

Yanwen Zhang

List of Publications by Citations

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

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	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
384	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
383	Mechanism of Radiation Damage Reduction in Equiatomic Multicomponent Single Phase Alloys. <i>Physical Review Letters</i> , 2016 , 116, 135504	7.4	250
382	Stacking fault energies of face-centered cubic concentrated solid solution alloys. <i>Acta Materialia</i> , 2017 , 134, 334-345	8.4	206
381	Aluminum Alloying Effects on Lattice Types, Microstructures, and Mechanical Behavior of High-Entropy Alloys Systems. <i>Jom</i> , 2013 , 65, 1848-1858	2.1	180
380	Local Structure and Short-Range Order in a NiCoCr Solid Solution Alloy. <i>Physical Review Letters</i> , 2017 , 118, 205501	7.4	156
379	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
378	Detection efficiency of time-of-flight energy elastic recoil detection analysis systems. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1999 , 149, 477-489	1.2	134
377	Radiation-induced segregation on defect clusters in single-phase concentrated solid-solution alloys. <i>Acta Materialia</i> , 2017 , 127, 98-107	8.4	128
376	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
375	Synergy of nuclear and electronic energy losses in ion-irradiation processes: The case of vitreous silicon dioxide. <i>Physical Review B</i> , 2011 , 83,	3.3	122
374	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
373	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
372	New ion beam materials laboratory for materials modification and irradiation effects research. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2014 , 338, 19-30	1.2	106
371	Radiation tolerance of Cu/W multilayered nanocomposites. <i>Journal of Nuclear Materials</i> , 2011 , 413, 11-15	3.3	101
370	Grain growth and phase stability of nanocrystalline cubic zirconia under ion irradiation. <i>Physical Review B</i> , 2010 , 82,	3.3	101
369	Ionization-induced annealing of pre-existing defects in silicon carbide. <i>Nature Communications</i> , 2015 , 6, 8049	17.4	100

368	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
367	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
366	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
365	Ion-induced damage accumulation and electron-beam-enhanced recrystallization in SrTiO ₃ . <i>Physical Review B</i> , 2005 , 72,	3.3	93
364	Helium bubble distributions in a nanostructured ferritic alloy. <i>Journal of Nuclear Materials</i> , 2013 , 434, 210-216	3.3	90
363	Preferential diffusion in concentrated solid solution alloys: NiFe, NiCo and NiCoCr. <i>Acta Materialia</i> , 2017 , 128, 391-399	8.4	88
362	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
361	Nanoscale engineering of radiation tolerant silicon carbide. <i>Physical Chemistry Chemical Physics</i> , 2012 , 14, 13429-36	3.6	83
360	Temperature dependence of disorder accumulation and amorphization in Au-ion-irradiated 6HSiC. <i>Physical Review B</i> , 2004 , 70,	3.3	83
359	Damage evolution and recovery on both Si and C sublattices in Al-implanted 4HSiC studied by Rutherford backscattering spectroscopy and nuclear reaction analysis. <i>Journal of Applied Physics</i> , 2002 , 91, 6388	2.5	83
358	Synergy of elastic and inelastic energy loss on ion track formation in SrTiO ₃ . <i>Scientific Reports</i> , 2015 , 5, 7726	4.9	82
357	Effects of implantation temperature on damage accumulation in Al-implanted 4HSiC. <i>Journal of Applied Physics</i> , 2004 , 95, 4012-4018	2.5	81
356	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
355	Helium entrapment in a nanostructured ferritic alloy. <i>Scripta Materialia</i> , 2011 , 65, 731-734	5.6	76
354	Damage accumulation in ion-irradiated Ni-based concentrated solid-solution alloys. <i>Acta Materialia</i> , 2016 , 109, 17-22	8.4	75
353	Damage profile and ion distribution of slow heavy ions in compounds. <i>Journal of Applied Physics</i> , 2009 , 105, 104901	2.5	72
352	Response of strontium titanate to ion and electron irradiation. <i>Journal of Nuclear Materials</i> , 2009 , 389, 303-310	3.3	70
351	Response of nanocrystalline 3C silicon carbide to heavy-ion irradiation. <i>Physical Review B</i> , 2009 , 80,	3.3	60

