Hongbin Bei

List of Publications by Year in descending order

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6113 14614 27,571 264 66 159 citations h-index g-index papers 265 265 265 9401 docs citations times ranked citing authors all docs

#	Article	IF	CITATIONS
1	A fracture-resistant high-entropy alloy for cryogenic applications. Science, 2014, 345, 1153-1158.	6.0	3,982
2	The influences of temperature and microstructure on the tensile properties of a CoCrFeMnNi high-entropy alloy. Acta Materialia, 2013, 61, 5743-5755.	3.8	2,352
3	Temperature dependence of the mechanical properties of equiatomic solid solution alloys with face-centered cubic crystal structures. Acta Materialia, 2014, 81, 428-441.	3.8	1,387
4	Exceptional damage-tolerance of a medium-entropy alloy CrCoNi at cryogenic temperatures. Nature Communications, 2016, 7, 10602.	5.8	1,175
5	Relative effects of enthalpy and entropy on the phase stability of equiatomic high-entropy alloys. Acta Materialia, 2013, 61, 2628-2638.	3.8	1,004
6	Tuning element distribution, structure and properties by composition in high-entropy alloys. Nature, 2019, 574, 223-227.	13.7	874
7	Recovery, recrystallization, grain growth and phase stability of a family of FCC-structured multi-component equiatomic solid solution alloys. Intermetallics, 2014, 46, 131-140.	1.8	671
8	Nanoscale origins of the damage tolerance of the high-entropy alloy CrMnFeCoNi. Nature Communications, 2015, 6, 10143.	5.8	608
9	Enhancing radiation tolerance by controlling defect mobility and migration pathways in multicomponent single-phase alloys. Nature Communications, 2016, 7, 13564.	5.8	533
10	Influence of chemical disorder on energy dissipation and defect evolution in concentrated solid solution alloys. Nature Communications, 2015, 6, 8736.	5.8	477
11	Microstructural stability and mechanical behavior of FeNiMnCr high entropy alloy under ion irradiation. Acta Materialia, 2016, 113, 230-244.	3.8	450
12	Softening Caused by Profuse Shear Banding in a Bulk Metallic Glass. Physical Review Letters, 2006, 96, 105503.	2.9	380
13	Mechanism of Radiation Damage Reduction in Equiatomic Multicomponent Single Phase Alloys. Physical Review Letters, 2016, 116, 135504.	2.9	359
14	The evolution of the deformation substructure in a Ni-Co-Cr equiatomic solid solution alloy. Acta Materialia, 2017, 132, 35-48.	3.8	357
15	Dislocation mechanisms and 3D twin architectures generate exceptional strength-ductility-toughness combination in CrCoNi medium-entropy alloy. Nature Communications, 2017, 8, 14390.	5.8	344
16	Effects of pre-strain on the compressive stress–strain response of Mo-alloy single-crystal micropillars. Acta Materialia, 2008, 56, 4762-4770.	3.8	287
17	Local Structure and Short-Range Order in a NiCoCr Solid Solution Alloy. Physical Review Letters, 2017, 118, 205501.	2.9	283
18	Nano-twin mediated plasticity in carbon-containing FeNiCoCrMn high entropy alloys. Journal of Alloys and Compounds, 2015, 647, 815-822.	2.8	281

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19	Compressive strengths of molybdenum alloy micro-pillars prepared using a new technique. Scripta Materialia, 2007, 57, 397-400.	2.6	260
20	Effects of compositional complexity on the ion-irradiation induced swelling and hardening in Ni-containing equiatomic alloys. Scripta Materialia, 2016, 119, 65-70.	2.6	244
21	Thermal activation mechanisms and Labusch-type strengthening analysis for a family of high-entropy and equiatomic solid-solution alloys. Acta Materialia, 2016, 120, 108-119.	3.8	243
22	High pressure synthesis of a hexagonal close-packed phase of the high-entropy alloy CrMnFeCoNi. Nature Communications, 2017, 8, 15634.	5.8	241
23	A different type of indentation size effect. Scripta Materialia, 2008, 59, 1095-1098.	2.6	238
24	Microstructures and mechanical properties of a directionally solidified NiAl–Mo eutectic alloy. Acta Materialia, 2005, 53, 69-77.	3.8	222
25	Radiation-induced segregation on defect clusters in single-phase concentrated solid-solution alloys. Acta Materialia, 2017, 127, 98-107.	3.8	212
