Xiao-Lei Wu

List of Publications by Citations

167 papers	9,429 citations	43 h-index	95 g-index
174 ext. papers	12,299 ext. citations	6.2 avg, IF	6.94 L-index

#	Paper	IF	Citations
167	Deformation twinning in nanocrystalline materials. *Progress in Materials Science*, **2012**, 57, 1-62	42.2	817
166	Heterogeneous lamella structure unites ultrafine-grain strength with coarse-grain ductility. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 14501-5	11.5	708
165	Extraordinary strain hardening by gradient structure. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 7197-201	11.5	644
164	Heterogeneous materials: a new class of materials with unprecedented mechanical properties. *Materials Research Letters*, **2017**, 5, 527-532	7.4	468
163	Back stress strengthening and strain hardening in gradient structure. *Materials Research Letters*, **2016**, 4, 145-151	7.4	396
162	Microstructure and evolution of mechanically-induced ultrafine grain in surface layer of AL-alloy subjected to USSP. *Acta Materialia*, **2002**, 50, 2075-2084	8.4	390
161	Synergetic Strengthening by Gradient Structure. *Materials Research Letters*, **2014**, 2, 185-191	7.4	309
160	DislocationTwin interactions in nanocrystalline fcc metals. *Acta Materialia*, **2011**, 59, 812-821	8.4	265
159	Perspective on hetero-deformation induced (HDI) hardening and back stress. *Materials Research Letters*, **2019**, 7, 393-398	7.4	257
158	Dynamically reinforced heterogeneous grain structure prolongs ductility in a medium-entropy alloy with gigapascal yield strength. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 7224-7229	11.5	191
157	Strain-induced grain refinement of cobalt during surface mechanical attrition treatment. *Acta Materialia*, **2005**, 53, 681-691	8.4	187
156	Combining gradient structure and TRIP effect to produce austenite stainless steel with high strength and ductility. *Acta Materialia*, **2016**, 112, 337-346	8.4	179
155	Interface affected zone for optimal strength and ductility in heterogeneous laminate. *Materials Today*, **2018**, 21, 713-719	21.8	173
154	Inverse grain-size effect on twinning in nanocrystalline Ni. *Physical Review Letters*, **2008**, 101, 025503	7.4	169
153	Development of low-alloyed and rare-earth-free magnesium alloys having ultra-high strength. *Acta Materialia*, **2018**, 149, 350-363	8.4	164
152	Heterostructured materials: superior properties from hetero-zone interaction. *Materials Research Letters*, **2021**, 9, 1-31	7.4	160
151	Formation of single and multiple deformation twins in nanocrystalline fcc metals. *Acta Materialia*, **2009**, 57, 3763-3770	8.4	134

150	Strong strain hardening in nanocrystalline nickel. *Physical Review Letters*, **2009**, 103, 205504	7.4	133
149	Tailoring heterogeneities in high-entropy alloys to promote strength-ductility synergy. *Nature Communications*, **2019**, 10, 5623	17.4	132
148	Dynamic shear deformation of a CrCoNi medium-entropy alloy with heterogeneous grain structures. *Acta Materialia*, **2018**, 148, 407-418	8.4	130
147	Twin boundaries showing very large deviations from the twinning plane. *Scripta Materialia*, **2012**, 67, 862-865	5.6	128
146	On strain hardening mechanism in gradient nanostructures. *International Journal of Plasticity*, **2017**, 88, 89-107	7.6	127
145	Strain hardening and ductility in a coarse-grain/nanostructure laminate material. *Scripta Materialia*, **2015**, 103, 57-60	5.6	124
144	Strain hardening in Fe16Mn10Al0.86C5Ni high specific strength steel. *Acta Materialia*, **2016**, 109, 213-222	8.4	114
143	Deformation twinning in a nanocrystalline hcp Mg alloy. *Scripta Materialia*, **2011**, 64, 213-216	5.6	100
142	Microstructure and mechanical properties at different length scales and strain rates of nanocrystalline tantalum produced by high-pressure torsion. *Acta Materialia*, **2011**, 59, 2423-2436	8.4	96
