Hongbin Bei

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.

262 19,424 59 135 h-index g-index citations papers 6.1 265 7.18 23,720 L-index avg, IF ext. citations ext. papers

#	Paper	IF	Citations
262	Long-term tensile creep behavior of a family of FCC-structured multi-component equiatomic solid solution alloys. <i>Scripta Materialia</i> , 2022 , 212, 114556	5.6	O
261	Physical Properties of High Entropy Alloys 2022 , 474-483		
260	Role of Chemical Disorder on Radiation-Induced Defect Production and Damage Evolution in NiFeCoCr. <i>Journal of Nuclear Materials</i> , 2022 , 153689	3.3	O
259	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
258	Competitive deformation induced by TCP precipitation and creep inconsistency on dendritic structures in a nickel-based single crystal superalloy crept at high temperatures. <i>Materials Characterization</i> , 2022 , 187, 111855	3.9	O
257	Microstructures and mechanical properties of VI/3Si eutectic composites. <i>International Journal of Materials Research</i> , 2022 , 95, 505-512	0.5	1
256	Design considerations for high entropy alloys in advanced nuclear applications. <i>Journal of Nuclear Materials</i> , 2022 , 567, 153814	3.3	4
255	Diffusion-mediated chemical concentration variation and void evolution in ion-irradiated NiCoFeCr high-entropy alloy 2021 , 36, 298		3
254	Microstructural rejuvenation in a Ni-based single crystal superalloy. <i>Materials Today Nano</i> , 2021 , 17, 100	1557	2
253	The dynamic evolution of swelling in nickel concentrated solid solution alloys through in it is property monitoring. <i>Applied Materials Today</i> , 2021 , 25, 101187	6.6	2
252	Formative and controlled mechanisms of nano-sized 2 precipitates with local phase-transition within dislocation networks of nickel-based single crystal superalloys. <i>Acta Materialia</i> , 2021 , 206, 11665	3 ^{8.4}	8
251	Comparative irradiation response of an austenitic stainless steel with its high-entropy alloy counterpart. <i>Intermetallics</i> , 2021 , 132, 107130	3.5	6
250	Micromechanical origin of the enhanced ductility in twinless duplex Mg[ii alloy. <i>Materials Science & Materials Science and Processing A: Structural Materials: Properties, Microstructure and Processing</i> , 2021 , 815, 141305	5.3	3
249	Hydrogen-enhanced compatibility constraint for intergranular failure in FCC FeNiCoCrMn high-entropy alloy. <i>Corrosion Science</i> , 2021 , 184, 109407	6.8	7
248	Nano-twin-induced exceptionally superior cryogenic mechanical properties of a Ni-based GH3536 (Hastelloy X) superalloy. <i>Materials Today Nano</i> , 2021 , 14, 100110	9.7	8
247	Temperature effects on deformation substructures and mechanisms of a Ni-based single crystal superalloy. <i>Applied Materials Today</i> , 2021 , 23, 101061	6.6	9
246	Origin of strong solid solution strengthening in the CrCoNi-W medium entropy alloy. <i>Journal of Materials Science and Technology</i> , 2021 , 73, 101-107	9.1	14

