

Xiao-Zhou Liao

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h-index

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307
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19,630
ext. citations

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6.74
L-index

#	Paper	IF	Citations
289	Deformation twinning in nanocrystalline materials. <i>Progress in Materials Science</i> , 2012 , 57, 1-62	42.2	817
288	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	8.4	680
287	Simultaneously Increasing the Ductility and Strength of Nanostructured Alloys. <i>Advanced Materials</i> , 2006 , 18, 2280-2283	24	617
286	Ultra-high piezoelectricity in ferroelectric ceramics by design. <i>Nature Materials</i> , 2018 , 17, 349-354	27	513
285	Nanostructural hierarchy increases the strength of aluminium alloys. <i>Nature Communications</i> , 2010 , 1, 63	17.4	452
284	Ultralong single-wall carbon nanotubes. <i>Nature Materials</i> , 2004 , 3, 673-6	27	441
283	Ultrastrong, Stiff, and Lightweight Carbon-Nanotube Fibers. <i>Advanced Materials</i> , 2007 , 19, 4198-4201	24	379
282	Deformation twinning in nanocrystalline copper at room temperature and low strain rate. <i>Applied Physics Letters</i> , 2004 , 84, 592-594	3.4	364
281	Corrosion resistance of ultra fine-grained Ti. <i>Scripta Materialia</i> , 2004 , 51, 225-229	5.6	351
280	Deformation mechanism in nanocrystalline Al: Partial dislocation slip. <i>Applied Physics Letters</i> , 2003 , 83, 632-634	3.4	335
279	Simultaneously Increasing the Ductility and Strength of Ultra-Fine-Grained Pure Copper. <i>Advanced Materials</i> , 2006 , 18, 2949-2953	24	301
278	Deformation twins in nanocrystalline Al. <i>Applied Physics Letters</i> , 2003 , 83, 5062-5064	3.4	288
277	Dislocation-twin interactions in nanocrystalline fcc metals. <i>Acta Materialia</i> , 2011 , 59, 812-821	8.4	265
276	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	3.4	258
275	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	5.6	244
274	Structural evolutions of metallic materials processed by severe plastic deformation. <i>Materials Science and Engineering Reports</i> , 2018 , 133, 1-59	30.9	231
273	Microstructure of cryogenic treated M2 tool steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2003 , 339, 241-244	5.3	215

272	Influence of equal-channel angular pressing on precipitation in an Al ₇₀ Zn ₂₀ Mg ₁₀ Cu alloy. <i>Acta Materialia</i> , 2009 , 57, 3123-3132	8.4	213
271	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	8.4	198
270	Nucleation and growth of deformation twins in nanocrystalline aluminum. <i>Applied Physics Letters</i> , 2004 , 85, 5049-5051	3.4	174
269	Influence of stacking fault energy on nanostructure formation under high pressure torsion. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2005 , 410-411, 188-193	5.3	156
268	High-pressure torsion-induced grain growth in electrodeposited nanocrystalline Ni. <i>Applied Physics Letters</i> , 2006 , 88, 021909	3.4	155
267	Formation mechanism of wide stacking faults in nanocrystalline Al. <i>Applied Physics Letters</i> , 2004 , 84, 3564-3566	3.4	152
266	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	149
265	Determining the optimal stacking fault energy for achieving high ductility in ultrafine-grained Cu ₇₀ Zn ₃₀ alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008 , 493, 123-129	5.3	146
264	New deformation twinning mechanism generates zero macroscopic strain in nanocrystalline metals. <i>Physical Review Letters</i> , 2008 , 100, 095701	7.4	142
263	Tougher ultrafine grain Cu via high-angle grain boundaries and low dislocation density. <i>Applied Physics Letters</i> , 2008 , 92, 081903	3.4	135
262	Formation of single and multiple deformation twins in nanocrystalline fcc metals. <i>Acta Materialia</i> , 2009 , 57, 3763-3770	8.4	134
261	Nanostructures and deformation mechanisms in a cryogenically ball-milled Al-Mg alloy. <i>Philosophical Magazine</i> , 2003 , 83, 3065-3075	1.6	134
260	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, 13699-702	11.5	133
259	Characterizing deformed ultrafine-grained and nanocrystalline materials using transmission Kikuchi diffraction in a scanning electron microscope. <i>Acta Materialia</i> , 2014 , 62, 69-80	8.4	125
258	Development of repetitive corrugation and straightening. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2004 , 371, 35-39	5.3	123
257	Hot isostatic pressing of powder in tube MgB ₂ wires. <i>Applied Physics Letters</i> , 2003 , 82, 2847-2849	3.4	122
256	Influence of stacking fault energy on deformation mechanism and dislocation storage capacity in ultrafine-grained materials. <i>Scripta Materialia</i> , 2009 , 60, 52-55	5.6	116
255	Cryogenic-deformation-induced phase transformation in an FeCoCrNi high-entropy alloy. <i>Materials Research Letters</i> , 2018 , 6, 236-243	7.4	115