350	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
349	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
348	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
347	Ab initio molecular dynamics simulations of low-energy recoil events in ThO ₂ , CeO ₂ , and ZrO ₂ . <i>Physical Review B</i> , 2012 , 86,	3.3	52
346	The effect of electronic energy loss on irradiation-induced grain growth in nanocrystalline oxides. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 8051-9	3.6	51
345	Structural modification of nanocrystalline ceria by ion beams. <i>Physical Chemistry Chemical Physics</i> , 2011 , 13, 11946-50	3.6	51
344	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
343	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
342	Competing effects of electronic and nuclear energy loss on microstructural evolution in ionic-covalent materials. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2014 , 327, 33-43	1.2	47
341	Irradiation effects on microstructure change in nanocrystalline ceria [Phase, lattice stress, grain size and boundaries. <i>Acta Materialia</i> , 2012 , 60, 5408-5416	8.4	47
340	Ion beam-induced amorphous-to-tetragonal phase transformation and grain growth of nanocrystalline zirconia. <i>Nanotechnology</i> , 2009 , 20, 245303	3.4	46
339	Ion implantation of silicon carbide. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2002 , 186, 186-194		46
338	Local-environment dependence of stacking fault energies in concentrated solid-solution alloys. <i>Npj Computational Materials</i> , 2019 , 5,	10.9	45
337	Influence of irradiation temperature on void swelling in NiCoFeCrMn and NiCoFeCrPd. <i>Scripta Materialia</i> , 2019 , 158, 57-61	5.6	45
336	Effects of implantation temperature and ion flux on damage accumulation in Al-implanted 4H-SiC. <i>Journal of Applied Physics</i> , 2003 , 93, 1954-1960	2.5	45
335	Composition dependent intrinsic defect structures in SrTiO ₃ . <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 15590-6	3.6	44
334	Temperature measurements during high flux ion beam irradiations. <i>Review of Scientific Instruments</i> , 2016 , 87, 024902	1.7	43
333	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

332	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
331	Advanced techniques for characterization of ion beam modified materials. <i>Current Opinion in Solid State and Materials Science</i> , 2015 , 19, 19-28	12	41
330	Electron-beam induced recrystallization in amorphous apatite. <i>Applied Physics Letters</i> , 2007 , 90, 021912	3.4	41
329	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
328	Embedded nanofibers induced by high-energy ion irradiation of bulk GaSb. <i>Small</i> , 2008 , 4, 1119-24	11	40
327	Radiation effects in nuclear materials: Role of nuclear and electronic energy losses and their synergy. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2013 , 307, 43-48	1.2	39
326	Review of dynamic recovery effects on ion irradiation damage in ionic-covalent materials. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2012 , 277, 1-5	1.2	38
325	Damage and microstructure evolution in GaN under Au ion irradiation. <i>Journal Physics D: Applied Physics</i> , 2010 , 43, 085303	3	38
324	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
323	Direct observations of thermally induced structural changes in amorphous silicon carbide. <i>Journal of Applied Physics</i> , 2008 , 104, 033503	2.5	37
322	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
321	Effect of alloying elements on defect evolution in Ni-20X binary alloys. <i>Acta Materialia</i> , 2018 , 151, 159-168	8.4	36
320	Irradiation-induced damage evolution in concentrated Ni-based alloys. <i>Acta Materialia</i> , 2017 , 135, 54-60	8.4	35
319	Suppression of vacancy cluster growth in concentrated solid solution alloys. <i>Acta Materialia</i> , 2017 , 125, 231-237	8.4	35
318	Formation and growth of stacking fault tetrahedra in Ni via vacancy aggregation mechanism. <i>Scripta Materialia</i> , 2016 , 114, 137-141	5.6	35
317	Chemical complexity induced local structural distortion in NiCoFeMnCr high-entropy alloy. <i>Materials Research Letters</i> , 2018 , 6, 450-455	7.4	35
316	Origin of radiation tolerance in 3C-SiC with nanolayered planar defects. <i>Applied Physics Letters</i> , 2013 , 103, 033104	3.4	35
315	Thermodynamic properties of CexTh1-xO2 solid solution from first-principles calculations. <i>Acta Materialia</i> , 2013 , 61, 467-476	8.4	35

