

Hongbin Bei

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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
papers

19,424
citations

59
h-index

135
g-index

265
ext. papers

23,720
ext. citations

6.1
avg, IF

7.18
L-index

#	Paper	IF	Citations
262	A fracture-resistant high-entropy alloy for cryogenic applications. <i>Science</i> , 2014 , 345, 1153-8	33.3	2700
261	The influences of temperature and microstructure on the tensile properties of a CoCrFeMnNi high-entropy alloy. <i>Acta Materialia</i> , 2013 , 61, 5743-5755	8.4	1612
260	Temperature dependence of the mechanical properties of equiatomic solid solution alloys with face-centered cubic crystal structures. <i>Acta Materialia</i> , 2014 , 81, 428-441	8.4	901
259	Relative effects of enthalpy and entropy on the phase stability of equiatomic high-entropy alloys. <i>Acta Materialia</i> , 2013 , 61, 2628-2638	8.4	774
258	Exceptional damage-tolerance of a medium-entropy alloy CrCoNi at cryogenic temperatures. <i>Nature Communications</i> , 2016 , 7, 10602	17.4	711
257	Recovery, recrystallization, grain growth and phase stability of a family of FCC-structured multi-component equiatomic solid solution alloys. <i>Intermetallics</i> , 2014 , 46, 131-140	3.5	507
256	Nanoscale origins of the damage tolerance of the high-entropy alloy CrMnFeCoNi. <i>Nature Communications</i> , 2015 , 6, 10143	17.4	451
255	Tuning element distribution, structure and properties by composition in high-entropy alloys. <i>Nature</i> , 2019 , 574, 223-227	50.4	404
254	Softening caused by profuse shear banding in a bulk metallic glass. <i>Physical Review Letters</i> , 2006 , 96, 105503	7.4	346
253	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
252	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
251	Microstructural stability and mechanical behavior of FeNiMnCr high entropy alloy under ion irradiation. <i>Acta Materialia</i> , 2016 , 113, 230-244	8.4	305
250	Effects of pre-strain on the compressive stress-strain response of Mo-alloy single-crystal micropillars. <i>Acta Materialia</i> , 2008 , 56, 4762-4770	8.4	263
249	Mechanism of Radiation Damage Reduction in Equiatomic Multicomponent Single Phase Alloys. <i>Physical Review Letters</i> , 2016 , 116, 135504	7.4	250
248	Compressive strengths of molybdenum alloy micro-pillars prepared using a new technique. <i>Scripta Materialia</i> , 2007 , 57, 397-400	5.6	248
247	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
246	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

245	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
244	Microstructures and mechanical properties of a directionally solidified NiAlMo eutectic alloy. <i>Acta Materialia</i> , 2005 , 53, 69-77	8.4	205
243	A different type of indentation size effect. <i>Scripta Materialia</i> , 2008 , 59, 1095-1098	5.6	202
242	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
241	Flow serration in a Zr-based bulk metallic glass in compression at low strain rates. <i>Intermetallics</i> , 2008 , 16, 813-818	3.5	175
240	Effects of focused ion beam milling on the compressive behavior of directionally solidified micropillars and the nanoindentation response of an electropolished surface. <i>Acta Materialia</i> , 2009 , 57, 503-510	8.4	174
239	Influence of indenter tip geometry on elastic deformation during nanoindentation. <i>Physical Review Letters</i> , 2005 , 95, 045501	7.4	172
238	Theoretical strength and the onset of plasticity in bulk metallic glasses investigated by nanoindentation with a spherical indenter. <i>Physical Review Letters</i> , 2004 , 93, 125504	7.4	162
237	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
236	Local Structure and Short-Range Order in a NiCoCr Solid Solution Alloy. <i>Physical Review Letters</i> , 2017 , 118, 205501	7.4	156
235	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
234	Size effects and stochastic behavior of nanoindentation pop in. <i>Physical Review Letters</i> , 2011 , 106, 165502	7.4	155
233	Strength differences arising from homogeneous versus heterogeneous dislocation nucleation. <i>Physical Review B</i> , 2008 , 77,	3.3	152
232	Processing, Microstructure and Mechanical Properties of the CrMnFeCoNi High-Entropy Alloy. <i>Jom</i> , 2015 , 67, 2262-2270	2.1	135
231	Grain-boundary strengthening in nanocrystalline chromium and the Hall-Petch coefficient of body-centered cubic metals. <i>Scripta Materialia</i> , 2013 , 68, 118-121	5.6	135
230	Effects of focused ion beam milling on the nanomechanical behavior of a molybdenum-alloy single crystal. <i>Applied Physics Letters</i> , 2007 , 91, 111915	3.4	130
229	Radiation-induced segregation on defect clusters in single-phase concentrated solid-solution alloys. <i>Acta Materialia</i> , 2017 , 127, 98-107	8.4	128
228	Dislocation starvation and exhaustion hardening in Mo alloy nanofibers. <i>Acta Materialia</i> , 2012 , 60, 2258-2264	8.4	125

