

Yanwen Zhang

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.

385
papers

9,678
citations

46
h-index

77
g-index

396
ext. papers

11,500
ext. citations

4.2
avg, IF

6.59
L-index

#	Paper	IF	Citations
385	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
384	The dynamic evolution of swelling in nickel concentrated solid solution alloys through in situ property monitoring. <i>Applied Materials Today</i> , 2021 , 25, 101187	6.6	2
383	Irradiation stability and induced ferromagnetism in a nanocrystalline CoCrCuFeNi highly-concentrated alloy. <i>Nanoscale</i> , 2021 ,	7.7	1
382	Tunable Chemical Disorder in Concentrated Alloys: Defect Physics and Radiation Performance. <i>Chemical Reviews</i> , 2021 ,	68.1	9
381	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
380	Effects of recoil spectra and electronic energy dissipation on defect survival in 3C-SiC. <i>Materialia</i> , 2021 , 15, 101023	3.2	3
379	Ion irradiation induced strain and structural changes in LiTaO ₃ perovskite. <i>Journal of Physics Condensed Matter</i> , 2021 , 33,	1.8	1
378	Property enhancement of CoCrNi medium-entropy alloy by introducing nano-scale features. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021 , 817, 141368	5.3	1
377	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
376	STEM Characterization of Dislocation Loops in Irradiated FCC Alloys. <i>Journal of Nuclear Materials</i> , 2021 , 544, 152658	3.3	10
375	Origin of increased helium density inside bubbles in Ni(100)Fe alloys. <i>Scripta Materialia</i> , 2021 , 191, 1-6	5.6	6
374	Diffusion-mediated chemical concentration variation and void evolution in ion-irradiated NiCoFeCr high-entropy alloy. <i>Journal of Materials Research</i> , 2021 , 36, 298-310	2.5	8
373	First-principles calculation of lattice distortions in four single phase high entropy alloys with experimental validation. <i>Materials and Design</i> , 2021 , 209, 110071	8.1	3
372	Sluggish, chemical bias and percolation phenomena in atomic transport by vacancy and interstitial diffusion in Ni Fe alloys. <i>Current Opinion in Solid State and Materials Science</i> , 2021 , 25, 100961	12	7
371	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
370	Symmetry degeneration and room temperature ferroelectricity in ion-irradiated SrTiO ₃ . <i>Journal of Physics Condensed Matter</i> , 2020 , 32, 355405	1.8	3
369	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

368	Studying the effects of thermally diffusing Ce into the surface of YAlO ₃ for associated particle imaging. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2020 , 473, 55-61	1.2	1
367	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
366	Tunable chemical complexity to control atomic diffusion in alloys. <i>Npj Computational Materials</i> , 2020 , 6,	10.9	16
365	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
364	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
363	Indirectly probing the structural change in ion-irradiated Zr-Based metallic glasses from small scale mechanical tests. <i>Intermetallics</i> , 2020 , 121, 106794	3.5	3
362	Interpreting nanovoids in atom probe tomography data for accurate local compositional measurements. <i>Nature Communications</i> , 2020 , 11, 1022	17.4	16
361	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
360	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
359	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
358	Severe local lattice distortion in Zr- and/or Hf-containing refractory multi-principal element alloys. <i>Acta Materialia</i> , 2020 , 183, 172-181	8.4	53
357	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
356	Oxide dispersion strengthened FeCoNi concentrated solid-solution alloys synthesized by mechanical alloying. <i>Intermetallics</i> , 2020 , 117, 106674	3.5	10
355	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
354	Microstructure and mechanical properties of oxide dispersion strengthened FeCoNi concentrated solid solution alloys. <i>Journal of Alloys and Compounds</i> , 2020 , 820, 153104	5.7	16
353	Alloying effects on low-energy recoil events in concentrated solid-solution alloys. <i>Journal of Nuclear Materials</i> , 2020 , 529, 151941	3.3	5
352	From suppressed void growth to significant void swelling in NiCoFeCr complex concentrated solid-solution alloy. <i>Materialia</i> , 2020 , 9, 100603	3.2	15
351	Electronic stopping in molecular dynamics simulations of cascades in 3CβSiC. <i>Journal of Nuclear Materials</i> , 2020 , 540, 152371	3.3	14

