Xiao-Lei Wu

List of Publications by Year
in descending order

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174 papers	15,217 citations	38660 50 h-index	18075 120 g-index
174 all docs	174 docs citations	174 times ranked	5570 citing authors

#	Article	IF	Citations
1	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, 14501-14505.	3.3	1,202
2	Deformation twinning in nanocrystalline materials. Progress in Materials Science, 2012, 57, 1-62.	16.0	1,065
3	Extraordinary strain hardening by gradient structure. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 7197-7201.	3.3	912
4	Heterogeneous materials: a new class of materials with unprecedented mechanical properties. Materials Research Letters, 2017, 5, 527-532.	4.1	818
5	Back stress strengthening and strain hardening in gradient structure. Materials Research Letters, 2016, 4, 145-151.	4.1	766
6	Perspective on hetero-deformation induced (HDI) hardening and back stress. Materials Research Letters, 2019, 7, 393-398.	4.1	638
7	Heterostructured materials: superior properties from hetero-zone interaction. Materials Research Letters, 2021, 9, 1-31.	4.1	505
8	Synergetic Strengthening by Gradient Structure. Materials Research Letters, 2014, 2, 185-191.	4.1	442
9	Microstructure and evolution of mechanically-induced ultrafine grain in surface layer of AL-alloy subjected to USSP. Acta Materialia, 2002, 50, 2075-2084.	3.8	430
10	Interface affected zone for optimal strength and ductility in heterogeneous laminate. Materials Today, 2018, 21, 713-719.	8.3	357
11	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.	3.3	338
12	Direct observation of chemical short-range order in a medium-entropy alloy. Nature, 2021, 592, 712-716.	13.7	334
13	Dislocationâ€“twin interactions in nanocrystalline fcc metals. Acta Materialia, 2011, 59, 812-821.	3.8	327
14	Tailoring heterogeneities in high-entropy alloys to promote strengthâ€“ductility synergy. Nature Communications, 2019, 10, 5623.	5.8	289
15	Development of low-alloyed and rare-earth-free magnesium alloys having ultra-high strength. Acta Materialia, 2018, 149, 350-363.	3.8	287
16	Combining gradient structure and TRIP effect to produce austenite stainless steel with high strength and ductility. Acta Materialia, 2016, 112, 337-346.	3.8	265
17	Dynamic shear deformation of a CrCoNi medium-entropy alloy with heterogeneous grain structures. Acta Materialia, 2018, 148, 407-418.	3.8	234
18	Strain-induced grain refinement of cobalt during surface mechanical attrition treatment. Acta Materialia, 2005, 53, 681-691.	3.8	218

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19	On strain hardening mechanism in gradient nanostructures. International Journal of Plasticity, 2017, 88, 89-107.	4.1	205
20	Strain hardening and ductility in a coarse-grain/nanostructure laminate material. Scripta Materialia, 2015, 103, 57-60.	2.6	195
21	Inverse Grain-Size Effect on Twinning in Nanocrystalline Ni. Physical Review Letters, 2008, 101, 025503.	2.9	190
22	Strain hardening in Feâ€“16Mnâ€“10Alâ€“0.86Câ€“5Ni high specific strength steel. Acta Materialia, 2016, 109, 213-222.	3.8	190
23	Strong Strain Hardening in Nanocrystalline Nickel. Physical Review Letters, 2009, 103, 205504.	2.9	174
24	Formation of single and multiple deformation twins in nanocrystalline fcc metals. Acta Materialia, 2009, 57, 3763-3770.	3.8	163
25	Twin boundaries showing very large deviations from the twinning plane. Scripta Materialia, 2012, 67, 862-865.	2.6	141
26	Ductility and plasticity of nanostructured metals: differences and issues. Materials Today Nano, 2018, 2, 15-20.	2.3	122
27	Deformation twinning in a nanocrystalline hcp Mg alloy. Scripta Materialia, 2011, 64, 213-216.	2.6	116
28	Ductility and strain hardening in gradient and lamellar structured materials. Scripta Materialia, 2020, 186, 321-325.	2.6	110
29	Grain refinement at the nanoscale via mechanical twinning and dislocation interaction in a nickel-based alloy. Journal of Materials Research, 2004, 19, 1623-1629.	1.2	109
30	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.	3.8	105
31	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.	5.6	102
32	In-situobservation of dislocation dynamics near heterostructured interfaces. Materials Research Letters, 2019, 7, 376-382.	4.1	100
33	Ductility by shear band delocalization in the nano-layer of gradient structure. Materials Research Letters, 2019, 7, 12-17.	4.1	94
34	High impact toughness of CrCoNi medium-entropy alloy at liquid-helium temperature. Scripta Materialia, 2019, 172, 66-71.	2.6	93
35	Nanodomained Nickel Unite Nanocrystal Strength with Coarse-Grain Ductility. Scientific Reports, 2015, 5, 11728.	1.6	91
36	Fe-based thick amorphous-alloy coating by laser cladding. Surface and Coatings Technology, 2001, 141, 141-144.	2.2	90

