

Xinghang Zhang

List of Publications by Year in descending order

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328
papers

24,869
citations

13827

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146
g-index

331
all docs

331
docs citations

331
times ranked

20142
citing authors

#	ARTICLE	IF	CITATIONS
1	TiO ₂ photocatalysis and related surface phenomena. Surface Science Reports, 2008, 63, 515-582.	3.8	5,758
2	Far-Field Optical Hyperlens Magnifying Sub-Diffraction-Limited Objects. Science, 2007, 315, 1686-1686.	6.0	1,895
3	An ultrathin invisibility skin cloak for visible light. Science, 2015, 349, 1310-1314.	6.0	924
4	Optical Negative Refraction in Bulk Metamaterials of Nanowires. Science, 2008, 321, 930-930.	6.0	798
5	Detwinning mechanisms for growth twins in face-centered cubic metals. Acta Materialia, 2010, 58, 2262-2270.	3.8	479
6	The radiation damage tolerance of ultra-high strength nanolayered composites. Jom, 2007, 59, 62-65.	0.9	396
7	Strain tuning of optical emission energy and polarization in monolayer and bilayer MoS ₂ . Physical Review B, 2013, 88, .	1.1	365
8	Growth Twins and Deformation Twins in Metals. Annual Review of Materials Research, 2014, 44, 329-363.	4.3	345
9	Radiation damage in nanostructured materials. Progress in Materials Science, 2018, 96, 217-321.	16.0	307
10	Enhanced hardening in Cu/330 stainless steel multilayers by nanoscale twinning. Acta Materialia, 2004, 52, 995-1002.	3.8	263
11	Thermal stability of sputtered Cu films with nanoscale growth twins. Journal of Applied Physics, 2008, 103, .	1.1	231
12	Nanoscale-twinning-induced strengthening in austenitic stainless steel thin films. Applied Physics Letters, 2004, 84, 1096-1098.	1.5	217
13	High-strength sputter-deposited Cu foils with preferred orientation of nanoscale growth twins. Applied Physics Letters, 2006, 88, 173116.	1.5	209
14	Mechanical properties of highly textured Cu/Ni multilayers. Acta Materialia, 2011, 59, 1924-1933.	3.8	202
15	Twinning dislocation multiplication at a coherent twin boundary. Acta Materialia, 2011, 59, 5989-5996.	3.8	199
16	Epitaxial nanotwinned Cu films with high strength and high conductivity. Applied Physics Letters, 2008, 93, .	1.5	192
17	Interface enabled defects reduction in helium ion irradiated Cu/V nanolayers. Journal of Nuclear Materials, 2010, 407, 178-188.	1.3	189
18	He ion irradiation damage in Fe/W nanolayer films. Journal of Nuclear Materials, 2009, 389, 233-238.	1.3	179