245	STEM Characterization of Dislocation Loops in Irradiated FCC Alloys. <i>Journal of Nuclear Materials</i> , 2021 , 544, 152658	3.3	10	
244	Origin of increased helium density inside bubbles in Ni(1☑)Fe alloys. <i>Scripta Materialia</i> , 2021 , 191, 1-6	5.6	6	
243	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	
242	Discrete twinning dynamics and size-dependent dislocation-to twin transition in body-centred cubic tungsten. <i>Journal of Materials Science and Technology</i> , 2021 , 106, 33-33	9.1	2	
241	Compositional variations in equiatomic CrMnFeCoNi high-entropy alloys. <i>Materials Characterization</i> , 2021 , 180, 111437	3.9	3	
240	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	
239	Inconsistent creep between dendrite core and interdendritic region under different degrees of elemental inhomogeneity in nickel-based single crystal superalloys. <i>Journal of Materials Science and Technology</i> , 2021 , 92, 88-97	9.1	3	
238	Strengthening in Al-, Mo- or Ti-doped CoCrFeNi high entropy alloys: A parallel comparison. <i>Journal of Materials Science and Technology</i> , 2021 , 94, 264-274	9.1	13	
237	An in situ ambient and cryogenic transmission electron microscopy study of the effects of temperature on dislocation behavior in CrCoNi-based high-entropy alloys with low stacking-fault energy. <i>Applied Physics Letters</i> , 2021 , 119, 261903	3.4	0	
236	Bulk and element-specific magnetism of medium-entropy and high-entropy Cantor-Wu alloys. <i>Physical Review B</i> , 2020 , 102,	3.3	5	
235	Effects of irradiation spectrum on the microstructural and mechanical properties of bulk metallic glasses. <i>Journal of Nuclear Materials</i> , 2020 , 533, 152084	3.3	1	
234	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	
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	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	
231	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	
230	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	
229	Interpreting nanovoids in atom probe tomography data for accurate local compositional measurements. <i>Nature Communications</i> , 2020 , 11, 1022	17.4	16	
228	Extreme Fermi Surface Smearing in a Maximally Disordered Concentrated Solid Solution. <i>Physical Review Letters</i> , 2020 , 124, 046402	7.4	8	

227	Real-time observations of TRIP-induced ultrahigh strain hardening in a dual-phase CrMnFeCoNi high-entropy alloy. <i>Nature Communications</i> , 2020 , 11, 826	17.4	72
226	Unfolding the complexity of phonon quasi-particle physics in disordered materials. <i>Npj Computational Materials</i> , 2020 , 6,	10.9	7
225	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
224	Site occupancy of alloying elements in I phase of nickel-base single crystal superalloys. <i>Intermetallics</i> , 2020 , 121, 106772	3.5	8
223	Tensile creep behavior of an equiatomic CoCrNi medium entropy alloy. <i>Intermetallics</i> , 2020 , 121, 10677	53.5	11
222	Defect evolution in Ni and solid-solution alloys of NiFe and NiFeCoCr under ion irradiation at 16 and 300 K. <i>Journal of Nuclear Materials</i> , 2020 , 534, 152138	3.3	4
221	On the Room-Temperature Mechanical Properties of an Ion-Irradiated TiZrNbHfTa Refractory High Entropy Alloy. <i>Jom</i> , 2020 , 72, 130-138	2.1	19
220	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
219	Investigation of the mechanical and microstructural evolution of a Cu based bulk metallic glass during ion irradiation. <i>Intermetallics</i> , 2020 , 116, 106655	3.5	6
218	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
217	From suppressed void growth to significant void swelling in NiCoFeCr complex concentrated solid-solution alloy. <i>Materialia</i> , 2020 , 9, 100603	3.2	15
216	Processing, Microstructures and Mechanical Properties of a Ni-Based Single Crystal Superalloy. <i>Crystals</i> , 2020 , 10, 572	2.3	8
215	Micromechanical investigation of the role of percolation on ductility enhancement in metallic glass composites. <i>Materials Science & amp; Engineering A: Structural Materials: Properties, Microstructure and Processing,</i> 2020, 769, 138531	5.3	5
214	Chemical effects on He bubble superlattice formation in high entropy alloys. <i>Current Opinion in Solid State and Materials Science</i> , 2019 , 23, 100762	12	13
213	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
212	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
211	On the onset of deformation twinning in the CrFeMnCoNi high-entropy alloy using a novel tensile specimen geometry. <i>Intermetallics</i> , 2019 , 110, 106469	3.5	15
210	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