141	Grain refinement at the nanoscale via mechanical twinning and dislocation interaction in a nickel-based alloy. *Journal of Materials Research*, **2004**, 19, 1623-1629	2.5	92
140	Fe-based thick amorphous-alloy coating by laser cladding. *Surface and Coatings Technology*, **2001**, 141, 141-144	4.4	83
139	Nanodomained Nickel Unite Nanocrystal Strength with Coarse-Grain Ductility. *Scientific Reports*, **2015**, 5, 11728	4.9	74
138	Direct observation of chemical short-range order in a medium-entropy alloy. *Nature*, **2021**, 592, 712-716	50.4	73
137	Dissecting the mechanism of martensitic transformation via atomic-scale observations. *Scientific Reports*, **2014**, 4, 6141	4.9	65
136	Dislocations in nanocrystalline grains. *Applied Physics Letters*, **2006**, 88, 231911	3.4	65
135	In situ formation by laser cladding of a TiC composite coating with a gradient distribution. *Surface and Coatings Technology*, **1999**, 115, 111-115	4.4	65
134	Prevalence of shear banding in compression of Zr41Ti14Cu12.5Ni10Be22.5 pillars as small as 150nm in diameter. *Acta Materialia*, **2009**, 57, 3562-3571	8.4	62
133	Ductility and plasticity of nanostructured metals: differences and issues. *Materials Today Nano*, **2018**, 2, 15-20	9.7	62

132	Effect of nitrogen on corrosion behaviour of a novel high nitrogen medium-entropy alloy CrCoNiN manufactured by pressurized metallurgy. *Journal of Materials Science and Technology*, **2018**, 34, 1781-1790	9.1	57
131	Predictions for partial-dislocation-mediated processes in nanocrystalline Ni by generalized planar fault energy curves: An experimental evaluation. *Applied Physics Letters*, **2006**, 88, 121905	3.4	55
130	Ductility by shear band delocalization in the nano-layer of gradient structure. *Materials Research Letters*, **2019**, 7, 12-17	7.4	50
129	Ductility and strain hardening in gradient and lamellar structured materials. *Scripta Materialia*, **2020** , 186, 321-325	5.6	47
128	Synthesis of thick Ni66Cr5Mo4Zr6P15B4 amorphous alloy coating and large glass-forming ability by laser cladding. *Materials Letters*, **2002**, 56, 838-841	3.3	47
127	In-situ observation of dislocation dynamics near heterostructured interfaces. *Materials Research Letters*, **2019**, 7, 376-382	7.4	45
126	High impact toughness of CrCoNi medium-entropy alloy at liquid-helium temperature. *Scripta Materialia*, **2019**, 172, 66-71	5.6	45
125	Extraordinary Bauschinger effect in gradient structured copper. *Scripta Materialia*, **2018**, 150, 57-60	5.6	42
124	Residual stress provides significant strengthening and ductility in gradient structured materials. *Materials Research Letters*, **2019**, 7, 433-438	7.4	41
123	Microstructural evolution and formation of nanocrystalline intermetallic compound during surface mechanical attrition treatment of cobalt. *Acta Materialia*, **2007**, 55, 5768-5779	8.4	41
122	Deformation twinning mechanisms in nanocrystalline Ni. *Applied Physics Letters*, **2006**, 88, 061905	3.4	41
121	A physical model revealing strong strain hardening in nano-grained metals induced by grain size gradient structure. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 620, 16-21	5.3	38
120	Dense dispersed shear bands in gradient-structured Ni. *International Journal of Plasticity*, **2020**, 124, 186-198	7.9	37
119	Localized solid-state amorphization at grain boundaries in a nanocrystalline Al solid solution subjected to surface mechanical attrition. *Journal Physics D: Applied Physics*, **2005**, 38, 4140-4143	3	35
118	Microstructure and mechanical properties at TiCp/Ni-alloy interfaces in laser-synthesized coatings. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2001**, 318, 15-21	5.3	35
