Chain T Liu

List of Publications by Year
in descending order

505 papers	40,890 citations	2544 96 h-index	3732 179 g-index
510 all docs	510 docs citations	510 times ranked	12144 citing authors

#	Article	IF	Citations
1	High-entropy alloy: challenges and prospects. Materials Today, 2016, 19, 349-362.	14.2	1,698
2	Effect of valence electron concentration on stability of fcc or bcc phase in high entropy alloys. Journal of Applied Physics, 2011, 109, .	2.5	1,623
3	Phase stability in high entropy alloys: Formation of solid-solution phase or amorphous phase. Progress in Natural Science: Materials International, 2011, 21, 433-446.	4.4	1,546
4	A new glass-forming ability criterion for bulk metallic glasses. Acta Materialia, 2002, 50, 3501-3512.	7.9	1,162
5	Effect of boron on grain-boundaries in Ni3Alâ€. Acta Metallurgica, 1985, 33, 213-229.	2.1	992
6	Multicomponent intermetallic nanoparticles and superb mechanical behaviors of complex alloys. Science, 2018, 362, 933-937.	12.6	950
7	Ductile CoCrFeNiMox high entropy alloys strengthened by hard intermetallic phases. Acta Materialia, 2016, 116, 332-342.	7.9	670
8	Heterogeneous precipitation behavior and stacking-fault-mediated deformation in a CoCrNi-based medium-entropy alloy. Acta Materialia, 2017, 138, 72-82.	7.9	553
9	Structural Amorphous Steels. Physical Review Letters, 2004, 92, 245503.	7.8	534
10	More than entropy in high-entropy alloys: Forming solid solutions orÂamorphous phase. Intermetallics, 2013, 41, 96-103.	3.9	531
11	Emerging applications of intermetallics. Intermetallics, 2000, 8, 1313-1320.	3.9	504
12	Polysynthetic twinned TiAl single crystals for high-temperature applications. Nature Materials, 2016, 15, 876-881.	27.5	476
13	An environmental effect as the major cause for room-temperature embrittlement in FeAl. Scripta Metallurgica, 1989, 23, 875-880.	1.2	464
14	Bulk Metallic Glass Composites with Transformationâ€Mediated Workâ€Hardening and Ductility. Advanced Materials, 2010, 22, 2770-2773.	21.0	431
15	Atomistic free-volume zones and inelastic deformation of metallic glasses. Nature Materials, 2010, 9, 619-623.	27.5	392
16	Outstanding tensile properties of a precipitation-strengthened FeCoNiCrTi0.2 high-entropy alloy at room and cryogenic temperatures. Acta Materialia, 2019, 165, 228-240.	7.9	373
17	Designing eutectic high entropy alloys of CoCrFeNiNb x. Journal of Alloys and Compounds, 2016, 656, 284-289.	5.5	340
18	Atomic-size effect and solid solubility of multicomponent alloys. Scripta Materialia, 2015, 94, 28-31.	5.2	339

#	Article	IF	Citations
19	Creep-Resistant, Al2O3-Forming Austenitic Stainless Steels. Science, 2007, 316, 433-436.	12.6	337
20	Enhancement of strength-ductility trade-off in a high-entropy alloy through a heterogeneous structure. Acta Materialia, 2019, 165, 444-458.	7.9	336
21	Effects of Nb additions on the microstructure and mechanical property of CoCrFeNi high-entropy alloys. Intermetallics, 2015, 60, 1-8.	3.9	326
22	Atomic structure of nanoclusters in oxide-dispersion-strengthened steels. Nature Materials, 2011, 10, 922-926.	27.5	306
23	Ductile Ordered Intermetallic Alloys. Science, 1984, 226, 636-642.	12.6	286
24	Tensile properties and fracture toughness of TiAl alloys with controlled microstructures. Intermetallics, 1996, 4, 429-440.	3.9	266
25	Role of yttrium in glass formation of Fe-based bulk metallic glasses. Applied Physics Letters, 2003, 83, 2581-2583.	3.3	263
26	Environmental effects on room-temperature ductility and fracture in Fe3Al. Scripta Metallurgica Et Materialia, 1990, 24, 385-389.	1.0	258
27	Role of minor alloying additions in formation of bulk metallic glasses: A Review. Journal of Materials Science, 2004, 39, 3965-3974.	3.7	257
28	Entropy-driven phase stability and slow diffusion kinetics in an Al0.5CoCrCuFeNi high entropy alloy. Intermetallics, 2012, 31, 165-172.	3.9	252
29	Dual heterogeneous structures lead to ultrahigh strength and uniform ductility in a Co-Cr-Ni medium-entropy alloy. Nature Communications, 2020, 11, 2390.	12.8	244
30	Design of powder metallurgy titanium alloys and composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 418, 25-35.	5.6	243
31	Correlation of the hardness and vacancy concentration in FeAl. Intermetallics, 1993, 1, 107-115.	3.9	242
32	Ultrahigh strength and ductility in newly developed materials with coherent nanolamellar architectures. Nature Communications, 2020, 11, 6240.	12.8	226
33	Oxygen impurity and microalloying effect in a Zr-based bulk metallic glass alloy. Intermetallics, 2002, 10, 1105-1112.	3.9	224
34	The origin of negative stacking fault energies and nano-twin formation in face-centered cubic high entropy alloys. Scripta Materialia, 2017, 130, 96-99.	5.2	223
35	Effect of chromium on properties of Fe₃Al. Journal of Materials Research, 1989, 4, 1156-1163.	2.6	216
36	Environmental embrittlement in boron-free and boron-doped FeAl (40 at. % Al) alloys. Scripta Metallurgica Et Materialia, 1990, 24, 1285-1290.	1.0	215

#	Article	IF	Citations
37	Phase separation of metastable CoCrFeNi high entropy alloy at intermediate temperatures. Scripta Materialia, 2017, 126, 15-19.	5.2	212
38	Anomalous solidification microstructures in Co-free AlxCrCuFeNi2 high-entropy alloys. Journal of Alloys and Compounds, 2013, 557, 77-81.	5.5	210
39	Design of high entropy alloys: A single-parameter thermodynamic rule. Scripta Materialia, 2015, 104, 53-55.	5.2	209
40	Physical metallurgy and mechanical properties of transition-metal Laves phase alloys. Intermetallics, 2000, 8, 1119-1129.	3.9	198
41	Nanoscale phase separation in a fcc-based CoCrCuFeNiAl0.5 high-entropy alloy. Acta Materialia, 2015, 84, 145-152.	7.9	193
42	Synergistic effects of Cu and Ni on nanoscale precipitation and mechanical properties of high-strength steels. Acta Materialia, 2013, 61, 5996-6005.	7.9	188
43	Unified equation for the strength of bulk metallic glasses. Applied Physics Letters, 2006, 88, 221911.	3.3	187
44	Ultrahigh-strength and ductile superlattice alloys with nanoscale disordered interfaces. Science, 2020, 369, 427-432.	12.6	187
45	Precipitation mechanism and mechanical properties of an ultra-high strength steel hardened by nanoscale NiAl and Cu particles. Acta Materialia, 2015, 97, 58-67.	7.9	186
46	A ductile high entropy alloy with attractive magnetic properties. Journal of Alloys and Compounds, 2017, 694, 55-60.	5.5	183
47	Localized corrosion behavior of a zirconium-based bulk metallic glass relative to its crystalline state. Intermetallics, 2002, 10, 1157-1162.	3.9	180
48	Dynamic evolution of nanoscale shear bands in a bulk-metallic glass. Applied Physics Letters, 2005, 86, 141904.	3.3	177
49	Design of D022 superlattice with superior strengthening effect in high entropy alloys. Acta Materialia, 2019, 167, 275-286.	7.9	172
50	Nanoparticles-strengthened high-entropy alloys for cryogenic applications showing an exceptional strength-ductility synergy. Scripta Materialia, 2019, 164, 30-35.	5.2	170
51	A Novel Multinary Intermetallic as an Active Electrocatalyst for Hydrogen Evolution. Advanced Materials, 2020, 32, e2000385.	21.0	169
52	In situ design of advanced titanium alloy with concentration modulations by additive manufacturing. Science, 2021, 374, 478-482.	12.6	168
53	Microstructure and mechanical properties of Laves-phase alloys based on Cr2Nb. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1991, 132, 61-66.	5.6	166
54	Dynamic embrittlement of boron-doped Ni3Al alloys at 600Â°C. Acta Metallurgica, 1987, 35, 643-649.	2.1	162

#	Article	IF	Citations
55	Co-precipitation of nanoscale particles in steels with ultra-high strength for a new era. Materials Today, 2017, 20, 142-154.	14.2	159
56	Environmental embrittlement and grain-boundary fracture in Ni3Al. Scripta Metallurgica Et Materialia, 1992, 27, 25-28.	1.0	158
57	Unusual fast secondary relaxation in metallic glass. Nature Communications, 2015, 6, 7876.	12.8	158
58	Metallic Liquids and Glasses: Atomic Order and Global Packing. Physical Review Letters, 2010, 105, 155501.	7.8	157
59	Cooperative deformation in high-entropy alloys at ultralow temperatures. Science Advances, 2020, 6, eaax4002.	10.3	157
60	Development of high-strength Co-free high-entropy alloys hardened by nanosized precipitates. Scripta Materialia, 2018, 148, 51-55.	5.2	154
61	Microstructure characterization of Cu-rich nanoprecipitates in a Feâ€“2.5 Cuâ€“1.5 Mnâ€“4.0 Niâ€“1.0 Al multicomponent ferritic alloy. Acta Materialia, 2013, 61, 2133-2147.	7.9	153
62	Microstructural control and mechanical properties of dual-phase TiAl alloys. Intermetallics, 1998, 6, 653-661.	3.9	152
63	Surface and grain boundary segregation in relation to intergranular fracture: Boron and sulfur in Ni3Al. Scripta Metallurgica, 1984, 18, 1417-1420.	1.2	149
64	Superior high-temperature properties and deformation-induced planar faults in a novel L12-strengthened high-entropy alloy. Acta Materialia, 2020, 188, 517-527.	7.9	144
65	New criterion of glass forming ability for bulk metallic glasses. Journal of Applied Physics, 2007, 101, 086108.	2.5	142
66	The dependence of shear modulus on dynamic relaxation and evolution of local structural heterogeneity in a metallic glass. Acta Materialia, 2013, 61, 4329-4338.	7.9	141
67	A geometric model for intrinsic residual strain and phase stability in high entropy alloys. Acta Materialia, 2015, 94, 152-161.	7.9	141
68	Alumina-Forming Austenitic Stainless Steels Strengthened by Laves Phase and MC Carbide Precipitates. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2007, 38, 2737-2746.	2.2	139
69	Precipitation hardening in CoCrFeNi-based high entropy alloys. Materials Chemistry and Physics, 2018, 210, 2-11.	4.0	137
70	Control of nanoscale precipitation and elimination of intermediate-temperature embrittlement in multicomponent high-entropy alloys. Acta Materialia, 2020, 189, 47-59.	7.9	137
71	The development of alumina-forming austenitic stainless steels for high-temperature structural use. Jom, 2008, 60, 12-18.	1.9	136
72	Environmental embrittlement: The major cause of room-temperature brittleness in polycrystalline Ni3Al. Scripta Metallurgica Et Materialia, 1992, 27, 365-370.	1.0	134