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19	Tunable Low-Field Magnetoresistance in $(\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3)_{0.5}:(\text{ZnO})_{0.5}$ Self-Assembled Vertically Aligned Nanocomposite Thin Films. <i>Advanced Functional Materials</i> , 2011, 21, 2423-2429.	7.8	174
20	Superior thermal stability of coherent twin boundaries in nanotwinned metals. <i>Scripta Materialia</i> , 2012, 66, 860-865.	2.6	171
21	Depth Profile of Uncompensated Spins in an Exchange Bias System. <i>Physical Review Letters</i> , 2005, 95, 047201.	2.9	167
22	Removal of stacking-fault tetrahedra by twin boundaries in nanotwinned metals. <i>Nature Communications</i> , 2013, 4, 1377.	5.8	155
23	Radiation damage in helium ion irradiated nanocrystalline Fe. <i>Journal of Nuclear Materials</i> , 2012, 425, 140-146.	1.3	154
24	Mechanical properties of sputtered Cu/V and Al/Nb multilayer films. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008, 493, 283-287.	2.6	145
25	Dislocation structures of $\{112\}$ twin boundaries in face centered cubic metals. <i>Applied Physics Letters</i> , 2009, 95, .	1.5	144
26	High strength, epitaxial nanotwinned Ag films. <i>Acta Materialia</i> , 2011, 59, 93-101.	3.8	144
27	Length-scale-dependent deformation and fracture behavior of Cu/X (X=Nb, Zr) multilayers: The constraining effects of the ductile phase on the brittle phase. <i>Acta Materialia</i> , 2011, 59, 7368-7379.	3.8	139
28	Work hardening in rolled nanolayered metallic composites. <i>Acta Materialia</i> , 2005, 53, 221-226.	3.8	127
29	Nanostructured Cu/Nb multilayers subjected to helium ion-irradiation. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2007, 261, 1129-1132.	0.6	125
30	Length scale-dependent deformation behavior of nanolayered Cu/Zr micropillars. <i>Acta Materialia</i> , 2012, 60, 1610-1622.	3.8	115
31	Studies of deformation mechanisms in ultra-fine-grained and nanostructured Zn. <i>Acta Materialia</i> , 2002, 50, 4823-4830.	3.8	113
32	Stacking fault and partial dislocation dominated strengthening mechanisms in highly textured Cu/Co multilayers. <i>International Journal of Plasticity</i> , 2013, 49, 152-163.	4.1	109
33	Influence of slip transmission on the migration of incoherent twin boundaries in epitaxial nanotwinned Cu. <i>Scripta Materialia</i> , 2011, 64, 149-152.	2.6	107
34	In situ nanoindentation study on plasticity and work hardening in aluminium with incoherent twin boundaries. <i>Nature Communications</i> , 2014, 5, 4864.	5.8	107
35	The influence of $\{111\}$ twin boundaries on the formation of radiation-induced defect clusters in nanotwinned Cu. <i>Journal of Materials Research</i> , 2011, 26, 1666-1675.	1.2	105
36	Size dependent enhancement of helium ion irradiation tolerance in sputtered Cu/V nanolaminates. <i>Journal of Nuclear Materials</i> , 2009, 385, 629-632.	1.3	104

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37	Microstructure and strengthening mechanisms in Cu/Fe multilayers. <i>Acta Materialia</i> , 2012, 60, 6312-6321.	3.8	104
38	In situ Evidence of Defect Cluster Absorption by Grain Boundaries in Kr Ion Irradiated Nanocrystalline Ni. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013, 44, 1966-1974.	1.1	103
39	Vertically Aligned Nanocomposite Thin Films as a Cathode/Electrolyte Interface Layer for Thin-Film Solid Oxide Fuel Cells. <i>Advanced Functional Materials</i> , 2009, 19, 3868-3873.	7.8	101
40	Plastic flow stability of nanotwinned Cu foils. <i>International Journal of Plasticity</i> , 2010, 26, 875-886.	4.1	100
41	Nanotwins and stacking faults in high-strength epitaxial Ag/Al multilayer films. <i>Applied Physics Letters</i> , 2012, 101, .	1.5	97
42	Damage-tolerant nanotwinned metals with nanovoids under radiation environments. <i>Nature Communications</i> , 2015, 6, 7036.	5.8	97
43	High strength Mg/Nb nanolayer composites. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011, 528, 2028-2033.	2.6	95
44	High-strength Nanotwinned Al Alloys with 9R Phase. <i>Advanced Materials</i> , 2018, 30, 1704629.	11.1	93
45	Self-Assembled Epitaxial Au-Oxide Vertically Aligned Nanocomposites for Nanoscale Metamaterials. <i>Nano Letters</i> , 2016, 16, 3936-3943.	4.5	91
46	In Situ Study of Defect Migration Kinetics and Self-Healing of Twin Boundaries in Heavy Ion Irradiated Nanotwinned Metals. <i>Nano Letters</i> , 2015, 15, 2922-2927.	4.5	90
47	Mechanical properties of crystalline Cu/Zr and crystal-amorphous Cu/Cu-Zr multilayers. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 552, 392-398.	2.6	89
48	Ultrastrong nanocrystalline steel with exceptional thermal stability and radiation tolerance. <i>Nature Communications</i> , 2018, 9, 5389.	5.8	88
49	High temperature deformability of ductile flash-sintered ceramics via in-situ compression. <i>Nature Communications</i> , 2018, 9, 2063.	5.8	87
50	Evidence for the formation mechanism of nanoscale microstructures in cryomilled Zn powder. <i>Acta Materialia</i> , 2001, 49, 1319-1326.	3.8	85
51	In situ TEM observations of room temperature dislocation climb at interfaces in nanolayered Al/Nb composites. <i>Scripta Materialia</i> , 2010, 63, 363-366.	2.6	85
52	Superior radiation-resistant nanoengineered austenitic 304L stainless steel for applications in extreme radiation environments. <i>Scientific Reports</i> , 2015, 5, 7801.	1.6	82
53	Nanoscale stacking fault-assisted room temperature plasticity in flash-sintered TiO ₂ . <i>Science Advances</i> , 2019, 5, eaaw5519.	4.7	82
54	Twinning effects on strength and plasticity of metallic materials. <i>MRS Bulletin</i> , 2016, 41, 274-281.	1.7	81