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37	Dissecting the Mechanism of Martensitic Transformation via Atomic-Scale Observations. Scientific Reports, 2014, 4, 6141.	1.6	87
38	In situ formation by laser cladding of a TiC composite coating with a gradient distribution. Surface and Coatings Technology, 1999, 115, 111-115.	2.2	79
39	Dislocations in nanocrystalline grains. Applied Physics Letters, 2006, 88, 231911.	1.5	78
40	Dense dispersed shear bands in gradient-structured Ni. International Journal of Plasticity, 2020, 124, 186-198.	4.1	77
41	Ultrastrong low-carbon nanosteel produced by heterostructure and interstitial mediated warm rolling. Science Advances, 2020, 6, .	4.7	75
42	Residual stress provides significant strengthening and ductility in gradient structured materials. Materials Research Letters, 2019, 7, 433-438.	4.1	74
43	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.	3.8	74
44	Extraordinary Bauschinger effect in gradient structured copper. Scripta Materialia, 2018, 150, 57-60.	2.6	69
45	Prevalence of shear banding in compression of Zr41Ti14Cu12.5Ni10Be22.5 pillars as small as 150 nm in diameter. Acta Materialia, 2009, 57, 3562-3571.	3.8	65
46	Less is more. Nature Materials, 2006, 5, 515-516.	13.3	63
47	Atomic-scale evidence of chemical short-range order in CrCoNi medium-entropy alloy. Acta Materialia, 2022, 224, 117490.	3.8	63
48	Predictions for partial-dislocation-mediated processes in nanocrystalline Ni by generalized planar fault energy curves: An experimental evaluation. Applied Physics Letters, 2006, 88, 121905.	1.5	61
49	Gradient and lamellar heterostructures for superior mechanical properties. MRS Bulletin, 2021, 46, 244-249.	1.7	61
50	Microstructural evolution and formation of nanocrystalline intermetallic compound during surface mechanical attrition treatment of cobalt. Acta Materialia, 2007, 55, 5768-5779.	3.8	52
51	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.	2.6	52
52	Synthesis of thick Ni66Cr5Mo4Zr6P15B4 amorphous alloy coating and large glass-forming ability by laser cladding. Materials Letters, 2002, 56, 838-841.	1.3	50
53	Deformation nanotwins suppress shear banding during impact test of CrCoNi medium-entropy alloy. Scripta Materialia, 2020, 178, 452-456.	2.6	50
54	Deformation twinning mechanisms in nanocrystalline Ni. Applied Physics Letters, 2006, 88, 061905.	1.5	49

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55	Back-stress-induced strengthening and strain hardening in dual-phase steel. Materialia, 2019, 7, 100376.	1.3	46
56	Chemical medium-range order in a medium-entropy alloy. Nature Communications, 2022, 13, 1021.	5.8	46
57	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.	2.6	44
58	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.	2.6	43
59	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.	2.6	43
60	Dislocation plasticity reigns in a traditional twinning-induced plasticity steel by in situ observation. Materials Today Nano, 2018, 3, 48-53.	2.3	43
61	A Review on Heterogeneous Nanostructures: A Strategy for Superior Mechanical Properties in Metals. Metals, 2019, 9, 598.	1.0	43
62	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.	5.6	43
63	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.	2.6	42
64	Strain Rate Effect on Tensile Behavior for a High Specific Strength Steel: From Quasi-Static to Intermediate Strain Rates. Metals, 2018, 8, 11.	1.0	40
65	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.	1.3	39
66	Size effects of primary/secondary twins on the atomistic deformation mechanisms in hierarchically nanotwinned metals. Journal of Applied Physics, 2013, 113, .	1.1	39
67	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.	2.8	38
68	Atomic segregation at twin boundaries in a Mg-Ag alloy. Scripta Materialia, 2020, 178, 193-197.	2.6	38
69	Dynamic shear response and evolution mechanisms of adiabatic shear band in an ultrafine-grained austeniteâ€“ferrite duplex steel. Mechanics of Materials, 2015, 89, 47-58.	1.7	37
70	Partial-mediated slips in nanocrystalline Ni at high strain rate. Applied Physics Letters, 2007, 90, 221911.	1.5	36
71	Atomistic simulations of tensile deformation in a CrCoNi medium-entropy alloy with heterogeneous grain structures. Materialia, 2020, 9, 100565.	1.3	36
72	Shear bands at the fatigue crack tip of nanocrystalline nickel. Scripta Materialia, 2007, 57, 5-8.	2.6	35