350	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
349	Disordering of helium gas bubble superlattices in molybdenum under ion irradiation and thermal annealing. <i>Journal of Nuclear Materials</i> , 2020 , 539, 152315	3.3	4
348	Irradiation-Induced Extremes Create Hierarchical Face-/Body-Centered-Cubic Phases in Nanostructured High Entropy Alloys. <i>Advanced Materials</i> , 2020 , 32, e2002652	24	8
347	Accelerated kinetic Monte Carlo: A case study; vacancy and dumbbell interstitial diffusion traps in concentrated solid solution alloys. <i>Journal of Chemical Physics</i> , 2020 , 153, 074109	3.9	9
346	Two regimes of ionization-induced recovery in SrTiO ₃ under irradiation. <i>Scripta Materialia</i> , 2019 , 173, 154-157	5.6	4
345	Swelling and Helium Bubble Morphology in a Cryogenically Treated FeCrNi Alloy with Martensitic Transformation and Reversion after Helium Implantation. <i>Materials</i> , 2019 , 12,	3.5	4
344	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
343	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
342	Strain engineering 4H-SiC with ion beams. <i>Applied Physics Letters</i> , 2019 , 114, 221904	3.4	5
341	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
340	Frenkel defect recombination in Ni and Ni-containing concentrated solid-solution alloys. <i>Acta Materialia</i> , 2019 , 173, 184-194	8.4	23
339	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
338	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
337	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
336	Pulsed-laser epitaxy of topological insulator Bi ₂ Te ₃ thin films. <i>APL Materials</i> , 2019 , 7, 041101	5.7	13
335	Investigating sluggish diffusion in a concentrated solid solution alloy using ion irradiation with in situ TEM. <i>Intermetallics</i> , 2019 , 110, 106461	3.5	11
334	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
333	Recent Advances on Carrier and Exciton Self-Trapping in Strontium Titanate: Understanding the Luminescence Emissions. <i>Crystals</i> , 2019 , 9, 95	2.3	22

332	Thermal stability and irradiation response of nanocrystalline CoCrCuFeNi high-entropy alloy. <i>Nanotechnology</i> , 2019 , 30, 294004	3.4	24
331	Local-environment dependence of stacking fault energies in concentrated solid-solution alloys. <i>Npj Computational Materials</i> , 2019 , 5,	10.9	45
330	Influence of irradiation temperature on void swelling in NiCoFeCrMn and NiCoFeCrPd. <i>Scripta Materialia</i> , 2019 , 158, 57-61	5.6	45
329	Diffusion of point defects in ordered and disordered NiBe alloys. <i>Journal of Alloys and Compounds</i> , 2019 , 805, 1175-1183	5.7	18
328	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
327	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
326	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
325	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
324	Atomistic simulation of defect-dislocation interactions in concentrated solid-solution alloys. <i>Physical Review Materials</i> , 2019 , 3,	3.2	4
323	Ion mass dependence of irradiation-induced damage accumulation in KTaO ₃ . <i>Journal of Materials Science</i> , 2019 , 54, 149-158	4.3	12
322	Chemically-biased diffusion and segregation impede void growth in irradiated Ni-Fe alloys. <i>Current Opinion in Solid State and Materials Science</i> , 2019 , 23, 92-100	12	21
321	Room-Temperature Ferromagnetic Insulating State in Cation-Ordered Double-Perovskite Sr Fe Re O Films. <i>Advanced Materials</i> , 2019 , 31, e1805389	24	10
320	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
319	Helium irradiated cavity formation and defect energetics in Ni-based binary single-phase concentrated solid solution alloys. <i>Acta Materialia</i> , 2019 , 164, 283-292	8.4	30
318	Effects of Fe concentration on helium bubble formation in NiFex single-phase concentrated solid solution alloys. <i>Materialia</i> , 2019 , 5, 100183	3.2	16
317	Energetic Ion Irradiation-Induced Disordered Nanochannels for Fast Ion Conduction. <i>Jom</i> , 2019 , 71, 103-108		4
316	Local structure and defects in ion irradiated KTaO. <i>Journal of Physics Condensed Matter</i> , 2018 , 30, 145401.8		3
315	Revealing ionization-induced dynamic recovery in ion-irradiated SrTiO ₃ . <i>Acta Materialia</i> , 2018 , 149, 256-264		12