209	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
208	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
207	Transformation pathway from alpha to omega and texture evolution in Zr via high-pressure torsion. <i>Applied Physics Letters</i> , 2019 , 114, 061903	3.4	4
206	Shape-preserving machining produces gradient nanolaminate medium entropy alloys with high strain hardening capability. <i>Acta Materialia</i> , 2019 , 170, 176-186	8.4	27
205	Real-time nanoscale observation of deformation mechanisms in CrCoNi-based medium- to high-entropy alloys at cryogenic temperatures. <i>Materials Today</i> , 2019 , 25, 21-27	21.8	81
204	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
203	A comparative characterization of defect structure in NiCo and NiFe equimolar solid solution alloys under in situ electron irradiation. <i>Scripta Materialia</i> , 2019 , 166, 96-101	5.6	3
202	Influence of irradiation temperature on void swelling in NiCoFeCrMn and NiCoFeCrPd. <i>Scripta Materialia</i> , 2019 , 158, 57-61	5.6	45
201	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
200	Optical conductivity of metal alloys with residual resistivities near or above the Mott-Ioffe-Regel limit. <i>Physical Review B</i> , 2019 , 100,	3.3	4
199	Evolution of the microstructural and mechanical properties of BAM-11 bulk metallic glass during ion irradiation and annealing. <i>Journal of Nuclear Materials</i> , 2019 , 523, 299-309	3.3	21
198	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
197	Plastic deformation mechanism of TiNbITaIrD alloy at cryogenic temperatures. <i>Materials Science & Materials A: Structural Materials: Properties, Microstructure and Processing</i> , 2019 , 765, 138293	5.3	5
196	Investigation of the thermal and neutron irradiation response of BAM-11 bulk metallic glass. <i>Journal of Nuclear Materials</i> , 2019 , 526, 151771	3.3	23
195	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
194	Tuning element distribution, structure and properties by composition in high-entropy alloys. <i>Nature</i> , 2019 , 574, 223-227	50.4	404
193	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
192	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

191	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
190	Microstructures and mechanical properties of a welded CoCrFeMnNi high-entropy alloy. <i>Science and Technology of Welding and Joining</i> , 2018 , 23, 585-595	3.7	44
189	Extremely hard amorphous-crystalline hybrid steel surface produced by deformation induced cementite amorphization. <i>Acta Materialia</i> , 2018 , 152, 107-118	8.4	12
188	Effect of alloying elements on defect evolution in Ni-20X binary alloys. <i>Acta Materialia</i> , 2018 , 151, 159-	1684	36
187	Fabrication of highly dense isotropic Nd-Fe-B nylon bonded magnets via extrusion-based additive manufacturing. <i>Additive Manufacturing</i> , 2018 , 21, 495-500	6.1	35
186	Radiation-induced extreme elastic and inelastic interactions in concentrated solid solutions. <i>Materials and Design</i> , 2018 , 150, 1-8	8.1	11
185	Mechanical rejuvenation in bulk metallic glass induced by thermo-mechanical creep. <i>Acta Materialia</i> , 2018 , 148, 384-390	8.4	37
184	Evolution of ion damage at 773K in Ni- containing concentrated solid-solution alloys. <i>Journal of Nuclear Materials</i> , 2018 , 501, 132-142	3.3	25
183	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
182	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
181	GeV ion irradiation of NiFe and NiCo: Insights from MD simulations and experiments. <i>Acta Materialia</i> , 2018 , 151, 191-200	8.4	22
180	Microband induced plasticity and the temperature dependence of the mechanical properties of a carbon-doped FeNiMnAlCr high entropy alloy. <i>Materials Characterization</i> , 2018 , 139, 373-381	3.9	25
179	Influence of compositional complexity on interdiffusion in Ni-containing concentrated solid-solution alloys. <i>Materials Research Letters</i> , 2018 , 6, 293-299	7.4	36
178	Quantifying early stage irradiation damage from nanoindentation pop-in tests. <i>Scripta Materialia</i> , 2018 , 157, 49-53	5.6	12
177	Enhanced strength and ductility of a tungsten-doped CoCrNi medium-entropy alloy. <i>Journal of Materials Research</i> , 2018 , 33, 3301-3309	2.5	31
176	Single-Phase Concentrated Solid-Solution Alloys: Bridging Intrinsic Transport Properties and Irradiation Resistance. <i>Frontiers in Materials</i> , 2018 , 5,	4	31
175	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
174	A comparison study of local lattice distortion in Ni80Pd20 binary alloy and FeCoNiCrPd high-entropy alloy. <i>Scripta Materialia</i> , 2018 , 156, 14-18	5.6	28

