Jian Wang

List of Publications by Year in descending order

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314 papers	29,397 citations	7069 78 h-index	5364 164 g-index
319 all docs	319 docs citations	319 times ranked	22491 citing authors

#	Article	IF	Citations
1	Co3O4 nanocrystals on graphene as a synergistic catalyst for oxygen reduction reaction. Nature Materials, 2011, 10, 780-786.	13.3	5,120
2	Indium phosphide nanowires as building blocks for nanoscale electronic and optoelectronic devices. Nature, 2001, 409, 66-69.	13.7	3,256
3	Highly Polarized Photoluminescence and Photodetection from Single Indium Phosphide Nanowires. Science, 2001, 293, 1455-1457.	6.0	1,744
4	Covalent Hybrid of Spinel Manganeseâ€“Cobalt Oxide and Graphene as Advanced Oxygen Reduction Electrocatalysts. Journal of the American Chemical Society, 2012, 134, 3517-3523.	6.6	1,266
5	Detwinning mechanisms for growth twins in face-centered cubic metals. Acta Materialia, 2010, 58, 2262-2270.	3.8	479
6	An overview of interface-dominated deformation mechanisms in metallic multilayers. Current Opinion in Solid State and Materials Science, 2011, 15, 20-28.	5.6	390
7	Outstanding tensile properties of a precipitation-strengthened FeCoNiCrTi0.2 high-entropy alloy at room and cryogenic temperatures. Acta Materialia, 2019, 165, 228-240.	3.8	373
8	A crystal plasticity model for hexagonal close packed (HCP) crystals including twinning and de-twinning mechanisms. International Journal of Plasticity, 2013, 49, 36-52.	4.1	363
9	overflow="scroll"><mml:mrow><mml:mo stretchy="false">(</mml:mo><mml:mover) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 4	3.8	325
10	hexagonal Radiation damage in nanostructured materials. Progress in Materials Science, 2018, 96, 217-321.	16.0	307
11	High-strength and thermally stable bulk nanolayered composites due to twin-induced interfaces. Nature Communications, 2013, 4, 1696.	5.8	298
12	An atomic and probabilistic perspective on twin nucleation in Mg. Scripta Materialia, 2010, 63, 741-746.	2.6	284
13	Atomistic modeling of the interaction of glide dislocations with â€œweakâ€•interfaces. Acta Materialia, 2008, 56, 5685-5693.	3.8	248
14	Twinâ€“twin interactions in magnesium. Acta Materialia, 2014, 77, 28-42.	3.8	243
15	Strength and plasticity of nanolaminated materials. Materials Research Letters, 2017, 5, 1-19.	4.1	224
16	Theory of Elasticity at the Nanoscale. Advances in Applied Mechanics, 2009, 42, 1-68.	1.4	222
17	Atomistic simulations of the shear strength and sliding mechanisms of copperâ€“niobium interfaces. Acta Materialia, 2008, 56, 3109-3119.	3.8	211
18	Twinning dislocation multiplication at a coherent twin boundary. Acta Materialia, 2011, 59, 5989-5996.	3.8	199

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19	Interface defects, reference spaces and the Frankâ€“Bilby equation. Progress in Materials Science, 2013, 58, 749-823.	16.0	195
20	Realizing strength-ductility combination of coarse-grained Al0.2Co1.5CrFeNi1.5Ti0.3 alloy via nano-sized, coherent precipitates. International Journal of Plasticity, 2018, 100, 177-191.	4.1	193
21	A constitutive model of twinning and detwinning for hexagonal close packed polycrystals. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 555, 93-98.	2.6	191
22	Why are <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si2.gif" overflow="scroll"><mml:mrow><mml:mo stretchy="false">{</mml:mo><mml:mn>10</mml:mn><mml:mover accent="true"><mml:mrow><mml:mn>1</mml:mn></mml:mrow><mml:mrow><mml:mo>Â¯</mml:mo></mml:mrow></mml:mover><m stretchy="false">}</mml:mo></mml:mrow></mml:math> twins profuse in magnesium?. Acta Materialia, 2015, 85, 354-361.	3.8	187
