

Xiao-Lei Wu

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	Structure motif of chemical short-range order in a medium-entropy alloy. <i>Materials Research Letters</i> , 2022 , 10, 149-155	7.4	1
166	Twin density gradient induces enhanced yield strength-and-ductility synergy in a S31254 super austenitic stainless steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022 , 837, 142727	5.3	0
165	Excellent tensile properties induced by heterogeneous grain structure and dual nanoprecipitates in high entropy alloys. <i>Materials Characterization</i> , 2022 , 186, 111779	3.9	2
164	Extraordinary fracture toughness in nickel induced by heterogeneous grain structure. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022 , 830, 142313	5.3	0
163	Enhanced tensile properties by heterogeneous grain structures and coherent precipitates in a CoCrNi-based medium entropy alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022 , 832, 142440	5.3	1
162	Atomic-scale evidence of chemical short-range order in CrCoNi medium-entropy alloy. <i>Acta Materialia</i> , 2022 , 224, 117490	8.4	3
161	Chemical medium-range order in a medium-entropy alloy.. <i>Nature Communications</i> , 2022 , 13, 1021	17.4	3
160	Dual heterogeneous structured medium-entropy alloys showing a superior strength-ductility synergy at cryogenic temperature. <i>Journal of Materials Research and Technology</i> , 2022 , 17, 3262-3276	5.5	1
159	Designing structures with combined gradients of grain size and precipitation in high entropy alloys for simultaneous improvement of strength and ductility. <i>Acta Materialia</i> , 2022 , 230, 117847	8.4	4
158	Dynamically reversible shear transformations in a CrMnFeCoNi high-entropy alloy at cryogenic temperature. <i>Acta Materialia</i> , 2022 , 117937	8.4	1
157	Comment on "Cryoforged nanotwinned titanium with ultrahigh strength and ductility".. <i>Science</i> , 2022 , 376, eabo3440	33.3	1
156	Tensile Behaviors and Strain Hardening Mechanisms in a High-Mn Steel with Heterogeneous Microstructure. <i>Materials</i> , 2022 , 15, 3542	3.5	0
155	Mechanical property comparisons between CrCoNi medium-entropy alloy and 316 stainless steels. <i>Journal of Materials Science and Technology</i> , 2021 , 108, 256-256	9.1	1
154	Gradient and lamellar heterostructures for superior mechanical properties. <i>MRS Bulletin</i> , 2021 , 46, 244-249	5.4	18
153	Direct observation of chemical short-range order in a medium-entropy alloy. <i>Nature</i> , 2021 , 592, 712-716	50.4	73
152	Simultaneous Improvement of Yield Strength and Ductility at Cryogenic Temperature by Gradient Structure in 304 Stainless Steel. <i>Nanomaterials</i> , 2021 , 11,	5.4	1
151	Heterostructured materials: superior properties from hetero-zone interaction. <i>Materials Research Letters</i> , 2021 , 9, 1-31	7.4	160

150	Ultra-high tensile strength via precipitates and enhanced martensite transformation in a FeNiAlC alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021 , 803, 140498	5.3	1
149	Plastic accommodation during tensile deformation of gradient structure. <i>Science China Materials</i> , 2021 , 64, 1534-1544	7.1	9
148	Deformation induced hcp nano-lamella and its size effect on the strengthening in a CoCrNi medium-entropy alloy. <i>Journal of Materials Science and Technology</i> , 2021 , 82, 122-134	9.1	14
147	Hetero-deformation-induced (HDI) plasticity induces simultaneous increase in both yield strength and ductility in a Fe50Mn30Co10Cr10 high-entropy alloy. <i>Applied Physics Letters</i> , 2021 , 119, 131906	3.4	1
146	In-situ grown few-layer graphene reinforced Ni matrix composites with simultaneously enhanced strength and ductility. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021 , 828, 142118	5.3	5
145	Chemical short-range order in Fe50Mn30Co10Cr10 high-entropy alloy. <i>Materials Today Nano</i> , 2021 , 16, 100139	9.7	3