314	He behavior in Ni and Ni-based equiatomic solid solution alloy. <i>Journal of Nuclear Materials</i> , 2018 , 505, 200-206	3.3	21
313	Effect of alloying elements on defect evolution in Ni-20X binary alloys. <i>Acta Materialia</i> , 2018 , 151, 159-168	4.1	36
312	Radiation-induced extreme elastic and inelastic interactions in concentrated solid solutions. <i>Materials and Design</i> , 2018 , 150, 1-8	8.1	11
311	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
310	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
309	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
308	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
307	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
306	GeV ion irradiation of NiFe and NiCo: Insights from MD simulations and experiments. <i>Acta Materialia</i> , 2018 , 151, 191-200	8.4	22
305	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
304	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
303	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
302	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
301	Enhanced void swelling in NiCoFeCrPd high-entropy alloy by indentation-induced dislocations. <i>Materials Research Letters</i> , 2018 , 6, 584-591	7.4	27
300	Chemical complexity induced local structural distortion in NiCoFeMnCr high-entropy alloy. <i>Materials Research Letters</i> , 2018 , 6, 450-455	7.4	35
299	Effect of d electrons on defect properties in equiatomic NiCoCr and NiCoFeCr concentrated solid solution alloys. <i>Physical Review Materials</i> , 2018 , 2,	3.2	42
298	pysrim: Automation, Analysis, and Plotting of SRIM Calculations. <i>Journal of Open Source Software</i> , 2018 , 3, 829	5.2	6
297	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

296	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
295	Lattice Distortion and Phase Stability of Pd-Doped NiCoFeCr Solid-Solution Alloys. <i>Entropy</i> , 2018 , 20,	2.8	14
294	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
293	Irradiation responses and defect behavior of single-phase concentrated solid solution alloys. <i>Journal of Materials Research</i> , 2018 , 33, 3077-3091	2.5	28
292	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
291	On the existence and origin of sluggish diffusion in chemically disordered concentrated alloys. <i>Current Opinion in Solid State and Materials Science</i> , 2018 , 22, 65-74	12	58
290	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
289	Amorphization due to electronic energy deposition in defective strontium titanate. <i>Acta Materialia</i> , 2017 , 127, 400-406	8.4	21
288	Radiation-induced segregation on defect clusters in single-phase concentrated solid-solution alloys. <i>Acta Materialia</i> , 2017 , 127, 98-107	8.4	128
287	Preferential diffusion in concentrated solid solution alloys: NiFe, NiCo and NiCoCr. <i>Acta Materialia</i> , 2017 , 128, 391-399	8.4	88
286	Atomic-scale dynamics of edge dislocations in Ni and concentrated solid solution NiFe alloys. <i>Journal of Alloys and Compounds</i> , 2017 , 701, 1003-1008	5.7	37
285	Strain effects on oxygen vacancy energetics in KTaO ₃ . <i>Physical Chemistry Chemical Physics</i> , 2017 , 19, 6264-6273	3.6	27
284	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
283	Radiation damage buildup by athermal defect reactions in nickel and concentrated nickel alloys. <i>Materials Research Letters</i> , 2017 , 5, 433-439	7.4	21
282	Irradiation-induced damage evolution in concentrated Ni-based alloys. <i>Acta Materialia</i> , 2017 , 135, 54-60	8.4	35
281	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
280	The effect of injected interstitials on void formation in self-ion irradiated nickel containing concentrated solid solution alloys. <i>Journal of Nuclear Materials</i> , 2017 , 488, 328-337	3.3	34
279	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