#	Article	IF	Citations
73	Fatigue behavior of bulk-metallic glasses. Intermetallics, 2004, 12, 885-892.	3.9	132
74	Phase Selection in High-Entropy Alloys: From Nonequilibrium to Equilibrium. Jom, 2014, 66, 1966-1972.	1.9	132
75	Effect of chromium on room temperature ductility and fracture mode in Fe3Al. Scripta Metallurgica, 1988, 22, 1679-1681.	1.2	131
76	Thermodynamic Origins of Shear Band Formation and the Universal Scaling Law of Metallic Glass Strength. Physical Review Letters, 2009, 103, 065504.	7.8	131
77	Alloying effects on creep and oxidation resistance of austenitic stainless steel alloys employing intermetallic precipitates. Intermetallics, 2008, 16, 453-462.	3.9	130
78	Chromium addition and environmental embrittlement in Fe3Al. Scripta Metallurgica Et Materialia, 1990, 24, 2119-2122.	1.0	129
79	Atomic-size and lattice-distortion effects in newly developed high-entropy alloys with multiple principal elements. Intermetallics, 2015, 64, 63-69.	3.9	127
80	Intrinsic ductility and environmental embrittlement of binary Ni3Al. Scripta Metallurgica Et Materialia, 1993, 28, 857-862.	1.0	126
81	Reaction mechanism of combustion synthesis of NiAl. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 329-331, 57-68.	5.6	124
82	Phase stability and tensile properties of Co-free Al0.5CrCuFeNi2 high-entropy alloys. Journal of Alloys and Compounds, 2014, 584, 530-537.	5.5	116
83	Recent advances in ordered intermetallics. Materials Chemistry and Physics, 1995, 42, 77-86.	4.0	111
84	Fatigue behavior of Zr52.5Al10Ti5Cu17.9Ni14.6 bulk metallic glass. Intermetallics, 2002, 10, 1125-1129.	3.9	110
85	A new approach to understanding and measuring glass formation in bulk amorphous materials. Intermetallics, 2004, 12, 1035-1043.	3.9	108
86	The generalized thermodynamic rule for phase selection in multicomponent alloys. Intermetallics, 2015, 59, 75-80.	3.9	108
87	Effects of Mn partitioning on nanoscale precipitation and mechanical properties of ferritic steels strengthened by NiAl nanoparticles. Acta Materialia, 2015, 84, 283-291.	7.9	108
88	Fatigue behavior of Zrâ€“Tiâ€“Niâ€“Cuâ€“Be bulk-metallic glasses. Intermetallics, 2005, 13, 429-435.	3.9	106
89	Localized heating and fracture criterion for bulk metallic glasses. Journal of Materials Research, 2006, 21, 915-922.	2.6	106
90	Strengthening the CoCrFeNiNb0.25 high entropy alloy by FCC precipitate. Journal of Alloys and Compounds, 2016, 667, 53-57.	5.5	106

#	Article	IF	Citations
91	Effects of microstructure on the oxidation behavior of multiphase Moâ€“Siâ€“B alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 344, 328-339.	5.6	105
92	Fractal growth of the dense-packing phase in annealed metallic glass imaged by high-resolution atomic force microscopy. Acta Materialia, 2012, 60, 5260-5272.	7.9	105
93	Enthalpies of formation of binary Laves phases. Intermetallics, 2002, 10, 579-595.	3.9	104
94	Effect of minor alloying additions on glass formation in bulk metallic glasses. Intermetallics, 2005, 13, 415-418.	3.9	104
95	Ultrafine-grained nanocluster-strengthened alloys with unusually high creep strength. Scripta Materialia, 2009, 61, 793-796.	5.2	103
96	Deformation of a multiphase Moâ€“9.4Siâ€“13.8B alloy at elevated temperatures. Intermetallics, 2001, 9, 73-79.	3.9	102
97	The electrochemical evaluation of a Zr-based bulk metallic glass in a phosphate-buffered saline electrolyte. Journal of Biomedical Materials Research - Part A, 2005, 74A, 430-438.	4.0	101
98	Electrochemical performance of porous Ni3Al electrodes for hydrogen evolution reaction. International Journal of Hydrogen Energy, 2011, 36, 12112-12120.	7.1	99
99	On the source of plastic flow in metallic glasses: Concepts and models. Intermetallics, 2015, 67, 81-86.	3.9	99
100	Porous FeAl intermetallics fabricated by elemental powder reactive synthesis. Intermetallics, 2009, 17, 1041-1046.	3.9	98
101	Hierarchical nanostructured aluminum alloy with ultrahigh strength and large plasticity. Nature Communications, 2019, 10, 5099.	12.8	97
102	Nanoprecipitateâ€Strengthened Highâ€Entropy Alloys. Advanced Science, 2021, 8, e2100870.	11.2	97
103	Solid solutioning in equiatomic alloys: Limit set by topological instability. Journal of Alloys and Compounds, 2014, 583, 410-413.	5.5	96
104	In-situ thermographic observation of mechanical damage in bulk-metallic glasses during fatigue and tensile experiments. Intermetallics, 2004, 12, 1265-1274.	3.9	95
105	High-strength steels hardened mainly by nanoscale NiAl precipitates. Scripta Materialia, 2014, 87, 45-48.	5.2	95
106	Characterization of nanoscale NiAl-type precipitates in a ferritic steel by electron microscopy and atom probe tomography. Scripta Materialia, 2010, 63, 61-64.	5.2	94
107	Nanoscale precipitation and its influence on strengthening mechanisms in an ultra-high strength low-carbon steel. International Journal of Plasticity, 2019, 113, 99-110.	8.8	94
108	Atomic-Scale Structural Evolution and Stability of Supercooled Liquid of a Zr-Based Bulk Metallic Glass. Physical Review Letters, 2011, 106, 215505.	7.8	93

#	Article	IF	Citations
109	Point defects in binary Laves phase alloys. Acta Materialia, 1999, 47, 2003-2018.	7.9	92
110	A medium-range structure motif linking amorphous and crystalline states. Nature Materials, 2021, 20, 1347-1352.	27.5	92
111	Recent progress in quantifying glass-forming ability of bulk metallic glasses. Intermetallics, 2007, 15, 618-624.	3.9	91
112	Effects of the Al content on pore structures of porous Tiâ€“Al alloys. Intermetallics, 2008, 16, 327-332.	3.9	91
113	Thermodynamic modeling of glass formation in metallic glasses. Applied Physics Letters, 2006, 88, 171905.	3.3	89
114	Micromechanisms of yield and flow in ordered intermetallic alloys. Acta Metallurgica, 1988, 36, 2935-2946.	2.1	87
115	Superplastic behavior of a Zrâ€“10Alâ€“5Ti-â€“17.9Cuâ€“14.6Ni metallic glass in the supercooled liquid region. Scripta Materialia, 1999, 40, 1021-1027.	5.2	87
116	Mechanical Behavior of Bulk Amorphous Alloys Reinforced by Ductile Particles at Cryogenic Temperatures. Physical Review Letters, 2006, 96, 145506.	7.8	85
117	Synergistic alloying effect on microstructural evolution and mechanical properties of Cu precipitation-strengthened ferritic alloys. Acta Materialia, 2013, 61, 7726-7740.	7.9	85
118	Room-temperature environmental embrittlement in a TiAl alloy. Scripta Metallurgica Et Materialia, 1992, 27, 599-603.	1.0	83
119	Oxidation and crystallization of Zr-based bulk metallic glass due to machining. Intermetallics, 2004, 12, 195-204.	3.9	83
120	Control of ordered structure and ductility of (Fe, Co, Ni)3V alloys. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1979, 10, 1515-1525.	1.4	82
121	The thermal stability of the microstructure of Î³-based titanium aluminides. Acta Materialia, 1996, 44, 2611-2642.	7.9	82
122	Self-Assembled Hydrophobic/Hydrophilic Porphyrin-Ti₃C₂T_x MXene Janus Membrane for Dual-Functional Enabled Photothermal Desalination. ACS Applied Materials & Interfaces, 2021, 13, 3762-3770.	8.0	82
123	Ordered intermetallic alloys, part I: Nickel and iron aluminides. Jom, 1993, 45, 38-44.	1.9	81
124	Solid solution island of the Co-Cr-Fe-Ni high entropy alloy system. Scripta Materialia, 2017, 131, 42-46.	5.2	81
125	Effect of vacuum on room-temperature ductility of Ni3Al. Scripta Metallurgica Et Materialia, 1994, 30, 37-42.	1.0	80
126	Light emission, chip morphology, and burr formation in drilling the bulk metallic glass. International Journal of Machine Tools and Manufacture, 2005, 45, 741-752.	13.4	80

