

# Xiao-Zhou Liao

## List of Publications by Year in descending order

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298  
papers

22,359  
citations

8755

75  
h-index

10445

139  
g-index

307  
all docs

307  
docs citations

307  
times ranked

13917  
citing authors

#	ARTICLE	IF	CITATIONS
1	Deformation twinning in nanocrystalline materials. <i>Progress in Materials Science</i> , 2012, 57, 1-62.	32.8	1,065
2	Ultrahigh piezoelectricity in ferroelectric ceramics by design. <i>Nature Materials</i> , 2018, 17, 349-354.	27.5	874
3	Microstructures and mechanical properties of ultrafine grained 7075 Al alloy processed by ECAP and their evolutions during annealing. <i>Acta Materialia</i> , 2004, 52, 4589-4599.	7.9	820
4	Simultaneously Increasing the Ductility and Strength of Nanostructured Alloys. <i>Advanced Materials</i> , 2006, 18, 2280-2283.	21.0	735
5	Nanostructural hierarchy increases the strength of aluminium alloys. <i>Nature Communications</i> , 2010, 1, 63.	12.8	552
6	Ultralong single-wall carbon nanotubes. <i>Nature Materials</i> , 2004, 3, 673-676.	27.5	513
7	Retaining ductility. <i>Nature Materials</i> , 2004, 3, 351-352.	27.5	484
8	Corrosion resistance of ultra fine-grained Ti. <i>Scripta Materialia</i> , 2004, 51, 225-229.	5.2	425
9	Ultrastrong, Stiff, and Lightweight Carbon Nanotube Fibers. <i>Advanced Materials</i> , 2007, 19, 4198-4201.	21.0	419
10	Deformation twinning in nanocrystalline copper at room temperature and low strain rate. <i>Applied Physics Letters</i> , 2004, 84, 592-594.	3.3	414
11	Hierarchical microstructure and strengthening mechanisms of a CoCrFeNiMn high entropy alloy additively manufactured by selective laser melting. <i>Scripta Materialia</i> , 2018, 154, 20-24.	5.2	412
12	Structural evolutions of metallic materials processed by severe plastic deformation. <i>Materials Science and Engineering Reports</i> , 2018, 133, 1-59.	31.8	401
13	Deformation mechanism in nanocrystalline Al: Partial dislocation slip. <i>Applied Physics Letters</i> , 2003, 83, 632-634.	3.3	382
14	Simultaneously Increasing the Ductility and Strength of Ultra-Fine-Grained Pure Copper. <i>Advanced Materials</i> , 2006, 18, 2949-2953.	21.0	359
15	Dislocation-twin interactions in nanocrystalline fcc metals. <i>Acta Materialia</i> , 2011, 59, 812-821.	7.9	327
16	Deformation twins in nanocrystalline Al. <i>Applied Physics Letters</i> , 2003, 83, 5062-5064.	3.3	323
17	Constructing phase boundary in AgNbO <sub>3</sub> antiferroelectrics: pathway simultaneously achieving high energy density and efficiency. <i>Nature Communications</i> , 2020, 11, 4824.	12.8	298
18	Tailoring stacking fault energy for high ductility and high strength in ultrafine grained Cu and its alloy. <i>Applied Physics Letters</i> , 2006, 89, 121906.	3.3	295