26	Influence of Indenter Tip Geometry on Elastic Deformation during Nanoindentation. Physical Review Letters, 2005, 95, 045501.	2.9	196
27	Effects of focused ion beam milling on the compressive behavior of directionally solidified micropillars and the nanoindentation response of an electropolished surface. Acta Materialia, 2009, 57, 503-510.	3.8	194
28	Flow serration in a Zr-based bulk metallic glass in compression at low strain rates. Intermetallics, 2008, 16, 813-818.	1.8	189
29	Size Effects and Stochastic Behavior of Nanoindentation Pop In. Physical Review Letters, 2011, 106, 165502.	2.9	189
30	Theoretical Strength and the Onset of Plasticity in Bulk Metallic Glasses Investigated by Nanoindentation with a Spherical Indenter. Physical Review Letters, 2004, 93, 125504.	2.9	184
31	Grain-boundary strengthening in nanocrystalline chromium and the Hall–Petch coefficient of body-centered cubic metals. Scripta Materialia, 2013, 68, 118-121.	2.6	178
32	Processing, Microstructure and Mechanical Properties of the CrMnFeCoNi High-Entropy Alloy. Jom, 2015, 67, 2262-2270.	0.9	177
33	Real-time nanoscale observation of deformation mechanisms in CrCoNi-based medium- to high-entropy alloys at cryogenic temperatures. Materials Today, 2019, 25, 21-27.	8.3	167
34	Strength differences arising from homogeneous versus heterogeneous dislocation nucleation. Physical Review B, 2008, 77, .	1.1	166
35	Tailoring the physical properties of Ni-based single-phase equiatomic alloys by modifying the chemical complexity. Scientific Reports, 2016, 6, 20159.	1.6	166
36	Real-time observations of TRIP-induced ultrahigh strain hardening in a dual-phase CrMnFeCoNi high-entropy alloy. Nature Communications, 2020, 11, 826.	5.8	165

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37	Dislocation starvation and exhaustion hardening in Mo alloy nanofibers. Acta Materialia, 2012, 60, 2258-2264.	3.8	145
38	Effects of focused ion beam milling on the nanomechanical behavior of a molybdenum-alloy single crystal. Applied Physics Letters, 2007, 91, .	1.5	141
39	The development of alumina-forming austenitic stainless steels for high-temperature structural use. Jom, 2008, 60, 12-18.	0.9	136
40	Investigation of strain-induced martensitic transformation in metastable austenite using nanoindentation. Scripta Materialia, 2010, 63, 540-543.	2.6	134
41	Mechanisms of radiation-induced segregation in CrFeCoNi-based single-phase concentrated solid solution alloys. Acta Materialia, 2017, 126, 182-193.	3.8	133
42	Overview of Strategies for High-Temperature Creep and Oxidation Resistance of Alumina-Forming Austenitic Stainless Steels. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 922-931.	1.1	131
43	Direct Observation of Defect Range and Evolution in Ion-Irradiated Single Crystalline Ni and Ni Binary Alloys. Scientific Reports, 2016, 6, 19994.	1.6	131
44	Weldability of a high entropy CrMnFeCoNi alloy. Scripta Materialia, 2016, 124, 81-85.	2.6	130
45	Point defect evolution in Ni, NiFe and NiCr alloys from atomistic simulations and irradiation experiments. Acta Materialia, 2015, 99, 69-76.	3.8	120
46	Influence of chemical disorder on energy dissipation and defect evolution in advanced alloys. Journal of Materials Research, 2016, 31, 2363-2375.	1.2	110
47	Microstructures and mechanical properties of compositionally complex Co-free FeNiMnCr18 FCC solid solution alloy. Materials Science & Diperties, Microstructure and Processing, 2015, 640, 217-224.	2.6	108
48	Severe local lattice distortion in Zr- and/or Hf-containing refractory multi-principal element alloys. Acta Materialia, 2020, 183, 172-181.	3.8	108
49	Predictive multiphase evolution in Al-containing high-entropy alloys. Nature Communications, 2018, 9, 4520.	5.8	107
50	Indentation Schmid factor and orientation dependence of nanoindentation pop-in behavior of NiAl single crystals. Journal of the Mechanics and Physics of Solids, 2011, 59, 1147-1162.	2.3	106