#	Article	IF	Citations
127	Identify the best glass forming ability criterion. Intermetallics, 2010, 18, 883-888.	3.9	80
128	Ferritic Alloys with Extreme Creep Resistance via Coherent Hierarchical Precipitates. Scientific Reports, 2015, 5, 16327.	3.3	80
129	High hardness and fatigue resistance of CoCrFeMnNi high entropy alloy films with ultrahigh-density nanotwins. International Journal of Plasticity, 2020, 131, 102726.	8.8	80
130	A nanoscale co-precipitation approach for property enhancement of Fe-base alloys. Scientific Reports, 2013, 3, 1327.	3.3	79
131	Structure and Fieldâ€Emission Properties of Subâ€Micrometerâ€Sized Tungstenâ€Whisker Arrays Fabricated by Vapor Deposition. Advanced Materials, 2009, 21, 2387-2392.	21.0	77
132	Size effect on stability of shear-band propagation in bulk metallic glasses: an overview. Journal of Materials Science, 2012, 47, 55-67.	3.7	77
133	Superior Tensile Ductility in Bulk Metallic Glass with Gradient Amorphous Structure. Scientific Reports, 2014, 4, 4757.	3.3	77
134	Environmental embrittlement and grain-boundary fracture in Ni3Si. Scripta Metallurgica Et Materialia, 1991, 25, 1933-1937.	1.0	76
135	Glass-forming tendency of bulk Laâ€“Alâ€“Niâ€“Cuâ€“(Co) metallic glass-forming liquids. Journal of Applied Physics, 2003, 93, 286-290.	2.5	76
136	Physical metallurgy and mechanical properties of ductile ordered alloys (Fe, Co, Ni)3 V. International Materials Reviews, 1984, 29, 168-194.	19.3	76
137	Machining of a Zrâ€“Tiâ€“Alâ€“Cuâ€“Ni metallic glass. Scripta Materialia, 2004, 50, 583-588.	5.2	75
138	A highly distorted ultraelastic chemically complex Elinvar alloy. Nature, 2022, 602, 251-257.	27.8	75
139	Fatigue behavior and fracture morphology of Zr50Al10Cu40 and Zr50Al10Cu30Ni10 bulk-metallic glasses. Intermetallics, 2004, 12, 1219-1227.	3.9	74
140	Atomistic mechanism for nanocrystallization of metallic glasses. Acta Materialia, 2008, 56, 2760-2769.	7.9	73
141	Effects of Al on the microstructure and ductility of NiAl-strengthened ferritic steels at room temperature. Intermetallics, 2010, 18, 1437-1443.	3.9	73
142	Intergranular fracture and boron effects in Ni3Al and other intermetallics â€” Introductory paper. Scripta Metallurgica Et Materialia, 1991, 25, 1231-1236.	1.0	72
143	Formation of porous Niâ€“Al intermetallics through pressureless reaction synthesis. Journal of Alloys and Compounds, 2009, 484, 907-913.	5.5	72
144	Anomalous precipitate-size-dependent ductility in multicomponent high-entropy alloys with dense nanoscale precipitates. Acta Materialia, 2022, 223, 117480.	7.9	72

#	Article	IF	Citations
145	The fatigue behavior of a zirconium-based bulk metallic glass in vacuum and air. Journal of Non-Crystalline Solids, 2003, 317, 187-192.	3.1	71
146	Reactive sintering of Ni3Al under compression. Acta Metallurgica Et Materialia, 1993, 41, 113-120.	1.8	70
147	The atomic-scale mechanism for the enhanced glass-forming-ability of a Cu-Zr based bulk metallic glass with minor element additions. Scientific Reports, 2014, 4, 4648.	3.3	70
148	Micromechanical characterization of casting-induced inhomogeneity in an Al0.8CoCrCuFeNi high-entropy alloy. Scripta Materialia, 2011, 64, 868-871.	5.2	69
149	Large-sized Zr-based bulk-metallic-glass composite with enhanced tensile properties. Intermetallics, 2012, 28, 25-33.	3.9	69
150	A high-entropy alloy with dislocation-precipitate skeleton for ultrastrength and ductility. Acta Materialia, 2022, 232, 117975.	7.9	69
151	A combinatorial thin film sputtering approach for synthesizing and characterizing ternary ZrCuAl metallic glasses. Intermetallics, 2007, 15, 1208-1216.	3.9	68
152	Grain-boundary fracture and boron effect in Ni3Si alloys. Intermetallics, 1996, 4, 77-83.	3.9	66
153	Mechanical behavior of Ni3Al: Effects of environment, strain rate, temperature and boron doping. Acta Materialia, 1996, 44, 1757-1763.	7.9	65
154	Effects of B and W alloying additions on the formation and stability of lamellar structures in two-phase Î³-TiAl. Intermetallics, 1997, 5, 83-95.	3.9	65
155	Characterization of oxide nanoprecipitates in an oxide dispersion strengthened 14YWT steel using aberration-corrected STEM. Acta Materialia, 2012, 60, 5686-5696.	7.9	65
156	Deformation of CoCrFeNi high entropy alloy at large strain. Scripta Materialia, 2018, 155, 54-57.	5.2	64
157	Hardening mechanisms and impact toughening of a high-strength steel containing low Ni and Cu additions. Acta Materialia, 2019, 172, 150-160.	7.9	64
158	Effect of test environment on ductility and fracture behavior of boron-doped Ni3Al at 600Â° C. Scripta Metallurgica, 1985, 19, 1247-1250.	1.2	63
159	Effects of alloy additions on the microstructure and properties of CrCr2Nb alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1996, 214, 23-32.	5.6	63
160	Comparison of grain boundary compositions in B-doped and B-free Ni3Al. Scripta Metallurgica, 1989, 23, 979-982.	1.2	62
161	Cooling-rate induced softening in a Zr50Cu50 bulk metallic glass. Applied Physics Letters, 2007, 90, 071909.	3.3	62
162	New glass forming ability criterion derived from cooling consideration. Intermetallics, 2010, 18, 2065-2068.	3.9	62

#	Article	IF	Citations
163	Yielding and shear banding of metallic glasses. Acta Materialia, 2013, 61, 5928-5936.	7.9	62
164	Extremely high dislocation density and deformation pathway of CrMnFeCoNi high entropy alloy at ultralow temperature. Scripta Materialia, 2020, 188, 21-25.	5.2	62
165	Development of Nickel aluminide matrix composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1989, 107, 81-91.	5.6	60
166	The Phase Competition and Stability of High-Entropy Alloys. Jom, 2014, 66, 1973-1983.	1.9	60
167	Site occupancies, point defect concentrations, and solid solution hardening in B2 (Ni,Fe)Al. Acta Materialia, 2002, 50, 3859-3879.	7.9	59
168	Cocktail effects in understanding the stability and properties of face-centered-cubic high-entropy alloys at ambient and cryogenic temperatures. Scripta Materialia, 2020, 187, 250-255.	5.2	59
169	Effects of proton irradiation on nanocluster precipitation in ferritic steel containing fcc alloying additions. Acta Materialia, 2012, 60, 3034-3046.	7.9	58
170	Anisotropic antiphase boundaries in rapidly solidified Ni3Al. Acta Metallurgica, 1985, 33, 2191-2198.	2.1	57
171	Microstructures and mechanical properties of Ni3Al alloyed with iron additions. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1987, 18, 1265-1277.	1.4	57
172	Effects of grain size and test temperature on ductility and fracture behavior of A B-doped Ni3Al alloy. Acta Metallurgica, 1988, 36, 1241-1249.	2.1	57
173	Precipitate transformation from NiAl-type to Ni2AlMn-type and its influence on the mechanical properties of high-strength steels. Acta Materialia, 2016, 110, 31-43.	7.9	57
174	Accelerated design of novel W-free high-strength Co-base superalloys with extremely wide Î³/Î³Ê¹ region by machine learning and CALPHAD methods. Acta Materialia, 2020, 186, 425-433.	7.9	57
175	Innovative processing and property improvement of metallic glass based composites. Scripta Materialia, 2006, 55, 375-378.	5.2	56
176	Structural model for bulk amorphous alloys. Applied Physics Letters, 2006, 89, 111905.	3.3	56
177	Evaluation of Mn substitution for Ni in alumina-forming austenitic stainless steels. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 524, 176-185.	5.6	56
178	Mechanical properties of single crystal tungsten microwhiskers characterized by nanoindentation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 523, 193-198.	5.6	56
179	Highâ€Entropy Alloy (HEA)â€Coated Nanolattice Structures and Their Mechanical Properties. Advanced Engineering Materials, 2018, 20, 1700625.	3.5	56
180	Exceptional nanostructure stability and its origins in the CoCrNi-based precipitation-strengthened medium-entropy alloy. Materials Research Letters, 2019, 7, 152-158.	8.7	56

#	Article	IF	Citations
181	Enhanced strength-ductility synergy via novel bifunctional nano-precipitates in a high-entropy alloy. International Journal of Plasticity, 2022, 153, 103235.	8.8	56
182	Temperature evolution during fatigue damage. Intermetallics, 2005, 13, 419-428.	3.9	55
183	Structure Heterogeneity in Metallic Glass: Modeling and Experiment. Journal of Materials Science and Technology, 2014, 30, 560-565.	10.7	55
184	Adiabatic temperature of combustion synthesis of Alâ€“Ni systems. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 357, 248-257.	5.6	54
185	Four-point-bending-fatigue behavior of the Zr-based Vitreloy 105 bulk metallic glass. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 467, 190-197.	5.6	54
186	Improved ductility and oxidation resistance of cast Tiâ€“6Alâ€“4V alloys by microalloying. Journal of Alloys and Compounds, 2014, 602, 235-240.	5.5	54
187	Effect of size and base-element on the jerky flow dynamics in metallic glass. Acta Materialia, 2014, 63, 180-190.	7.9	54
188	Composition evolution of gamma prime nanoparticles in the Ti-doped CoFeCrNi high entropy alloy. Scripta Materialia, 2018, 148, 42-46.	5.2	54
189	Oxidation behavior of multiphase Moâ€“Siâ€“B alloys. Intermetallics, 2004, 12, 721-725.	3.9	53
190	Effects of atomic bonding nature and size mismatch on thermal stability and glass-forming ability of bulk metallic glasses. Journal of Non-Crystalline Solids, 2004, 341, 93-100.	3.1	53
191	Sunflower-like Solidification Microstructure in a Near-eutectic High-entropy Alloy. Materials Research Letters, 2013, 1, 228-232.	8.7	53
192	A novel L12-strengthened multicomponent Co-rich high-entropy alloy with both high Î³â€²-solvus temperature and superior high-temperature strength. Scripta Materialia, 2021, 199, 113826.	5.2	53
193	Effect of refractory alloying additions on mechanical properties of near-stoichiometric NiAl. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1995, 192-193, 170-178.	5.6	52
194	Phase stability and mechanical behavior of NbCr2-based Laves phases. Intermetallics, 1999, 7, 1011-1016.	3.9	52
195	Structural stability of the Laves phase Cr2Ta in a two-phase Crâ€“Cr2Ta alloy. Acta Materialia, 2000, 48, 911-923.	7.9	52
196	Microstructures and mechanical properties of CoCrFeMnNiV high entropy alloy films. Journal of Alloys and Compounds, 2020, 820, 153388.	5.5	52
197	Spinodal-modulated solid solution delivers a strong and ductile refractory high-entropy alloy. Materials Horizons, 2021, 8, 948-955.	12.2	52
198	Understanding chemical short-range ordering/demixing coupled with lattice distortion in solid solution high entropy alloys. Acta Materialia, 2021, 216, 117140.	7.9	52