227	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
226	Investigation of strain-induced martensitic transformation in metastable austenite using nanoindentation. <i>Scripta Materialia</i> , 2010 , 63, 540-543	5.6	121
225	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
224	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
223	The development of alumina-forming austenitic stainless steels for high-temperature structural use. <i>Jom</i> , 2008 , 60, 12-18	2.1	97
222	Weldability of a high entropy CrMnFeCoNi alloy. <i>Scripta Materialia</i> , 2016 , 124, 81-85	5.6	97
221	Overview of Strategies for High-Temperature Creep and Oxidation Resistance of Alumina-Forming Austenitic Stainless Steels. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2011 , 42, 922-931	2.3	96
220	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
219	Effect of residual stresses on the hardness of bulk metallic glasses. <i>Acta Materialia</i> , 2011 , 59, 2858-2864	8.4	92
218	Recent progress in quantifying glass-forming ability of bulk metallic glasses. <i>Intermetallics</i> , 2007 , 15, 618-624	3.5	85
217	Indentation Schmid factor and orientation dependence of nanoindentation pop-in behavior of NiAl single crystals. <i>Journal of the Mechanics and Physics of Solids</i> , 2011 , 59, 1147-1162	5	82
216	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
215	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
214	Increased time-dependent room temperature plasticity in metallic glass nanopillars and its size-dependency. <i>International Journal of Plasticity</i> , 2012 , 37, 108-118	7.6	77
213	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
212	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
211	Structural rejuvenation in bulk metallic glasses. <i>Acta Materialia</i> , 2015 , 86, 240-246	8.4	72
210	Structural heterogeneity induced plasticity in bulk metallic glasses: From well-relaxed fragile glass to metal-like behavior. <i>Applied Physics Letters</i> , 2013 , 103, 171910	3.4	71

209	Effect of Alloying Additions on Phase Equilibria and Creep Resistance of Alumina-Forming Austenitic Stainless Steels. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2009 , 40, 1868-1880	2.3	71
208	Thermophysical properties of Ni-containing single-phase concentrated solid solution alloys. <i>Materials and Design</i> , 2017 , 117, 185-192	8.1	69
207	Predictive multiphase evolution in Al-containing high-entropy alloys. <i>Nature Communications</i> , 2018 , 9, 4520	17.4	66
206	Indentation size effect in bulk metallic glass. <i>Scripta Materialia</i> , 2011 , 64, 753-756	5.6	61
205	On the correlation between microscopic structural heterogeneity and embrittlement behavior in metallic glasses. <i>Scientific Reports</i> , 2015 , 5, 14786	4.9	60
204	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
203	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
202	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
201	On the shear-band direction in metallic glasses. <i>Acta Materialia</i> , 2011 , 59, 4159-4167	8.4	57
200	Directional solidification and microstructures of near-eutectic Cr ₃ Si alloys. <i>Acta Materialia</i> , 2003 , 51, 6241-6252	8.4	57
199	Cooling-rate induced softening in a Zr ₅₀ Cu ₅₀ bulk metallic glass. <i>Applied Physics Letters</i> , 2007 , 90, 071902	9.4	55
198	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
197	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
196	Influences of surface preparation on nanoindentation pop-in in single-crystal Mo. <i>Scripta Materialia</i> , 2011 , 65, 469-472	5.6	52
195	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
194	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
193	High-Temperature Creep and Oxidation Behavior of Mo-Si-B Alloys with High Ti Contents. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2014 , 45, 1102-1111	2.3	50
192	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