117	Size effects of primary/secondary twins on the atomistic deformation mechanisms in hierarchically nanotwinned metals. *Journal of Applied Physics*, **2013**, 113, 203516	2.5	34
116	Mechanical properties and nanostructures in a duplex stainless steel subjected to equal channel angular pressing. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2012**, 551, 154-159	5.3	33
115	Shear bands at the fatigue crack tip of nanocrystalline nickel. *Scripta Materialia*, **2007**, 57, 5-8	5.6	33

114	Partial-mediated slips in nanocrystalline Ni at high strain rate. *Applied Physics Letters*, **2007**, 90, 221911	3.4	33
113	Improving ductility by increasing fraction of interfacial zone in low C steel/304 SS laminates. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2018**, 726, 288-297	5.3	32
112	Shock response of nanotwinned copper from large-scale molecular dynamics simulations. *Physical Review B*, **2012**, 86,	3.3	32
111	Atomistic scale fracture behaviours in hierarchically nanotwinned metals. *Philosophical Magazine*, **2013**, 93, 3248-3259	1.6	31
110	Mechanical properties and deformation mechanism of Mg-Al-Zn alloy with gradient microstructure in grain size and orientation. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2017**, 694, 98-109	5.3	30
109	Vacancy clusters in ultrafine grained Al by severe plastic deformation. *Applied Physics Letters*, **2007**, 91, 141908	3.4	29
108	The main factor influencing the tensile properties of surface nano-crystallized graded materials. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2010**, 527, 7040-7044	5.3	28
107	Ultrastrong low-carbon nanosteel produced by heterostructure and interstitial mediated warm rolling. *Science Advances*, **2020**, 6,	14.3	28
106	Correlation between strain rate sensitivity and characteristics of Portevin-LeChâtelier bands in a twinning-induced plasticity steel. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2017**, 696, 220-227	5.3	27
105	A Review on Heterogeneous Nanostructures: A Strategy for Superior Mechanical Properties in Metals. *Metals*, **2019**, 9, 598	2.3	24
104	Dynamic shear response and evolution mechanisms of adiabatic shear band in an ultrafine-grained austenite–ferrite duplex steel. *Mechanics of Materials*, **2015**, 89, 47-58	3.3	24
103	Deformation defects in nanocrystalline nickel. *Journal of Materials Science*, **2007**, 42, 1427-1432	4.3	24
102	Control of the microstructure and mechanical properties of electrodeposited graphene/Ni composite. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2018**, 727, 133-139	5.3	23
101	Strain Rate Effect on Tensile Behavior for a High Specific Strength Steel: From Quasi-Static to Intermediate Strain Rates. *Metals*, **2018**, 8, 11	2.3	23
100	Work softening and annealing hardening of deformed nanocrystalline nickel. *Applied Physics Letters* , **2008**, 93, 261907	3.4	23
99	Theoretical and experimental researches of size effect in micro-indentation test. *Science in China Series A: Mathematics*, **2001**, 44, 74-82		23
98	The formation of discontinuous gradient regimes during crack initiation in high strength steels under very high cycle fatigue. *International Journal of Fatigue*, **2019**, 124, 483-492	5	22
97	Deformation nanotwins suppress shear banding during impact test of CrCoNi medium-entropy alloy. *Scripta Materialia*, **2020**, 178, 452-456	5.6	22

96	Enhanced quasi-static and dynamic shear properties by heterogeneous gradient and lamella structures in 301 stainless steels. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2017**, 680, 305-316	5.3	21
95	In situ synthesis of nanocrystalline intermetallic layer during surface plastic deformation of zirconium. *Surface and Coatings Technology*, **2007**, 202, 583-589	4.4	21
94	Atomic segregation at twin boundaries in a Mg-Ag alloy. *Scripta Materialia*, **2020**, 178, 193-197	5.6	21