173	Hydrogen embrittlement of the equi-molar FeNiCoCr alloy. Acta Materialia, 2018, 157, 218-227	8.4	35
172	Enhanced void swelling in NiCoFeCrPd high-entropy alloy by indentation-induced dislocations. <i>Materials Research Letters</i> , 2018 , 6, 584-591	7.4	27
171	Chemical complexity induced local structural distortion in NiCoFeMnCr high-entropy alloy. <i>Materials Research Letters</i> , 2018 , 6, 450-455	7.4	35
170	Improvement of mechanical behaviors of a superlight Mg-Li base alloy by duplex phases and fine precipitates. <i>Journal of Alloys and Compounds</i> , 2018 , 735, 2625-2633	5.7	58
169	Hydrogen embrittlement in compositionally complex FeNiCoCrMn FCC solid solution alloy. <i>Current Opinion in Solid State and Materials Science</i> , 2018 , 22, 1-7	12	58
168	Phase stability of single phase Al0.12CrNiFeCo high entropy alloy upon irradiation. <i>Materials and Design</i> , 2018 , 160, 1208-1216	8.1	30
167	Lattice Distortion and Phase Stability of Pd-Doped NiCoFeCr Solid-Solution Alloys. <i>Entropy</i> , 2018 , 20,	2.8	14
166	Deformation mechanisms and work-hardening behavior of transformation-induced plasticity high entropy alloys by in -situ neutron diffraction. <i>Materials Research Letters</i> , 2018 , 6, 620-626	7.4	25
165	Predictive multiphase evolution in Al-containing high-entropy alloys. <i>Nature Communications</i> , 2018 , 9, 4520	17.4	66
164	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
163	Local lattice distortion in NiCoCr, FeCoNiCr and FeCoNiCrMn concentrated alloys investigated by synchrotron X-ray diffraction. <i>Materials and Design</i> , 2018 , 155, 1-7	8.1	50
162	In situ neutron diffraction study on tensile deformation behavior of carbon-strengthened CoCrFeMnNi high-entropy alloys at room and elevated temperatures. <i>Journal of Materials Research</i> , 2018 , 33, 3192-3203	2.5	6
161	Evolution of local lattice distortion under irradiation in medium- and high-entropy alloys. <i>Materialia</i> , 2018 , 2, 73-81	3.2	46
160	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
159	Radiation-induced segregation on defect clusters in single-phase concentrated solid-solution alloys. <i>Acta Materialia</i> , 2017 , 127, 98-107	8.4	128
158	Dislocation mechanisms and 3D twin architectures generate exceptional strength-ductility-toughness combination in CrCoNi medium-entropy alloy. <i>Nature Communications</i> , 2017 , 8, 14390	17.4	231
157	Intrinsic properties and strengthening mechanism of monocrystalline Ni-containing ternary concentrated solid solutions. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017 , 695, 74-79	5.3	29
156	X-ray absorption investigation of local structural disorder in Ni1-xFex (x = 0.10, 0.20, 0.35, and 0.50) alloys. <i>Journal of Applied Physics</i> , 2017 , 121, 165105	2.5	2