23	Nucleation of a (1Â¯012) twin in hexagonal close-packed crystals. Scripta Materialia, 2009, 61, 903-906.	2.6	181
24	Pure-Shuffle Nucleation of Deformation Twins in Hexagonal-Close-Packed Metals. Materials Research Letters, 2013, 1, 126-132.	4.1	181
25	Twinning and De-twinning via Glide and Climb of Twinning Dislocations along Serrated Coherent Twin Boundaries in Hexagonal-close-packed Metals. Materials Research Letters, 2013, 1, 81-88.	4.1	173
26	Twinning dislocations on {1Â¯011} and {1Â¯013} planes in hexagonal close-packed crystals. Acta Materialia, 2011, 59, 3990-4001.	3.8	157
27	Reactions of lattice dislocations with grain boundaries in Mg: Implications on the micro scale from atomic-scale calculations. International Journal of Plasticity, 2014, 56, 156-172.	4.1	157
28	Precipitation strengthening of ductile Cr 15 Fe 20 Co 35 Ni 20 Mo 10 alloys. Scripta Materialia, 2017, 137, 88-93.	2.6	157
29	Twinning-like lattice reorientation without a crystallographic twinning plane. Nature Communications, 2014, 5, 3297.	5.8	154
30	Emergence of stable interfaces under extreme plastic deformation. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 4386-4390.	3.3	150
31	Dislocation structures of Î£3 {112} twin boundaries in face centered cubic metals. Applied Physics Letters, 2009, 95, .	1.5	144
32	Interface-driven microstructure development and ultra high strength of bulk nanostructured Cu-Nb multilayers fabricated by severe plastic deformation. Journal of Materials Research, 2013, 28, 1799-1812.	1.2	142
33	Structureâ€“Propertyâ€“Functionality of Bimetal Interfaces. Jom, 2012, 64, 1192-1207.	0.9	140
34	Shockley partial dislocations to twin: Another formation mechanism and generic driving force. Applied Physics Letters, 2004, 85, 5983-5985.	1.5	138
35	Modeling inelastic behavior of magnesium alloys during cyclic loadingâ€“unloading. International Journal of Plasticity, 2013, 47, 49-64.	4.1	138
36	Disconnections and other defects associated with twin interfaces. Progress in Materials Science, 2016, 83, 417-471.	16.0	136

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37	Growth of Y-Shaped Nanorods through Physical Vapor Deposition. Nano Letters, 2005, 5, 2505-2508.	4.5	133
38	High Resolution Transmission Electron Microscope Observation of Zero-Strain Deformation Twinning Mechanisms in Ag. Physical Review Letters, 2011, 106, 175504.	2.9	128
39	Atomic structures of symmetric tilt grain boundaries in hexagonal close packed (hcp) crystals. Modelling and Simulation in Materials Science and Engineering, 2012, 20, 024002.	0.8	128
40	Dislocation nucleation mechanisms from fcc/bcc incoherent interfaces. Scripta Materialia, 2011, 65, 1022-1025.	2.6	125
41	Plastic instability mechanisms in bimetallic nanolayered composites. Acta Materialia, 2014, 79, 282-291.	3.8	124
42	The influence of interface shear strength on the glide dislocationâ€“interface interactions. Acta Materialia, 2011, 59, 3164-3173.	3.8	121
43	Strength and ductility of CrFeCoNiMo alloy with hierarchical microstructures. International Journal of Plasticity, 2019, 113, 255-268.	4.1	121
44	Novel deformation mechanism of twinned nanowires. Applied Physics Letters, 2006, 88, 203112.	1.5	118
45	3D printing of hybrid MoS2-graphene aerogels as highly porous electrode materials for sodium ion battery anodes. Materials and Design, 2019, 170, 107689.	3.3	118
46	Atomic-scale study of nucleation of dislocations from fccâ€“bcc interfaces. Acta Materialia, 2012, 60, 2855-2865.	3.8	117