254	Amorphization of TiNi induced by high-pressure torsion. <i>Philosophical Magazine Letters</i> , 2004 , 84, 183-190		114
253	The role of stacking faults and twin boundaries in grain refinement of a CuZn alloy processed by high-pressure torsion. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010 , 527, 4959-4966	5.3	111
252	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	109
251	Hardening of an Al _{0.3} CoCrFeNi high entropy alloy via high-pressure torsion and thermal annealing. <i>Materials Letters</i> , 2015 , 151, 126-129	3.3	106
250	Strength, grain refinement and solute nanostructures of an AlMgSi alloy (AA6060) processed by high-pressure torsion. <i>Acta Materialia</i> , 2014 , 63, 169-179	8.4	103
249	Formation mechanism of fivefold deformation twins in nanocrystalline face-centered-cubic metals. <i>Applied Physics Letters</i> , 2005 , 86, 103112	3.4	102
248	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	8.4	102
247	Mechanisms for enhanced plasticity in magnesium alloys. <i>Acta Materialia</i> , 2015 , 82, 344-355	8.4	101
246	The effect of dislocation density on the interactions between dislocations and twin boundaries in nanocrystalline materials. <i>Acta Materialia</i> , 2012 , 60, 3181-3189	8.4	101
245	Influence of stacking fault energy on the minimum grain size achieved in severe plastic deformation. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2007 , 463, 22-26	5.3	101
244	Super deformability and Young's modulus of GaAs nanowires. <i>Advanced Materials</i> , 2011 , 23, 1356-60	24	99
243	Constructing phase boundary in AgNbO ₃ antiferroelectrics: pathway simultaneously achieving high energy density and efficiency. <i>Nature Communications</i> , 2020 , 11, 4824	17.4	97
242	Three-dimensional shear-strain patterns induced by high-pressure torsion and their impact on hardness evolution. <i>Acta Materialia</i> , 2011 , 59, 3903-3914	8.4	92
241	Simultaneously enhancing strength and ductility of a high-entropy alloy via gradient hierarchical microstructures. <i>International Journal of Plasticity</i> , 2019 , 123, 178-195	7.6	90
240	Nano-RuO ₂ -Decorated Holey Graphene Composite Fibers for Micro-Supercapacitors with Ultrahigh Energy Density. <i>Small</i> , 2018 , 14, e1800582	11	85
239	Mg(B ₂ O ₃) ₂ precipitation in MgB ₂ . <i>Journal of Applied Physics</i> , 2003 , 93, 6208-6215	2.5	84
238	Strain relaxation by alloying effects in Ge islands grown on Si(001). <i>Physical Review B</i> , 1999 , 60, 15605-15608		82
237	Segregation of solute elements at grain boundaries in an ultrafine grained Al-Zn-Mg-Cu alloy. <i>Ultramicroscopy</i> , 2011 , 111, 500-5	3.1	81