144	Ductility and strain hardening in gradient and lamellar structured materials. <i>Scripta Materialia</i> , 2020 , 186, 321-325	5.6	47
143	Strain rate dependent shear localization and deformation mechanisms in the CrMnFeCoNi high-entropy alloy with various microstructures. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020 , 793, 139854	5.3	10
142	Preface to the viewpoint set on: Heterogeneous gradient and laminated materials. <i>Scripta Materialia</i> , 2020 , 187, 307-308	5.6	7
141	Exceptional tensile properties under cryogenic temperature in heterogeneous laminates induced by non-uniform martensite transformation and strain delocalization. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020 , 791, 139780	5.3	6
140	Tuning heterostructures with powder metallurgy for high synergistic strengthening and hetero-deformation induced hardening. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020 , 777, 139074	5.3	9
139	Hardening after annealing in nanostructured 316L stainless steel. <i>Nano Materials Science</i> , 2020 , 2, 80-82	10.2	9
138	Deformation nanotwins suppress shear banding during impact test of CrCoNi medium-entropy alloy. <i>Scripta Materialia</i> , 2020 , 178, 452-456	5.6	22
137	Atomic segregation at twin boundaries in a Mg-Ag alloy. <i>Scripta Materialia</i> , 2020 , 178, 193-197	5.6	21
136	Atomistic simulations of tensile deformation in a CrCoNi medium-entropy alloy with heterogeneous grain structures. <i>Materialia</i> , 2020 , 9, 100565	3.2	17
135	Superior strength-ductility synergy by hetero-structuring high manganese steel. <i>Materials Research Letters</i> , 2020 , 8, 417-423	7.4	10
134	Ultrastrong low-carbon nanosteel produced by heterostructure and interstitial mediated warm rolling. <i>Science Advances</i> , 2020 , 6,	14.3	28
133	Dense dispersed shear bands in gradient-structured Ni. <i>International Journal of Plasticity</i> , 2020 , 124, 186-198	10.8	37

132	Back-stress-induced strengthening and strain hardening in dual-phase steel. <i>Materialia</i> , 2019 , 7, 100376	3.2	20
131	A Review on Heterogeneous Nanostructures: A Strategy for Superior Mechanical Properties in Metals. <i>Metals</i> , 2019 , 9, 598	2.3	24
130	In-situ observation of dislocation dynamics near heterostructured interfaces. <i>Materials Research Letters</i> , 2019 , 7, 376-382	7.4	45
129	Superior mechanical properties and deformation mechanisms of heterogeneous laminates under dynamic shear loading. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019 , 756, 492-501	5.3	7
128	The formation of discontinuous gradient regimes during crack initiation in high strength steels under very high cycle fatigue. <i>International Journal of Fatigue</i> , 2019 , 124, 483-492	5	22
127	Residual stress provides significant strengthening and ductility in gradient structured materials. <i>Materials Research Letters</i> , 2019 , 7, 433-438	7.4	41
126	Perspective on hetero-deformation induced (HDI) hardening and back stress. <i>Materials Research Letters</i> , 2019 , 7, 393-398	7.4	257
125	High impact toughness of CrCoNi medium-entropy alloy at liquid-helium temperature. <i>Scripta Materialia</i> , 2019 , 172, 66-71	5.6	45
124	Graphene/Cu composites: Electronic and mechanical properties by first-principles calculation. <i>Materials Chemistry and Physics</i> , 2019 , 231, 188-195	4.4	10
123	Tailoring heterogeneities in high-entropy alloys to promote strength-ductility synergy. <i>Nature Communications</i> , 2019 , 10, 5623	17.4	132
122	Enhanced co-deformation of a heterogeneous nanolayered Cu/Ni composite. <i>Journal of Applied Physics</i> , 2019 , 126, 215111	2.5	3
121	Ductility by shear band delocalization in the nano-layer of gradient structure. <i>Materials Research Letters</i> , 2019 , 7, 12-17	7.4	50