191	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
190	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
189	Determining the activation energies and slip systems for dislocation nucleation in body-centered cubic Mo and face-centered cubic Ni single crystals. <i>Scripta Materialia</i> , 2011 , 65, 179-182	5.6	48
188	Microstructural control of FeCrAl alloys using Mo and Nb additions. <i>Materials Characterization</i> , 2017 , 132, 126-131	3.9	47
187	Evolution of local lattice distortion under irradiation in medium- and high-entropy alloys. <i>Materialia</i> , 2018 , 2, 73-81	3.2	46
186	Influence of irradiation temperature on void swelling in NiCoFeCrMn and NiCoFeCrPd. <i>Scripta Materialia</i> , 2019 , 158, 57-61	5.6	45
185	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
184	Aging effects on the mechanical properties of alumina-forming austenitic stainless steels. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010 , 527, 2079-2086	5.3	44
183	A review of directionally solidified intermetallic composites for high-temperature structural applications. <i>Journal of Materials Science</i> , 2004 , 39, 3975-3984	4.3	43
182	Studies on the corrosion behavior of yttrium-implanted zircaloy-4. <i>Journal of Materials Science</i> , 2000 , 35, 6225-6229	4.3	43
181	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
180	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
179	Thermodynamic modeling and experimental study of the FeCrZr system. <i>Journal of Nuclear Materials</i> , 2013 , 441, 190-202	3.3	41
178	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
177	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
176	Effects of Ti, Zr, and Hf on the phase stability of Mo _{ss} +Mo ₃ Si+Mo ₅ SiB ₂ alloys at 1600°C. <i>Acta Materialia</i> , 2010 , 58, 541-548	8.4	39
175	Oxygen effects on plastic deformation of a Zr-based bulk metallic glass. <i>Applied Physics Letters</i> , 2008 , 92, 011915	3.4	39
174	Mechanical rejuvenation in bulk metallic glass induced by thermo-mechanical creep. <i>Acta Materialia</i> , 2018 , 148, 384-390	8.4	37

173	Effects of composition on lamellar microstructures of near-eutectic Cr ₃ Si alloys. <i>Intermetallics</i> , 2003 , 11, 283-289	3.5	37
172	Effects of two-temperature model on cascade evolution in Ni and NiFe. <i>Scripta Materialia</i> , 2016 , 124, 6-10	5.6	37
171	Effect of alloying elements on defect evolution in Ni-20X binary alloys. <i>Acta Materialia</i> , 2018 , 151, 159-168	8.4	36
170	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
169	Quantum Critical Behavior in a Concentrated Ternary Solid Solution. <i>Scientific Reports</i> , 2016 , 6, 26179	4.9	36
168	Elastic constants of single crystal Cr ₃ Si and Cr ₃ Si lamellar eutectic composites: a comparison of ultrasonic and nanoindentation measurements. <i>Scripta Materialia</i> , 2004 , 51, 875-879	5.6	36
167	Irradiation-induced damage evolution in concentrated Ni-based alloys. <i>Acta Materialia</i> , 2017 , 135, 54-60	8.4	35
166	Suppression of vacancy cluster growth in concentrated solid solution alloys. <i>Acta Materialia</i> , 2017 , 125, 231-237	8.4	35
165	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
164	Formation and growth of stacking fault tetrahedra in Ni via vacancy aggregation mechanism. <i>Scripta Materialia</i> , 2016 , 114, 137-141	5.6	35
163	Hydrogen embrittlement of the equi-molar FeNiCoCr alloy. <i>Acta Materialia</i> , 2018 , 157, 218-227	8.4	35
162	Chemical complexity induced local structural distortion in NiCoFeMnCr high-entropy alloy. <i>Materials Research Letters</i> , 2018 , 6, 450-455	7.4	35
161	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
160	Effects of focused ion beam milling and pre-straining on the microstructure of directionally solidified molybdenum pillars: A Laue diffraction analysis. <i>Scripta Materialia</i> , 2010 , 62, 746-749	5.6	34
159	An experimental evaluation of the constant $\bar{\mu}$ relating the contact stiffness to the contact area in nanoindentation. <i>Philosophical Magazine</i> , 2006 , 86, 5285-5298	1.6	34
158	Specimen Size Effects on Zr-Based Bulk Metallic Glasses Investigated by Uniaxial Compression and Spherical Nanoindentation. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2010 , 41, 1735-1742	2.3	33
157	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
156	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