51	Effect of residual stresses on the hardness of bulk metallic glasses. Acta Materialia, 2011, 59, 2858-2864.	3.8	105
52	Effect of Alloying Additions on Phase Equilibria and Creep Resistance of Alumina-Forming Austenitic Stainless Steels. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2009, 40, 1868-1880.	1.1	97
53	Structural rejuvenation in bulk metallic glasses. Acta Materialia, 2015, 86, 240-246.	3.8	96
54	Thermophysical properties of Ni-containing single-phase concentrated solid solution alloys. Materials and Design, 2017, 117, 185-192.	3.3	96

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55	Local lattice distortion in NiCoCr, FeCoNiCr and FeCoNiCrMn concentrated alloys investigated by synchrotron X-ray diffraction. Materials and Design, 2018, 155, 1-7.	3.3	96
56	Recent progress in quantifying glass-forming ability of bulk metallic glasses. Intermetallics, 2007, 15, 618-624.	1.8	91
57	Microstructural control of FeCrAl alloys using Mo and Nb additions. Materials Characterization, 2017, 132, 126-131.	1.9	90
58	Increased time-dependent room temperature plasticity in metallic glass nanopillars and its size-dependency. International Journal of Plasticity, 2012, 37, 108-118.	4.1	83
59	Improvement of mechanical behaviors of a superlight Mg-Li base alloy by duplex phases and fine precipitates. Journal of Alloys and Compounds, 2018, 735, 2625-2633.	2.8	80
60	Hydrogen embrittlement in compositionally complex FeNiCoCrMn FCC solid solution alloy. Current Opinion in Solid State and Materials Science, 2018, 22, 1-7.	5.6	79
61	Strength statistics of single crystals and metallic glasses under small stressed volumes. Progress in Materials Science, 2016, 82, 118-150.	16.0	77
62	Indentation size effect in bulk metallic glass. Scripta Materialia, 2011, 64, 753-756.	2.6	75
63	Structural heterogeneity induced plasticity in bulk metallic glasses: From well-relaxed fragile glass to metal-like behavior. Applied Physics Letters, 2013, 103, .	1.5	74
64	Influence of irradiation temperature on void swelling in NiCoFeCrMn and NiCoFeCrPd. Scripta Materialia, 2019, 158, 57-61.	2.6	74
65	On the correlation between microscopic structural heterogeneity and embrittlement behavior in metallic glasses. Scientific Reports, 2015, 5, 14786.	1.6	70
66	Microstructures and mechanical properties of a welded CoCrFeMnNi high-entropy alloy. Science and Technology of Welding and Joining, 2018, 23, 585-595.	1.5	70
67	Evolution of local lattice distortion under irradiation in medium- and high-entropy alloys. Materialia, 2018, 2, 73-81.	1.3	67
68	Phase stability, physical properties and strengthening mechanisms of concentrated solid solution alloys. Current Opinion in Solid State and Materials Science, 2017, 21, 267-284.	5.6	66
69	Directional solidification and microstructures of near-eutectic Cr–Cr3Si alloys. Acta Materialia, 2003, 51, 6241-6252.	3.8	65
70	Single crystal plastic behavior of a single-phase, face-center-cubic-structured, equiatomic FeNiCrCo alloy. Scripta Materialia, 2015, 109, 108-112.	2.6	65
71	Understanding of the Elemental Diffusion Behavior in Concentrated Solid Solution Alloys. Journal of Phase Equilibria and Diffusion, 2017, 38, 434-444.	0.5	65
72	Effects of Fe concentration on the ion-irradiation induced defect evolution and hardening in Ni-Fe solid solution alloys. Acta Materialia, 2016, 121, 365-373.	3.8	64

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73	Influences of surface preparation on nanoindentation pop-in in single-crystal Mo. Scripta Materialia, 2011, 65, 469-472.	2.6	63
74	High-Temperature Creep and Oxidation Behavior of Mo-Si-B Alloys with High Ti Contents. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 1102-1111.	1.1	63
75	Cooling-rate induced softening in a Zr50Cu50 bulk metallic glass. Applied Physics Letters, 2007, 90, 071909.	1.5	62
76	On the shear-band direction in metallic glasses. Acta Materialia, 2011, 59, 4159-4167.	3.8	62
77	Enhanced damage resistance and novel defect structure of CrFeCoNi under in situ electron irradiation. Scripta Materialia, 2016, 125, 5-9.	2.6	62