120	An engineering model and its numerical validation for a malevolent aircraft impinging against a rigid target: Force and impulse estimations. <i>Nuclear Engineering and Design</i> , 2019 , 342, 1-9	1.8	3
119	Development of low-alloyed and rare-earth-free magnesium alloys having ultra-high strength. <i>Acta Materialia</i> , 2018 , 149, 350-363	8.4	164
118	Effect of nitrogen on corrosion behaviour of a novel high nitrogen medium-entropy alloy CrCoNiN manufactured by pressurized metallurgy. <i>Journal of Materials Science and Technology</i> , 2018 , 34, 1781-1790	9.1	57
117	Dynamic shear deformation of a CrCoNi medium-entropy alloy with heterogeneous grain structures. <i>Acta Materialia</i> , 2018 , 148, 407-418	8.4	130
116	Size effects of nano-spaced basal stacking faults on the strength and deformation mechanisms of nanocrystalline pure hcp metals. <i>Philosophical Magazine</i> , 2018 , 98, 1186-1203	1.6	5
115	Improving ductility by increasing fraction of interfacial zone in low C steel/304 SS laminates. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018 , 726, 288-297	5.3	32

114	Interface affected zone for optimal strength and ductility in heterogeneous laminate. <i>Materials Today</i> , 2018 , 21, 713-719	21.8	173
113	Control of the microstructure and mechanical properties of electrodeposited graphene/Ni composite. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018 , 727, 133-139	5.3	23
112	Extraordinary Bauschinger effect in gradient structured copper. <i>Scripta Materialia</i> , 2018 , 150, 57-60	5.6	42
111	Strain Rate Effect on Tensile Behavior for a High Specific Strength Steel: From Quasi-Static to Intermediate Strain Rates. <i>Metals</i> , 2018 , 8, 11	2.3	23
110	Cryogenic temperature toughening and strengthening due to gradient phase structure. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018 , 712, 358-364	5.3	7
109	Dislocation plasticity reigns in a traditional twinning-induced plasticity steel by in situ observation. <i>Materials Today Nano</i> , 2018 , 3, 48-53	9.7	16
108	Ductility and plasticity of nanostructured metals: differences and issues. <i>Materials Today Nano</i> , 2018 , 2, 15-20	9.7	62
107	Dynamically reinforced heterogeneous grain structure prolongs ductility in a medium-entropy alloy with gigapascal yield strength. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, 7224-7229	11.5	191
106	Correlation between strain rate sensitivity and characteristics of Portevin-LeChâtelier bands in a twinning-induced plasticity steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017 , 696, 220-227	5.3	27
105	Enhanced tensile ductility and strength of electrodeposited ultrafine-grained nickel with a desired bimodal microstructure. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017 , 701, 196-202	5.3	12
104	Gradient structure produces superior dynamic shear properties. <i>Materials Research Letters</i> , 2017 , 5, 501-507	5.4	20
103	Mechanical properties and deformation mechanism of Mg-Al-Zn alloy with gradient microstructure in grain size and orientation. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017 , 694, 98-109	5.3	30
102	Shock and spall behaviors of a high specific strength steel: Effects of impact stress and microstructure. <i>Journal of Applied Physics</i> , 2017 , 121, 135901	2.5	18
101	Size effects of lamellar twins on the strength and deformation mechanisms of nanocrystalline hcp cobalt. <i>Scientific Reports</i> , 2017 , 7, 9550	4.9	11
100	Plastic deformation mechanisms in a severely deformed Fe-Ni-Al-C alloy with superior tensile properties. <i>Scientific Reports</i> , 2017 , 7, 15619	4.9	15
99	Deformation mechanisms for superplastic behaviors in a dual-phase high specific strength steel with ultrafine grains. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017 , 702, 133-141	5.3	15