93	Gradient structure produces superior dynamic shear properties. *Materials Research Letters*, **2017**, 5, 501-507	7.4	20
92	Back-stress-induced strengthening and strain hardening in dual-phase steel. *Materialia*, **2019**, 7, 100376	3.2	20
91	Twin boundary spacing effects on shock response and spall behaviors of hierarchically nanotwinned fcc metals. *Journal of Applied Physics*, **2014**, 115, 063509	2.5	20
90	Shock and spall behaviors of a high specific strength steel: Effects of impact stress and microstructure. *Journal of Applied Physics*, **2017**, 121, 135901	2.5	18
89	Annealing effect on the evolution of adiabatic shear band under dynamic shear loading in ultra-fine-grained iron. *International Journal of Impact Engineering*, **2012**, 50, 1-8	4	18
88	Layer thickness dependent tensile deformation mechanisms in sub-10 nm multilayer nanowires. *Journal of Applied Physics*, **2012**, 111, 124313	2.5	18
87	Rapidly solidified nonequilibrium microstructure and phase transformation of laser-synthesized iron-based alloy coating. *Surface and Coatings Technology*, **1999**, 115, 153-162	4.4	18
86	Gradient and lamellar heterostructures for superior mechanical properties. *MRS Bulletin*, **2021**, 46, 244-249	3.2	18
85	Size effect and atomistic deformation mechanisms of hierarchically nanotwinned fcc metals under nanoindentation. *Journal of Materials Science*, **2015**, 50, 7557-7567	4.3	17
84	Simultaneous improvement of tensile strength and ductility in micro-duplex structure consisting of austenite and ferrite. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2014**, 618, 563-571	5.3	17
83	Accommodation of large plastic strains and defect accumulation in nanocrystalline Ni grains. *Journal of Materials Research*, **2007**, 22, 2241-2253	2.5	17
82	Atomistic simulations of tensile deformation in a CrCoNi medium-entropy alloy with heterogeneous grain structures. *Materialia*, **2020**, 9, 100565	3.2	17
81	Nonequilibrium microstructures and their evolution in a Fe□CrWNiC laser clad coating. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **1999**, 270, 183-189	5.3	16
80	Dislocation plasticity reigns in a traditional twinning-induced plasticity steel by in situ observation. *Materials Today Nano*, **2018**, 3, 48-53	9.7	16
79	Strain hardening behaviors and strain rate sensitivity of gradient-grained Fe under compression over a wide range of strain rates. *Mechanics of Materials*, **2016**, 95, 71-82	3.3	15

78	Plastic deformation mechanisms in a severely deformed Fe-Ni-Al-C alloy with superior tensile properties. *Scientific Reports*, **2017**, 7, 15619	4.9	15
77	Deformation mechanisms for superplastic behaviors in a dual-phase high specific strength steel with ultrafine grains. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2017**, 702, 133-141	5.3	15
76	Growth of deformation twins in room-temperature rolled nanocrystalline nickel. *Applied Physics Letters*, **2009**, 94, 121907	3.4	15
75	Hydrostatic pressure effects on deformation mechanisms of nanocrystalline fcc metals. *Computational Materials Science*, **2014**, 85, 8-15	3.2	14
74	On nanograin rotation by dislocation climb in nanocrystalline materials. *Scripta Materialia*, **2014**, 78-79, 5-8	5.6	14
73	Fast deposition of diamond-like carbon films by radio frequency hollow cathode method. *Thin Solid Films*, **2013**, 534, 226-230	2.2	14
72	Microstructure of Zr-alloyed coating using pulsed laser. *Surface and Coatings Technology*, **2000**, 132, 194-197	4.4	14
71	Deformation induced hcp nano-lamella and its size effect on the strengthening in a CoCrNi medium-entropy alloy. *Journal of Materials Science and Technology*, **2021**, 82, 122-134	9.1	14
70	Effects of alloying on oxidation and dissolution corrosion of the surface of Fe(111): a DFT study. *Journal of Molecular Modeling*, **2015**, 21, 181	2	13