78	Pressure-induced fcc to hcp phase transition in Ni-based high entropy solid solution alloys. Applied Physics Letters, 2017, 110 , .	1.5	62
79	Aging effects on the mechanical properties of alumina-forming austenitic stainless steels. Materials Science & Scien	2.6	61
80	Mechanical rejuvenation in bulk metallic glass induced by thermo-mechanical creep. Acta Materialia, 2018, 148, 384-390.	3.8	61
81	Thermodynamic modeling and experimental study of the Fe–Cr–Zr system. Journal of Nuclear Materials, 2013, 441, 190-202.	1.3	55
82	lon irradiation induced defect evolution in Ni and Ni-based FCC equiatomic binary alloys. Journal of Nuclear Materials, 2016, 471, 193-199.	1.3	55
83	Effect of alloying elements on defect evolution in Ni-20X binary alloys. Acta Materialia, 2018, 151, 159-168.	3.8	55
84	Twinning-mediated work hardening and texture evolution in CrCoFeMnNi high entropy alloys at cryogenic temperature. Materials and Design, 2017, 131, 419-427.	3.3	54
85	Chemical complexity induced local structural distortion in NiCoFeMnCr high-entropy alloy. Materials Research Letters, 2018, 6, 450-455.	4.1	54
86	Determining the activation energies and slip systems for dislocation nucleation in body-centered cubic Mo and face-centered cubic Ni single crystals. Scripta Materialia, 2011, 65, 179-182.	2.6	53
87	Influence of compositional complexity on interdiffusion in Ni-containing concentrated solid-solution alloys. Materials Research Letters, 2018, 6, 293-299.	4.1	52
88	Hydrogen embrittlement of the equi-molar FeNiCoCr alloy. Acta Materialia, 2018, 157, 218-227.	3.8	52
89	Effects of Ti, Zr, and Hf on the phase stability of Mo_ss + Mo3Si + Mo5SiB2 alloys at 1600°C. Acta Materialia, 2010, 58, 541-548.	3.8	51
90	Enhanced strength and ductility of a tungsten-doped CoCrNi medium-entropy alloy. Journal of Materials Research, 2018, 33, 3301-3309.	1.2	51

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91	Quantum Critical Behavior in a Concentrated Ternary Solid Solution. Scientific Reports, 2016, 6, 26179.	1.6	50
92	Deformation-induced spatiotemporal fluctuation, evolution and localization of strain fields in a bulk metallic glass. International Journal of Plasticity, 2015, 71, 136-145.	4.1	49
93	Studies on the corrosion behavior of yttrium-implanted zircaloy-4. Journal of Materials Science, 2000, 35, 6225-6229.	1.7	48
94	A review of directionally solidified intermetallic composites for high-temperature structural applications. Journal of Materials Science, 2004, 39, 3975-3984.	1.7	48
95	Fabrication of highly dense isotropic Nd-Fe-B nylon bonded magnets via extrusion-based additive manufacturing. Additive Manufacturing, 2018, 21, 495-500.	1.7	48
96	Intrinsic properties and strengthening mechanism of monocrystalline Ni-containing ternary concentrated solid solutions. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 695, 74-79.	2.6	47
97	Irradiation responses and defect behavior of single-phase concentrated solid solution alloys. Journal of Materials Research, 2018, 33, 3077-3091.	1.2	47
98	Effects of two-temperature model on cascade evolution in Ni and NiFe. Scripta Materialia, 2016, 124, 6-10.	2.6	46
99	Irradiation-induced damage evolution in concentrated Ni-based alloys. Acta Materialia, 2017, 135, 54-60.	3.8	46
100	Enhanced void swelling in NiCoFeCrPd high-entropy alloy by indentation-induced dislocations. Materials Research Letters, 2018, 6, 584-591.	4.1	46
101	Suppression of vacancy cluster growth in concentrated solid solution alloys. Acta Materialia, 2017, 125, 231-237.	3.8	45
102	Single-Phase Concentrated Solid-Solution Alloys: Bridging Intrinsic Transport Properties and Irradiation Resistance. Frontiers in Materials, 2018, 5, .	1.2	45
103	A comparison study of local lattice distortion in Ni80Pd20 binary alloy and FeCoNiCrPd high-entropy alloy. Scripta Materialia, 2018, 156, 14-18.	2.6	45
104	Elastic constants of single crystal Cr3Si and Cr–Cr3Si lamellar eutectic composites: a comparison of ultrasonic and nanoindentation measurements. Scripta Materialia, 2004, 51, 875-879.	2.6	44
