 2017, 7, 4146.	1.6	32
122	Local Structure and Short-Range Order in a NiCoCr Solid Solution Alloy. <i>Physical Review Letters</i> , 2017, 118, 205501.	2.9	283
123	In-cascade ionization effects on defect production in 3C silicon carbide. <i>Materials Research Letters</i> , 2017, 5, 494-500.	4.1	29
124	Ab initio molecular dynamics simulations of low energy recoil events in MgO. <i>Journal of Nuclear Materials</i> , 2017, 486, 122-128.	1.3	11
125	Layered Structure Induced Anisotropic Low Energy Recoils in Ti <sub>3</sub> SiC <sub>2</sub> . <i>Journal of the American Ceramic Society</i> , 2016, 99, 2693-2698.	1.9	11
126	Amorphization resistance of nano-engineered SiC under heavy ion irradiation. <i>Journal of Nuclear Materials</i> , 2016, 478, 310-314.	1.3	16



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127	Ab initio study of point defects near stacking faults in 3C-SiC. Computational Materials Science, 2016, 123, 131-138.	1.4	33
128	Effects of two-temperature model on cascade evolution in Ni and NiFe. Scripta Materialia, 2016, 124, 6-10.	2.6	46
129	Tailoring the physical properties of Ni-based single-phase equiatomic alloys by modifying the chemical complexity. Scientific Reports, 2016, 6, 20159.	1.6	166
130	Effects of Fe concentration on the ion-irradiation induced defect evolution and hardening in Ni-Fe solid solution alloys. Acta Materialia, 2016, 121, 365-373.	3.8	64
131	Enhancing radiation tolerance by controlling defect mobility and migration pathways in multicomponent single-phase alloys. Nature Communications, 2016, 7, 13564.	5.8	533
132	STEM-EELS Study of Plasmonic Modes in Ag nanotriangles: Size and Dielectric Dependence. Microscopy and Microanalysis, 2016, 22, 988-989.	0.2	0
133	Temperature measurements during high flux ion beam irradiations. Review of Scientific Instruments, 2016, 87, 024902.	0.6	49
134	Microstructure design for fast oxygen conduction. Journal of Materials Research, 2016, 31, 2-16.	1.2	22
135	Dose dependence of helium bubble formation in nano-engineered SiC at 700°C. Journal of Nuclear Materials, 2016, 472, 153-160.	1.3	26
136	Effects of compositional complexity on the ion-irradiation induced swelling and hardening in Ni-containing equiatomic alloys. Scripta Materialia, 2016, 119, 65-70.	2.6	244
137	Combined effects of radiation damage and He accumulation on bubble nucleation in Gd <sub>2</sub> Ti <sub>2</sub> O <sub>7</sub> . Journal of Nuclear Materials, 2016, 479, 542-547.	1.3	16
138	Color-center production and recovery in electron-irradiated magnesium aluminate spinel and ceria. Journal of Physics Condensed Matter, 2016, 28, 325901.	0.7	27
139	Influence of chemical disorder on energy dissipation and defect evolution in advanced alloys. Journal of Materials Research, 2016, 31, 2363-2375.	1.2	110
140	Bubble formation and lattice parameter changes resulting from He irradiation of defect-fluorite Gd <sub>2</sub> Zr <sub>2</sub> O <sub>7</sub> . Acta Materialia, 2016, 115, 115-122.	3.8	39
141	Mechanism of Radiation Damage Reduction in Equiatomic Multicomponent Single Phase Alloys. Physical Review Letters, 2016, 116, 135504.	2.9	359
142	Insights on dramatic radial fluctuations in track formation by energetic ions. Scientific Reports, 2016, 6, 27196.	1.6	14
143	A coupled effect of nuclear and electronic energy loss on ion irradiation damage in lithium niobate. Acta Materialia, 2016, 105, 429-437.	3.8	43
144	Segregation and Migration of the Oxygen Vacancies in the $\sqrt{3} \times \sqrt{3}$ (111) Tilt Grain Boundaries of Ceria. Journal of Physical Chemistry C, 2016, 120, 6625-6632.	1.5	11

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145	Damage accumulation in ion-irradiated Ni-based concentrated solid-solution alloys. <i>Acta Materialia</i> , 2016, 109, 17-22.	3.8	114
146	Stopping power measurements with the Time-of-Flight (ToF) technique. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2016, 366, 104-116.	0.6	4
147	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> , 2016, 172, 208-218.	1.5	59
148	Formation and growth of stacking fault tetrahedra in Ni via vacancy aggregation mechanism. <i>Scripta Materialia</i> , 2016, 114, 137-141.	2.6	42
149	Two-body potential model based on cosine series expansion for ionic materials. <i>Computational Materials Science</i> , 2016, 111, 54-63.	1.4	1
150	Synergy of inelastic and elastic energy loss: Temperature effects and electronic stopping power dependence. <i>Scripta Materialia</i> , 2016, 110, 2-5.	2.6	19
151	Modelling Effects of Radiation Damage. <i>Springer Series in Surface Sciences</i> , 2016, , 105-136.	0.3	3
152	Defect Accumulation, Amorphization and Nanostructure Modification of Ceramics. <i>Springer Series in Surface Sciences</i> , 2016, , 287-318.	0.3	3
153	Short-Range Atomic Ordering in Amorphous Ion-Tracks in Pyrochlores. <i>Microscopy and Microanalysis</i> , 2015, 21, 1333-1334.	0.2	3
154	Fast ion conductivity in strained defect-fluorite structure created by ion tracks in Gd <sub>2</sub> Ti <sub>2</sub> O <sub>7</sub> . <i>Scientific Reports</i> , 2015, 5, 16297.	1.6	33
155	Additive effects of electronic and nuclear energy losses in irradiation-induced amorphization of zircon. <i>Applied Physics Letters</i> , 2015, 107, .	1.5	24
156	Ab initio molecular dynamics investigations of low-energy recoil events in Ni and NiCo. <i>Journal of Physics Condensed Matter</i> , 2015, 27, 435006.	0.7	14
157	Synergy of elastic and inelastic energy loss on ion track formation in SrTiO <sub>3</sub> . <i>Scientific Reports</i> , 2015, 5, 7726.	1.6	98
158	Structure and band gap determination of irradiation-induced amorphous nano-channels in LiNbO <sub>3</sub> . <i>Journal of Applied Physics</i> , 2015, 117, .	1.1	26
159	Vacancy-Vacancy Interaction Induced Oxygen Diffusivity Enhancement in Undoped Nonstoichiometric Ceria. <i>Journal of Physical Chemistry C</i> , 2015, 119, 13153-13159.	1.5	13
160	Ab initio molecular dynamics simulations of ion-solid interactions in zirconate pyrochlores. <i>Acta Materialia</i> , 2015, 87, 273-282.	3.8	30
161	Electronic excitation induced amorphization in titanate pyrochlores: an ab initio molecular dynamics study. <i>Scientific Reports</i> , 2015, 5, 8265.	1.6	20
162	Damage processes in MgO irradiated with medium-energy heavy ions. <i>Acta Materialia</i> , 2015, 88, 314-322.	3.8	31

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163	Atomistic structures of nano-engineered SiC and radiation-induced amorphization resistance. Journal of Nuclear Materials, 2015, 465, 433-437.	1.3	12
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