69	Analysis of spherical indentation of materials with plastically graded surface layer. *International Journal of Solids and Structures*, **2012**, 49, 527-536	3.1	13
68	Microstructural characteristics of TiC-reinforced composite coating produced by laser syntheses. *Journal of Materials Research*, **1999**, 14, 2704-2707	2.5	13
67	Enhanced tensile ductility and strength of electrodeposited ultrafine-grained nickel with a desired bimodal microstructure. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2017**, 701, 196-202	5.3	12
66	Effects of alloying on the behavior of B and S at Σ5 (2 1 0) grain boundary in Fe. *Computational Materials Science*, **2016**, 115, 170-176	3.2	12
65	Strong Crack Blunting by Hierarchical Nanotwins in Ultrafine/Nano-grained Metals. *Materials Research Letters*, **2015**, 3, 190-196	7.4	11
64	Size effect and boundary type on the strengthening of nanoscale domains in pure nickel. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 648, 243-251	5.3	11
63	Size effects of lamellar twins on the strength and deformation mechanisms of nanocrystalline hcp cobalt. *Scientific Reports*, **2017**, 7, 9550	4.9	11
62	Strain rate dependent shear localization and deformation mechanisms in the CrMnFeCoNi high-entropy alloy with various microstructures. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2020**, 793, 139854	5.3	10
61	Dislocations and twins in nanocrystalline Ni after severe plastic deformation: the effects of grain size. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2008**, 483-484, 84-86	5.3	10

60	Microstructural features of an iron-based laser coating. *Journal of Materials Science*, **1999**, 34, 3355-3361	4.3	10
59	Superior strength-ductility synergy by hetero-structuring high manganese steel. *Materials Research Letters*, **2020**, 8, 417-423	7.4	10
58	Graphene/Cu composites: Electronic and mechanical properties by first-principles calculation. *Materials Chemistry and Physics*, **2019**, 231, 188-195	4.4	10
57	Tuning heterostructures with powder metallurgy for high synergistic strengthening and hetero-deformation induced hardening. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2020**, 777, 139074	5.3	9
56	Formation sequences and roles of multiple deformation twins during the plastic deformation in nanocrystalline fcc metals. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2013**, 580, 58-65	5.3	9
55	Hardening after annealing in nanostructured 316L stainless steel. *Nano Materials Science*, **2020**, 2, 80-82	10.2	9
54	Plastic accommodation during tensile deformation of gradient structure. *Science China Materials*, **2021**, 64, 1534-1544	7.1	9
53	Atomistic tensile deformation mechanisms of Fe with gradient nano-grained structure. *AIP Advances*, **2015**, 5, 087120	1.5	8
52	Influence of processing temperature on microstructure and microhardness of copper subjected to high-pressure torsion. *Science China Technological Sciences*, **2010**, 53, 1534-1539	3.5	8
51	Superior mechanical properties and deformation mechanisms of heterogeneous laminates under dynamic shear loading. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2019**, 756, 492-501	5.3	7
50	Preface to the viewpoint set on: Heterogeneous gradient and laminated materials. *Scripta Materialia*, **2020**, 187, 307-308	5.6	7
49	Stress effects on stability and diffusion behavior of sulfur impurity in nickel: A first-principles study. *Computational Materials Science*, **2014**, 90, 137-142	3.2	7
48	The Evolution of Strain Gradient and Anisotropy in Gradient-Structured Metal. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2017**, 48, 3951-3960	2.3	7
47	Smaller critical size and enhanced strength by nano-laminated structure in nickel. *Computational Materials Science*, **2015**, 110, 83-90	3.2	7