#	Article	IF	Citations
199	Ordered intermetallic alloys, part II: Silicides, trialuminides, and others. Jom, 1993, 45, 28-34.	1.9	51
200	Environmental embrittlement and other causes of brittle grain boundary fracture in Ni3Al. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1995, 192-193, 277-288.	5.6	51
201	Binary eutectic clusters and glass formation in ideal glass-forming liquids. Applied Physics Letters, 2006, 89, 071910.	3.3	51
202	Deformation Crossover: From Nano- to Mesoscale. Physical Review Letters, 2009, 103, 035502.	7.8	51
203	Oxidation resistance and mechanical properties of Laves phase reinforced Cr in-situ composites. Intermetallics, 2000, 8, 1111-1118.	3.9	50
204	Design of titanium alloys by additive manufacturing: A critical review. , 2022, 1, 100014.		50
205	Effect of Al content on porous Niâ€“Al alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 4849-4855.	5.6	49
206	High B s Fe-based nanocrystalline alloy with high impurity tolerance. Journal of Materials Science, 2018, 53, 1437-1446.	3.7	49
207	Relating structural heterogeneity to Î² relaxation processes in metallic glasses. Materials Research Letters, 2019, 7, 305-311.	8.7	49
208	Microstructures and mechanical properties of NiAlâ€“Ni₂AlHf alloys. Journal of Materials Research, 1990, 5, 1189-1196.	2.6	48
209	Structures and mechanical behaviors ofZr55Cu35Al10bulk amorphous alloys at ambient and cryogenic temperatures. Physical Review B, 2006, 74, .	3.2	48
210	Atomistic model of amorphous materials. Intermetallics, 2009, 17, 86-87.	3.9	48
211	A Review on Nano-Scale Precipitation in Steels. Technologies, 2018, 6, 36.	5.1	48
212	Tailoring nanoprecipitates for ultra-strong high-entropy alloys via machine learning and prestrain aging. Journal of Materials Science and Technology, 2021, 69, 156-167.	10.7	48
213	A study of the corrosion behaviour of Zr50Cu(40â^'X)Al10PdX bulk metallic glasses with scanning Auger microanalysis. Corrosion Science, 2008, 50, 1825-1832.	6.6	47
214	Nanoindentation characterized initial creep behavior of a high-entropy-based alloy CoFeNi. Intermetallics, 2014, 53, 183-186.	3.9	47
215	Towards superior mechanical properties of hetero-structured high-entropy alloys via engineering multicomponent intermetallic nanoparticles. Scripta Materialia, 2020, 183, 39-44.	5.2	47
216	Stacking Fault Driven Phase Transformation in CrCoNi Medium Entropy Alloy. Nano Letters, 2021, 21, 1419-1426.	9.1	47

#	Article	IF	Citations
217	Interface characterization of fiber-reinforced Ni3Al matrix composites. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1989, 20, 2459-2469.	1.4	46
218	Solid solubility, precipitates, and stacking fault energy of micro-alloyed CoCrFeNi high entropy alloys. Journal of Alloys and Compounds, 2018, 769, 490-502.	5.5	46
219	Oxidation behavior of porous NiAl prepared through reactive synthesis. Materials Chemistry and Physics, 2010, 122, 417-423.	4.0	45
220	Refractory alloying additions on the thermal stability and mechanical properties of high-entropy alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 797, 140020.	5.6	45
221	Moisture induced environmental embrittlement of intermetallics. International Materials Reviews, 2001, 46, 253-270.	19.3	44
222	Fatigue behavior of Zr-based bulk-metallic glasses. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 494, 314-323.	5.6	44
223	Oxygen effects on plastic deformation of a Zr-based bulk metallic glass. Applied Physics Letters, 2008, 92, .	3.3	44
224	Thermal and mechanical properties of the Zr53Cu30Ni9Al8 based bulk metallic glass microalloyed with silicon. Journal of Alloys and Compounds, 2009, 478, 215-219.	5.5	44
225	Atomic packing symmetry in the metallic liquid and glass states. Acta Materialia, 2011, 59, 6480-6488.	7.9	44
226	Group precipitation and age hardening of nanostructured Fe-based alloys with ultra-high strengths. Scientific Reports, 2016, 6, 21364.	3.3	44
227	Reactive synthesis of microporous titanium-aluminide membranes. Materials Letters, 2009, 63, 22-24.	2.6	43
228	Vacancies as a constitutive element for the design of nanocluster-strengthened ferritic steels. Frontiers of Materials Science in China, 2009, 3, 9-14.	0.5	43
229	Effects of testing environment on the elevated temperature ductility of boron-doped Ni3Al. Scripta Metallurgica, 1986, 20, 1613-1618.	1.2	42
230	Processing of Fe3Al and FeAl alloys by reaction synthesis. Intermetallics, 1995, 3, 467-481.	3.9	42
231	Correlation of the microstructure and mechanical properties of Zr-based in-situ bulk metallic glass matrix composites. Intermetallics, 2010, 18, 2425-2430.	3.9	42
232	Precipitation-hardened high-entropy alloys for high-temperature applications: A critical review. MRS Bulletin, 2019, 44, 854-859.	3.5	42
233	Intrinsic ductility of FeAl single crystals. Intermetallics, 1995, 3, 77-81.	3.9	41
234	Development of porosity in an oxide dispersion-strengthened ferritic alloy containing nanoscale oxide particles. Scripta Materialia, 2007, 57, 1040-1043.	5.2	41

#	Article	IF	Citations
235	The corrosion behavior of porous Ni3Al intermetallic materials in strong alkali solution. Intermetallics, 2011, 19, 1759-1765.	3.9	41
236	Correlation between local elastic heterogeneities and overall elastic properties in metallic glasses. Acta Materialia, 2016, 121, 266-276.	7.9	41
237	Ductilizing brittle high-entropy alloys via tailoring valence electron concentrations of precipitates by controlled elemental partitioning. Materials Research Letters, 2018, 6, 600-606.	8.7	41
238	Tuning the defects in face centered cubic high entropy alloy via temperature-dependent stacking fault energy. Scripta Materialia, 2018, 155, 134-138.	5.2	41
239	Evolution of shear bands and its correlation with mechanical response of a ductile Zr55Pd10Cu20Ni5Al10 bulk metallic glass. Intermetallics, 2010, 18, 1455-1464.	3.9	40
240	From embryos to precipitates: A study of nucleation and growth in a multicomponent ferritic steel. Physical Review B, 2011, 84, .	3.2	40
241	New NiAl-strengthened ferritic steels with balanced creep resistance and ductility designed by coupling thermodynamic calculations with focused experiments. Intermetallics, 2012, 29, 110-115.	3.9	40
242	Quantitative determination of the lattice constant in high entropy alloys. Scripta Materialia, 2019, 162, 468-471.	5.2	40
243	Effect of low-pressure hydrogen on the room-temperature tensile ductility and fracture behavior of Ni3Al. Intermetallics, 1996, 4, 497-502.	3.9	39
244	Bulk Glass Formation in an Fe-Based Feâ€“Yâ€“Zrâ€“M (M = Cr, Co, Al)â€“Moâ€“B System. Journal of Materials Research, 2004, 19, 921-929.	2.6	39
245	Influence of Aging and Thermomechanical Treatments on the Mechanical Properties of a Nanocluster-Strengthened Ferritic Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 351-359.	2.2	39
246	Unveiling atomic-scale features of inherent heterogeneity in metallic glass by molecular dynamics simulations. Physical Review B, 2016, 93, .	3.2	39
247	Phase field study of the copper precipitation in Fe-Cu alloy. Acta Materialia, 2019, 166, 560-571.	7.9	39
248	Reaction synthesis of Feî—¸Al alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1995, 192-193, 544-548.	5.6	38
249	Environmental embrittlement in Ll2-ordered (Co, Fe)3 V alloys. Acta Metallurgica Et Materialia, 1992, 40, 723-731.	1.8	37
250	Strengthening mechanism in a high-strength carbon-containing powder metallurgical high entropy alloy. Intermetallics, 2018, 102, 58-64.	3.9	37
251	Characterization, processing, and alloy design of NiAl-based shape memory alloys. Materials Characterization, 1994, 32, 139-160.	4.4	36
252	Hydrogen diffusivity in boron-doped polycrystalline Ni3Al. Scripta Metallurgica Et Materialia, 1994, 31, 677-681.	1.0	36