105	Oxygen effects on plastic deformation of a Zr-based bulk metallic glass. Applied Physics Letters, 2008, 92, .	1.5	44
106	Microband induced plasticity and the temperature dependence of the mechanical properties of a carbon-doped FeNiMnAlCr high entropy alloy. Materials Characterization, 2018, 139, 373-381.	1.9	44
107	Helium irradiated cavity formation and defect energetics in Ni-based binary single-phase concentrated solid solution alloys. Acta Materialia, 2019, 164, 283-292.	3.8	44
108	Strengthening in Al-, Mo- or Ti-doped CoCrFeNi high entropy alloys: A parallel comparison. Journal of Materials Science and Technology, 2021, 94, 264-274.	5 . 6	44

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109	The effect of injected interstitials on void formation in self-ion irradiated nickel containing concentrated solid solution alloys. Journal of Nuclear Materials, 2017, 488, 328-337.	1.3	43
110	Formation and growth of stacking fault tetrahedra in Ni via vacancy aggregation mechanism. Scripta Materialia, 2016, 114, 137-141.	2.6	42
111	Phase stability of single phase Al0.12CrNiFeCo high entropy alloy upon irradiation. Materials and Design, 2018, 160, 1208-1216.	3.3	41
112	Deformation mechanisms and work-hardening behavior of transformation-induced plasticity high entropy alloys by <i>in -situ</i> neutron diffraction. Materials Research Letters, 2018, 6, 620-626.	4.1	41
113	Shape-preserving machining produces gradient nanolaminate medium entropy alloys with high strain hardening capability. Acta Materialia, 2019, 170, 176-186.	3 . 8	41
114	Effects of 3d electron configurations on helium bubble formation and void swelling in concentrated solid-solution alloys. Acta Materialia, 2019, 181, 519-529.	3.8	40
115	Effects of composition on lamellar microstructures of near-eutectic Cr–Cr3Si alloys. Intermetallics, 2003, 11, 283-289.	1.8	39
116	Indentation Schmid factor and incipient plasticity by nanoindentation pop-in tests in hexagonal close-packed single crystals. Acta Materialia, 2017, 134, 53-65.	3.8	39
117	Delayed damage accumulation by athermal suppression of defect production in concentrated solid solution alloys. Materials Research Letters, 2018, 6, 136-141.	4.1	39
118	Segregation of Ni at early stages of radiation damage in NiCoFeCr solid solution alloys. Acta Materialia, 2020, 196, 44-51.	3.8	39
119	Origin of strong solid solution strengthening in the CrCoNi-W medium entropy alloy. Journal of Materials Science and Technology, 2021, 73, 101-107.	5.6	39
120	An experimental evaluation of the constant \hat{l}^2 relating the contact stiffness to the contact area in nanoindentation. Philosophical Magazine, 2006, 86, 5285-5298.	0.7	37
121	Specimen Size Effects on Zr-Based Bulk Metallic Glasses Investigated by Uniaxial Compression and Spherical Nanoindentation. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2010, 41, 1735-1742.	1.1	37
122	Synthesis, characterization, and nanoindentation response of single crystal Fe–Cr–Ni alloys with FCC and BCC structures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 611, 177-187.	2.6	37
123	Design considerations for high entropy alloys in advanced nuclear applications. Journal of Nuclear Materials, 2022, 567, 153814.	1.3	36
124	Effects of ion irradiation on Zr52.5Cu17.9Ni14.6Al10Ti5 (BAM-11) bulk metallic glass. Intermetallics, 2014, 53, 62-66.	1.8	35
125	Effects of focused ion beam milling and pre-straining on the microstructure of directionally solidified molybdenum pillars: A Laue diffraction analysis. Scripta Materialia, 2010, 62, 746-749.	2.6	34
126	Scale effects in convoluted thermal/spatial statistics of plasticity initiation in small stressed volumes during nanoindentation. Materials Science and Technology, 2012, 28, 1055-1059.	0.8	34

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127	Phase-specific deformation behavior of a relatively tough NiAl–Cr(Mo) lamellar composite. Scripta Materialia, 2014, 84-85, 59-62.	2.6	34