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73	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.	2.6	35
74	Correlation between strain rate sensitivity and characteristics of Portevin-LeChÃ¡telier bands in a twinning-induced plasticity steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 696, 220-227.	2.6	35
75	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.	2.6	35
76	Vacancy clusters in ultrafine grained Al by severe plastic deformation. Applied Physics Letters, 2007, 91, 141908.	1.5	34
77	Shock response of nanotwinned copper from large-scale molecular dynamics simulations. Physical Review B, 2012, 86, .	1.1	34
78	Atomistic scale fracture behaviours in hierarchically nanotwinned metals. Philosophical Magazine, 2013, 93, 3248-3259.	0.7	33
79	Gradient structure produces superior dynamic shear properties. Materials Research Letters, 2017, 5, 501-507.	4.1	31
80	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.	2.6	31
81	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.	2.6	31
82	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.	2.6	31
83	Plastic accommodation during tensile deformation of gradient structure. Science China Materials, 2021, 64, 1534-1544.	3.5	30
84	Deformation defects in nanocrystalline nickel. Journal of Materials Science, 2007, 42, 1427-1432.	1.7	28
85	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.	2.6	28
86	Hardening after annealing in nanostructured 316L stainless steel. Nano Materials Science, 2020, 2, 80-82.	3.9	27
87	Theoretical and experimental researches of size effect in micro-indentation test. Science in China Series A: Mathematics, 2001, 44, 74-82.	0.5	26
88	Work softening and annealing hardening of deformed nanocrystalline nickel. Applied Physics Letters, 2008, 93, .	1.5	26
89	Superior strength-ductility synergy by hetero-structuring high manganese steel. Materials Research Letters, 2020, 8, 417-423.	4.1	25
90	Effects of alloying on the behavior of B and S at Î£5 (2 1 0) grain boundary in Î³-Fe. Computational Materials Science, 2016, 115, 170-176.	1.4	24

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91	Shock and spall behaviors of a high specific strength steel: Effects of impact stress and microstructure. Journal of Applied Physics, 2017, 121, .	1.1	24
92	Chemical short-range order in Fe50Mn30Co10Cr10 high-entropy alloy. Materials Today Nano, 2021, 16, 100139.	2.3	24
93	Mechanical property comparisons between CrCoNi medium-entropy alloy and 316 stainless steels. Journal of Materials Science and Technology, 2022, 108, 256-269.	5.6	24
94	Dynamically reversible shear transformations in a CrMnFeCoNi high-entropy alloy at cryogenic temperature. Acta Materialia, 2022, 232, 117937.	3.8	24
95	Twin boundary spacing effects on shock response and spall behaviors of hierarchically nanotwinned fcc metals. Journal of Applied Physics, 2014, 115, .	1.1	23
96	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.	2.6	23
97	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.	1.7	23
98	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.	2.6	23
99	Structure motif of chemical short-range order in a medium-entropy alloy. Materials Research Letters, 2022, 10, 149-155.	4.1	23
100	In situ synthesis of nanocrystalline intermetallic layer during surface plastic deformation of zirconium. Surface and Coatings Technology, 2007, 202, 583-589.	2.2	22
101	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.	2.4	22
102	Preface to the viewpoint set on: Heterogeneous gradient and laminated materials. Scripta Materialia, 2020, 187, 307-308.	2.6	22
103	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.	2.6	22
104	Layer thickness dependent tensile deformation mechanisms in sub-10â€‰nm multilayer nanowires. Journal of Applied Physics, 2012, 111, .	1.1	21
105	Size effect and atomistic deformation mechanisms of hierarchically nanotwinned fcc metals under nanoindentation. Journal of Materials Science, 2015, 50, 7557-7567.	1.7	20
106	Plastic deformation mechanisms in a severely deformed Fe-Ni-Al-C alloy with superior tensile properties. Scientific Reports, 2017, 7, 15619.	1.6	20
107	Rapidly solidified nonequilibrium microstructure and phase transformation of laser-synthesized iron-based alloy coating. Surface and Coatings Technology, 1999, 115, 153-162.	2.2	19
108	Accommodation of large plastic strains and defect accumulation in nanocrystalline Ni grains. Journal of Materials Research, 2007, 22, 2241-2253.	1.2	19