236	Mechanism of grain growth during severe plastic deformation of a nanocrystalline NiBe alloy. <i>Applied Physics Letters</i> , 2009 , 94, 011908	3.4	80
235	Influence of microstructures and crystalline defects on the superconductivity of MgB ₂ . <i>Journal of Applied Physics</i> , 2002 , 92, 351-356	2.5	80
234	Grain growth and dislocation density evolution in a nanocrystalline NiBe alloy induced by high-pressure torsion. <i>Scripta Materialia</i> , 2011 , 64, 327-330	5.6	79
233	Indium Segregation and Enrichment in Coherent In _x Ga _{1-x} As/GaAs Quantum Dots. <i>Physical Review Letters</i> , 1999 , 82, 5148-5151	7.4	76
232	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	13	75
231	Deformation twins in pure titanium processed by equal channel angular pressing. <i>Scripta Materialia</i> , 2003 , 48, 813-817	5.6	75
230	Effect of catalyst composition on carbon nanotube growth. <i>Applied Physics Letters</i> , 2003 , 82, 2694-2696	3.4	73
229	Atomic-scale understanding of stress-induced phase transformation in cold-rolled Hf. <i>Acta Materialia</i> , 2017 , 131, 271-279	8.4	72
228	Shear banding in commercial pure titanium deformed by dynamic compression. <i>Acta Materialia</i> , 2014 , 79, 47-58	8.4	72
227	Hydrogen evolution reaction activity of nickel phosphide is highly sensitive to electrolyte pH. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 20390-20397	13	71
226	Transmission-electron microscopy study of the shape of buried In _x Ga _{1-x} As/GaAs quantum dots. <i>Physical Review B</i> , 1998 , 58, R4235-R4237	3.3	70
225	Excellent ductility and serration feature of metastable CoCrFeNi high-entropy alloy at extremely low temperatures. <i>Science China Materials</i> , 2019 , 62, 853-863	7.1	70
224	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	7.4	68
223	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	8.4	66
222	Grain size and reversible beta-to-omega phase transformation in a Ti alloy. <i>Scripta Materialia</i> , 2010 , 63, 613-616	5.6	66
221	Nanocrystalline 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, 3530-6	8.3	65
220	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	8.4	61
219	Carbon-Nanotube Cotton for Large-Scale Fibers. <i>Advanced Materials</i> , 2007 , 19, 2567-2570	24	61

218	Feasibility of high strain-rate rolling of a magnesium alloy across a wide temperature range. <i>Scripta Materialia</i> , 2012 , 67, 404-407	5.6	58
217	Observation of coherent oxide precipitates in polycrystalline MgB ₂ . <i>Applied Physics Letters</i> , 2002 , 80, 3970-3972	3.4	58
216	Formation mechanisms of nanostructures in stainless steel during high-strain-rate severe plastic deformation. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2005 , 410-411, 252-256	5.3	57
215	Deformation twinning in bulk nanocrystalline metals: Experimental observations. <i>Jom</i> , 2008 , 60, 60-64	2.1	55
214	Microstructure and high critical current of powder-in-tube MgB ₂ . <i>Applied Physics Letters</i> , 2003 , 82, 1754-1756	3.4	54
213	Deformation twinning in hexagonal materials. <i>MRS Bulletin</i> , 2016 , 41, 314-319	3.2	54
212	Controlling flux pinning precipitates during MgB ₂ synthesis. <i>Applied Physics Letters</i> , 2002 , 80, 4398-4400	3.4	53
211	Grain size effect on deformation twinning propensity in ultrafine-grained hexagonal close-packed titanium. <i>Scripta Materialia</i> , 2013 , 69, 428-431	5.6	52
210	Compact and dissociated dislocations in aluminum: implications for deformation. <i>Physical Review Letters</i> , 2005 , 94, 125502	7.4	52
209	Grain boundary formation by remnant dislocations from the de-twinning of thin nano-twins. <i>Scripta Materialia</i> , 2015 , 100, 98-101	5.6	51
208	Enhancement of critical current density in low level Al-doped MgB ₂ . <i>Superconductor Science and Technology</i> , 2004 , 17, 1093-1096	3.1	51
207	The effect of grain size on the annealing-induced phase transformation in an Al _{0.3} CoCrFeNi high entropy alloy. <i>Materials and Design</i> , 2016 , 105, 381-385	8.1	51
206	Influence of Al content on the strain-hardening behavior of aged low density FeMnAlC steels with high Al content. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015 , 639, 187-191	5.3	50
205	Effect of grain size on the competition between twinning and detwinning in nanocrystalline metals. <i>Physical Review B</i> , 2011 , 84,	3.3	50
204	Ultrahigh specific strength in a magnesium alloy strengthened by spinodal decomposition. <i>Science Advances</i> , 2021 , 7,	14.3	49
203	Effect of a High Density of Stacking Faults on the Young's Modulus of GaAs Nanowires. <i>Nano Letters</i> , 2016 , 16, 1911-6	11.5	48
202	Fabrication of Mg ₂ Al ₃ Zn ₂ Mn alloy sheets with homogeneous fine-grained structures using high strain-rate rolling in a wide temperature range. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013 , 559, 765-772	5.3	48
201	Enhanced mechanical properties in ultrafine grained 7075 Al alloy. <i>Journal of Materials Research</i> , 2005 , 20, 288-291	2.5	48