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55	Formation Mechanisms of High-density Growth Twins in Aluminum with High Stacking-Fault Energy. <i>Materials Research Letters</i> , 2013, 1, 51-60.	4.1	80
56	Enhanced radiation tolerance of ultrafine grained Fe-Cr-Ni alloy. <i>Journal of Nuclear Materials</i> , 2012, 420, 235-240.	1.3	78
57	A New Class of Room-Temperature Multiferroic Thin Films with Bismuth-Based Supercell Structure. <i>Advanced Materials</i> , 2013, 25, 1028-1032.	11.1	78
58	Response of equal channel angular extrusion processed ultrafine-grained T91 steel subjected to high temperature heavy ion irradiation. <i>Acta Materialia</i> , 2014, 74, 285-295.	3.8	78
59	He ion irradiation damage in Al-Nb multilayers. <i>Journal of Applied Physics</i> , 2009, 105, .	1.1	77
60	A roadmap for tailoring the strength and ductility of ferritic/martensitic T91 steel via thermo-mechanical treatment. <i>Acta Materialia</i> , 2016, 112, 361-377.	3.8	76
61	Unusual size-dependent strengthening mechanisms in helium ion-irradiated immiscible coherent Cu/Co nanolayers. <i>Acta Materialia</i> , 2015, 84, 393-404.	3.8	75
62	Tensile elongation (110%) observed in ultrafine-grained Zn at room temperature. <i>Applied Physics Letters</i> , 2002, 81, 823-825.	1.5	72
63	In situ studies of irradiation-induced twin boundary migration in nanotwinned Ag. <i>Scripta Materialia</i> , 2013, 69, 385-388.	2.6	72
64	Superior corrosion resistance properties of TiN-based coatings on Zircaloy tubes in supercritical water. <i>Journal of Nuclear Materials</i> , 2014, 451, 346-351.	1.3	71
65	Microstructure, magnetic, and low-field magnetotransport properties of self-assembled (La _{0.7} Sr _{0.3} MnO ₃) _{0.5} :(CeO ₂) _{0.5} vertically aligned nanocomposite thin films. <i>Nanotechnology</i> , 2011, 22, 315712.	1.3	70
66	Mechanical behavior of structurally gradient nickel alloy. <i>Acta Materialia</i> , 2018, 149, 57-67.	3.8	70
67	Ion irradiation effects in nanocrystalline TiN coatings. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2007, 261, 1162-1166.	0.6	69
68	The influence of interfaces on the formation of bubbles in He-ion-irradiated Cu/Mo nanolayers. <i>Philosophical Magazine Letters</i> , 2011, 91, 18-28.	0.5	68
69	Comparisons of radiation damage in He ion and proton irradiated immiscible Ag/Ni nanolayers. <i>Journal of Nuclear Materials</i> , 2013, 440, 310-318.	1.3	68
70	In situ study of defect migration kinetics in nanoporous Ag with enhanced radiation tolerance. <i>Scientific Reports</i> , 2014, 4, 3737.	1.6	67
71	Effects of deposition parameters on residual stresses, hardness and electrical resistivity of nanoscale twinned 330 stainless steel thin films. <i>Journal of Applied Physics</i> , 2005, 97, 094302.	1.1	66
72	Direct observation of Lomer-Cottrell Locks during strain hardening in nanocrystalline nickel by in situ TEM. <i>Scientific Reports</i> , 2013, 3, 1061.	1.6	66