98	The Evolution of Strain Gradient and Anisotropy in Gradient-Structured Metal. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017 , 48, 3951-3960	2.3	7
97	Heterogeneous materials: a new class of materials with unprecedented mechanical properties. <i>Materials Research Letters</i> , 2017 , 5, 527-532	7.4	468

96	Enhanced quasi-static and dynamic shear properties by heterogeneous gradient and lamella structures in 301 stainless steels. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017 , 680, 305-316	5.3	21
95	On strain hardening mechanism in gradient nanostructures. <i>International Journal of Plasticity</i> , 2017 , 88, 89-107	7.6	127
94	Strain hardening behaviors and strain rate sensitivity of gradient-grained Fe under compression over a wide range of strain rates. <i>Mechanics of Materials</i> , 2016 , 95, 71-82	3.3	15
93	Strain hardening in Fe-16Mn-0.0Al-0.86C-Ni high specific strength steel. <i>Acta Materialia</i> , 2016 , 109, 213-222	8.4	114
92	Back stress strengthening and strain hardening in gradient structure. <i>Materials Research Letters</i> , 2016 , 4, 145-151	7.4	396
91	Combining gradient structure and TRIP effect to produce austenite stainless steel with high strength and ductility. <i>Acta Materialia</i> , 2016 , 112, 337-346	8.4	179
90	Effects of alloying on the behavior of B and S at $\Sigma(210)$ grain boundary in δ -Fe. <i>Computational Materials Science</i> , 2016 , 115, 170-176	3.2	12
89	Strong Crack Blunting by Hierarchical Nanotwins in Ultrafine/Nano-grained Metals. <i>Materials Research Letters</i> , 2015 , 3, 190-196	7.4	11
88	Dynamic shear response and evolution mechanisms of adiabatic shear band in an ultrafine-grained austenite-ferrite duplex steel. <i>Mechanics of Materials</i> , 2015 , 89, 47-58	3.3	24
87	DFT study of the effects of interstitial impurities on the resistance of Cr-doped δ -Fe(111) surface dissolution corrosion. <i>Journal of Molecular Modeling</i> , 2015 , 21, 206	2	5
86	Effects of alloying on oxidation and dissolution corrosion of the surface of δ -Fe(111): a DFT study. <i>Journal of Molecular Modeling</i> , 2015 , 21, 181	2	13
85	Strain hardening and ductility in a coarse-grain/nanostructure laminate material. <i>Scripta Materialia</i> , 2015 , 103, 57-60	5.6	124
84	Size effect and boundary type on the strengthening of nanoscale domains in pure nickel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015 , 648, 243-251	5.3	11
83	Size effect and atomistic deformation mechanisms of hierarchically nanotwinned fcc metals under nanoindentation. <i>Journal of Materials Science</i> , 2015 , 50, 7557-7567	4.3	17
82	Heterogeneous lamella structure unites ultrafine-grain strength with coarse-grain ductility. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 14501-5	11.5	708
81	A physical model revealing strong strain hardening in nano-grained metals induced by grain size gradient structure. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015 , 620, 16-21	5.3	38
80	Nanodomained Nickel Unite Nanocrystal Strength with Coarse-Grain Ductility. <i>Scientific Reports</i> , 2015 , 5, 11728	4.9	74
79	Atomistic tensile deformation mechanisms of Fe with gradient nano-grained structure. <i>AIP Advances</i> , 2015 , 5, 087120	1.5	8

78	Smaller critical size and enhanced strength by nano-laminated structure in nickel. <i>Computational Materials Science</i> , 2015 , 110, 83-90	3.2	7
77	Enhancing dislocation emission in nanocrystalline materials through shear-coupled migration of grain boundaries. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014 , 601, 153-158	5.3	6
76	Hydrostatic pressure effects on deformation mechanisms of nanocrystalline fcc metals. <i>Computational Materials Science</i> , 2014 , 85, 8-15	3.2	14
75	On nanograin rotation by dislocation climb in nanocrystalline materials. <i>Scripta Materialia</i> , 2014 , 78-79, 5-8	5.6	14