#	ARTICLE	IF	CITATIONS
19	Influence of equal-channel angular pressing on precipitation in an Al-Zn-Mg-Cu alloy. <i>Acta Materialia</i> , 2009, 57, 3123-3132.	7.9	253
20	Microstructure of cryogenic treated M2 tool steel. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2003, 339, 241-244.	5.6	250
21	Microstructural evolution during recovery and recrystallization of a nanocrystalline Al-Mg alloy prepared by cryogenic ball milling. <i>Acta Materialia</i> , 2003, 51, 2777-2791.	7.9	227
22	Nucleation and growth of deformation twins in nanocrystalline aluminum. <i>Applied Physics Letters</i> , 2004, 85, 5049-5051.	3.3	202
23	Simultaneously enhancing strength and ductility of a high-entropy alloy via gradient hierarchical microstructures. <i>International Journal of Plasticity</i> , 2019, 123, 178-195.	8.8	201
24	Formation mechanism of wide stacking faults in nanocrystalline Al. <i>Applied Physics Letters</i> , 2004, 84, 3564-3566.	3.3	183
25	Influence of stacking fault energy on nanostructure formation under high pressure torsion. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2005, 410-411, 188-193.	5.6	179
26	High-pressure torsion-induced grain growth in electrodeposited nanocrystalline Ni. <i>Applied Physics Letters</i> , 2006, 88, 021909.	3.3	178
27	Ultrahigh specific strength in a magnesium alloy strengthened by spinodal decomposition. <i>Science Advances</i> , 2021, 7, .	10.3	176
28	Grain-size effect on the deformation mechanisms of nanostructured copper processed by high-pressure torsion. <i>Journal of Applied Physics</i> , 2004, 96, 636-640.	2.5	169
29	Dynamic precipitation, segregation and strengthening of an Al-Zn-Mg-Cu alloy (AA7075) processed by high-pressure torsion. <i>Acta Materialia</i> , 2019, 162, 19-32.	7.9	166
30	Cryogenic-deformation-induced phase transformation in an FeCoCrNi high-entropy alloy. <i>Materials Research Letters</i> , 2018, 6, 236-243.	8.7	164
31	New Deformation Twinning Mechanism Generates Zero Macroscopic Strain in Nanocrystalline Metals. <i>Physical Review Letters</i> , 2008, 100, 095701.	7.8	163
32	Formation of single and multiple deformation twins in nanocrystalline fcc metals. <i>Acta Materialia</i> , 2009, 57, 3763-3770.	7.9	163
33	Tougher ultrafine grain Cu via high-angle grain boundaries and low dislocation density. <i>Applied Physics Letters</i> , 2008, 92, .	3.3	158
34	Determining the optimal stacking fault energy for achieving high ductility in ultrafine-grained Cu-Zn alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008, 493, 123-129.	5.6	157
35	Nanostructures and deformation mechanisms in a cryogenically ball-milled Al-Mg alloy. <i>Philosophical Magazine</i> , 2003, 83, 3065-3075.	1.6	156
36	A quenchable superhard carbon phase synthesized by cold compression of carbon nanotubes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 13699-13702.	7.1	153

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37	Characterizing deformed ultrafine-grained and nanocrystalline materials using transmission Kikuchi diffraction in a scanning electron microscope. <i>Acta Materialia</i> , 2014, 62, 69-80.	7.9	142
38	Development of repetitive corrugation and straightening. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2004, 371, 35-39.	5.6	141
39	The role of stacking faults and twin boundaries in grain refinement of a Cu-Zn alloy processed by high-pressure torsion. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010, 527, 4959-4966.	5.6	141
40	Hot isostatic pressing of powder in tube MgB <sub>2</sub> wires. <i>Applied Physics Letters</i> , 2003, 82, 2847-2849.	3.3	137
41	Amorphization of TiNi induced by high-pressure torsion. <i>Philosophical Magazine Letters</i> , 2004, 84, 183-190.	1.2	137
42	Hardening of an Al <sub>0.3</sub> CoCrFeNi high entropy alloy via high-pressure torsion and thermal annealing. <i>Materials Letters</i> , 2015, 151, 126-129.	2.6	135
43	The effect of dislocation density on the interactions between dislocations and twin boundaries in nanocrystalline materials. <i>Acta Materialia</i> , 2012, 60, 3181-3189.	7.9	134
44	Influence of stacking fault energy on deformation mechanism and dislocation storage capacity in ultrafine-grained materials. <i>Scripta Materialia</i> , 2009, 60, 52-55.	5.2	133
45	Nucleation of deformation twins in nanocrystalline face-centered-cubic metals processed by severe plastic deformation. <i>Journal of Applied Physics</i> , 2005, 98, 034319.	2.5	131
46	Selective laser melting enabling the hierarchically heterogeneous microstructure and excellent mechanical properties in an interstitial solute strengthened high entropy alloy. <i>Materials Research Letters</i> , 2019, 7, 453-459.	8.7	129
47	Excellent ductility and serration feature of metastable CoCrFeNi high-entropy alloy at extremely low temperatures. <i>Science China Materials</i> , 2019, 62, 853-863.	6.3	129
48	Strength, grain refinement and solute nanostructures of an Al-Mg-Si alloy (AA6060) processed by high-pressure torsion. <i>Acta Materialia</i> , 2014, 63, 169-179.	7.9	123
49	Ultrathin nickel boride nanosheets anchored on functionalized carbon nanotubes as bifunctional electrocatalysts for overall water splitting. <i>Journal of Materials Chemistry A</i> , 2019, 7, 764-774.	10.3	123
50	Cation-Vacancy-Enriched Nickel Phosphide for Efficient Electrosynthesis of Hydrogen Peroxides. <i>Advanced Materials</i> , 2022, 34, e2106541.	21.0	123
51	Formation mechanism of fivefold deformation twins in nanocrystalline face-centered-cubic metals. <i>Applied Physics Letters</i> , 2005, 86, 103112.	3.3	120
52	Influence of stacking fault energy on the minimum grain size achieved in severe plastic deformation. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2007, 463, 22-26.	5.6	119
53	Mechanisms for enhanced plasticity in magnesium alloys. <i>Acta Materialia</i> , 2015, 82, 344-355.	7.9	119
54	Super Deformability and Young's Modulus of GaAs Nanowires. <i>Advanced Materials</i> , 2011, 23, 1356-1360.	21.0	114