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73	High-velocity projectile impact induced 9R phase in ultrafine-grained aluminium. Nature Communications, 2017, 8, 1653.	5.8	66
74	Interface-enabled defect reduction in He ion irradiated metallic multilayers. Jom, 2010, 62, 75-78.	0.9	64
75	Self-assembled Co ϵ -BaZrO ₃ nanocomposite thin films with ultra-fine vertically aligned Co nanopillars. Nanoscale, 2017, 9, 7970-7976.	2.8	64
76	Intrinsic and extrinsic size effects on deformation in nanolayered Cu/Zr micropillars: From bulk-like to small-volume materials behavior. Acta Materialia, 2012, 60, 4054-4064.	3.8	63
77	In situ studies on radiation tolerance of nanotwinned Cu. Acta Materialia, 2016, 111, 148-156.	3.8	63
78	A maximum in ductility and fracture toughness in nanostructured Cu/Cr multilayer films. Scripta Materialia, 2010, 62, 333-336.	2.6	62
79	Unusual size dependent strengthening mechanisms of Cu/amorphous CuNb multilayers. Acta Materialia, 2016, 120, 327-336.	3.8	61
80	Tailoring the strength and ductility of T91 steel by partial tempering treatment. Acta Materialia, 2019, 169, 209-224.	3.8	59
81	Integration of Self-Assembled Vertically Aligned Nanocomposite (La _{0.7} Sr _{0.3} MnO ₃) ϵ :(ZnO) Vertically Aligned Nanocomposite Thin Films on Silicon Substrates. ACS Applied Materials & Interfaces, 2013, 5, 3995-3999.	4.0	58
82	Elevated temperature tribology of Ni alloys under helium environment for nuclear reactor applications. Tribology International, 2018, 123, 372-384.	3.0	58
83	Three-dimensional strain engineering in epitaxial vertically aligned nanocomposite thin films with tunable magnetotransport properties. Materials Horizons, 2018, 5, 536-544.	6.4	57
84	Comparison of size dependent strengthening mechanisms in Ag/Fe and Ag/Ni multilayers. Acta Materialia, 2016, 114, 154-163.	3.8	56
85	Nanoscale Artificial Plasmonic Lattice in Self-Assembled Vertically Aligned Nitride ϵ -Metal Hybrid Metamaterials. Advanced Science, 2018, 5, 1800416.	5.6	56
86	Size dependent strengthening in high strength nanotwinned Al/Ti multilayers. Acta Materialia, 2019, 175, 466-476.	3.8	56
87	Self-Assembled Ordered Three-Phase Au ϵ -BaTiO ₃ ϵ -ZnO Vertically Aligned Nanocomposites Achieved by a Templating Method. Advanced Materials, 2019, 31, e1806529.	11.1	56
88	Significant enhancement of the strength-to-resistivity ratio by nanotwins in epitaxial Cu films. Journal of Applied Physics, 2009, 106, .	1.1	55
89	Effects of Cu ion irradiation in Cu ₅₀ Zr ₄₅ Ti ₅ metallic glass. Scripta Materialia, 2009, 61, 265-268.	2.6	54
90	Nanoscale growth twins in sputtered metal films. Jom, 2008, 60, 75-78.	0.9	53