74	Extraordinary strain hardening by gradient structure. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 7197-201	11.5	644
73	Tensile deformation mechanisms of the hierarchical structure consisting of both twin-free grains and nanotwinned grains. <i>Philosophical Magazine Letters</i> , 2014 , 94, 514-521	1	5
72	Simultaneous improvement of tensile strength and ductility in micro-duplex structure consisting of austenite and ferrite. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014 , 618, 563-571	5.3	17
71	An energy-equilibrium model for complex stress effect on fatigue crack initiation. <i>Science China: Physics, Mechanics and Astronomy</i> , 2014 , 57, 916-926	3.6	1
70	Synergetic Strengthening by Gradient Structure. <i>Materials Research Letters</i> , 2014 , 2, 185-191	7.4	309
69	Strong crack blunting by shear-coupled migration of grain boundaries in nanocrystalline materials. <i>Scripta Materialia</i> , 2014 , 84-85, 51-54	5.6	5
68	Stress effects on stability and diffusion behavior of sulfur impurity in nickel: A first-principles study. <i>Computational Materials Science</i> , 2014 , 90, 137-142	3.2	7
67	Dissecting the mechanism of martensitic transformation via atomic-scale observations. <i>Scientific Reports</i> , 2014 , 4, 6141	4.9	65
66	Scaling laws and deformation mechanisms of nanoporous copper under adiabatic uniaxial strain compression. <i>AIP Advances</i> , 2014 , 4, 127109	1.5	7
65	Twin boundary spacing effects on shock response and spall behaviors of hierarchically nanotwinned fcc metals. <i>Journal of Applied Physics</i> , 2014 , 115, 063509	2.5	20
64	Size effects of primary/secondary twins on the atomistic deformation mechanisms in hierarchically nanotwinned metals. <i>Journal of Applied Physics</i> , 2013 , 113, 203516	2.5	34
63	Fracture Toughness and Adhesion of Transparent Al:ZnO Films Deposited on Glass Substrates. <i>Journal of Materials Engineering and Performance</i> , 2013 , 22, 3161-3167	1.6	6
62	Fast deposition of diamond-like carbon films by radio frequency hollow cathode method. <i>Thin Solid Films</i> , 2013 , 534, 226-230	2.2	14
61	Formation sequences and roles of multiple deformation twins during the plastic deformation in nanocrystalline fcc metals. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013 , 580, 58-65	5.3	9

60	Atomistic scale fracture behaviours in hierarchically nanotwinned metals. <i>Philosophical Magazine</i> , 2013 , 93, 3248-3259	1.6	31
59	Analysis of spherical indentation of materials with plastically graded surface layer. <i>International Journal of Solids and Structures</i> , 2012 , 49, 527-536	3.1	13
58	Deformation twinning in nanocrystalline materials. <i>Progress in Materials Science</i> , 2012 , 57, 1-62	42.2	817
57	Shock response of nanotwinned copper from large-scale molecular dynamics simulations. <i>Physical Review B</i> , 2012 , 86,	3.3	32
56	Preface to the special issue on ultrafine-grained materials. <i>Journal of Materials Science</i> , 2012 , 47, 7717-7718	1.5	1
55	Mechanical properties and nanostructures in a duplex stainless steel subjected to equal channel angular pressing. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012 , 551, 154-159	5.3	33
54	Annealing effect on the evolution of adiabatic shear band under dynamic shear loading in ultra-fine-grained iron. <i>International Journal of Impact Engineering</i> , 2012 , 50, 1-8	4	18
53	Twin boundaries showing very large deviations from the twinning plane. <i>Scripta Materialia</i> , 2012 , 67, 862-865	5.6	128
52	Layer thickness dependent tensile deformation mechanisms in sub-10 nm multilayer nanowires. <i>Journal of Applied Physics</i> , 2012 , 111, 124313	2.5	18
51	Deformation twinning in a nanocrystalline hcp Mg alloy. <i>Scripta Materialia</i> , 2011 , 64, 213-216	5.6	100
50	Microstructure and mechanical properties at different length scales and strain rates of nanocrystalline tantalum produced by high-pressure torsion. <i>Acta Materialia</i> , 2011 , 59, 2423-2436	8.4	96