314	Amorphization of nanocrystalline 3CβC irradiated with Si ⁺ ions. <i>Journal of Materials Research</i> , 2010 , 25, 2341-2348	2.5	35
313	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
312	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
311	Cooperative effect of electronic and nuclear stopping on ion irradiation damage in silica. <i>Journal of Applied Physics</i> , 2012 , 45, 505305	3	34
310	High-precision measurement of electronic stopping powers for heavy ions using high-resolution time-of-flight spectrometry. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2002 , 196, 1-15	1.2	34
309	Nuclear reaction analysis of helium migration in silicon carbide. <i>Journal of Nuclear Materials</i> , 2011 , 415, 5-12	3.3	33
308	Damage evolution on Sm and O sublattices in Au-implanted samarium titanate pyrochlore. <i>Journal of Applied Physics</i> , 2004 , 95, 2866-2872	2.5	33
307	Trapping and diffusion of fission products in ThO ₂ and CeO ₂ . <i>Journal of Nuclear Materials</i> , 2011 , 414, 464-470	3.3	32
306	Direct evidence of N aggregation and diffusion in Au ⁺ irradiated GaN. <i>Applied Physics Letters</i> , 2006 , 89, 021903	3.4	32
305	Damage accumulation and defect relaxation in 4HβC. <i>Physical Review B</i> , 2004 , 70,	3.3	32
304	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
303	Impact of segregation energetics on oxygen conductivity at ionic grain boundaries. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 1704-1709	13	31
302	Ab initio molecular dynamics simulations of ion-solid interactions in Gd ₂ Zr ₂ O ₇ and Gd ₂ Ti ₂ O ₇ . <i>Journal of Materials Chemistry C</i> , 2013 , 1, 1665	7.1	31
301	Oxygen transport studies in nanocrystalline ceria films. <i>Journal of Materials Research</i> , 2005 , 20, 1295-1299	2.5	31
300	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
299	Electronic stopping powers for heavy ions in SiC and SiO ₂ . <i>Journal of Applied Physics</i> , 2014 , 115, 044903	2.5	30
298	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
297	Strain-Induced Phase and Oxygen-Vacancy Stability in Ionic Interfaces from First-Principles Calculations. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 30139-30144	3.8	30

296	Dynamic recovery in silicate-apatite structures under irradiation and implications for long-term immobilization of actinides. <i>RSC Advances</i> , 2012 , 2, 595-604	3.7	30
295	Effects of dynamic recovery on amorphization kinetics in 6H-SiC. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2008 , 266, 2793-2796	1.2	30
294	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
293	Effects of ion irradiation on Zr _{52.5} Cu _{17.9} Ni _{14.6} Al ₁₀ Ti ₅ (BAM-11) bulk metallic glass. <i>Intermetallics</i> , 2014 , 53, 62-66	3.5	29
292	A fast grain-growth mechanism revealed in nanocrystalline ceramic oxides. <i>Scripta Materialia</i> , 2014 , 83, 9-12	5.6	29
291	Damage evolution of yttria-stabilized zirconia induced by He irradiation. <i>Journal of Nuclear Materials</i> , 2012 , 420, 430-436	3.3	29
290	Photoluminescence of SnO ₂ nanoparticles embedded in Al ₂ O ₃ . <i>Journal Physics D: Applied Physics</i> , 2008 , 41, 225102	3	29
289	Near-surface and bulk behavior of Ag in SiC. <i>Journal of Nuclear Materials</i> , 2012 , 420, 123-130	3.3	28
288	Gamma-ray interaction in Ge: A Monte Carlo simulation. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2007 , 255, 286-290	1.2	28
287	Atomic collision and ionization effects in oxides. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2008 , 266, 2828-2833	1.2	28
286	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
285	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
284	Strain effects on oxygen vacancy energetics in KTaO ₃ . <i>Physical Chemistry Chemical Physics</i> , 2017 , 19, 6264-6273	3.6	27
283	Enhanced void swelling in NiCoFeCrPd high-entropy alloy by indentation-induced dislocations. <i>Materials Research Letters</i> , 2018 , 6, 584-591	7.4	27
282	Unique Challenges for Modeling Defect Dynamics in Concentrated Solid-Solution Alloys. <i>Jom</i> , 2017 , 69, 2084-2091	2.1	27
281	Ion-beam-induced chemical disorder in GaN. <i>Journal of Applied Physics</i> , 2009 , 106, 053513	2.5	27
280	Electronic stopping powers for heavy ions in silicon. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2004 , 215, 48-56	1.2	27
279	Electronic stopping of He, B, N, and Al in SiC. <i>Applied Physics Letters</i> , 2003 , 83, 1665-1667	3.4	27