155	The evolution of the deformation substructure in a Ni-Co-Cr equiatomic solid solution alloy. <i>Acta Materialia</i> , 2017 , 132, 35-48	8.4	223
154	Twinning-mediated work hardening and texture evolution in CrCoFeMnNi high entropy alloys at cryogenic temperature. <i>Materials and Design</i> , 2017 , 131, 419-427	8.1	41
153	Irradiation-induced damage evolution in concentrated Ni-based alloys. Acta Materialia, 2017, 135, 54-60	8.4	35
152	High pressure synthesis of a hexagonal close-packed phase of the high-entropy alloy CrMnFeCoNi. <i>Nature Communications</i> , 2017 , 8, 15634	17.4	177
151	Indentation Schmid factor and incipient plasticity by nanoindentation pop-in tests in hexagonal close-packed single crystals. <i>Acta Materialia</i> , 2017 , 134, 53-65	8.4	25
150	Impact of alloy composition on one-dimensional glide of small dislocation loops in concentrated solid solution alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017 , 700, 617-621	5.3	18
149	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
148	Mechanisms of radiation-induced segregation in CrFeCoNi-based single-phase concentrated solid solution alloys. <i>Acta Materialia</i> , 2017 , 126, 182-193	8.4	102
147	Thermophysical properties of Ni-containing single-phase concentrated solid solution alloys. <i>Materials and Design</i> , 2017 , 117, 185-192	8.1	69
146	Suppression of vacancy cluster growth in concentrated solid solution alloys. <i>Acta Materialia</i> , 2017 , 125, 231-237	8.4	35
145	Probing elastically or plastically induced structural heterogeneities in bulk metallic glasses by nanoindentation pop-in tests. <i>AIP Advances</i> , 2017 , 7, 085216	1.5	3
144	Understanding of the Elemental Diffusion Behavior in Concentrated Solid Solution Alloys. <i>Journal of Phase Equilibria and Diffusion</i> , 2017 , 38, 434-444	1	49
143	Microstructural control of FeCrAl alloys using Mo and Nb additions. <i>Materials Characterization</i> , 2017 , 132, 126-131	3.9	47
142	Phase stability, physical properties and strengthening mechanisms of concentrated solid solution alloys. <i>Current Opinion in Solid State and Materials Science</i> , 2017 , 21, 267-284	12	48
141	STEM Characterization of the Deformation Substructure of a NiCoCr Equiatomic Solid Solution Alloy. <i>Microscopy and Microanalysis</i> , 2017 , 23, 752-753	0.5	1
140	Evolution of irradiation-induced strain in an equiatomic NiFe alloy. <i>Scripta Materialia</i> , 2017 , 140, 35-39	5.6	19
139	Effects of chemical alternation on damage accumulation in concentrated solid-solution alloys. <i>Scientific Reports</i> , 2017 , 7, 4146	4.9	24
138	Local Structure and Short-Range Order in a NiCoCr Solid Solution Alloy. <i>Physical Review Letters</i> , 2017 , 118, 205501	7.4	156

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137	Quantum critical behavior in the asymptotic limit of high disorder in the medium entropy alloy NiCoCr0.8. <i>Npj Quantum Materials</i> , 2017 , 2,	5	13
136	Thermal activation mechanisms and Labusch-type strengthening analysis for a family of high-entropy and equiatomic solid-solution alloys. <i>Acta Materialia</i> , 2016 , 120, 108-119	8.4	161
135	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
134	Mechanism of Radiation Damage Reduction in Equiatomic Multicomponent Single Phase Alloys. <i>Physical Review Letters</i> , 2016 , 116, 135504	7.4	250
133	Instability Analysis and Free Volume Simulations of Shear Band Directions and Arrangements in Notched Metallic Glasses. <i>Scientific Reports</i> , 2016 , 6, 34878	4.9	17
132	Quantum Critical Behavior in a Concentrated Ternary Solid Solution. <i>Scientific Reports</i> , 2016 , 6, 26179	4.9	36
131	Strength statistics of single crystals and metallic glasses under small stressed volumes. <i>Progress in Materials Science</i> , 2016 , 82, 118-150	42.2	59
130	Phase-specific deformation behavior of a NiAltr(Mo) lamellar composite under thermal and mechanical loads. <i>Journal of Alloys and Compounds</i> , 2016 , 656, 481-490	5.7	22
129	Investigation of defect clusters in ion-irradiated Ni and NiCo using diffuse X-ray scattering and electron microscopy. <i>Journal of Nuclear Materials</i> , 2016 , 469, 153-161	3.3	20
128	Exceptional damage-tolerance of a medium-entropy alloy CrCoNi at cryogenic temperatures. <i>Nature Communications</i> , 2016 , 7, 10602	17.4	711
127	Formation and growth of stacking fault tetrahedra in Ni via vacancy aggregation mechanism. <i>Scripta Materialia</i> , 2016 , 114, 137-141	5.6	35
126	A tale of two mechanisms: Strain-softening versus strain-hardening in single crystals under small stressed volumes. <i>Scripta Materialia</i> , 2016 , 110, 48-52	5.6	23
125	Weldability of a high entropy CrMnFeCoNi alloy. Scripta Materialia, 2016, 124, 81-85	5.6	97
124	Effects of two-temperature model on cascade evolution in Ni and NiFe. <i>Scripta Materialia</i> , 2016 , 124, 6-10	5.6	37
123	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
122	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
121	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
120	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