49	Study on nanocrystalline dual phase NiTi alloy with high strength and excellent ductility. <i>Materials Science and Technology</i> , 2011 , 27, 320-324	1.5	
48	Dislocation-twin interactions in nanocrystalline fcc metals. <i>Acta Materialia</i> , 2011 , 59, 812-821	8.4	265
47	Annealing and strain rate effects on the mechanical behavior of ultrafine-grained iron produced by SPD. <i>Theoretical and Applied Mechanics Letters</i> , 2011 , 1, 021002	1.8	3
46	Deformation behaviour of electrodeposited nanocrystalline Ni with broad grain size distribution. <i>Materials Science and Technology</i> , 2010 , 26, 591-596	1.5	2
45	The main factor influencing the tensile properties of surface nano-crystallized graded materials. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010 , 527, 7040-7044	5.3	28
44	Influence of processing temperature on microstructure and microhardness of copper subjected to high-pressure torsion. <i>Science China Technological Sciences</i> , 2010 , 53, 1534-1539	3.5	8
43	Effect of stress-induced grain growth during room temperature tensile deformation on ductility in nanocrystalline metals. <i>Bulletin of Materials Science</i> , 2010 , 33, 561-568	1.7	6

42	A modified criterion for shear band formation in bulk metallic glass under complex stress states. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010 , 527, 2613-2620	5.3	4
41	ANALYSIS OF THE THERMAL STABILITY OF COPPER SPECIMENS DEFORMED BY HIGH-PRESSURE TORSION. <i>Jinshu Xuebao/Acta Metallurgica Sinica</i> , 2010 , 46, 458-465		5
40	Growth of deformation twins in room-temperature rolled nanocrystalline nickel. <i>Applied Physics Letters</i> , 2009 , 94, 121907	3.4	15
39	Formation of single and multiple deformation twins in nanocrystalline fcc metals. <i>Acta Materialia</i> , 2009 , 57, 3763-3770	8.4	134
38	Plastic deformation of nanocrystalline nickel. <i>Science in China Series D: Earth Sciences</i> , 2009 , 52, 2216-2221		1
37	Prevalence of shear banding in compression of Zr ₄₁ Ti ₁₄ Cu _{12.5} Ni ₁₀ Be _{22.5} pillars as small as 150nm in diameter. <i>Acta Materialia</i> , 2009 , 57, 3562-3571	8.4	62
36	Strong strain hardening in nanocrystalline nickel. <i>Physical Review Letters</i> , 2009 , 103, 205504	7.4	133
35	Work softening and annealing hardening of deformed nanocrystalline nickel. <i>Applied Physics Letters</i> , 2008 , 93, 261907	3.4	23
34	Inverse grain-size effect on twinning in nanocrystalline Ni. <i>Physical Review Letters</i> , 2008 , 101, 025503	7.4	169
33	Dislocations and twins in nanocrystalline Ni after severe plastic deformation: the effects of grain size. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008 , 483-484, 84-86	5.3	10
32	In situ synthesis of nanocrystalline intermetallic layer during surface plastic deformation of zirconium. <i>Surface and Coatings Technology</i> , 2007 , 202, 583-589	4.4	21
31	Microstructural evolution and formation of nanocrystalline intermetallic compound during surface mechanical attrition treatment of cobalt. <i>Acta Materialia</i> , 2007 , 55, 5768-5779	8.4	41
30	Shear bands at the fatigue crack tip of nanocrystalline nickel. <i>Scripta Materialia</i> , 2007 , 57, 5-8	5.6	33
29	Vacancy clusters in ultrafine grained Al by severe plastic deformation. <i>Applied Physics Letters</i> , 2007 , 91, 141908	3.4	29
28	Deformation defects in nanocrystalline nickel. <i>Journal of Materials Science</i> , 2007 , 42, 1427-1432	4.3	24
27	Accommodation of large plastic strains and defect accumulation in nanocrystalline Ni grains. <i>Journal of Materials Research</i> , 2007 , 22, 2241-2253	2.5	17
26	Partial-mediated slips in nanocrystalline Ni at high strain rate. <i>Applied Physics Letters</i> , 2007 , 90, 221911	3.4	33