200	Microstructural evolution and phase transformation in twinning-induced plasticity steel induced by high-pressure torsion. <i>Acta Materialia</i> , 2016 , 109, 300-313	8.4	48
199	The influence of boron doping on the structure and characteristics of diamond thin films. <i>Diamond and Related Materials</i> , 1997 , 6, 521-525	3.5	47
198	Dual mechanisms of grain refinement in a FeCoCrNi high-entropy alloy processed by high-pressure torsion. <i>Scientific Reports</i> , 2017 , 7, 46720	4.9	46
197	Self-healing of fractured GaAs nanowires. <i>Nano Letters</i> , 2011 , 11, 1546-9	11.5	44
196	Strengthening brittle semiconductor nanowires through stacking faults: insights from in situ mechanical testing. <i>Nano Letters</i> , 2013 , 13, 4369-73	11.5	42
195	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	8.4	42
194	Strain hardening and softening in a nanocrystalline NiBe alloy induced by severe plastic deformation. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011 , 528, 3398-3403	5.3	41
193	High-pressure torsion induced microstructural evolution in a hexagonal close-packed Zr alloy. <i>Scripta Materialia</i> , 2010 , 62, 214-217	5.6	41
192	Large field generation with a hot isostatically pressed powder-in-tube MgB ₂ coil at 25 K. <i>Superconductor Science and Technology</i> , 2004 , 17, L35-L37	3.1	41
191	Mechanical behaviors of nanowires. <i>Applied Physics Reviews</i> , 2017 , 4, 031104	17.3	39
190	Enhanced grain refinement of an AlMgSi alloy by high-pressure torsion processing at 100 °C. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012 , 552, 415-418	5.3	39
189	Influence of microstructures on mechanical behaviours of SiC nanowires: a molecular dynamics study. <i>Nanotechnology</i> , 2012 , 23, 025703	3.4	39
188	Parametric study of carbon nanotube growth via cobalt-catalyzed ethanol decomposition. <i>Materials Letters</i> , 2006 , 60, 1968-1972	3.3	38
187	Anelastic behavior in GaAs semiconductor nanowires. <i>Nano Letters</i> , 2013 , 13, 3169-72	11.5	37
186	A core-sheath holey graphene/graphite composite fiber intercalated with MoS ₂ nanosheets for high-performance fiber supercapacitors. <i>Electrochimica Acta</i> , 2019 , 305, 493-501	6.7	36
185	Cooperation of Ni and CaO at Interface for CO ₂ Reforming of CH ₄ : A Combined Theoretical and Experimental Study. <i>ACS Catalysis</i> , 2019 , 9, 10060-10069	13.1	35
184	Big to Small: Ultrafine Mo C Particles Derived from Giant Polyoxomolybdate Clusters for Hydrogen Evolution Reaction. <i>Small</i> , 2019 , 15, e1900358	11	35
183	Determination of Young's Modulus of Ultrathin Nanomaterials. <i>Nano Letters</i> , 2015 , 15, 5279-83	11.5	35