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55	NanoRuO <sub>2</sub> -Decorated Holey Graphene Composite Fibers for Micro-Supercapacitors with Ultrahigh Energy Density. <i>Small</i> , 2018, 14, e1800582.	10.0	113
56	Segregation of solute elements at grain boundaries in an ultrafine grained Al-Zn-Mg-Cu alloy. <i>Ultramicroscopy</i> , 2011, 111, 500-505.	1.9	107
57	Three-dimensional shear-strain patterns induced by high-pressure torsion and their impact on hardness evolution. <i>Acta Materialia</i> , 2011, 59, 3903-3914.	7.9	98
58	Atomic-scale understanding of stress-induced phase transformation in cold-rolled Hf. <i>Acta Materialia</i> , 2017, 131, 271-279.	7.9	98
59	Hydrogen evolution reaction activity of nickel phosphide is highly sensitive to electrolyte pH. <i>Journal of Materials Chemistry A</i> , 2017, 5, 20390-20397.	10.3	98
60	Grain growth and dislocation density evolution in a nanocrystalline Ni-Fe alloy induced by high-pressure torsion. <i>Scripta Materialia</i> , 2011, 64, 327-330.	5.2	93
61	Mg(B <sub>2</sub> O <sub>3</sub> ) <sub>2</sub> precipitation in MgB <sub>2</sub> . <i>Journal of Applied Physics</i> , 2003, 93, 6208-6215.	2.5	91
62	Concurrent microstructural evolution of ferrite and austenite in a duplex stainless steel processed by high-pressure torsion. <i>Acta Materialia</i> , 2014, 63, 16-29.	7.9	90
63	Strain relaxation by alloying effects in Ge islands grown on Si(001). <i>Physical Review B</i> , 1999, 60, 15605-15608.	3.2	89
64	Influence of microstructures and crystalline defects on the superconductivity of MgB <sub>2</sub> . <i>Journal of Applied Physics</i> , 2002, 92, 351-356.	2.5	89
65	Shear banding in commercial pure titanium deformed by dynamic compression. <i>Acta Materialia</i> , 2014, 79, 47-58.	7.9	89
66	Effect of cyclic rapid thermal loadings on the microstructural evolution of a CrMnFeCoNi high-entropy alloy manufactured by selective laser melting. <i>Acta Materialia</i> , 2020, 196, 609-625.	7.9	89
67	Deformation-induced crystalline-to-amorphous phase transformation in a CrMnFeCoNi high-entropy alloy. <i>Science Advances</i> , 2021, 7, .	10.3	89
68	Mechanism of grain growth during severe plastic deformation of a nanocrystalline Ni-Fe alloy. <i>Applied Physics Letters</i> , 2009, 94, .	3.3	87
69	Feasibility of high strain-rate rolling of a magnesium alloy across a wide temperature range. <i>Scripta Materialia</i> , 2012, 67, 404-407.	5.2	82
70	Influence of Al content on the strain-hardening behavior of aged low density Fe-Mn-Al-C steels with high Al content. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 639, 187-191.	5.6	82
71	The mechanism for the enhanced piezoelectricity in multi-elements doped (K,Na)NbO <sub>3</sub> ceramics. <i>Nature Communications</i> , 2021, 12, 881.	12.8	82
72	Effect of catalyst composition on carbon nanotube growth. <i>Applied Physics Letters</i> , 2003, 82, 2694-2696.	3.3	81