278	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
277	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
276	Strained Ionic Interfaces: Effect on Oxygen Diffusivity from Atomistic Simulations. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 4207-4212	3.8	26
275	Stability and migration of charged oxygen interstitials in ThO ₂ and CeO ₂ . <i>Acta Materialia</i> , 2013 , 61, 7639-7645	7.6	26
274	Damage processes in MgO irradiated with medium-energy heavy ions. <i>Acta Materialia</i> , 2015 , 88, 314-322	8.4	26
273	Ab initio study of point defects near stacking faults in 3C-SiC. <i>Computational Materials Science</i> , 2016 , 123, 131-138	3.2	26
272	Structure and band gap determination of irradiation-induced amorphous nano-channels in LiNbO ₃ . <i>Journal of Applied Physics</i> , 2015 , 117, 135902	2.5	25
271	Controllable shrinking and shaping of silicon nitride nanopores under electron irradiation. <i>Applied Physics Letters</i> , 2007 , 90, 163102	3.4	25
270	Thermal stability and irradiation response of nanocrystalline CoCrCuFeNi high-entropy alloy. <i>Nanotechnology</i> , 2019 , 30, 294004	3.4	24
269	Ferromagnetism and nonmetallic transport of thin-film FeSi(2): a stabilized metastable material. <i>Physical Review Letters</i> , 2015 , 114, 147202	7.4	24
268	Effects of chemical alternation on damage accumulation in concentrated solid-solution alloys. <i>Scientific Reports</i> , 2017 , 7, 4146	4.9	24
267	Ab initio molecular dynamics simulations of ion-solid interactions in zirconate pyrochlores. <i>Acta Materialia</i> , 2015 , 87, 273-282	8.4	24
266	Lattice distortions and oxygen vacancies produced in Au ⁺ -irradiated nanocrystalline cubic zirconia. <i>Scripta Materialia</i> , 2011 , 65, 675-678	5.6	24
265	Irradiation behavior of SrTiO ₃ at temperatures close to the critical temperature for amorphization. <i>Journal of Applied Physics</i> , 2006 , 100, 113533	2.5	24
264	Ion beam analysis of irradiation effects in 6H-SiC. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2003 , 207, 92-99	1.2	24
263	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
262	Frenkel defect recombination in Ni and Ni-containing concentrated solid-solution alloys. <i>Acta Materialia</i> , 2019 , 173, 184-194	8.4	23
261	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