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109	Nonequilibrium microstructures and their evolution in a Feâ€“Crâ€“Wâ€“Niâ€“C laser clad coating. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1999, 270, 183-189.	2.6	18
110	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.	2.6	18
111	Growth of deformation twins in room-temperature rolled nanocrystalline nickel. Applied Physics Letters, 2009, 94, .	1.5	17
112	Effects of alloying on oxidation and dissolution corrosion of the surface of Î³-Fe(111): a DFT study. Journal of Molecular Modeling, 2015, 21, 181.	0.8	17
113	Graphene/Cu composites: Electronic and mechanical properties by first-principles calculation. Materials Chemistry and Physics, 2019, 231, 188-195.	2.0	17
114	Microstructural characteristics of TiC-reinforced composite coating produced by laser syntheses. Journal of Materials Research, 1999, 14, 2704-2707.	1.2	16
115	Microstructure of Zr-alloyed coating using pulsed laser. Surface and Coatings Technology, 2000, 132, 194-197.	2.2	16
116	Fast deposition of diamond-like carbon films by radio frequency hollow cathode method. Thin Solid Films, 2013, 534, 226-230.	0.8	16
117	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.	1.1	16
118	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.	2.6	16
119	Analysis of spherical indentation of materials with plastically graded surface layer. International Journal of Solids and Structures, 2012, 49, 527-536.	1.3	15
120	Hydrostatic pressure effects on deformation mechanisms of nanocrystalline fcc metals. Computational Materials Science, 2014, 85, 8-15.	1.4	15
121	Excellent tensile properties induced by heterogeneous grain structure and dual nanoprecipitates in high entropy alloys. Materials Characterization, 2022, 186, 111779.	1.9	15
122	On nanograin rotation by dislocation climb in nanocrystalline materials. Scripta Materialia, 2014, 78-79, 5-8.	2.6	14
123	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.	2.6	14
124	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.	2.6	13
125	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.	2.6	12
126	Influence of processing temperature on microstructure and microhardness of copper subjected to high-pressure torsion. Science China Technological Sciences, 2010, 53, 1534-1539.	2.0	12

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127	Stress effects on stability and diffusion behavior of sulfur impurity in nickel: A first-principles study. Computational Materials Science, 2014, 90, 137-142.	1.4	12
128	Size effects of lamellar twins on the strength and deformation mechanisms of nanocrystalline hcp cobalt. Scientific Reports, 2017, 7, 9550.	1.6	12
129	Cryogenic temperature toughening and strengthening due to gradient phase structure. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 712, 358-364.	2.6	12
130	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.	2.6	12
131	Microstructural features of an iron-based laser coating. Journal of Materials Science, 1999, 34, 3355-3361.	1.7	11
132	Atomistic tensile deformation mechanisms of Fe with gradient nano-grained structure. AIP Advances, 2015, 5, .	0.6	11
133	Strong Crack Blunting by Hierarchical Nanotwins in Ultrafine/Nano-grained Metals. Materials Research Letters, 2015, 3, 190-196.	4.1	11
134	Simultaneous Improvement of Yield Strength and Ductility at Cryogenic Temperature by Gradient Structure in 304 Stainless Steel. Nanomaterials, 2021, 11, 1856.	1.9	11
135	Extraordinary fracture toughness in nickel induced by heterogeneous grain structure. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 830, 142313.	2.6	10
136	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.	2.6	10
137	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.	2.6	9
138	Enhanced co-deformation of a heterogeneous nanolayered Cu/Ni composite. Journal of Applied Physics, 2019, 126, .	1.1	9
139	Inter-zone constraint modifies the stress-strain response of the constituent layer in gradient structure. Science China Materials, 2021, 64, 3114-3123.	3.5	9
140	Superior dynamic shear properties and deformation mechanisms in a high entropy alloy with dual heterogeneous structures. Journal of Materials Research and Technology, 2022, 19, 3287-3301.	2.6	8
141	Effect of stress-induced grain growth during room temperature tensile deformation on ductility in nanocrystalline metals. Bulletin of Materials Science, 2010, 33, 561-568.	0.8	7
142	Fracture Toughness and Adhesion of Transparent Al:ZnO Films Deposited on Glass Substrates. Journal of Materials Engineering and Performance, 2013, 22, 3161-3167.	1.2	7
143	Scaling laws and deformation mechanisms of nanoporous copper under adiabatic uniaxial strain compression. AIP Advances, 2014, 4, 127109.	0.6	7
144	Tensile deformation mechanisms of the hierarchical structure consisting of both twin-free grains and nanotwinned grains. Philosophical Magazine Letters, 2014, 94, 514-521.	0.5	7