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73	Nanocrystalline $\beta$ -Ti alloy with high hardness, low Young's modulus and excellent in vitro biocompatibility for biomedical applications. <i>Materials Science and Engineering C</i> , 2013, 33, 3530-3536.	7.3	81
74	Deformation twins in pure titanium processed by equal channel angular pressing. <i>Scripta Materialia</i> , 2003, 48, 813-817.	5.2	80
75	Uniting tensile ductility with ultrahigh strength via composition undulation. <i>Nature</i> , 2022, 604, 273-279.	27.8	80
76	Indium Segregation and Enrichment in Coherent $\text{In}_x\text{Ga}_{1-x}\text{As}/\text{GaAs}$ Quantum Dots. <i>Physical Review Letters</i> , 1999, 82, 5148-5151.	7.8	77
77	Transmission-electron microscopy study of the shape of buried $\text{In}_x\text{Ga}_{1-x}\text{As}/\text{GaAs}$ quantum dots. <i>Physical Review B</i> , 1998, 58, R4235-R4237.	3.2	75
78	Grain size and reversible beta-to-omega phase transformation in a Ti alloy. <i>Scripta Materialia</i> , 2010, 63, 613-616.	5.2	75
79	Deformation twinning in hexagonal materials. <i>MRS Bulletin</i> , 2016, 41, 314-319.	3.5	73
80	Introducing a strain-hardening capability to improve the ductility of bulk metallic glasses via severe plastic deformation. <i>Acta Materialia</i> , 2012, 60, 253-260.	7.9	72
81	Grain size effect on deformation twinning propensity in ultrafine-grained hexagonal close-packed titanium. <i>Scripta Materialia</i> , 2013, 69, 428-431.	5.2	71
82	The effect of grain size on the annealing-induced phase transformation in an $\text{AlO}_x\text{-3CoCrFeNi}$ high entropy alloy. <i>Materials and Design</i> , 2016, 105, 381-385.	7.0	71
83	Cooperation of Ni and CaO at Interface for $\text{CO}_2$ Reforming of $\text{CH}_4$ : A Combined Theoretical and Experimental Study. <i>ACS Catalysis</i> , 2019, 9, 10060-10069.	11.2	68
84	Ultra-High Thermoelectric Performance in Bulk $\text{BiSbTe}/\text{Amorphous Boron}$ Composites with Nano-Defect Architectures. <i>Advanced Energy Materials</i> , 2020, 10, 2000757.	19.5	67
85	Formation mechanisms of nanostructures in stainless steel during high-strain-rate severe plastic deformation. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2005, 410-411, 252-256.	5.6	66
86	Carbon Nanotube Cotton for Large-Scale Fibers. <i>Advanced Materials</i> , 2007, 19, 2567-2570.	21.0	64
87	Dual mechanisms of grain refinement in a $\text{FeCoCrNi}$ high-entropy alloy processed by high-pressure torsion. <i>Scientific Reports</i> , 2017, 7, 46720.	3.3	63
88	Effect of grain size on the competition between twinning and detwinning in nanocrystalline metals. <i>Physical Review B</i> , 2011, 84, .	3.2	62
89	Deformation twinning in bulk nanocrystalline metals: Experimental observations. <i>Jom</i> , 2008, 60, 60-64.	1.9	61
90	Effect of a High Density of Stacking Faults on the Young's Modulus of $\text{GaAs}$ Nanowires. <i>Nano Letters</i> , 2016, 16, 1911-1916.	9.1	61