#	Article	IF	Citations
253	Nanoscale Solute Partitioning in Bulk Metallic Glasses. Advanced Materials, 2009, 21, 305-308.	21.0	36
254	Cooling rate effect on Young's modulus and hardness of a Zr-based metallic glass. Journal of Alloys and Compounds, 2011, 509, 3269-3273.	5.5	36
255	Softening-induced plastic flow instability and indentation size effect in metallic glass. Journal of the Mechanics and Physics of Solids, 2015, 77, 70-85.	4.8	36
256	Effects of welding and post-weld heat treatments on nanoscale precipitation and mechanical properties of an ultra-high strength steel hardened by NiAl and Cu nanoparticles. Acta Materialia, 2016, 120, 216-227.	7.9	36
257	L12-strengthened multicomponent Co-Al-Nb-based alloys with high strength and matrix-confined stacking-fault-mediated plasticity. Acta Materialia, 2022, 229, 117763.	7.9	36
258	Atomic ordering and structural transformation in the V-Co-Ni ternary alloys. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1973, 4, 1743-1753.	1.4	35
259	Effects of minor alloying elements on the welding behavior of FeAl alloys for structural and weld-overlay cladding applications. Scripta Metallurgica Et Materialia, 1992, 27, 1835-1840.	1.0	35
260	Room temperature ductility of NiAl-strengthened ferritic steels: Effects of precipitate microstructure. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 541, 22-27.	5.6	35
261	Density fluctuations with fractal order in metallic glasses detected by synchrotron X-ray nano-computed tomography. Acta Materialia, 2018, 155, 69-79.	7.9	35
262	Effect of chromium on early stages of oxidation of Ni3Al alloys at 600ï¿½C. Oxidation of Metals, 1988, 29, 347-365.	2.1	34
263	Characterization of porous Ni3Al electrode for hydrogen evolution in strong alkali solution. Materials Chemistry and Physics, 2013, 141, 553-561.	4.0	34
264	First-principles prediction and experimental verification of glass-forming ability in Zr-Cu binary metallic glasses. Scientific Reports, 2013, 3, 2124.	3.3	34
265	The stability of hydrogen evolution activity and corrosion behavior of porous Ni3Alâ€“Mo electrode in alkaline solution during long-term electrolysis. Energy, 2014, 67, 19-26.	8.8	34
266	A novel equiaxed eutectic high-entropy alloy with excellent mechanical properties at elevated temperatures. Materials Research Letters, 2020, 8, 373-382.	8.7	34
267	Non-conventional transformation pathways and ultrafine lamellar structures in Î³-TiAl alloys. Acta Materialia, 2020, 189, 25-34.	7.9	34
268	High-entropy induced a glass-to-glass transition in a metallic glass. Nature Communications, 2022, 13, 2183.	12.8	34
269	Effect of grain size on yield strength of Ni₃Al and other alloys. Journal of Materials Research, 1988, 3, 665-674.	2.6	33
270	Nanocluster-associated vacancies in nanocluster-strengthened ferritic steel as seen via positron-lifetime spectroscopy. Physical Review B, 2009, 79, .	3.2	33

#	Article	IF	Citations
271	Enhanced plasticity in a Zr-based bulk metallic glass composite with in situ formed intermetallic phases. Applied Physics Letters, 2009, 95, .	3.3	33
272	Effect of surface modifications on shear banding and plasticity in metallic glasses: An overview. Progress in Natural Science: Materials International, 2012, 22, 355-363.	4.4	33
273	Corrosionâ€“fatigue studies of the Zr-based Vitreloy 105 bulk metallic glass. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 467, 198-206.	5.6	32
274	Synthesis of single-crystalline tungsten nanowires by nickel-catalyzed vapor-phase method at 850Â°C. Journal of Crystal Growth, 2007, 306, 433-436.	1.5	31
275	Characteristic length scales governing plasticity/brittleness of bulk metallic glasses at ambient temperature. Applied Physics Letters, 2010, 96, 011905.	3.3	31
276	Mo doped porous Niâ€“Cu alloy as cathode for hydrogen evolution reaction in alkaline solution. RSC Advances, 2015, 5, 82078-82086.	3.6	31
277	A new Î±Â+ÂÎ² Ti-alloy with refined microstructures and enhanced mechanical properties in the as-cast state. Scripta Materialia, 2022, 207, 114260.	5.2	31
278	Crack nucleation in hydrogen embrittlement. Scripta Metallurgica Et Materialia, 1992, 27, 1701-1705.	1.0	30
279	HYDROGEN-BORON INTERACTION AND ITS EFFECT ON THE DUCTILITY AND FRACTURE OF Ni3Al. Acta Materialia, 1997, 45, 2801-2811.	7.9	30
280	Structure and composition of Laves phases in binary Crâ€“Nb, Crâ€“Zr and ternary Crâ€“(Nb, Zr) alloys. Intermetallics, 2003, 11, 677-685.	3.9	30
281	Effects of Fe additions on the mechanical properties and oxidation behavior of CrTa Laves phase reinforced Cr. Scripta Materialia, 2005, 52, 815-819.	5.2	30
282	Magnetism and solid solution effects in NiAl (40% Al) alloys. Progress in Materials Science, 2007, 52, 352-370.	32.8	30
283	Unusual thermal stability of nano-structured ferritic alloys. Journal of Alloys and Compounds, 2012, 529, 96-101.	5.5	30
284	Characterization of the porous Ni3Alâ€“Mo electrodes during hydrogen generation from alkaline water electrolysis. Energy, 2013, 63, 216-224.	8.8	30
285	Direct evidence of hydrogen generation from the reaction of water with FeAl. Scripta Materialia, 1996, 35, 1435-1439.	5.2	29
286	Competitive formation of glasses and glassâ€“matrix composites. Intermetallics, 2007, 15, 253-259.	3.9	29
287	Physical factors controlling the ductility of bulk metallic glasses. Applied Physics Letters, 2008, 93, .	3.3	29
288	Kinetic ways of tailoring phases in high entropy alloys. Scientific Reports, 2016, 6, 34628.	3.3	29

#	Article	IF	Citations
289	Atom-probe study of Cu and NiAl nanoscale precipitation and interfacial segregation in a nanoparticle-strengthened steel. Materials Research Letters, 2017, 5, 562-568.	8.7	29
290	Effect of annealing temperatures on microstructure and deformation behavior of Al0Â·1CrFeCoNi high-entropy alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 805, 140523.	5.6	29
291	Chemically complex intermetallic alloys: A new frontier for innovative structural materials. Materials Today, 2022, 52, 161-174.	14.2	29
292	Environmental embrittlement in Ll2-ordered (Fe,Co)3V. Scripta Metallurgica Et Materialia, 1991, 25, 791-794.	1.0	28
293	Reaction sintering of Ni3Al to near full density. Scripta Metallurgica Et Materialia, 1992, 26, 381-385.	1.0	28
294	Development of a new graded-porosity FeAl alloy by elemental reactive synthesis. Desalination, 2009, 249, 29-33.	8.2	28
295	Effects of boron on the fracture behavior and ductility of cast Tiâ€“6Alâ€“4V alloys. Scripta Materialia, 2015, 100, 90-93.	5.2	28
296	Design of highly thermal-shock resistant tungsten alloys with nanoscaled intra- and inter-type K bubbles. Journal of Alloys and Compounds, 2019, 782, 149-159.	5.5	28
297	Thermodynamics of vacancies and clusters in high-entropy alloys. Physical Review Materials, 2017, 1, .	2.4	28
298	Phase relations in concentrated Ta-Hf and Nb-Hf alloys. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1971, 2, 125-131.	1.4	27
299	Does a grain boundary phase exist in Ni-24% Al? Summary of recent experimental work. Scripta Metallurgica Et Materialia, 1990, 24, 1251-1256.	1.0	27
300	A combined drop/suction-casting machine for the manufacture of bulk-metallic-glass materials. Review of Scientific Instruments, 2006, 77, 033902.	1.3	27
301	Innovative processing of high-strength and low-cost ferritic steels strengthened by Yâ€“Tiâ€“O nanoclusters. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 544, 59-69.	5.6	27
302	Atomistic approach to predict the glass-forming ability in Zrâ€“Cuâ€“Al ternary metallic glasses. Journal of Alloys and Compounds, 2015, 627, 48-53.	5.5	27
303	Growth, microstructure and mechanical properties of CoCrFeMnNi high entropy alloy films. Vacuum, 2020, 179, 109553.	3.5	27
304	Heterogeneous lattice strain strengthening in severely distorted crystalline solids. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	27
305	Environmental embrittlement in ordered Ni3Fe?. Scripta Metallurgica Et Materialia, 1990, 24, 1583-1586.	1.0	26
306	Pair distribution function study and mechanical behavior of as-cast and structurally relaxed Zr-based bulk metallic glasses. Applied Physics Letters, 2006, 89, 231920.	3.3	26

#	Article	IF	Citations
307	Studying fatigue behavior and Poisson's ratio of bulk-metallic glasses. Intermetallics, 2007, 15, 663-667.	3.9	26
308	Boron effects on the ductility of a nano-cluster-strengthened ferritic steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 855-859.	5.6	26
309	Tortuosity factor for porous FeAl intermetallics fabricated by reactive synthesis. Transactions of Nonferrous Metals Society of China, 2012, 22, 2179-2183.	4.2	26
310	Development of ductile long-range ordered alloys for fusion reactor systems. Journal of Nuclear Materials, 1979, 85-86, 907-911.	2.7	25
311	Design of Ductile Polycrystalline Ni₃Al Alloys. Materials Research Society Symposia Proceedings, 1984, 39, 365.	0.1	25
312	Effects of aluminum concentration and compact thickness on reaction synthesis of Ni3Alî—¸NiAl alloys. Intermetallics, 1994, 2, 297-313.	3.9	25
313	Environmental effects on the tensile properties of two Ni3Si-Based alloys. Scripta Materialia, 2000, 42, 265-270.	5.2	25
314	Microstructures and properties of a hot-extruded TiAl containing no Cr. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 329-331, 416-423.	5.6	25
315	Mechanical behavior of a Zr-based bulk metallic glass and its composite at cryogenic temperatures. Journal of Materials Research, 2007, 22, 445-452.	2.6	25
316	Pore structure control for porous FeAl intermetallics. Intermetallics, 2013, 32, 423-428.	3.9	25
317	Heterogenous columnar-grained high-entropy alloys produce exceptional resistance to intermediate-temperature intergranular embrittlement. Scripta Materialia, 2021, 194, 113622.	5.2	25
318	Highly pressurized helium nanobubbles promote stacking-fault-mediated deformation in FeNiCoCr high-entropy alloy. Acta Materialia, 2021, 210, 116843.	7.9	25
319	Physical metallurgy and mechanical properties of ductile ordered alloys (Fe, Co, Ni)3 V. International Metals Reviews, 1984, 29, 168-194.	0.3	24
320	Site occupation of iron in intermetallic NiAl. Applied Surface Science, 1994, 76-77, 155-159.	6.1	24
321	Pinning of dislocations and the origin of the stress anomaly in FeAl alloys. Intermetallics, 1999, 7, 1059-1068.	3.9	24
322	Structural characteristics and high-temperature oxidation behavior of porous Feâ€“40Âat.%Al alloy. Journal of Materials Science, 2009, 44, 4413-4421.	3.7	24
323	A Ni-free Zr-based bulk metallic glass with remarkable plasticity. Journal of Alloys and Compounds, 2011, 509, S109-S114.	5.5	24
324	Engineering medium-range order and polyamorphism in a nanostructured amorphous alloy. Communications Physics, 2019, 2, .	5.3	24