155	Single-Phase Concentrated Solid-Solution Alloys: Bridging Intrinsic Transport Properties and Irradiation Resistance. <i>Frontiers in Materials</i> , 2018 , 5,	4	31
154	Phase-specific deformation behavior of a relatively tough NiAlTi(Mo) lamellar composite. <i>Scripta Materialia</i> , 2014 , 84-85, 59-62	5.6	30
153	Scale effects in convoluted thermal/spatial statistics of plasticity initiation in small stressed volumes during nanoindentation. <i>Materials Science and Technology</i> , 2012 , 28, 1055-1059	1.5	30
152	Enhanced plasticity in a Zr-based bulk metallic glass composite with in situ formed intermetallic phases. <i>Applied Physics Letters</i> , 2009 , 95, 081908	3.4	30
151	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
150	Phase stability of single phase Al _{0.12} CrNiFeCo high entropy alloy upon irradiation. <i>Materials and Design</i> , 2018 , 160, 1208-1216	8.1	30
149	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
148	Synthesis, characterization, and nanoindentation response of single crystal FeTiNi alloys with FCC and BCC structures. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014 , 611, 177-187	5.3	29
147	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
146	A comparison study of local lattice distortion in Ni ₈₀ Pd ₂₀ binary alloy and FeCoNiCrPd high-entropy alloy. <i>Scripta Materialia</i> , 2018 , 156, 14-18	5.6	28
145	A Highly Fatigue-Resistant Zr-Based Bulk Metallic Glass. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013 , 44, 5688-5693	2.3	28
144	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
143	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
142	Enhanced void swelling in NiCoFeCrPd high-entropy alloy by indentation-induced dislocations. <i>Materials Research Letters</i> , 2018 , 6, 584-591	7.4	27
141	Room temperature nanoindentation creep of nanocrystalline Cu and Cu alloys. <i>Materials Letters</i> , 2012 , 70, 26-29	3.3	26
140	Creep in directionally solidified NiAlMo eutectics. <i>Scripta Materialia</i> , 2011 , 65, 699-702	5.6	26
139	PVD synthesis and high-throughput property characterization of NiBeTi alloy libraries. <i>Measurement Science and Technology</i> , 2005 , 16, 46-53	2	26
138	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

137	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
136	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
135	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
134	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
133	Effects of chemical alternation on damage accumulation in concentrated solid-solution alloys. <i>Scientific Reports</i> , 2017 , 7, 4146	4.9	24
132	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
131	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
130	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
129	Thermal stability of Cr ₃ Si eutectic microstructures. <i>Acta Materialia</i> , 2009 , 57, 3823-3829	8.4	23
128	GeV ion irradiation of NiFe and NiCo: Insights from MD simulations and experiments. <i>Acta Materialia</i> , 2018 , 151, 191-200	8.4	22
127	Phase-specific deformation behavior of a NiAlCr(Mo) lamellar composite under thermal and mechanical loads. <i>Journal of Alloys and Compounds</i> , 2016 , 656, 481-490	5.7	22
126	Effect of residual stresses on the onset of yielding in a Zr-based metallic glass. <i>Acta Materialia</i> , 2011 , 59, 7627-7633	8.4	22
125	Spatially resolved strain measurements in Mo-alloy micropillars by differential aperture x-ray microscopy. <i>Applied Physics Letters</i> , 2008 , 93, 071904	3.4	22
124	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
123	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
122	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
121	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
120	Effects of machine stiffness on the loading-displacement curve during spherical nano-indentation. <i>Journal of Materials Research</i> , 2013 , 28, 1903-1911	2.5	20

119	Improvement of magnetic properties of an Fe-6.5 wt. % Si alloy by directional recrystallization. <i>Applied Physics Letters</i> , 2008 , 93, 191908	3.4	20
118	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
117	Evolution of irradiation-induced strain in an equiatomic NiFe alloy. <i>Scripta Materialia</i> , 2017 , 140, 35-39	5.6	19
116	Phase-specific elastic/plastic interface interactions in layered NiAl ₂ Cr(Mo) structures. <i>Acta Materialia</i> , 2012 , 60, 3279-3286	8.4	19
115	Interface strength in NiAl/Mo composites from 3-D X-ray microdiffraction. <i>Scripta Materialia</i> , 2011 , 64, 900-903	5.6	19
114	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
113	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
112	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
111	3D x-ray microprobe investigation of local dislocation densities and elastic strain gradients in a NiAl-Mo composite and exposed Mo micropillars as a function of prestrain. <i>Journal of Materials Research</i> , 2010 , 25, 199-206	2.5	18
110	Shear fracture of bulk metallic glasses with controlled applied normal stresses. <i>Scripta Materialia</i> , 2008 , 59, 111-114	5.6	18
109	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
108	Interpreting nanovoids in atom probe tomography data for accurate local compositional measurements. <i>Nature Communications</i> , 2020 , 11, 1022	17.4	16
107	Small-scale mechanical behavior of intermetallics and their composites. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008 , 483-484, 218-222	5.3	16
106	Thermal-expansion behavior of a directionally solidified NiAl/Mo composite investigated by neutron diffraction and dilatometry. <i>Journal of Applied Physics</i> , 2005 , 97, 123503	2.5	16
105	Effects of Fe concentration on helium bubble formation in NiFe _x single-phase concentrated solid solution alloys. <i>Materialia</i> , 2019 , 5, 100183	3.2	16
104	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
103	Characterization of dislocation structures and deformation mechanisms in as-grown and deformed directionally solidified NiAl/Mo composites. <i>Acta Materialia</i> , 2015 , 89, 315-326	8.4	15
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