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91	Observation of coherent oxide precipitates in polycrystalline MgB <sub>2</sub> . Applied Physics Letters, 2002, 80, 3970-3972.	3.3	60
92	Microstructure and high critical current of powder-in-tube MgB <sub>2</sub> . Applied Physics Letters, 2003, 82, 1754-1756.	3.3	60
93	Compact and Dissociated Dislocations in Aluminum: Implications for Deformation. Physical Review Letters, 2005, 94, 125502.	7.8	60
94	Enhanced mechanical properties in ultrafine grained 7075 Al alloy. Journal of Materials Research, 2005, 20, 288-291.	2.6	59
95	Fabrication of Mg-Al-Zn-Mn alloy sheets with homogeneous fine-grained structures using high strain-rate rolling in a wide temperature range. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 559, 765-772.	5.6	59
96	Grain boundary formation by remnant dislocations from the de-twinning of thin nano-twins. Scripta Materialia, 2015, 100, 98-101.	5.2	58
97	Microstructural evolution and phase transformation in twinning-induced plasticity steel induced by high-pressure torsion. Acta Materialia, 2016, 109, 300-313.	7.9	58
98	Controlling flux pinning precipitates during MgB <sub>2</sub> synthesis. Applied Physics Letters, 2002, 80, 4398-4400.	3.3	56
99	Enhancement of critical current density in low level Al-doped MgB <sub>2</sub> . Superconductor Science and Technology, 2004, 17, 1093-1096.	3.5	56
100	Mechanical behaviors of nanowires. Applied Physics Reviews, 2017, 4, 031104.	11.3	54
101	In-situ high-resolution transmission electron microscopy investigation of grain boundary dislocation activities in a nanocrystalline CrMnFeCoNi high-entropy alloy. Journal of Alloys and Compounds, 2017, 709, 802-807.	5.5	53
102	Big to Small: Ultrafine Mo <sub>2</sub> C Particles Derived from Giant Polyoxomolybdate Clusters for Hydrogen Evolution Reaction. Small, 2019, 15, e1900358.	10.0	53
103	Evolution of microstructure and mechanical properties in 2205 duplex stainless steels during additive manufacturing and heat treatment. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 835, 142695.	5.6	53
104	Electronic Modulation of Nickel Disulfide toward Efficient Water Electrolysis. Small, 2020, 16, e1905885.	10.0	52
105	A core-sheath holey graphene/graphite composite fiber intercalated with MoS <sub>2</sub> nanosheets for high-performance fiber supercapacitors. Electrochimica Acta, 2019, 305, 493-501.	5.2	51
106	Thiocyanate-Modified Silver Nanofoam for Efficient CO <sub>2</sub> Reduction to CO. ACS Catalysis, 2020, 10, 1444-1453.	11.2	51
107	The influence of boron doping on the structure and characteristics of diamond thin films. Diamond and Related Materials, 1997, 6, 521-525.	3.9	48
108	Self-Healing of Fractured GaAs Nanowires. Nano Letters, 2011, 11, 1546-1549.	9.1	48