128	Interstitial migration behavior and defect evolution in ion irradiated pure nickel and Ni-xFe binary alloys. Journal of Nuclear Materials, 2018, 509, 237-244.	1.3	34
129	On the Room-Temperature Mechanical Properties of an Ion-Irradiated TiZrNbHfTa Refractory High Entropy Alloy. Jom, 2020, 72, 130-138.	0.9	34
130	Enhanced plasticity in a Zr-based bulk metallic glass composite with <i>in situ</i> formed intermetallic phases. Applied Physics Letters, 2009, 95, .	1.5	33
131	A Highly Fatigue-Resistant Zr-Based Bulk Metallic Glass. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 5688-5693.	1.1	32
132	Effects of chemical alternation on damage accumulation in concentrated solid-solution alloys. Scientific Reports, 2017, 7, 4146.	1.6	32
133	Creep in directionally solidified NiAl–Mo eutectics. Scripta Materialia, 2011, 65, 699-702.	2.6	31
134	A tale of two mechanisms: Strain-softening versus strain-hardening in single crystals under small stressed volumes. Scripta Materialia, 2016, 110, 48-52.	2.6	31
135	Effects of geometric factors and shear band patterns on notch sensitivity in bulk metallic glasses. Intermetallics, 2016, 79, 12-19.	1.8	30
136	Evolution of ion damage at 773K in Ni- containing concentrated solid-solution alloys. Journal of Nuclear Materials, 2018, 501, 132-142.	1.3	30
137	Investigation of the thermal and neutron irradiation response of BAM-11 bulk metallic glass. Journal of Nuclear Materials, 2019, 526, 151771.	1.3	30
138	STEM Characterization of Dislocation Loops in Irradiated FCC Alloys. Journal of Nuclear Materials, 2021, 544, 152658.	1.3	30
139	Thermal stability of Cr–Cr3Si eutectic microstructures. Acta Materialia, 2009, 57, 3823-3829.	3.8	29
140	Room temperature nanoindentation creep of nanocrystalline Cu and Cu alloys. Materials Letters, 2012, 70, 26-29.	1.3	29
141	Evolution of the microstructural and mechanical properties of BAM-11 bulk metallic glass during ion irradiation and annealing. Journal of Nuclear Materials, 2019, 523, 299-309.	1.3	29
142	GeV ion irradiation of NiFe and NiCo: Insights from MD simulations and experiments. Acta Materialia, 2018, 151, 191-200.	3.8	28
143	PVD synthesis and high-throughput property characterization of Ni–Fe–Cr alloy libraries. Measurement Science and Technology, 2005, 16, 46-53.	1.4	27
144	Evolution of irradiation-induced strain in an equiatomic NiFe alloy. Scripta Materialia, 2017, 140, 35-39.	2.6	27

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145	Lattice Distortion and Phase Stability of Pd-Doped NiCoFeCr Solid-Solution Alloys. Entropy, 2018, 20, 900.	1.1	27
146	Chemically-biased diffusion and segregation impede void growth in irradiated Ni-Fe alloys. Current Opinion in Solid State and Materials Science, 2019, 23, 92-100.	5 . 6	27
147	Effects of machine stiffness on the loading–displacement curve during spherical nano-indentation. Journal of Materials Research, 2013, 28, 1903-1911.	1.2	26
148	Investigation of defect clusters in ion-irradiated Ni and NiCo using diffuse X-ray scattering and electron microscopy. Journal of Nuclear Materials, 2016, 469, 153-161.	1.3	26
149	Phase-specific deformation behavior of a NiAl–Cr(Mo) lamellar composite under thermal and mechanical loads. Journal of Alloys and Compounds, 2016, 656, 481-490.	2.8	25
150	Irradiation effects of medium-entropy alloy NiCoCr with and without pre-indentation. Journal of Nuclear Materials, 2019, 524, 60-66.	1.3	25
151	Effect of electronic energy dissipation on strain relaxation in irradiated concentrated solid solution alloys. Current Opinion in Solid State and Materials Science, 2019, 23, 107-115.	5 . 6	25
152	Effects of Fe atoms on hardening of a nickel matrix: Nanoindentation experiments and atom-scale numerical modeling. Materials and Design, 2022, 217, 110639.	3.3	25
153	Quantifying early stage irradiation damage from nanoindentation pop-in tests. Scripta Materialia, 2018, 157, 49-53.	2.6	24