260	Investigation of oxygen point defects in cubic ZrO ₂ by density functional theory. <i>Computational Materials Science</i> , 2014 , 92, 22-27	3.2	23
259	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, Study of intrinsic defects in 3C-SiC using first-principles calculation with a hybrid functional. <i>Journal of Chemical Physics</i> , 2013 , 139, 124707	7.4	23
258	Study of intrinsic defects in 3C-SiC using first-principles calculation with a hybrid functional. <i>Journal of Chemical Physics</i> , 2013 , 139, 124707	3.9	23
257	Behavior of Si and C atoms in ion amorphized SiC. <i>Journal of Applied Physics</i> , 2007 , 101, 023524	2.5	23
256	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
255	Recent Advances on Carrier and Exciton Self-Trapping in Strontium Titanate: Understanding the Luminescence Emissions. <i>Crystals</i> , 2019 , 9, 95	2.3	22
254	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
253	Predictive modeling of synergistic effects in nanoscale ion track formation. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 22538-42	3.6	22
252	GeV ion irradiation of NiFe and NiCo: Insights from MD simulations and experiments. <i>Acta Materialia</i> , 2018 , 151, 191-200	8.4	22
251	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
250	Measurement of electronic stopping power of swift heavy ions using high-resolution time-of-flight spectrometer. <i>Applied Physics Letters</i> , 2002 , 80, 4662-4664	3.4	22
249	Amorphization due to electronic energy deposition in defective strontium titanate. <i>Acta Materialia</i> , 2017 , 127, 400-406	8.4	21
248	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
247	He behavior in Ni and Ni-based equiatomic solid solution alloy. <i>Journal of Nuclear Materials</i> , 2018 , 505, 200-206	3.3	21
246	Thermal evolution of microstructure in ion-irradiated GaN. <i>Journal of Applied Physics</i> , 2009 , 105, 083514	2.5	21
245	Microstructural features of Al-implanted 4HSiC. <i>Journal of Materials Research</i> , 2003 , 18, 772-779	2.5	21
244	Measurements of the mean energy-loss of swift heavy ions in carbon with high precision. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2001 , 183, 34-47	1.2	21
243	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

242	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
241	Enhanced structural stability of nanoporous zirconia under irradiation of He. <i>Journal of Nuclear Materials</i> , 2012 , 427, 225-232	3.3	20
240	Irradiation-induced microstructural change in helium-implanted single crystal and nano-engineered SiC. <i>Journal of Nuclear Materials</i> , 2014 , 453, 280-286	3.3	20
239	Direct observation of ion-irradiation-induced chemical mixing. <i>Journal of Nuclear Materials</i> , 2011 , 418, 106-109	3.3	20
238	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
237	Ion distribution and electronic stopping power for Au ions in silicon carbide. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2013 , 307, 65-70	1.2	19
236	Evolution of irradiation-induced strain in an equiatomic NiFe alloy. <i>Scripta Materialia</i> , 2017 , 140, 35-39	5.6	19
235	Response of Si p-i-n diode and Au/n-Si surface barrier detector to heavy ions. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2002 , 190, 383-386	1.2	19
234	Microstructure of precipitated Au nanoclusters in TiO ₂ . <i>Journal of Applied Physics</i> , 2004 , 95, 8185-8193	2.5	19
233	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
232	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
231	Diffusion of point defects in ordered and disordered NiBe alloys. <i>Journal of Alloys and Compounds</i> , 2019 , 805, 1175-1183	5.7	18
230	Electronic stopping powers in silicon carbide. <i>Physical Review B</i> , 2004 , 69,	3.3	18
229	Damage accumulation and amorphization in samarium titanate pyrochlore. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2004 , 218, 89-94	1.2	18
228	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
227	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
226	Structural phase transitions in high-pressure wurtzite to rocksalt phase in GaN and SiC. <i>Applied Physics Letters</i> , 2008 , 92, 241909	3.4	17
225	Fundamental effects and non-linear Si detector response. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2002 , 190, 375-378	1.2	17

224	Influence of nanostructure on electrical and mechanical properties for Cu implanted PET. <i>Surface and Coatings Technology</i> , 2001 , 148, 221-225	4.4	17
223	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
222	Tunable chemical complexity to control atomic diffusion in alloys. <i>Npj Computational Materials</i> , 2020 , 6,	10.9	16
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