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91	Microstructure refinement and strengthening mechanisms of a 12Cr ODS steel processed by equal channel angular extrusion. <i>Journal of Alloys and Compounds</i> , 2013, 577, 247-256.	2.8	52
92	Size-dependent radiation tolerance in ion irradiated TiN/AlN nanolayer films. <i>Journal of Nuclear Materials</i> , 2013, 441, 47-53.	1.3	52
93	Effects of ion irradiation in metallic glasses. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2009, 267, 1518-1521.	0.6	51
94	Design of Radiation Tolerant Nanostructured Metallic Multilayers. <i>Journal of Engineering Materials and Technology</i> , Transactions of the ASME, 2012, 134, .	0.8	51
95	Thermal stability of twins and strengthening mechanisms in differently oriented epitaxial nanotwinned Ag films. <i>Journal of Materials Research</i> , 2013, 28, 1729-1739.	1.2	51
96	Preparation of bulk ultrafine-grained and nanostructured Zn, Al and their alloys by in situ consolidation of powders during mechanical attrition. <i>Scripta Materialia</i> , 2002, 46, 661-665.	2.6	50
97	Nanostructured cathode thin films with vertically-aligned nanopores for thin film SOFC and their characteristics. <i>Applied Surface Science</i> , 2007, 254, 266-269.	3.1	50
98	Indentation of nanotwinned fcc metals: Implications for nanotwin stability. <i>Acta Materialia</i> , 2012, 60, 4623-4635.	3.8	48
99	The formation mechanisms of growth twins in polycrystalline Al with high stacking fault energy. <i>Acta Materialia</i> , 2015, 101, 62-70.	3.8	48
100	Microstructure and mechanical behavior of nanotwinned AlTi alloys with 9R phase. <i>Scripta Materialia</i> , 2018, 148, 5-9.	2.6	48
101	Scaling of the ductility with yield strength in nanostructured Cu/Cr multilayer films. <i>Scripta Materialia</i> , 2010, 63, 101-104.	2.6	47
102	Superior tolerance of Ag/Ni multilayers against Kr ion irradiation: an <i>in situ</i> study. <i>Philosophical Magazine</i> , 2013, 93, 3547-3562.	0.7	47
103	Plasticity and ultra-low stress induced twin boundary migration in nanotwinned Cu by <i>in situ</i> nanoindentation studies. <i>Applied Physics Letters</i> , 2014, 104, .	1.5	47
104	Comparison of the grain growth behavior and defect structures of flash sintered ZnO with and without controlled current ramp. <i>Scripta Materialia</i> , 2019, 162, 251-255.	2.6	47
105	The temperature and size effect on the electrical resistivity of Cu/V multilayer films. <i>Acta Materialia</i> , 2017, 126, 294-301.	3.8	46
106	Mechanical properties of fcc/fcc Cu/Nb nanostructured multilayers. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 545, 118-122.	2.6	45
107	Fluence-dependent radiation damage in helium (He) ion-irradiated Cu/V multilayers. <i>Philosophical Magazine</i> , 2013, 93, 883-898.	0.7	45
108	High temperature thermal and mechanical stability of high-strength nanotwinned Al alloys. <i>Acta Materialia</i> , 2019, 165, 142-152.	3.8	45