47	Shear response of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>Î£</mml:mi><mml:mn>3</mml:mn><mml:mo stretchy="false">{</mml:mo><mml:mn>112</mml:mn><mml:mo stretchy="false">}</mml:mo></mml:mrow></mml:math>twin boundaries in face-centered-cubic metals. Physical Review B, 2011, 83, .	1.1	116
48	Slip transmission across fcc/bcc interfaces with varying interface shear strengths. Acta Materialia, 2012, 60, 1503-1513.	3.8	113
49	Interface dislocation patterns and dislocation nucleation in face-centered-cubic and body-centered-cubic bicrystal interfaces. International Journal of Plasticity, 2014, 53, 40-55.	4.1	112
50	Growth, Defect Formation, and Morphology Control of Germaniumâ€“Silicon Semiconductor Nanowire Heterostructures. Nano Letters, 2011, 11, 4200-4206.	4.5	110
51	Influence of slip transmission on the migration of incoherent twin boundaries in epitaxial nanotwinned Cu. Scripta Materialia, 2011, 64, 149-152.	2.6	107
52	In situ nanoindentation study on plasticity and work hardening in aluminium with incoherent twin boundaries. Nature Communications, 2014, 5, 4864.	5.8	107
53	One-step synthesis of Mn3O4/reduced graphene oxide nanocomposites for oxygen reduction in nonaqueous Liâ€“O2 batteries. Chemical Communications, 2013, 49, 10838.	2.2	106
54	Rolling-induced Face Centered Cubic Titanium in Hexagonal Close Packed Titanium at Room Temperature. Scientific Reports, 2016, 6, 24370.	1.6	106

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55	Molecular dynamics simulations of plastic deformation in Nb/NbC multilayers. International Journal of Plasticity, 2014, 59, 119-132.	4.1	102
56	Study of lattice strains in magnesium alloy AZ31 based on a large strain elastic-viscoplastic self-consistent polycrystal model. International Journal of Solids and Structures, 2012, 49, 2155-2167.	1.3	101
57	Strain hardening in nanolayered thin films. Current Opinion in Solid State and Materials Science, 2014, 18, 19-28.	5.6	101
58	Plastic flow stability of nanotwinned Cu foils. International Journal of Plasticity, 2010, 26, 875-886.	4.1	100
59	Double twinning mechanisms in magnesium alloys via dissociation of lattice dislocations. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2012, 468, 1496-1520.	1.0	100
60	Mapping dislocation nucleation behavior from bimetal interfaces. Acta Materialia, 2013, 61, 7488-7499.	3.8	98
61	Atomic-scale understanding of stress-induced phase transformation in cold-rolled Hf. Acta Materialia, 2017, 131, 271-279.	3.8	98
62	Damage-tolerant nanotwinned metals with nanovoids under radiation environments. Nature Communications, 2015, 6, 7036.	5.8	97
63	First-principles study of energy and atomic solubility of twinning-associated boundaries in hexagonal metals. Acta Materialia, 2015, 85, 144-154.	3.8	97
64	Direct Observations of Confined Layer Slip in Cu/Nb Multilayers. Microscopy and Microanalysis, 2012, 18, 1155-1162.	0.2	95
65	Deformation twinning mechanisms from bimetal interfaces as revealed by in situ straining in the TEM. Acta Materialia, 2012, 60, 5858-5866.	3.8	94
66	Spiral Patterns of Dislocations at Nodes in (111) Semi-coherent FCC Interfaces. Scientific Reports, 2013, 3, 2448.	1.6	93
67	Highâ€Strength Nanotwinned Al Alloys with 9R Phase. Advanced Materials, 2018, 30, 1704629.	11.1	93
68	Interface structure and the inception of plasticity in Nb/NbC nanolayered composites. Acta Materialia, 2015, 86, 331-340.	3.8	90
69	Co-zone {1Â¯012} Twin Interaction in Magnesium Single Crystal. Materials Research Letters, 2014, 2, 82-88.	4.1	89
70	Glide dislocation nucleation from dislocation nodes at semi-coherent {1 1 1} Cuâ€“Ni interfaces. Acta Materialia, 2015, 98, 206-220.	3.8	88