182	Dislocation density evolution during high pressure torsion of a nanocrystalline NiBe alloy. <i>Applied Physics Letters</i> , 2009 , 94, 091911	3.4	35
181	Microstructural evolution of Fe-rich particles in an AlZnMgCu alloy during equal-channel angular pressing. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010 , 527, 4742-4749	5.3	35
180	Role of excess Mg and heat treatments on microstructure and critical current of MgB ₂ wires. <i>Journal of Applied Physics</i> , 2003 , 94, 4024-4031	2.5	35
179	In-situ high-resolution transmission electron microscopy investigation of grain boundary dislocation activities in a nanocrystalline CrMnFeCoNi high-entropy alloy. <i>Journal of Alloys and Compounds</i> , 2017 , 709, 802-807	5.7	34
178	Thermal stability, dynamic mechanical analysis and nanoindentation behavior of FeSiB(Cu) amorphous alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015 , 626, 480-499	5.3	34
177	Nano twins in ultrafine-grained Ti processed by dynamic plastic deformation. <i>Scripta Materialia</i> , 2013 , 68, 475-478	5.6	34
176	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	2.3	34
175	Transmission electron microscopy study of In _x Ga _{1-x} As quantum dots on a GaAs(001) substrate. <i>Physical Review B</i> , 1999 , 59, 12279-12282	3.3	34
174	Milk powder-derived bifunctional oxygen electrocatalysts for rechargeable Zn-air battery. <i>Energy Storage Materials</i> , 2018 , 11, 134-143	19.4	33
173	Influence of grain size on the density of deformation twins in Cu ₈₀ Zn ₂₀ alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010 , 527, 3942-3948	5.3	33
172	Dislocation-induced spatial ordering of InAs quantum dots: Effects on optical properties. <i>Journal of Applied Physics</i> , 2002 , 91, 5826-5830	2.5	33
171	Ultra-High Thermoelectric Performance in Bulk BiSbTe/Amorphous Boron Composites with Nano-Defect Architectures. <i>Advanced Energy Materials</i> , 2020 , 10, 2000757	21.8	33
170	Grain boundary structure of nanocrystalline Cu processed by cryomilling. <i>Philosophical Magazine</i> , 2003 , 83, 1407-1419	1.6	32
169	Facilitation of Ferroelectric Switching via Mechanical Manipulation of Hierarchical Nanoscale Domain Structures. <i>Physical Review Letters</i> , 2017 , 118, 017601	7.4	31
168	Electronic Modulation of Nickel Disulfide toward Efficient Water Electrolysis. <i>Small</i> , 2020 , 16, e1905885	11	31
167	Unique defect evolution during the plastic deformation of a metal matrix composite. <i>Scripta Materialia</i> , 2019 , 162, 316-320	5.6	31
166	The effect of pre-existing defects on the strength and deformation behavior of Fe nanopillars. <i>Acta Materialia</i> , 2013 , 61, 439-452	8.4	29
165	Enhancement of the in-field J _c of MgB ₂ via SiCl ₄ doping. <i>Physical Review B</i> , 2010 , 81,	3.3	29

164	Thiocyanate-Modified Silver Nanofoam for Efficient CO ₂ Reduction to CO. <i>ACS Catalysis</i> , 2020 , 10, 1444-1453	14.53	29
163	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	13	28
162	Manipulation of Nanoscale Domain Switching Using an Electron Beam with Omnidirectional Electric Field Distribution. <i>Physical Review Letters</i> , 2016 , 117, 027601	7.4	28
161	De-twinning via secondary twinning in face-centered cubic alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013 , 578, 110-114	5.3	28
160	Growth Mechanism and Magnetic Properties of Highly Crystalline NiO Nanocubes and Nanorods Fabricated by Evaporation. <i>Crystal Growth and Design</i> , 2012 , 12, 2842-2849	3.5	28
159	Mechanical behaviors of as-deposited and annealed nanostructured NiBe alloys. <i>Scripta Materialia</i> , 2011 , 65, 1-4	5.6	28
158	Ge/Si interdiffusion in the GeSi dots and wetting layers. <i>Journal of Applied Physics</i> , 2001 , 90, 4290-4292	2.5	28
157	Opposite grain size dependence of strain rate sensitivity of copper at low vs high strain rates. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018 , 738, 430-438	5.3	27
156	A new orthorhombic phase in AlCu ₁₀ representing a rational approximant to the decagonal quasicrystalline phase. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 1992 , 66, 549-558		26
155	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	9.1	26
154	Deformation-induced crystalline-to-amorphous phase transformation in a CrMnFeCoNi high-entropy alloy. <i>Science Advances</i> , 2021 , 7,	14.3	26
153	Hierarchically porous carbon nanofibers embedded with cobalt nanoparticles for efficient H ₂ O ₂ detection on multiple sensor platforms. <i>Sensors and Actuators B: Chemical</i> , 2020 , 319, 128243	8.5	25
152	Microstructure and texture analysis of hydride precipitation in Zircaloy-4 materials by electron microscopy and neutron diffraction. <i>Journal of Applied Crystallography</i> , 2014 , 47, 303-315	3.8	25
151	Effects of interdiffusion on the band alignment of GeSi dots. <i>Applied Physics Letters</i> , 2001 , 79, 1980-1982	3.4	25
150	Alternative mechanism for misfit dislocation generation during high-temperature Ge(Si)/Si (001) island growth. <i>Applied Physics Letters</i> , 2002 , 81, 1996-1998	3.4	25
149	The mechanism for the enhanced piezoelectricity in multi-elements doped (K,Na)NbO ceramics. <i>Nature Communications</i> , 2021 , 12, 881	17.4	25
148	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	5.6	24
147	A non-Fibonacci type of orthorhombic decagonal approximant. <i>Philosophical Magazine Letters</i> , 1995 , 71, 139-145	1	24