#	Article	IF	Citations
325	Effect of preoxidation and grain size on ductility of a boron-doped Ni3Al at elevated temperatures. Acta Metallurgica, 1989, 37, 2681-2688.	2.1	23
326	Corrosion of Zr52.5Cu17.9Ni14.6Al10Ti5 bulk metallic glasses in aqueous solutions. Materials Letters, 2003, 57, 3022-3025.	2.6	23
327	Magnetism-induced solid solution softening in NiAl with Co, Fe, Mn, and Cr solute atoms: theory and experiment. Intermetallics, 2004, 12, 911-919.	3.9	23
328	Thermal stability and crystallization of Zrâ€“Alâ€“Cuâ€“Ni based amorphous alloy added with boron and silicon. Intermetallics, 2006, 14, 951-956.	3.9	23
329	Pore evolution regulation in synthesis of open pore structured Tiâ€“Al intermetallic compounds by solid diffusion. Journal of Alloys and Compounds, 2012, 521, 12-15.	5.5	23
330	Thermodynamic modeling and experimental validation of the Fe-Al-Ni-Cr-Mo alloy system. Materials Letters, 2012, 71, 36-40.	2.6	23
331	Atomistic mechanism of elastic softening in metallic glass under cyclic loading revealed by molecular dynamics simulations. Intermetallics, 2016, 68, 5-10.	3.9	23
332	Mutual interaction of shear bands in metallic glasses. Intermetallics, 2017, 85, 48-53.	3.9	23
333	Effect of external applied magnetic field on microstructures and mechanical properties of laser welding joint of medium-Mn nanostructured steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 792, 139787.	5.6	23
334	Multicomponent Ni-rich high-entropy alloy toughened with irregular-shaped precipitates and serrated grain boundaries. Scripta Materialia, 2021, 204, 114066.	5.2	23
335	Dual heterogeneous structure facilitating an excellent strength-ductility combination in an additively manufactured multi-principal-element alloy. Materials Research Letters, 2022, 10, 575-584.	8.7	23
336	Thermal conductivity of Ni-Al powder compacts for reaction synthesis. Intermetallics, 2000, 8, 151-155.	3.9	22
337	Glass transition and crystallization of Mgâ€“Niâ€“Nd metallic glasses studied by temperature-modulated DSC. Intermetallics, 2004, 12, 869-874.	3.9	22
338	Viscous flow and microforming of a Zr-base bulk metallic glass. Intermetallics, 2009, 17, 200-204.	3.9	22
339	Effect of preheating treatment at 575 Â°C of green compacts on porous NiAl. Journal of Alloys and Compounds, 2010, 492, 219-225.	5.5	22
340	Novel C/Cu sheath/core nanostructures synthesized via low-temperature MOCVD. Nanotechnology, 2011, 22, 405704.	2.6	22
341	Design of high entropy alloys based on the experience from commercial superalloys. Philosophical Magazine Letters, 2015, 95, 1-6.	1.2	22
342	Effects of boron additions and solutionizing treatments on microstructures and ductility of forged Tiâ€“6Alâ€“4V alloys. Journal of Alloys and Compounds, 2015, 624, 170-178.	5.5	22

#	Article	IF	Citations
343	The general effect of atomic size misfit on glass formation in conventional and high-entropy alloys. Intermetallics, 2016, 78, 30-41.	3.9	22
344	The incredible excess entropy in high entropy alloys. Scripta Materialia, 2019, 168, 19-22.	5.2	22
345	Microstructure control and tensile properties of three-phase alloys based on the E21 Co3AlC and B2 CoAl. Intermetallics, 2001, 9, 1069-1078.	3.9	21
346	Effect of heating rate on pore structure of porous FeAl material. Powder Metallurgy, 2008, 51, 171-175.	1.7	21
347	Improvement of magnetic properties of an Fe-6.5â€‚wt.â€‰% Si alloy by directional recrystallization. Applied Physics Letters, 2008, 93, .	3.3	21
348	Structural Signature of Plasticity Unveiled by Nano-Scale Viscoelastic Contact in a Metallic Glass. Scientific Reports, 2016, 6, 29357.	3.3	21
349	The oxidation of Ni3Si-base alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1995, 191, 223-231.	5.6	20
350	Kinetic and equilibrium effects in the environmental embrittlement of ordered intermetallics. Scripta Metallurgica Et Materialia, 1995, 33, 661-668.	1.0	20
351	The effect of vacancies on the environmental yield strength dependence of boron-free and boron-doped Fe-40Al. Intermetallics, 2000, 8, 1413-1416.	3.9	20
352	Molecular dynamic simulations and atomic structures of amorphous materials. Applied Physics Letters, 2006, 88, 203115.	3.3	20
353	Microstructural evolution of (TiAl)+Nb+W+B alloy. Transactions of Nonferrous Metals Society of China, 2011, 21, 2192-2198.	4.2	20
354	Thermographic studies of temperature evolutions in bulk metallic glasses: An overview. Intermetallics, 2012, 30, 1-11.	3.9	20
355	Nanoscale Structural Evolution and Anomalous Mechanical Response of Nanoglasses by Cryogenic Thermal Cycling. Nano Letters, 2018, 18, 4188-4194.	9.1	20
356	Precipitation kinetics and mechanical properties of nanostructured steels with Mo additions. Materials Research Letters, 2020, 8, 187-194.	8.7	20
357	Structure and mechanical properties of internally oxidized Ta-8 Pct W-2 Pct Hf (T-111) alloy. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1973, 4, 1839-1850.	1.4	19
358	Effect of grain shape on environmental embrittlement in Ni3Al tested at elevated temperatures. Journal of Materials Research, 1989, 4, 294-299.	2.6	19
359	Recrystallization and grain growth in Ni3Al with and without boron. Intermetallics, 1993, 1, 217-225.	3.9	19
360	APT characterization of some iron-based bulk metallic glasses. Intermetallics, 2006, 14, 1019-1026.	3.9	19

#	Article	IF	Citations
361	Directional recrystallization and microstructures of an Feâ€“6.5wt%Si alloy. Journal of Materials Research, 2009, 24, 2654-2660.	2.6	19
362	Formation of oxides particles in ferritic steel by using gas-atomized powder. Journal of Nuclear Materials, 2010, 396, 86-93.	2.7	19
363	Atomic migration and bonding characteristics during a glass transition investigated using as-cast Zr-Cu-Al. Physical Review B, 2011, 83, .	3.2	19
364	The corrosion behavior of sintering micro-porous Niâ€“Cu alloy in hydrofluoric acid solution. Journal of Alloys and Compounds, 2015, 638, 7-13.	5.5	19
365	Breaking the strength-ductility paradox in advanced nanostructured Fe-based alloys through combined Cu and Mn additions. Scripta Materialia, 2020, 186, 213-218.	5.2	19
366	Shear fracture of bulk metallic glasses with controlled applied normal stresses. Scripta Materialia, 2008, 59, 111-114.	5.2	18
367	Catalytic growth of metallic tungsten whiskers based on the vaporâ€“solidâ€“solid mechanism. Nanotechnology, 2008, 19, 345604.	2.6	18
368	The oxidation behavior of an Fe61B15Zr8Mo7Co5Y2Cr2 bulk metallic glass at 550â€“700ÂÂ°C. Intermetallics, 2009, 17, 205-210.	3.9	18
369	The Critical Criterion on Runaway Shear Banding in Metallic Glasses. Scientific Reports, 2016, 6, 21388.	3.3	18
370	Martensitic transformation and mechanical behavior of a medium-entropy alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 786, 139371.	5.6	18
371	Boron segregation at grain boundaries in rapidly solidified Ni3Al. Scripta Metallurgica, 1985, 19, 963-966.	1.2	17
372	Fracture in Ni3Al: Environmental and Dopant Effects. Physica Status Solidi A, 1997, 160, 517-529.	1.7	17
373	Thermal diffusion and compositional inhomogeneity in cast Zr50Cu50 bulk metallic glass. Applied Physics Letters, 2006, 89, 051919.	3.3	17
374	Influence of air and vacuum environment on fatigue behavior of Zr-based bulk metallic glasses. Journal of Alloys and Compounds, 2007, 434-435, 68-70.	5.5	17
375	Development of soft magnetic amorphous alloys with distinctly high Fe content. Science China: Physics, Mechanics and Astronomy, 2017, 60, 1.	5.1	17
376	Rational design of chemically complex metallic glasses by hybrid modeling guided machine learning. Npj Computational Materials, 2021, 7, .	8.7	17
377	Metal-carbide eutectics with multiprincipal elements make superrefractory alloys. Science Advances, 2022, 8, .	10.3	17
378	The oxidation behavior of an Fe61B15Zr8Mo7Co5Y2Cr2 bulk metallic glass at 650Â°C in various oxygen-containing environments. Intermetallics, 2009, 17, 165-168.	3.9	16