71	Stress and strain relaxation in magnesium AZ31 rolled plate: In-situ neutron measurement and elastic viscoplastic polycrystal modeling. International Journal of Plasticity, 2016, 79, 275-292.	4.1	87
72	Experimentally quantifying critical stresses associated with basal slip and twinning in magnesium using micropillars. Acta Materialia, 2017, 135, 411-421.	3.8	87

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73	Interface structures and twinning mechanisms of twins in hexagonal metals. Materials Research Letters, 2017, 5, 449-464.	4.1	87
74	In situ TEM observations of room temperature dislocation climb at interfaces in nanolayered Al/Nb composites. Scripta Materialia, 2010, 63, 363-366.	2.6	85
75	Interface-facilitated deformation twinning in copper within submicron Agâ€“Cu multilayered composites. Scripta Materialia, 2011, 64, 1083-1086.	2.6	81
76	Role of interface structure on the plastic response of Cu/Nb nanolaminates under shock compression: Non-equilibrium molecular dynamics simulations. Scripta Materialia, 2013, 68, 114-117.	2.6	81
77	Twinning effects on strength and plasticity of metallic materials. MRS Bulletin, 2016, 41, 274-281.	1.7	81
78	Highly deformable Mgâ€“Alâ€“Ca alloy with Al2Ca precipitates. Acta Materialia, 2020, 200, 236-245.	3.8	81
79	Atomic Structures of $$ [0ar{1}10] $$ Symmetric Tilt Grain Boundaries in Hexagonal Close-Packed (hcp) Crystals. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 3556-3569.	1.1	80
80	Direct Measurement of Coherency Limits for Strain Relaxation in Heteroepitaxial Core/Shell Nanowires. Nano Letters, 2013, 13, 1869-1876.	4.5	80
81	In situ Nanoindentation Study of Plastic Co-deformation in Al-TiN Nanocomposites. Scientific Reports, 2014, 4, 6633.	1.6	80
82	Twinning and sequential kinking in lamellar Ti-6Al-4V alloy. Acta Materialia, 2019, 181, 479-490.	3.8	80
83	Grain boundary decohesion by nanoclustering Ni and Cr separately in CrMnFeCoNi high-entropy alloys. Science Advances, 2019, 5, eaay0639.	4.7	80
84	Atomic-level study of twin nucleation from face-centered-cubic/body-centered-cubic interfaces in nanolamellar composites. Applied Physics Letters, 2012, 100, .	1.5	76
85	Mechanics of nanoscale metallic multilayers: From atomic-scale to micro-scale. Scripta Materialia, 2009, 60, 1067-1072.	2.6	74
86	Atomic structure variations of mechanically stable fcc-bcc interfaces. Journal of Applied Physics, 2012, 111, .	1.1	74
87	Deformation induced FCC lamellae and their interaction in commercial pure Ti. Scripta Materialia, 2019, 162, 326-330.	2.6	74
88	Deformation twinning in hexagonal materials. MRS Bulletin, 2016, 41, 314-319.	1.7	73
89	Secondary twin variant selection in four types of double twins in titanium. Acta Materialia, 2018, 152, 58-76.	3.8	73
90	Single Crystalline Nanostructures of Topological Crystalline Insulator SnTe with Distinct Facets and Morphologies. Nano Letters, 2013, 13, 5443-5448.	4.5	72

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91	3D Printing Hierarchical Silver Nanowire Aerogel with Highly Compressive Resilience and Tensile Elongation through Tunable Poisson's Ratio. Small, 2017, 13, 1701756.	5.2	68
92	Nucleation of elementary ${ar {1},0,1,1}$ and ${ar {1},0,1,3}$ twinning dislocations at a twin boundary in hexagonal close-packed crystals. Modelling and Simulation in Materials Science and Engineering, 2012, 20, 024001.	0.8	66
93	Characterizing interface dislocations by atomically informed Frank-Bilby theory. Journal of Materials Research, 2013, 28, 1646-1657.	1.2	66