119	Ion irradiation induced defect evolution in Ni and Ni-based FCC equiatomic binary alloys. <i>Journal of Nuclear Materials</i> , 2016 , 471, 193-199	3.3	41
118	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
117	Annealing effects on the structural and magnetic properties of off-stoichiometric Fe-Mn-Ga ferromagnetic shape memory alloys. <i>Materials and Design</i> , 2016 , 104, 327-332	8.1	14
116	Microstructural stability and mechanical behavior of FeNiMnCr high entropy alloy under ion irradiation. <i>Acta Materialia</i> , 2016 , 113, 230-244	8.4	305
115	Effects of geometric factors and shear band patterns on notch sensitivity in bulk metallic glasses. <i>Intermetallics</i> , 2016 , 79, 12-19	3.5	26
114	Nanocrystallization in a Cu-doped Fe-based metallic glass. <i>Journal of Alloys and Compounds</i> , 2016 , 688, 822-827	5.7	11
113	Single versus successive pop-in modes in nanoindentation tests of single crystals. <i>Journal of Materials Research</i> , 2016 , 31, 2065-2075	2.5	10
112	Enhanced damage resistance and novel defect structure of CrFeCoNi under in situ electron irradiation. <i>Scripta Materialia</i> , 2016 , 125, 5-9	5.6	42
111	Characterization of dislocation structures and deformation mechanisms in as-grown and deformed directionally solidified NiAlMo composites. <i>Acta Materialia</i> , 2015 , 89, 315-326	8.4	15
110	Single crystal plastic behavior of a single-phase, face-center-cubic-structured, equiatomic FeNiCrCo alloy. <i>Scripta Materialia</i> , 2015 , 109, 108-112	5.6	51
109	Deformation-induced spatiotemporal fluctuation, evolution and localization of strain fields in a bulk metallic glass. <i>International Journal of Plasticity</i> , 2015 , 71, 136-145	7.6	40
108	The role of processing route on the microstructure of 14YWT nanostructured ferritic alloy. <i>Journal of Nuclear Materials</i> , 2015 , 465, 204-211	3.3	9
107	Nano-twin mediated plasticity in carbon-containing FeNiCoCrMn high entropy alloys. <i>Journal of Alloys and Compounds</i> , 2015 , 647, 815-822	5.7	212
106	Processing, Microstructure and Mechanical Properties of the CrMnFeCoNi High-Entropy Alloy. <i>Jom</i> , 2015 , 67, 2262-2270	2.1	135
105	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
104	The effects of annealing on the microstructure and mechanical properties of Fe28Ni18Mn33Al21. <i>Journal of Materials Science</i> , 2015 , 50, 7821-7834	4.3	4
103	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
102	On the correlation between microscopic structural heterogeneity and embrittlement behavior in metallic glasses. <i>Scientific Reports</i> , 2015 , 5, 14786	4.9	60

(2013-2015)

	101	Microstructures and mechanical properties of compositionally complex Co-Free FeNiMnCr18 FCC solid solution alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015 , 640, 217-224	5.3	75
	100	Nanoscale origins of the damage tolerance of the high-entropy alloy CrMnFeCoNi. <i>Nature Communications</i> , 2015 , 6, 10143	17.4	451
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