#	Article	IF	Citations
379	Delayed shear banding and evolution of local plastic flow in a metallic glass. Applied Physics Letters, 2014, 105, .	3.3	16
380	Atomistic mechanism of nano-scale phase separation in fcc-based high entropy alloys. Journal of Alloys and Compounds, 2016, 663, 340-344.	5.5	16
381	Nanocrystallization of Zr61Al7.5Cu17.5Ni10Si4 metallic glass. Intermetallics, 2009, 17, 56-64.	3.9	15
382	Effect of boron on the fracture behavior and grain boundary chemistry of Ni3Fe. Scripta Materialia, 2011, 64, 303-306.	5.2	15
383	High strength and plastic strain of Mg-based bulk metallic glass composite containing in situ formed intermetallic phases. Scripta Materialia, 2013, 68, 150-153.	5.2	15
384	Shear-banding Induced Indentation Size Effect in Metallic Glasses. Scientific Reports, 2016, 6, 28523.	3.3	15
385	Second phase effect on corrosion of nanostructured Mg-Zn-Ca dual-phase metallic glasses. Journal of Magnesium and Alloys, 2021, 9, 1546-1555.	11.9	15
386	The effect of boron doping on the hall-petch slope of FeAl (40 at. % Al). Scripta Metallurgica Et Materialia, 1991, 25, 2757-2761.	1.0	14
387	Low temperature embrittlement of Ni3(Si, Ti) alloys. Intermetallics, 1996, 4, 309-318.	3.9	14
388	Composition effects on glass-forming ability and its indicator Î³. Intermetallics, 2008, 16, 410-417.	3.9	14
389	Heterogeneous nucleation in a glass-forming alloy. Applied Physics Letters, 2008, 92, .	3.3	14
390	Compositional and microstructural optimization and mechanical-property enhancement of cast Ti alloys based on Ti-6Al-4V alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 704, 91-101.	5.6	14
391	Resonance ultrasonic actuation and local structural rejuvenation in metallic glasses. Physical Review B, 2017, 95, .	3.2	14
392	Unveiling the Electronic Origin for Pressure-Induced Phase Transitions in High-Entropy Alloys. Matter, 2020, 2, 751-763.	10.0	14
393	Synergy of strengthening and toughening of a Cu-rich precipitate-strengthened steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 832, 142487.	5.6	14
394	Oxygen distribution in internally-oxidized Ta-8 pct W-2 pct Hf alloy. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1975, 6, 419.	1.4	13
395	Grain-boundary contamination and ductility loss in boron-doped Ni3Al. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1989, 20, 2017-2023.	1.4	13
396	Growth mechanism from nano-ordered clusters to nanocrystals in a deeply undercooled melt of Zr-Ni-Ti metallic glass. Journal of Applied Physics, 2007, 102, 063515.	2.5	13

#	Article	IF	Citations
397	Effects of Al content on porous Feâ€“Al alloys. Powder Metallurgy, 2009, 52, 158-163.	1.7	13
398	Effect of molten quenching temperature on glass-forming ability of nanoquasi-crystal-forming Zr-based metallic glasses. Scripta Materialia, 2013, 68, 534-537.	5.2	13
399	Probing Stochastic Nano-Scale Inelastic Events in Stressed Amorphous Metal. Scientific Reports, 2014, 4, 6699.	3.3	13
400	In-situ atomic force microscopy observation revealing gel-like plasticity on a metallic glass surface. Journal of Applied Physics, 2017, 121, .	2.5	13
401	Environmental effect on mechanical properties of L12-ordered (Fe22Co78)3V. Scripta Metallurgica Et Materialia, 1992, 26, 1753-1758.	1.0	12
402	Effects of alloy stoichiometry on environmental embrittlement in Ll2-ordered (Co,Fe)3V alloys. Scripta Metallurgica Et Materialia, 1992, 27, 1307-1311.	1.0	12
403	A quantitative link between microplastic instability and macroscopic deformation behaviors in metallic glasses. Journal of Applied Physics, 2009, 106, 083512.	2.5	12
404	Criterion to control self-propagation high temperature synthesis for porous Tiâ€“Al intermetallics. Powder Metallurgy, 2011, 54, 404-407.	1.7	12
405	Large-scale synthesis of tungsten single-crystal microtubes via vapor-deposition process. Journal of Crystal Growth, 2011, 316, 137-144.	1.5	12
406	Size-affected shear-band speed in bulk metallic glasses. Applied Physics Letters, 2011, 99, 171904.	3.3	12
407	Nano-heterogeneity-stabilized and magnetic-interaction-modulated metallic glasses. Science China Materials, 2021, 64, 1813-1819.	6.3	12
408	Intermediate temperature embrittlement in a precipitation-hardened high-entropy alloy: The role of heterogeneous strain distribution and environmentally assisted intergranular damage. Materials Today Physics, 2022, 24, 100653.	6.0	12
409	The effect of phosphorus segregation to grain boundaries in Ir + 0.3 wt % W alloys on high temperature ductility. Scripta Metallurgica, 1978, 12, 727-733.	1.2	11
410	Outward diffusion and external oxidation of thorium in iridium alloys. Acta Metallurgica, 1981, 29, 301-310.	2.1	11
411	Environmental effects in NiTi-based alloys. Scripta Materialia, 1999, 41, 55-60.	5.2	11
412	Effect of iron additions on environmental embrittlement of NiTi-base alloys. Intermetallics, 2004, 12, 859-868.	3.9	11
413	Effect of Ru additions on microstructure and mechanical properties of Crâ€“TaCr2 alloys. Intermetallics, 2005, 13, 361-366.	3.9	11
414	Formation and growth mechanism of tungsten oxide microtubules. Chemical Physics Letters, 2006, 427, 350-355.	2.6	11

#	Article	IF	Citations
415	Microstructural Control of Ti-Al-Nb-W-B Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2007, 38, 2290-2297.	2.2	11
416	Growth of single-crystalline tungsten nanowires by an alloy-catalyzed method at 850 Â°C. Journal of Materials Research, 2008, 23, 72-77.	2.6	11
417	The critical cooling rate and microstructure evolution of Zr41.2Ti13.8Cu12.5Ni10Be22.5 composites by Bridgman solidification. Intermetallics, 2010, 18, 115-118.	3.9	11
418	Origin of Shear Stability and Compressive Ductility Enhancement of Metallic Glasses by Metal Coating. Scientific Reports, 2016, 6, 27852.	3.3	11
419	Rate Dependence of Serrated Flow and Its Effect on Shear Stability of Bulk Metallic Glasses. Journal of Iron and Steel Research International, 2016, 23, 24-30.	2.8	11
420	Design of ultrastrong but ductile medium-entropy alloy with controlled precipitations and heterogeneous grain structures. Applied Materials Today, 2021, 23, 101037.	4.3	11
421	L1₂â€Strengthened Coâ€Rich Alloys for Highâ€Temperature Structural Applications: A Critical Review. Advanced Engineering Materials, 2021, 23, 2100453.	3.5	11
422	The mechanical properties of two uranium alloys and their role in the oxidation of the alloys. Oxidation of Metals, 1973, 6, 123-143.	2.1	10
423	Hardening behavior of nickel beryllides. Scripta Metallurgica, 1988, 22, 1409-1413.	1.2	10
424	Surface oxidation and ductility loss in boron-doped Ni3Al at 760Â°C. Scripta Metallurgica, 1989, 23, 727-731.	1.2	10
425	Interaction of H2O and O2 with Ni3Fe and their effects on ductility. Intermetallics, 2000, 8, 353-357.	3.9	10
426	Direct observation of a concealed glass transition in a Mgâ€“Niâ€“Nd metallic glass. Applied Physics Letters, 2003, 82, 862-864.	3.3	10
427	Origin of yielding in metallic glass: Stress-induced flow. Applied Physics Letters, 2014, 104, 251901.	3.3	10
428	Fatigue studies of CoCrFeMnNi high entropy alloy films using nanoindentation dynamic mechanical analyses. Surface and Coatings Technology, 2021, 410, 126927.	4.8	10
429	Temperature-dependent microstructural evolutions and deformation mechanisms of (Ni2Co2FeCr)92Al4Nb4 high-entropy alloys. Journal of Alloys and Compounds, 2022, 918, 165597.	5.5	10
430	Shape memory properties of a two-phase NiAl plus Fe alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1995, 192-193, 873-880.	5.6	9
431	Effect of alloy stoichiometry and boron doping on the H2-induced environmental embrittlement of Ni3Fe intermetallics. Intermetallics, 2008, 16, 550-553.	3.9	9
432	MECHANICAL PROPERTIES OF BULK METALLIC GLASSES AT CRYOGENIC TEMPERATURES. Modern Physics Letters B, 2009, 23, 2703-2722.	1.9	9

#	Article	IF	Citations
433	Correlation between primary phases and atomic clusters in a Zr-based metallic glass. Journal of Applied Physics, 2010, 108, .	2.5	9
434	Evolution of atomic ordering in metallic glasses. Intermetallics, 2010, 18, 2333-2337.	3.9	9
435	Dual character of stable shear banding in bulk metallic glasses. Intermetallics, 2011, 19, 1005-1013.	3.9	9
436	Nanotwinned CoCrFeMnNi high entropy alloy films for flexible electronic device applications. Vacuum, 2021, 189, 110249.	3.5	9
437	In situ study on medium-range order evolution during the polyamorphous phase transition in a Pd-Ni-P nanostructured glass. Journal of Materials Science and Technology, 2022, 125, 145-156.	10.7	9
438	Vacancies in ternary alloys. Acta Metallurgica, 1971, 19, 617-620.	2.1	8
439	Development of iron-base long-range ordered (LRO) alloys for fusion reactor first wall and blanket applications. Journal of Nuclear Materials, 1981, 104, 1205-1209.	2.7	8
440	Cracking behavior of FeAl (40 at % Al) alloys during cutting operations. Scripta Metallurgica Et Materialia, 1992, 26, 1669-1674.	1.0	8
441	Effects of test environment and grain size on the tensile properties of L12-ordered (Co,Fe)3 V alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1992, 152, 146-152.	5.6	8
442	Effects of ordered state on environmental embrittlement in (Co,Fe)3V. Scripta Materialia, 1996, 35, 1441-1447.	5.2	8
443	Thermal stresses due to spheroidal inclusions. Materials Chemistry and Physics, 1999, 61, 207-213.	4.0	8
444	Glass Forming Ability and Thermal Properties of the Mg-Based Amorphous Alloys with Dual Rare Earth Elements Addition. Materials Transactions, 2007, 48, 1684-1688.	1.2	8
445	The Soret effect in bulk metallic glasses. Intermetallics, 2007, 15, 557-563.	3.9	8
446	Synthesis of tungsten oxide tapered needles with nanotips. Journal of Crystal Growth, 2007, 303, 574-579.	1.5	8
447	Effect of atomic ordering on hydrogen dissociation on Ni3Fe surfaces. Applied Physics Letters, 2009, 94, 111902.	3.3	8
448	Controlled normal/shear loading and shear fracture in bulk metallic glasses. Intermetallics, 2009, 17, 802-810.	3.9	8
449	First-principles prediction of the glass-forming ability in Zrâ€“Ni binary metallic glasses. Intermetallics, 2014, 53, 177-182.	3.9	8
450	Quantitatively defining free-volume, interconnecting-zone and cluster in metallic glasses. Intermetallics, 2015, 57, 98-100.	3.9	8