94	Sequential <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mrow><mml:mrow><mml:mo>{</mml:mo><mml:mrow><mml:mn>10</mml:mn><mml:mrow><mml:mover accent="true"><mml:mn>1</mml:mn><mml:mo>Â¯</mml:mo></mml:mover></mml:mrow><mml:mn>2</mml:mn></mml:mrow><mml: twinning stimulated by other twins in titanium. Acta Materialia, 2017, 132, 57-68.	3.8	66
95	High-velocity projectile impact induced 9R phase in ultrafine-grained aluminium. Nature Communications, 2017, 8, 1653.	5.8	66
96	Twinnability of bimetal interfaces in nanostructured composites. Materials Research Letters, 2013, 1, 89-95.	4.1	65
97	Characterizing the boundary lateral to the shear direction of deformation twins in magnesium. Nature Communications, 2016, 7, 11577.	5.8	65
98	Diffusion barriers on Cu surfaces and near steps. Modelling and Simulation in Materials Science and Engineering, 2004, 12, 1209-1225.	0.8	64
99	Structure and Property of Interfaces in ARB Cu/Nb Laminated Composites. Jom, 2012, 64, 1208-1217.	0.9	63
100	Dynamic Process of Phase Transition from Wurtzite to Zinc Blende Structure in InAs Nanowires. Nano Letters, 2013, 13, 6023-6027.	4.5	63
101	Structural characterization of {101Â¯2} twin boundaries in cobalt. Applied Physics Letters, 2013, 103, .	1.5	63
102	Atomistic simulations of interaction between basal <a> dislocations and three-dimensional twins in magnesium. Acta Materialia, 2018, 155, 187-198.	3.8	63
103	Room-temperature dislocation climb in metallic interfaces. Applied Physics Letters, 2009, 94, 131910.	1.5	62
104	Effects of structure relaxation and surface oxidation on nanoscopic wear behaviors of metallic glass. Acta Materialia, 2022, 232, 117934.	3.8	62
105	Interfaces Between Dissimilar Crystalline Solids. Dislocations in Solids, 2008, , 141-205.	1.6	61
106	Unusual size dependent strengthening mechanisms of Cu/amorphous CuNb multilayers. Acta Materialia, 2016, 120, 327-336.	3.8	61
107	Modeling Interface-Dominated Mechanical Behavior of Nanolayered Crystalline Composites. Jom, 2014, 66, 102-113.	0.9	60
108	Insight from in situ microscopy into which precipitate morphology can enable high strength in magnesium alloys. Journal of Materials Science and Technology, 2018, 34, 1061-1066.	5.6	60

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109	Plastic Deformation of Metal/Ceramic Nanolayered Composites. Jom, 2014, 66, 2078-2085.	0.9	59
110	Radiation response of alloy T91 at damage levels up to 1000 peak dpa. Journal of Nuclear Materials, 2016, 482, 257-265.	1.3	59
111	Amorphous bands induced by low temperature tension in a non-equiatomic CrMnFeCoNi alloy. Acta Materialia, 2020, 188, 354-365.	3.8	59
112	The multiscale modeling of plastic deformation in metallic nanolayered composites. Jom, 2008, 60, 39-42.	0.9	58
113	Dislocation models of interfacial shearing induced by an approaching lattice glide dislocation. International Journal of Plasticity, 2013, 41, 1-13.	4.1	58
114	Cyclic deformation and fatigue damage in single-crystal magnesium under fully reversed strain-controlled tensionâ€“compression in the [1 0<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mrow><mml:mover accent="true"><mml:mrow><mml:mn mathvariant="bold">1</mml:mn></mml:mrow><mml:mrow><mml:mo>Â¯</mml:mo></mml:mrow></mml:mover></mml:mrow></mml:r direction. Scripta Materialia, 2015, 96, 41-44.	2.6	58
115	Investigation into nanoscratching mechanical performance of metallic glass multilayers with improved nano-tribological properties. Journal of Alloys and Compounds, 2019, 776, 447-459.	2.8	57
116	Structure and stability of Î£3 grain boundaries in face centered cubic metals. Philosophical Magazine, 2013, 93, 315-327.	0.7	56