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109	Large field generation with a hot isostatically pressed powder-in-tube MgB <sub>2</sub> coil at 25 K. <i>Superconductor Science and Technology</i> , 2004, 17, L35-L37.	3.5	47
110	Influence of microstructures on mechanical behaviours of SiC nanowires: a molecular dynamics study. <i>Nanotechnology</i> , 2012, 23, 025703.	2.6	47
111	Hierarchically porous carbon nanofibers embedded with cobalt nanoparticles for efficient H <sub>2</sub> O <sub>2</sub> detection on multiple sensor platforms. <i>Sensors and Actuators B: Chemical</i> , 2020, 319, 128243.	7.8	46
112	High-pressure torsion induced microstructural evolution in a hexagonal close-packed Zr alloy. <i>Scripta Materialia</i> , 2010, 62, 214-217.	5.2	45
113	Strain hardening and softening in a nanocrystalline Ni-Fe alloy induced by severe plastic deformation. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011, 528, 3398-3403.	5.6	45
114	Strengthening Brittle Semiconductor Nanowires through Stacking Faults: Insights from in Situ Mechanical Testing. <i>Nano Letters</i> , 2013, 13, 4369-4373.	9.1	45
115	Milk powder-derived bifunctional oxygen electrocatalysts for rechargeable Zn-air battery. <i>Energy Storage Materials</i> , 2018, 11, 134-143.	18.0	45
116	Effect of grain size on fatigue cracking at twin boundaries in a CoCrFeMnNi high-entropy alloy. <i>Journal of Materials Science and Technology</i> , 2020, 39, 1-6.	10.7	45
117	Scalable and controllable fabrication of CNTs improved yolk-shelled Si anodes with advanced in operando mechanical quantification. <i>Energy and Environmental Science</i> , 2021, 14, 3502-3509.	30.8	45
118	Determination of Young's Modulus of Ultrathin Nanomaterials. <i>Nano Letters</i> , 2015, 15, 5279-5283.	9.1	44
119	Unique defect evolution during the plastic deformation of a metal matrix composite. <i>Scripta Materialia</i> , 2019, 162, 316-320.	5.2	44
120	Dislocation density evolution during high pressure torsion of a nanocrystalline Ni-Fe alloy. <i>Applied Physics Letters</i> , 2009, 94, .	3.3	43
121	Enhanced grain refinement of an Al-Mg-Si alloy by high-pressure torsion processing at 100°C. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 552, 415-418.	5.6	43
122	Catalytic activity atlas of ternary Co-Fe-V metal oxides for the oxygen evolution reaction. <i>Journal of Materials Chemistry A</i> , 2020, 8, 15951-15961.	10.3	43
123	A game-changing design of low-cost, large-size porous cocatalysts decorated by ultra-small photocatalysts for highly efficient hydrogen evolution. <i>Applied Catalysis B: Environmental</i> , 2021, 286, 119923.	20.2	43
124	Unraveling dual phase transformations in a CrCoNi medium-entropy alloy. <i>Acta Materialia</i> , 2021, 215, 117112.	7.9	43
125	Nano twins in ultrafine-grained Ti processed by dynamic plastic deformation. <i>Scripta Materialia</i> , 2013, 68, 475-478.	5.2	41
126	Facilitation of Ferroelectric Switching via Mechanical Manipulation of Hierarchical Nanoscale Domain Structures. <i>Physical Review Letters</i> , 2017, 118, 017601.	7.8	41