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109	Factors limiting the measurement of residual stresses in thin films by nanoindentation. <i>Thin Solid Films</i> , 2004, 447-448, 251-257.	0.8	44
110	Chemical Solution Deposition of Epitaxial Carbide Films. <i>Journal of the American Chemical Society</i> , 2010, 132, 2516-2517.	6.6	44
111	Enhancement of strength and ductility in ultrafine-grained T91 steel through thermomechanical treatments. <i>Journal of Materials Science</i> , 2013, 48, 7360-7373.	1.7	43
112	Strong perpendicular exchange bias in epitaxial $\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3:\text{BiFeO}_3$ nanocomposite films through vertical interfacial coupling. <i>Nanoscale</i> , 2015, 7, 13808-13815.	2.8	43
113	Investigation of strengthening mechanisms in an additively manufactured Haynes 230 alloy. <i>Acta Materialia</i> , 2022, 222, 117404.	3.8	43
114	Ion irradiation induced nanocrystal formation in amorphous $\text{Zr}_{55}\text{Cu}_{30}\text{Al}_{10}\text{Ni}_5$ alloy. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2009, 267, 2827-2831.	0.6	42
115	Length scale dependent yield strength and fatigue behavior of nanocrystalline Cu thin films. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011, 528, 7774-7780.	2.6	42
116	In situ study of heavy ion irradiation response of immiscible Cu/Fe multilayers. <i>Journal of Nuclear Materials</i> , 2016, 475, 274-279.	1.3	41
117	Copper diffusion characteristics in single-crystal and polycrystalline TaN. <i>Applied Physics Letters</i> , 2002, 81, 1453-1455.	1.5	40
118	Microstructure of SrTiO_3 buffer layers and its effects on superconducting properties of $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ coated conductors. <i>Journal of Materials Research</i> , 2004, 19, 1869-1875.	1.2	40
119	Perpendicular Exchange-Biased Magnetotransport at the Vertical Heterointerfaces in $\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3:\text{NiO}$ Nanocomposites. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 21646-21651.	4.0	40
120	A new method for reliable determination of strain-rate sensitivity of low-dimensional metallic materials by using nanoindentation. <i>Scripta Materialia</i> , 2014, 77, 5-8.	2.6	39
121	Self-Assembled Magnetic Metallic Nanopillars in Ceramic Matrix with Anisotropic Magnetic and Electrical Transport Properties. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 20283-20291.	4.0	39
122	Thermal stability of sputter-deposited 330 austenitic stainless-steel thin films with nanoscale growth twins. <i>Applied Physics Letters</i> , 2005, 87, 233116.	1.5	38
123	Helium irradiation induced ultra-high strength nanotwinned Cu with nanovoids. <i>Acta Materialia</i> , 2019, 177, 107-120.	3.8	38
124	Metal-Free Oxide-Nitride Heterostructure as a Tunable Hyperbolic Metamaterial Platform. <i>Nano Letters</i> , 2020, 20, 6614-6622.	4.5	38
125	The influence of stacking faults on mechanical behavior of advanced materials. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 803, 140696.	2.6	38
126	Strengthening mechanisms in nanostructured copper/304 stainless steel multilayers. <i>Journal of Materials Research</i> , 2003, 18, 1600-1606.	1.2	37

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127	The effects of decreasing layer thickness on the high temperature mechanical behavior of Cu/Nb nanoscale multilayers. <i>Thin Solid Films</i> , 2007, 515, 3241-3245.	0.8	37
128	Hybrid plasmonic Au@TiN vertically aligned nanocomposites: a nanoscale platform towards tunable optical sensing. <i>Nanoscale Advances</i> , 2019, 1, 1045-1054.	2.2	37
129	In situ heavy ion irradiation studies of nanopore shrinkage and enhanced radiation tolerance of nanoporous Au. <i>Scientific Reports</i> , 2017, 7, 39484.	1.6	37
130	Mechanical properties of nanocrystalline and epitaxial TiN films on (100) silicon. <i>Journal of Materials Research</i> , 2001, 16, 2733-2738.	1.2	36
131	Modulated oscillatory hardening and dynamic recrystallization in cryomilled nanocrystalline Zn. <i>Acta Materialia</i> , 2002, 50, 3995-4004.	3.8	36
132	A formation mechanism for ultra-thin nanotwins in highly textured Cu/Ni multilayers. <i>Journal of Applied Physics</i> , 2012, 111, .	1.1	36
133	Hydrogen sorption in orthorhombic Mg hydride at ultra-low temperature. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 8328-8341.	3.8	36
134	Self-Organized Epitaxial Vertically Aligned Nanocomposites with Long-Range Ordering Enabled by Substrate Nanotemplating. <i>Advanced Materials</i> , 2017, 29, 1606861.	11.1	36
135	Texture-directed twin formation propensity in Al with high stacking fault energy. <i>Acta Materialia</i> , 2018, 144, 226-234.	3.8	36
136	Epitaxial growth of TaN thin films on Si(100) and Si(111) using a TiN buffer layer. <i>Applied Physics Letters</i> , 2002, 80, 2323-2325.	1.5	35
137	Enhanced radiation tolerance in immiscible Cu/Fe multilayers with coherent and incoherent layer interfaces. <i>Journal of Materials Research</i> , 2015, 30, 1300-1309.	1.2	34
138	Self-assembled vertically aligned Ni nanopillars in CeO ₂ with anisotropic magnetic and transport properties for energy applications. <i>Nanoscale</i> , 2018, 10, 17182-17188.	2.8	34
139	Thick grain boundary induced strengthening in nanocrystalline Ni alloy. <i>Nanoscale</i> , 2019, 11, 23449-23458.	2.8	34
140	Evolution of microstructure and mechanical properties of in situ consolidated bulk ultra-fine-grained and nanocrystalline Zn prepared by ball milling. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2003, 344, 175-181.	2.6	33
141	Strengthening mechanisms of Ag/Ni immiscible multilayers with fcc/fcc interface. <i>Surface and Coatings Technology</i> , 2013, 237, 269-275.	2.2	33
142	He ion irradiation response of a gradient T91 steel. <i>Acta Materialia</i> , 2020, 196, 175-190.	3.8	33
143	Grain refinement of T91 alloy by equal channel angular pressing. <i>Journal of Nuclear Materials</i> , 2009, 389, 221-224.	1.3	32
144	Thermal stability of ultrafine grained Fe-Cr-Ni alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 542, 64-70.	2.6	32