117	Plasticity evolution in nanoscale Cu/Nb single-crystal multilayers as revealed by synchrotron X-ray microdiffraction. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 635, 6-12.	2.6	56
118	Twinning and detwinning behaviors of commercially pure titanium sheets. International Journal of Plasticity, 2019, 121, 261-279.	4.1	56
119	Ex situ and in situ measurements of the shear strength of interfaces in metallic multilayers. Scripta Materialia, 2012, 67, 479-482.	2.6	55
120	Terrace-like morphology of the boundary created through basal-prismatic transformation in magnesium. Scripta Materialia, 2015, 100, 86-89.	2.6	55
121	Twinning in bcc metals under shock loading: a challenge to empirical potentials. Philosophical Magazine Letters, 2011, 91, 731-740.	0.5	54
122	Incoherent twin boundary migration induced by ion irradiation in Cu. Journal of Applied Physics, 2013, 113, .	1.1	53
123	Layer size effect on the shock compression behavior of fccâ€“bcc nanolaminates. Acta Materialia, 2014, 79, 74-83.	3.8	53
124	Energy minimization mechanisms of semi-coherent interfaces. Journal of Applied Physics, 2014, 116, .	1.1	53
125	Modelling the role of slips and twins in magnesium alloys under cyclic shear. Computational Materials Science, 2015, 96, 214-218.	1.4	52
126	Atomistic Simulations of Dislocations in Confined Volumes. MRS Bulletin, 2009, 34, 184-189.	1.7	50

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127	Dislocation slip stress prediction in shape memory alloys. International Journal of Plasticity, 2014, 54, 247-266.	4.1	50
128	A multi-scale statistical study of twinning in magnesium. Jom, 2011, 63, 19-23.	0.9	49
129	Structural characteristics of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mrow><mml:mrow><mml:mo>{</mml:mo><mml:mrow><mml:mrow><mml:mover accent="true"><mml:mn>1</mml:mn><mml:mo>Â¯</mml:mo></mml:mover></mml:mrow><mml:mn>012</mml:mn></mml:mrow><mml:mo	3.8	48
130	Shock-induced two types of {10<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mrow><mml:mover accent="true"><mml:mn>1</mml:mn><mml:mo>Â¯</mml:mo></mml:mover></mml:mrow></mml:math>2} sequential twinning in Titanium. Acta Materialia, 2019, 165, 547-560.	3.8	48
131	Minimum energy structures of faceted, incoherent interfaces. Journal of Applied Physics, 2012, 112, .	1.1	46
132	Diameter dependent thermoelectric properties of individual SnTe nanowires. Nanoscale, 2015, 7, 2869-2876.	2.8	46
133	Three-dimensional character of the deformation twin in magnesium. Nature Communications, 2019, 10, 3308.	5.8	46
134	The influence of dilute heats of mixing on the atomic structures, defect energetics and mechanical properties of fccâ€“bcc interfaces. Acta Materialia, 2010, 58, 4549-4557.	3.8	45
135	Atomistic Simulations of Dislocation Pileup: Grain Boundaries Interaction. Jom, 2015, 67, 1515-1525.	0.9	45
136	Role of local stresses on co-zone twin-twin junction formation in HCP magnesium. Acta Materialia, 2019, 168, 353-361.	3.8	45
137	Microstructures and deformation mechanisms of Cr26Mn20Fe20Co20Ni14 alloys. Materials Characterization, 2017, 134, 194-201.	1.9	44
138	Plasticity of laser-processed nanoscale Al Al2Cu eutectic alloy. Acta Materialia, 2018, 156, 52-63.	3.8	44
139	Misfit dislocation patterns of Mg-Nb interfaces. Acta Materialia, 2017, 126, 552-563.	3.8	43
140	Disclinations and disconnections in minerals and metals. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 196-204.	3.3	43
141	Imparities of shear avalanches dynamic evolution in a metallic glass. Materials Research Letters, 2020, 8, 357-363.	4.1	42