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127	The on-demand engineering of metal-doped porous carbon nanofibers as efficient bifunctional oxygen catalysts for high-performance flexible Zn-air batteries. <i>Journal of Materials Chemistry A</i> , 2020, 8, 7297-7308.	10.3	41
128	Parametric study of carbon nanotube growth via cobalt-catalyzed ethanol decomposition. <i>Materials Letters</i> , 2006, 60, 1968-1972.	2.6	40
129	Thermal stability, dynamic mechanical analysis and nanoindentation behavior of FeSiB(Cu) amorphous alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 626, 480-499.	5.6	40
130	Influence of grain size on the density of deformation twins in Cu-30%Zn alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010, 527, 3942-3948.	5.6	39
131	Anelastic Behavior in GaAs Semiconductor Nanowires. <i>Nano Letters</i> , 2013, 13, 3169-3172.	9.1	39
132	Opposite grain size dependence of strain rate sensitivity of copper at low vs high strain rates. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 738, 430-438.	5.6	39
133	Microstructural evolution of Fe-rich particles in an Al-Zn-Mg-Cu alloy during equal-channel angular pressing. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010, 527, 4742-4749.	5.6	38
134	De-twinning via secondary twinning in face-centered cubic alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 578, 110-114.	5.6	38
135	Giant tuning of ferroelectricity in single crystals by thickness engineering. <i>Science Advances</i> , 2020, 6, .	10.3	38
136	Dislocation-induced spatial ordering of InAs quantum dots: Effects on optical properties. <i>Journal of Applied Physics</i> , 2002, 91, 5826-5830.	2.5	37
137	Atomistic Mechanism of Stress-Induced Combined Slip and Diffusion in Sub-5 Nanometer-Sized Ag Nanowires. <i>ACS Nano</i> , 2019, 13, 8708-8716.	14.6	37
138	Transmission electron microscopy study of $\text{In}_x\text{Ga}_{1-x}$ As quantum dots on a GaAs(001) substrate. <i>Physical Review B</i> , 1999, 59, 12279-12282.	3.2	36
139	Grain boundary structure of nanocrystalline Cu processed by cryomilling. <i>Philosophical Magazine</i> , 2003, 83, 1407-1419.	1.6	36
140	Mechanical milling-induced deformation twinning in Fcc materials with high stacking fault energy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2003, 34, 707-712.	2.2	36
141	Role of excess Mg and heat treatments on microstructure and critical current of MgB <sub>2</sub> wires. <i>Journal of Applied Physics</i> , 2003, 94, 4024-4031.	2.5	36
142	Unravelling the effects of layered supports on Ru nanoparticles for enhancing N <sub>2</sub> reduction in photocatalytic ammonia synthesis. <i>Applied Catalysis B: Environmental</i> , 2019, 259, 118026.	20.2	36
143	Twinning via the motion of incoherent twin boundaries nucleated at grain boundaries in a nanocrystalline Cu alloy. <i>Scripta Materialia</i> , 2014, 72-73, 35-38.	5.2	35
144	Manipulation of Nanoscale Domain Switching Using an Electron Beam with Omnidirectional Electric Field Distribution. <i>Physical Review Letters</i> , 2016, 117, 027601.	7.8	35

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145	Effect of Ion Irradiation Introduced by Focused Ion-Beam Milling on the Mechanical Behaviour of Sub-Micron-Sized Samples. Scientific Reports, 2020, 10, 10324. Enhancement of the in-field	3.3	35
146	Strengthening mechanisms in an ultrafine-grained Al-Zn-Mg-Cu alloy processed by high pressure torsion at different temperatures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 752, 223-232.	3.2	34
147	Enhanced solar-driven benzaldehyde oxidation with simultaneous hydrogen production on Pt single-atom catalyst. Applied Catalysis B: Environmental, 2021, 284, 119759.	5.6	34
148	Mechanical behaviors of as-deposited and annealed nanostructured Ni <sub>3</sub> Fe alloys. Scripta Materialia, 2011, 65, 1-4.	20.2	34
149	The effect of pre-existing defects on the strength and deformation behavior of $\hat{\Gamma}$ -Fe nanopillars. Acta Materialia, 2013, 61, 439-452.	5.2	33
150	Effect of equal channel angular pressing on the thermal-annealing-induced microstructure and texture evolution of cold-rolled copper. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 674, 186-192.	7.9	33
151	Microstructure and texture analysis of $\hat{\Gamma}$ -hydride precipitation in Zircaloy-4 materials by electron microscopy and neutron diffraction. Journal of Applied Crystallography, 2014, 47, 303-315.	5.6	33
152	Atomic-scale investigation of interface-facilitated deformation twinning in severely deformed Ag-Cu nanolamellar composites. Applied Physics Letters, 2015, 107, .	4.5	31
153	Multimodal $\hat{\Gamma}$ precipitation in Inconel-738 Ni-based superalloy during electron-beam powder bed fusion additive manufacturing. Journal of Materials Science, 2020, 55, 13342-13350.	3.3	31
154	Ge/Si interdiffusion in the GeSi dots and wetting layers. Journal of Applied Physics, 2001, 90, 4290-4292.	3.7	31
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