146	Atomic-scale investigation of interface-facilitated deformation twinning in severely deformed Ag-Cu nanolamellar composites. <i>Applied Physics Letters</i> , 2015 , 107, 011901	3.4	23
145	Improving the plasticity of bulk metallic glasses via pre-compression below the yield stress. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014 , 602, 68-76	5.3	23
144	Structural origins for the high plasticity of a ZrCuNiAl bulk metallic glass. <i>Acta Materialia</i> , 2013 , 61, 321-330	8.4	23
143	Applied stress controls the production of nano-twins in coarse-grained metals. <i>Applied Physics Letters</i> , 2012 , 101, 231903	3.4	23
142	Defect structures in MgB ₂ wires introduced by hot isostatic pressing. <i>Superconductor Science and Technology</i> , 2003 , 16, 799-803	3.1	23
141	Unravelling the effects of layered supports on Ru nanoparticles for enhancing N ₂ reduction in photocatalytic ammonia synthesis. <i>Applied Catalysis B: Environmental</i> , 2019 , 259, 118026	21.8	22
140	Atomistic Mechanism of Stress-Induced Combined Slip and Diffusion in Sub-5 Nanometer-Sized Ag Nanowires. <i>ACS Nano</i> , 2019 , 13, 8708-8716	16.7	22
139	Atomic-scale observation of parallel development of super elasticity and reversible plasticity in GaAs nanowires. <i>Applied Physics Letters</i> , 2014 , 104, 021904	3.4	22
138	X-Ray Induced Synthesis of 8H Diamond. <i>Advanced Materials</i> , 2008 , 20, 3303-3307	24	22
137	Strengthening mechanisms in an ultrafine-grained AlZnMgCu alloy processed by high pressure torsion at different temperatures. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019 , 752, 223-232	5.3	21
136	Extracting composition and alloying information of coherent Ge(Si)/Si(001) islands from [001] on-zone bright-field diffraction contrast images. <i>Journal of Applied Physics</i> , 2001 , 90, 2725-2729	2.5	21
135	Effect of equal channel angular pressing on the thermal-annealing-induced microstructure and texture evolution of cold-rolled copper. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016 , 674, 186-192	5.3	20
134	Ultralow-platinum-loading nanocarbon hybrids for highly sensitive hydrogen peroxide detection. <i>Sensors and Actuators B: Chemical</i> , 2019 , 283, 304-311	8.5	20
133	Effect of sample orientation and initial microstructures on the dynamic recrystallization of a Magnesium alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017 , 691, 150-154	5.3	19
132	Annealing effects on the microstructure of Ge/Si(001) quantum dots. <i>Applied Physics Letters</i> , 2001 , 79, 1258-1260	3.4	19
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130	Cation vacancy enriched nickel phosphide for efficient electrosynthesis of hydrogen peroxides.. <i>Advanced Materials</i> , 2022 , e2106541	24	19
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