142	Interface-dependent nucleation in nanostructured layered composites. APL Materials, 2013, 1, .	2.2	41
143	Peierls stress in face-centered-cubic metals predicted from an improved semi-discrete variation Peierls-Nabarro model. Scripta Materialia, 2016, 120, 94-97.	2.6	41
144	Elastic fields of dislocation loops in three-dimensional anisotropic bimaterials. Journal of the Mechanics and Physics of Solids, 2012, 60, 418-431.	2.3	40

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145	Surface kinetics: Step-facet barriers. Applied Physics Letters, 2003, 83, 4752-4754.	1.5	39
146	Numerical study of the effects of shear deformation and superimposed hydrostatic pressure on the formability of AZ31B sheet at room temperature. International Journal of Mechanical Sciences, 2015, 92, 70-79.	3.6	39
147	Atomistic observation of a crack tip approaching coherent twin boundaries. Scientific Reports, 2014, 4, 4397.	1.6	38
148	Plastic Deformation Modes of CuZr/Cu Multilayers. Scientific Reports, 2016, 6, 23306.	1.6	38
149	Helium irradiation induced ultra-high strength nanotwinned Cu with nanovoids. Acta Materialia, 2019, 177, 107-120.	3.8	38
150	Atomistic study of fundamental character and motion of dislocations in intermetallic Al2Cu. International Journal of Plasticity, 2016, 87, 100-113.	4.1	37
151	Structure evolution and mechanical properties enhancement of Al/AlN multilayer. Applied Surface Science, 2007, 253, 8835-8840.	3.1	36
152	Twinning-Associated Boundaries in Hexagonal Close-Packed Metals. Jom, 2014, 66, 95-101.	0.9	36
153	Low-energy, Mobile Grain Boundaries in Magnesium. Scientific Reports, 2016, 6, 21393.	1.6	36
154	Steps and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mrow><mml:mrow><mml:mo stretchy="true">{</mml:mo><mml:mrow><mml:mn>11</mml:mn><mml:mrow><mml:mover accent="true"><mml:mn>2</mml:mn><mml:mo>Â¯</mml:mo></mml:mover></mml:mrow><mml:mn>1</mml:mn></mml:mrow><mml:mo stretchy="true">}</mml:mo></mml:mrow></mml:mrow></mml:math> secondary twinning associated with <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si2.gif" overflow="scrol	3.8	36
155	Phase transition and dislocation nucleation in Cuâ€“Nb layered composites during physical vapor deposition. Journal of Materials Research, 2008, 23, 1009-1014.	1.2	34
156	Effect of grain boundary structure on plastic deformation during shock compression using molecular dynamics. Modelling and Simulation in Materials Science and Engineering, 2013, 21, 015011.	0.8	34
157	Flexible memory devices with tunable electrical bistability via controlled energetics in donorâ€“donor and donorâ€“acceptor conjugated polymers. Journal of Materials Chemistry C, 2014, 2, 4374-4378.	2.7	34
158	Interface-mediated plasticity of nanoscale Alâ€“Al2Cu eutectics. Acta Materialia, 2020, 186, 443-453.	3.8	34
159	Alternative misfit dislocations pattern in semi-coherent FCC {100} interfaces. Acta Materialia, 2018, 144, 177-186.	3.8	33
160	Characteristic orientation relationships in nanoscale Al-AlCu Eutectic. Materials Characterization, 2018, 142, 170-178.	1.9	33
161	Self-energy of elliptical dislocation loops in anisotropic crystals and its application for defect-free core/shell nanowires. Acta Materialia, 2011, 59, 7114-7124.	3.8	32
162	Rotational partitioning at two-phase interfaces. Acta Materialia, 2011, 59, 241-251.	3.8	32

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163	First-principles density functional theory study of generalized stacking faults in TiN and MgO. Philosophical Magazine, 2014, 94, 464-475.	0.7	32
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