#	Article	IF	Citations
451	The kinetic origin of delayed yielding in metallic glasses. Applied Physics Letters, 2016, 108, 251901.	3.3	8
452	Low-carbon advanced nanostructured steels: Microstructure, mechanical properties, and applications. Science China Materials, 2021, 64, 1580-1597.	6.3	8
453	Susceptibility of chloride ion concentration, temperature, and surface roughness on pitting corrosion of CoCrFeNi mediumâ€entropy alloy. Materials and Corrosion - Werkstoffe Und Korrosion, 2022, 73, 106-115.	1.5	8
454	Transition morphology during HCP precipitation from beta-isomorphous alloys. Scripta Metallurgica, 1971, 5, 255-257.	1.2	7
455	Microstructural characterization of A Î³-TiAl-Ni alloy produced by rapid solidification techniques. Scripta Metallurgica Et Materialia, 1995, 32, 383-388.	1.0	7
456	A Scheme to Design Multi-Component Bulk Metallic Glasses in <I>Ideal</I> Glass-Forming Liquids. Materials Transactions, 2007, 48, 2476-2482.	1.2	7
457	Neutron diffraction study of the structure and low-temperature phase transformation in ternary NiAl+M (M=Ni,Fe,Co) alloys. Scripta Materialia, 2007, 56, 911-914.	5.2	7
458	A lightweight refractory complex concentrated alloy with high strength and uniform ductility. Applied Materials Today, 2022, 27, 101429.	4.3	7
459	Application of heavy-ion-induced X-ray satellite emission to alloys. Journal of Physics F: Metal Physics, 1984, 14, L37-L41.	1.6	6
460	Load relaxation studies of grain boundary effects in two Ni3Al alloys at elevated temperatures. Scripta Metallurgica, 1987, 21, 1675-1680.	1.2	6
461	The role of boron in suppressing environmental embrittlement in L12-Ordered (Co,Fe)3V. Scripta Metallurgica Et Materialia, 1992, 27, 1313-1317.	1.0	6
462	Novel tungsten oxide microneedles with nanosized tips. Applied Physics Letters, 2006, 88, 223107.	3.3	6
463	Effects of alloying elements on dendritic segregation in iridium alloys. Journal of Alloys and Compounds, 2008, 459, 130-134.	5.5	6
464	Influence of molten status on nanoquasicrystalline-forming Zr-based metallic glasses. Applied Physics Letters, 2008, 93, .	3.3	6
465	Synchrotron X-ray scattering investigations of oxygen-induced nucleation in a Zr-based glass-forming alloy. Scripta Materialia, 2009, 61, 293-295.	5.2	6
466	Synthesis and characterization of porous Feâ€“25 wt.% Al alloy with controllable pore structure. Powder Metallurgy and Metal Ceramics, 2010, 49, 183-192.	0.8	6
467	Hydrogen diffusivity in B-doped and B-free ordered Ni3Fe alloys. Intermetallics, 2011, 19, 105-108.	3.9	6
468	Quantitatively defining interconnecting-zone in metallic glasses. Intermetallics, 2014, 49, 36-39.	3.9	6

#	Article	IF	Citations
469	Critical Shear Offset of Fracture in a Zr-based Metallic Glass. Journal of Iron and Steel Research International, 2016, 23, 53-56.	2.8	6
470	Local structural mechanism for frozen-in dynamics in metallic glasses. Physical Review B, 2018, 97, .	3.2	6
471	Water Splitting: A Novel Multinary Intermetallic as an Active Electrocatalyst for Hydrogen Evolution (Adv. Mater. 21/2020). Advanced Materials, 2020, 32, 2070166.	21.0	6
472	A simple method of determination of the distribution and solubility limit of interstitials in substitutional solid solutions. Journal of the Less Common Metals, 1971, 25, 123-129.	0.8	5
473	Weld Metal Grain Structure and Mechanical Properties of a Th-Doped Ir-0.3 Pct W Alloy (DOP-26). Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1982, 13, 1043-1053.	1.4	5
474	Effects of processing on the microstructure and mechanical behavior of binary Crâ€“Ta alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 329-331, 696-702.	5.6	5
475	Minor additions of Sn in a bulk glass-forming Fe-based system. Journal of Materials Research, 2006, 21, 3180-3186.	2.6	5
476	Microstructural evolution of ferritic steel powder during mechanical alloying with iron oxide. International Journal of Materials Research, 2011, 102, 160-167.	0.3	5
477	Microstructures and mechanical properties of Feâ€“14Crâ€“3Wâ€“Tiâ€“Y2O3 steel with 1wt.% Cu addition fabricated by a new method. Journal of Nuclear Materials, 2011, 414, 422-425.	2.7	5
478	Influence of the molten quenching temperature on the thermal physical behavior of quenched Zr-based metallic glasses. Intermetallics, 2013, 38, 19-22.	3.9	5
479	Effect of concentration on the structure of isothermally-annealed CuZr metallic glasses. Materials Science and Technology, 2018, 34, 2287-2293.	1.6	5
480	Evaluation Of Glass-Forming Ability. , 2008, , 87-115.		5
481	Deep drawing of Ir-0.3%W alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1994, 187, 155-160.	5.6	4
482	Congenerous and heterogeneous brazing of porous FeAl intermetallics. Powder Metallurgy, 2011, 54, 142-147.	1.7	4
483	Changes in the atomic structure through glass transition observed by X-ray scattering. Intermetallics, 2012, 23, 111-115.	3.9	4
484	Fabrication of a graded pore-sized porous FeAl intermetallic membrane. Powder Metallurgy, 2016, 59, 308-313.	1.7	4
485	Asynchronous responses of mechanical and magnetic properties to structure relaxation for FeNbB bulk metallic glass. Journal of Iron and Steel Research International, 2018, 25, 637-643.	2.8	4
486	Interstitially strengthened metastable FeCoCr-based medium-entropy alloys with both high strength and large ductility. Applied Physics Letters, 2021, 119, 051902.	3.3	4

#	Article	IF	Citations
487	Nearest neighbor pair models for solutions. Scripta Metallurgica, 1973, 7, 281-288.	1.2	3
488	Effect of oxygen absorption on lattice parameter and specimen dilation in a tantalum- base alloy containing 8 Pct tungsten and 2 Pct hafnium. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1978, 9, 973-978.	1.4	3
489	Dislocation morphology, structure and density on (001) slip plane in Ni3(Al,Ti) single crystals deformed at elevated temperatures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1995, 192-193, 769-773.	5.6	3
490	Development of Mg Based Amorphous Alloys with Higher Amounts of Rare Earth Elements. Materials Transactions, 2007, 48, 1621-1625.	1.2	3
491	Quasi-work-hardening at sites of shear band interactions in a Cu50Zr50 metallic glass. Materials Letters, 2020, 281, 128655.	2.6	3
492	How does the structural inhomogeneity influence the shear band behaviours of metallic glasses. Philosophical Magazine, 2020, 100, 1663-1681.	1.6	3
493	Nanostructured steels for advanced structural applications. Materials Futures, 2022, 1, 013501.	8.4	3
494	Reply to comment on some calculations of vacancy characteristics in substitutional alloys. Scripta Metallurgica, 1972, 6, 565-566.	1.2	2
495	Reply to â€œA Comment on Hydrogen-Boron Interaction and Its Effect on the Ductility and Fracture of Ni3Alâ€• Scripta Materialia, 1998, 38, 847-850.	5.2	2
496	Casting effect on softening of metallic glasses. Journal of Alloys and Compounds, 2009, 483, 82-85.	5.5	2
497	Hardened core of bilayer shear bands in a Zr-based metallic glass. Materials Letters, 2021, 286, 129242.	2.6	2
498	Fast mobility induced self-lubrication at metallic glass surface. Journal of Applied Physics, 2021, 129, .	2.5	2
499	Surface reaction controlled oxygen absorption in a Ta-8 W-2 Hf alloy: kinetics and concentration gradients. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1975, 6, 2235.	1.4	1
500	Reflections on the Fourth International Conference on Bulk Metallic Glasses. Intermetallics, 2006, 14, 855-856.	3.9	1
501	Anomalous X-Ray Scattering and Extended X-Ray Absorption Fine Structure Study of the Local Structure of CrFeCoNiMox (x = 0.11, 0.18, and 0.23) High-Entropy Alloys. Jom, 2021, 73, 3285.	1.9	1
502	Low-temperature specific heat of (Co78Fe22)3V. Journal of the Less Common Metals, 1987, 133, 209-214.	0.8	0
503	Nanoclustering in a MA/ODS Ferritic Alloy. , 2006, , .		0
504	MÃ¶ssbauer spectroscopic study of a low temperature magnetic transition in ordered Fe-doped NiAl. Hyperfine Interactions, 2007, 175, 175-183.	0.5	0

#	Article	IF	Citations
505	Influence of boron-doping on the H2-induced environmental embrittlement of Ni3Fe intermetallics. Journal of Shanghai University, 2007, 11, 102-105.	0.1	0