46	Scaling laws and deformation mechanisms of nanoporous copper under adiabatic uniaxial strain compression. *AIP Advances*, **2014**, 4, 127109	1.5	7
45	Cryogenic temperature toughening and strengthening due to gradient phase structure. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2018**, 712, 358-364	5.3	7
44	Exceptional tensile properties under cryogenic temperature in heterogeneous laminates induced by non-uniform martensite transformation and strain delocalization. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2020**, 791, 139780	5.3	6
43	Enhancing dislocation emission in nanocrystalline materials through shear-coupled migration of grain boundaries. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2014**, 601, 153-158	5.3	6

42	Fracture Toughness and Adhesion of Transparent Al:ZnO Films Deposited on Glass Substrates. *Journal of Materials Engineering and Performance*, **2013**, 22, 3161-3167	1.6	6
41	Effect of stress-induced grain growth during room temperature tensile deformation on ductility in nanocrystalline metals. *Bulletin of Materials Science*, **2010**, 33, 561-568	1.7	6
40	DFT study of the effects of interstitial impurities on the resistance of Cr-doped Fe(111) surface dissolution corrosion. *Journal of Molecular Modeling*, **2015**, 21, 206	2	5
39	Size effects of nano-spaced basal stacking faults on the strength and deformation mechanisms of nanocrystalline pure hcp metals. *Philosophical Magazine*, **2018**, 98, 1186-1203	1.6	5
38	Tensile deformation mechanisms of the hierarchical structure consisting of both twin-free grains and nanotwinned grains. *Philosophical Magazine Letters*, **2014**, 94, 514-521	1	5
37	Strong crack blunting by shear-coupled migration of grain boundaries in nanocrystalline materials. *Scripta Materialia*, **2014**, 84-85, 51-54	5.6	5
36	Microstructural Characteristics and Carbide Transformation of Laser-cladded Fe-Cr-W-Ni-C Coatings During High-temperature Tempering. *Journal of Materials Science Letters*, **1998**, 17, 1849-1852		5
35	Dislocation propagation versus dislocation nucleation. *Nature Materials*, **2006**, 5, 841	27	5
34	ANALYSIS OF THE THERMAL STABILITY OF COPPER SPECIMENS DEFORMED BY HIGH--PRESSURE TORSION. *Jinshu Xuebao/Acta Metallurgica Sinica*, **2010**, 46, 458-465		5
33	In-situ grown few-layer graphene reinforced Ni matrix composites with simultaneously enhanced strength and ductility. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2021**, 828, 142118	5.3	5
32	A modified criterion for shear band formation in bulk metallic glass under complex stress states. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2010**, 527, 2613-2620	5.3	4
31	Novel Fe70Zr10Ni6Al4Si6B4 thick metallic glass coating produced by laser cladding. *Materials Science and Technology*, **2001**, 17, 1025-1028	1.5	4
30	Designing structures with combined gradients of grain size and precipitation in high entropy alloys for simultaneous improvement of strength and ductility. *Acta Materialia*, **2022**, 230, 117847	8.4	4
29	Annealing and strain rate effects on the mechanical behavior of ultrafine-grained iron produced by SPD. *Theoretical and Applied Mechanics Letters*, **2011**, 1, 021002	1.8	3
28	Microstructural evolution of a laser-cladded coating. *Scripta Materialia*, **2000**, 43, 123-127	5.6	3
27	Atomic-scale evidence of chemical short-range order in CrCoNi medium-entropy alloy. *Acta Materialia*, **2022**, 224, 117490	8.4	3
26	Enhanced co-deformation of a heterogeneous nanolayered Cu/Ni composite. *Journal of Applied Physics*, **2019**, 126, 215111	2.5	3
25	An engineering model and its numerical validation for a malevolent aircraft impinging against a rigid target: Force and impulse estimations. *Nuclear Engineering and Design*, **2019**, 342, 1-9	1.8	3