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145	Smaller critical size and enhanced strength by nano-laminated structure in nickel. Computational Materials Science, 2015, 110, 83-90.	1.4	7
146	Title is missing!. Journal of Materials Science Letters, 1998, 17, 1849-1852.	0.5	6
147	Annealing and strain rate effects on the mechanical behavior of ultrafine-grained iron produced by SPD. Theoretical and Applied Mechanics Letters, 2011, 1, 021002.	1.3	6
148	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.	2.6	6
149	Strong crack blunting by shear-coupled migration of grain boundaries in nanocrystalline materials. Scripta Materialia, 2014, 84-85, 51-54.	2.6	6
150	DFT study of the effects of interstitial impurities on the resistance of Cr-doped Î³-Fe(111) surface dissolution corrosion. Journal of Molecular Modeling, 2015, 21, 206.	0.8	6
151	Tensile Behaviors and Strain Hardening Mechanisms in a High-Mn Steel with Heterogeneous Microstructure. Materials, 2022, 15, 3542.	1.3	6
152	Dislocation propagation versus dislocation nucleation. Nature Materials, 2006, 5, 841-841.	13.3	5
153	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.	2.6	5
154	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.	0.7	5
155	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.	1.5	5
156	ANALYSIS OF THE THERMAL STABILITY OF COPPER SPECIMENS DEFORMED BY HIGH--PRESSURE TORSION. Jinshu Xuebao/Acta Metallurgica Sinica, 2010, 46, 458-465.	0.3	5
157	Novel Fe₇₀Zr₁₀Ni₆Al₄Si₆B₄thick metallic glass coating produced by laser cladding. Materials Science and Technology, 2001, 17, 1025-1028.	0.8	4
158	Microstructural evolution of a laser-cladded coating. Scripta Materialia, 2000, 43, 123-127.	2.6	3
159	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.	0.8	3
160	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.	2.6	3
161	Heterostructuring an equiatomic CoNiFe medium-entropy alloy for enhanced yield strength and ductility synergy. Rare Metals, 2022, 41, 2894-2905.	3.6	3
162	Thermodynamics of the Displacive Mechanism of α₁ Transformation in a β′ Copper-Zinc Alloy. Materials Transactions, JIM, 1999, 40, 1098-1101.	0.9	2

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163	Deformation behaviour of electrodeposited nanocrystalline Ni with broad grain size distribution. Materials Science and Technology, 2010, 26, 591-596.	0.8	2
164	Preface to the special issue on ultrafine-grained materials. Journal of Materials Science, 2012, 47, 7717-7718.	1.7	2
165	Coupled Strengthening Effects by Lattice Distortion, Local Chemical Ordering, and Nanoprecipitates in Medium-Entropy Alloys. Frontiers in Materials, 2021, 8, .	1.2	2
166	Interfacial microstructure and mechanical behaviour in laser clad TiC_p/Ni alloy coatings. Materials Science and Technology, 2001, 17, 597-600.	0.8	1
167	Plastic deformation of nanocrystalline nickel. Science in China Series D: Earth Sciences, 2009, 52, 2216-2221.	0.9	1
168	An energy-equilibrium model for complex stress effect on fatigue crack initiation. Science China: Physics, Mechanics and Astronomy, 2014, 57, 916-926.	2.0	1
169	Comment on â€œCryoforged nanotwinned titanium with ultrahigh strength and ductilityâ€. Science, 2022, 376, eabo3440.	6.0	1
170	Experimental Study on the Internal Length Parameters in Nanoindentation. International Journal of Nonlinear Sciences and Numerical Simulation, 2000, 1, .	0.4	0
171	Compressive Behavior for Surface-Nanocrystallized Al-Alloy Material. Materials Research Society Symposia Proceedings, 2002, 740, 1.	0.1	0
172	Study on nanocrystalline dual phase Niâ€“Co alloy with high strength and excellent ductility. Materials Science and Technology, 2011, 27, 320-324.	0.8	0
173	Atomic-Scale Evidence of Chemical Short-Range Order in CrCoNi Medium-Entropy Alloy. SSRN Electronic Journal, 0, , .	0.4	0
174	Numerical simulation of fatigue initiation life for notched specimens with gradient surface layer. Science in China Series G: Physics, Mechanics and Astronomy, 2014, 44, 737.	0.2	0