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145	Size and stress dependent hydrogen desorption in metastable Mg hydride films. International Journal of Hydrogen Energy, 2014, 39, 2597-2607.	3.8	32
146	Tailorable Optical Response of Au@LiNbO ₃ Hybrid Metamaterial Thin Films for Optical Waveguide Applications. Advanced Optical Materials, 2018, 6, 1800510.	3.6	32
147	High strength, deformable nanotwinned Al-Co alloys. Materials Research Letters, 2019, 7, 33-39.	4.1	32
148	Tailoring strength and plasticity of Ag/Nb nanolaminates via intrinsic microstructure and extrinsic dimension. International Journal of Plasticity, 2019, 113, 145-157.	4.1	32
149	Tailoring nanostructured Cu/Cr multilayer films with enhanced hardness and tunable modulus. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 543, 139-144.	2.6	31
150	Self-Assembled Ag@TiN Hybrid Plasmonic Metamaterial: Tailorable Tilted Nanopillar and Optical Properties. Advanced Optical Materials, 2019, 7, 1801180.	3.6	31
151	Strong and plastic metallic composites with nanolayered architectures. Acta Materialia, 2020, 195, 240-251.	3.8	31
152	Ultra-strong nanotwinned Al-Ni solid solution alloys with significant plasticity. Nanoscale, 2018, 10, 22025-22034.	2.8	30
153	Strain-driven nanodumbbell structure and enhanced physical properties in hybrid vertically aligned nanocomposite thin films. Applied Materials Today, 2019, 16, 204-212.	2.3	30
154	Strain-Driven In-plane Ordering in Vertically Aligned ZnO@Au Nanocomposites with Highly Correlated Metamaterial Properties. ACS Omega, 2020, 5, 2234-2241.	1.6	30
155	Characterization of precipitation in gradient Inconel 718 superalloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 804, 140718.	2.6	30
156	Intrinsic size-controlled strain hardening behavior of nanolayered Cu/Zr micropillars. Scripta Materialia, 2012, 66, 706-709.	2.6	29
157	Quantitative damage and detwinning analysis of nanotwinned copper foil under cyclic loading. Acta Materialia, 2014, 81, 184-193.	3.8	29
158	Producing laminated NiAl with bimodal distribution of grain size by solid-liquid reaction treatment. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 590, 318-322.	2.6	29
159	Grain and grain boundary activities observed in alumina-zirconia-magnesia spinel nanocomposites by in situ nanoindentation using transmission electron microscopy. Acta Materialia, 2010, 58, 4891-4899.	3.8	28
160	Two Types of Martensitic Phase Transformations in Magnetic Shape Memory Alloys by In Situ Nanoindentation Studies. Advanced Materials, 2014, 26, 3893-3898.	11.1	28
161	The effect of coherent interface on strain-rate sensitivity of highly textured Cu/Ni and Cu/V multilayers. Scripta Materialia, 2019, 162, 33-37.	2.6	28
162	Synthesis of bulk nanostructured Zn by combinations of cryomilling and powder consolidation by room temperature milling: optimizing mechanical properties. Scripta Materialia, 2003, 49, 429-433.	2.6	27

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