25	Predictions for partial-dislocation-mediated processes in nanocrystalline Ni by generalized planar fault energy curves: An experimental evaluation. <i>Applied Physics Letters</i> , 2006 , 88, 121905	3.4	55

24	Dislocations in nanocrystalline grains. <i>Applied Physics Letters</i> , 2006 , 88, 231911	3.4	65
23	Deformation twinning mechanisms in nanocrystalline Ni. <i>Applied Physics Letters</i> , 2006 , 88, 061905	3.4	41
22	Dislocation propagation versus dislocation nucleation. <i>Nature Materials</i> , 2006 , 5, 841	27	5
21	Strain-induced grain refinement of cobalt during surface mechanical attrition treatment. <i>Acta Materialia</i> , 2005 , 53, 681-691	8.4	187
20	Localized solid-state amorphization at grain boundaries in a nanocrystalline Al solid solution subjected to surface mechanical attrition. <i>Journal Physics D: Applied Physics</i> , 2005 , 38, 4140-4143	3	35
19	Grain refinement at the nanoscale via mechanical twinning and dislocation interaction in a nickel-based alloy. <i>Journal of Materials Research</i> , 2004 , 19, 1623-1629	2.5	92
18	Microstructure and evolution of mechanically-induced ultrafine grain in surface layer of AL-alloy subjected to USSP. <i>Acta Materialia</i> , 2002 , 50, 2075-2084	8.4	390
17	Compressive Behavior for Surface-Nanocrystallized Al-Alloy Material. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 740, 1		
16	Synthesis of thick Ni66Cr5Mo4Zr6P15B4 amorphous alloy coating and large glass-forming ability by laser cladding. <i>Materials Letters</i> , 2002 , 56, 838-841	3.3	47
15	Theoretical and experimental researches of size effect in micro-indentation test. <i>Science in China Series A: Mathematics</i> , 2001 , 44, 74-82		23
14	Fe-based thick amorphous-alloy coating by laser cladding. <i>Surface and Coatings Technology</i> , 2001 , 141, 141-144	4.4	83
13	Microstructure and mechanical properties at TiCp/Ni-alloy interfaces in laser-synthesized coatings. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2001 , 318, 15-21	5.3	35
12	Interfacial microstructure and mechanical behaviour in laser clad TiCp/Ni alloy coatings. <i>Materials Science and Technology</i> , 2001 , 17, 597-600	1.5	1
11	Novel Fe70Zr10Ni6Al4Si6B4 thick metallic glass coating produced by laser cladding. <i>Materials Science and Technology</i> , 2001 , 17, 1025-1028	1.5	4
10	Microstructure of Zr-alloyed coating using pulsed laser. <i>Surface and Coatings Technology</i> , 2000 , 132, 194-197	4.7	14
9	Microstructural evolution of a laser-cladded coating. <i>Scripta Materialia</i> , 2000 , 43, 123-127	5.6	3
8	Microstructural characteristics of TiC-reinforced composite coating produced by laser syntheses. <i>Journal of Materials Research</i> , 1999 , 14, 2704-2707	2.5	13
7	Nonequilibrium microstructures and their evolution in a FeCrNiTi laser clad coating. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1999 , 270, 183-189	5.3	16

6	In situ formation by laser cladding of a TiC composite coating with a gradient distribution. <i>Surface and Coatings Technology</i> , 1999 , 115, 111-115	4.4	65
5	Rapidly solidified nonequilibrium microstructure and phase transformation of laser-synthesized iron-based alloy coating. <i>Surface and Coatings Technology</i> , 1999 , 115, 153-162	4.4	18
4	Microstructural features of an iron-based laser coating. <i>Journal of Materials Science</i> , 1999 , 34, 3355-3361	4.3	10
3	Thermodynamics of the Displacive Mechanism of α' Transformation in a β' Copper-Zinc Alloy. <i>Materials Transactions, JIM</i> , 1999 , 40, 1098-1101		2
2	Microstructural Characteristics and Carbide Transformation of Laser-cladded Fe-Cr-W-Ni-C Coatings During High-temperature Tempering. <i>Journal of Materials Science Letters</i> , 1998 , 17, 1849-1852		5
1	Inter-zone constraint modifies the stress-strain response of the constituent layer in gradient structure. <i>Science China Materials</i> , 1	7.1	1