278	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
277	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
276	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
275	Deformation mechanisms of Al _{0.1} CoCrFeNi at elevated temperatures. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017 , 684, 552-558	5.3	23
274	Suppression of vacancy cluster growth in concentrated solid solution alloys. <i>Acta Materialia</i> , 2017 , 125, 231-237	8.4	35
273	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
272	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
271	Unique Challenges for Modeling Defect Dynamics in Concentrated Solid-Solution Alloys. <i>Jom</i> , 2017 , 69, 2084-2091	2.1	27
270	Ab Initio Study of Electronic Excitation Effects on SrTiO ₃ . <i>Journal of Physical Chemistry C</i> , 2017 , 121, 26632-26638	3.8	28
269	Synergistic effects of nuclear and electronic energy loss in KTaO ₃ under ion irradiation. <i>AIP Advances</i> , 2017 , 7, 015016	1.5	15
268	Stacking fault energies of face-centered cubic concentrated solid solution alloys. <i>Acta Materialia</i> , 2017 , 134, 334-345	8.4	206
267	Evolution of irradiation-induced strain in an equiatomic NiFe alloy. <i>Scripta Materialia</i> , 2017 , 140, 35-39	5.6	19
266	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
265	Effects of chemical alternation on damage accumulation in concentrated solid-solution alloys. <i>Scientific Reports</i> , 2017 , 7, 4146	4.9	24
264	Local Structure and Short-Range Order in a NiCoCr Solid Solution Alloy. <i>Physical Review Letters</i> , 2017 , 118, 205501	7.4	156
263	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, paid-up, irrevocable and exclusive license of this article and any associated copyright in any medium now known or hereafter invented, for all rights reserved.	7.4	23
262	Ab initio molecular dynamics simulations of low energy recoil events in MgO. <i>Journal of Nuclear Materials</i> , 2017 , 486, 122-128 <i>ed. Materials Research Letters</i> , 2017 , 5, 494-500	3.3	9
261	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

260	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
259	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
258	Mechanism of Radiation Damage Reduction in Equiatomic Multicomponent Single Phase Alloys. <i>Physical Review Letters</i> , 2016 , 116, 135504	7.4	250
257	Insights on dramatic radial fluctuations in track formation by energetic ions. <i>Scientific Reports</i> , 2016 , 6, 27196	4.9	12
256	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
255	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
254	Damage accumulation in ion-irradiated Ni-based concentrated solid-solution alloys. <i>Acta Materialia</i> , 2016 , 109, 17-22	8.4	75
253	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
252	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
251	Formation and growth of stacking fault tetrahedra in Ni via vacancy aggregation mechanism. <i>Scripta Materialia</i> , 2016 , 114, 137-141	5.6	35
250	Defect Accumulation, Amorphization and Nanostructure Modification of Ceramics. <i>Springer Series in Surface Sciences</i> , 2016 , 287-318	0.4	2
249	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
248	Amorphization resistance of nano-engineered SiC under heavy ion irradiation. <i>Journal of Nuclear Materials</i> , 2016 , 478, 310-314	3.3	12
247	Ab initio study of point defects near stacking faults in 3C-SiC. <i>Computational Materials Science</i> , 2016 , 123, 131-138	3.2	26
246	Direct Observation of Defect Range and Evolution in Ion-Irradiated Single Crystalline Ni and Ni Binary Alloys. <i>Scientific Reports</i> , 2016 , 6, 19994	4.9	100
245	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
244	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
243	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

242	Temperature measurements during high flux ion beam irradiations. <i>Review of Scientific Instruments</i> , 2016 , 87, 024902	1.7	43
241	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
240	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
239	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
238	Defect energetics of concentrated solid-solution alloys from ab initio calculations: Ni _{0.5} Co _{0.5} , Ni _{0.5} Fe _{0.5} , Ni _{0.8} Fe _{0.2} and Ni _{0.8} Cr _{0.2} . <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 24043-56	3.6	99
237	Atomistic structures of nano-engineered SiC and radiation-induced amorphization resistance. <i>Journal of Nuclear Materials</i> , 2015 , 465, 433-437	3.3	10
236	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
235	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
234	Ferromagnetism and nonmetallic transport of thin-film FeSi(2): a stabilized metastable material. <i>Physical Review Letters</i> , 2015 , 114, 147202	7.4	24
233	Effects of He Irradiation on Yttria-Stabilized Zirconia Ceramics. <i>Journal of the American Ceramic Society</i> , 2015 , 98, 1314-1322	3.8	14
232	Ionization-induced annealing of pre-existing defects in silicon carbide. <i>Nature Communications</i> , 2015 , 6, 8049	17.4	100
231	Predictive modeling of synergistic effects in nanoscale ion track formation. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 22538-42	3.6	22
230	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
229	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
228	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
227	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
226	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
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