24	Chemical short-range order in Fe50Mn30Co10Cr10 high-entropy alloy. *Materials Today Nano*, **2021**, 16, 100139	9.7	3
23	Chemical medium-range order in a medium-entropy alloy.. *Nature Communications*, **2022**, 13, 1021	17.4	3
22	Deformation behaviour of electrodeposited nanocrystalline Ni with broad grain size distribution. *Materials Science and Technology*, **2010**, 26, 591-596	1.5	2
21	Thermodynamics of the Displacive Mechanism of α1 Transformation in a β′ Copper-Zinc Alloy. *Materials Transactions, JIM*, **1999**, 40, 1098-1101		2
20	Excellent tensile properties induced by heterogeneous grain structure and dual nanoprecipitates in high entropy alloys. *Materials Characterization*, **2022**, 186, 111779	3.9	2
19	An energy-equilibrium model for complex stress effect on fatigue crack initiation. *Science China: Physics, Mechanics and Astronomy*, **2014**, 57, 916-926	3.6	1
18	Preface to the special issue on ultrafine-grained materials. *Journal of Materials Science*, **2012**, 47, 7717-7718	4.5	1
17	Plastic deformation of nanocrystalline nickel. *Science in China Series D: Earth Sciences*, **2009**, 52, 2216-2221		1
16	Interfacial microstructure and mechanical behaviour in laser clad TiCp/Ni alloy coatings. *Materials Science and Technology*, **2001**, 17, 597-600	1.5	1
15	Structure motif of chemical short-range order in a medium-entropy alloy. *Materials Research Letters* , **2022**, 10, 149-155	7.4	1
14	Enhanced tensile properties by heterogeneous grain structures and coherent precipitates in a CoCrNi-based medium entropy alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2022**, 832, 142440	5.3	1
13	Mechanical property comparisons between CrCoNi medium-entropy alloy and 316 stainless steels. *Journal of Materials Science and Technology*, **2021**, 108, 256-256	9.1	1
12	Inter-zone constraint modifies the stress-strain response of the constituent layer in gradient structure. *Science China Materials*,1	7.1	1
11	Simultaneous Improvement of Yield Strength and Ductility at Cryogenic Temperature by Gradient Structure in 304 Stainless Steel. *Nanomaterials*, **2021**, 11,	5.4	1
10	Ultra-high tensile strength via precipitates and enhanced martensite transformation in a FeNiAlC alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2021**, 803, 140498	5.3	1
9	Hetero-deformation-induced (HDI) plasticity induces simultaneous increase in both yield strength and ductility in a Fe50Mn30Co10Cr10 high-entropy alloy. *Applied Physics Letters*, **2021**, 119, 131906	3.4	1
8	Dual heterogeneous structured medium-entropy alloys showing a superior strength-ductility synergy at cryogenic temperature. *Journal of Materials Research and Technology*, **2022**, 17, 3262-3276	5.5	1
7	Dynamically reversible shear transformations in a CrMnFeCoNi high-entropy alloy at cryogenic temperature. *Acta Materialia*, **2022**, 117937	8.4	1

6	Comment on "Cryoforged nanotwinned titanium with ultrahigh strength and ductility".. *Science*, **2022**, 376, eabo3440	33.3	1
5	Twin density gradient induces enhanced yield strength-and-ductility synergy in a S31254 super austenitic stainless steel. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2022**, 837, 142727	5.3	0
4	Extraordinary fracture toughness in nickel induced by heterogeneous grain structure. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2022**, 830, 142313	5.3	0
3	Tensile Behaviors and Strain Hardening Mechanisms in a High-Mn Steel with Heterogeneous Microstructure. *Materials*, **2022**, 15, 3542	3.5	0
2	Study on nanocrystalline dual phase NiCo alloy with high strength and excellent ductility. *Materials Science and Technology*, **2011**, 27, 320-324	1.5	
1	Compressive Behavior for Surface-Nanocrystallized Al-Alloy Material. *Materials Research Society Symposia Proceedings*, **2002**, 740, 1		