154	Chemical effects on He bubble superlattice formation in high entropy alloys. Current Opinion in Solid State and Materials Science, 2019, 23, 100762.	5 . 6	24
155	Nano-twin-induced exceptionally superior cryogenic mechanical properties of a Ni-based GH3536 (Hastelloy X) superalloy. Materials Today Nano, 2021, 14, 100110.	2.3	24
156	Spatially resolved strain measurements in Mo-alloy micropillars by differential aperture x-ray microscopy. Applied Physics Letters, 2008, 93, 071904.	1.5	23
157	Effect of residual stresses on the onset of yielding in a Zr-based metallic glass. Acta Materialia, 2011, 59, 7627-7633.	3.8	23
158	Interpreting nanovoids in atom probe tomography data for accurate local compositional measurements. Nature Communications, 2020, 11, 1022.	5.8	23
159	Site occupancy of alloying elements in γ′ phase of nickel-base single crystal superalloys. Intermetallics, 2020, 121, 106772.	1.8	23
160	Tensile creep behavior of an equiatomic CoCrNi medium entropy alloy. Intermetallics, 2020, 121, 106775.	1.8	23
161	Investigating sluggish diffusion in a concentrated solid solution alloy using ion irradiation with in situ TEM. Intermetallics, 2019, 110, 106461.	1.8	22
162	From suppressed void growth to significant void swelling in NiCoFeCr complex concentrated solid-solution alloy. Materialia, 2020, 9, 100603.	1.3	22

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163	Dislocation loop evolution and radiation hardening in nickel-based concentrated solid solution alloys. Journal of Nuclear Materials, 2020, 538, 152247.	1.3	22
164	Unfolding the complexity of phonon quasi-particle physics in disordered materials. Npj Computational Materials, 2020, 6, .	3.5	22
165	Improvement of magnetic properties of an Fe-6.5â€,wt. % Si alloy by directional recrystallization. Applied Physics Letters, 2008, 93, .	1.5	21
166	Instability Analysis and Free Volume Simulations of Shear Band Directions and Arrangements in Notched Metallic Glasses. Scientific Reports, 2016, 6, 34878.	1.6	21
167	Impact of alloy composition on one-dimensional glide of small dislocation loops in concentrated solid solution alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 700, 617-621.	2.6	21
168	On the onset of deformation twinning in the CrFeMnCoNi high-entropy alloy using a novel tensile specimen geometry. Intermetallics, 2019, 110, 106469.	1.8	21
169	Effects of Fe concentration on helium bubble formation in NiFex single-phase concentrated solid solution alloys. Materialia, 2019, 5, 100183.	1.3	21
170	Processing, Microstructures and Mechanical Properties of a Ni-Based Single Crystal Superalloy. Crystals, 2020, 10, 572.	1.0	21
171	Phase-specific elastic/plastic interface interactions in layered NiAl–Cr(Mo) structures. Acta Materialia, 2012, 60, 3279-3286.	3.8	20
172	Channeling analysis in studying ion irradiation damage in materials containing various types of defects. Journal of Nuclear Materials, 2019, 517, 9-16.	1.3	20
173	Extreme Fermi Surface Smearing in a Maximally Disordered Concentrated Solid Solution. Physical Review Letters, 2020, 124, 046402.	2.9	20
174	Directional recrystallization and microstructures of an Fe–6.5wt%Si alloy. Journal of Materials Research, 2009, 24, 2654-2660.	1.2	19
175	Interface strength in NiAl–Mo composites from 3-D X-ray microdiffraction. Scripta Materialia, 2011, 64, 900-903.	2.6	19
176	Annealing effects on the structural and magnetic properties of off-stoichiometric Fe-Mn-Ga ferromagnetic shape memory alloys. Materials and Design, 2016, 104, 327-332.	3.3	19
177	Discrete twinning dynamics and size-dependent dislocation-to twin transition in body-centred cubic tungsten. Journal of Materials Science and Technology, 2022, 106, 33-40.	5.6	19
178	Thermal-expansion behavior of a directionally solidified NiAl–Mo composite investigated by neutron diffraction and dilatometry. Journal of Applied Physics, 2005, 97, 123503.	1.1	18
179	Shear fracture of bulk metallic glasses with controlled applied normal stresses. Scripta Materialia, 2008, 59, 111-114.	2.6	18
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