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List of Publications by Year
in descending order

75 papers	4,267 citations	117453 34 h-index	106150 65 g-index
75 all docs	75 docs citations	75 times ranked	4853 citing authors

#	Article	IF	Citations
1	Synergistically enhanced interface stability by graphene assisted copper surface reconstruction. Acta Materialia, 2022, 226, 117638.	3.8	22
2	Formation of misfit dislocation arrays and helium nanochannels near copper surface assisted by high-temperature graphene deposition. Acta Materialia, 2022, , 118134.	3.8	3
3	Characterization of the terrace-defect interfaces using in situ straining techniques. Journal of Materials Research, 2021, 36, 2674-2686.	1.2	1
4	Migration kinetics of twinning disconnections in nanotwinned Cu: An in situ HRTEM deformation study. Scripta Materialia, 2021, 194, 113621.	2.6	12
5	High Strength and Low Coercivity of Cobalt with Three-Dimensional Nanoscale Stacking Faults. Nano Letters, 2021, 21, 6480-6486.	4.5	9
6	Synthesis, Microstructure and Properties of Magnetron Sputtered Lead Zirconate Titanate (PZT) Thin Film Coatings. Coatings, 2021, 11, 944.	1.2	19
7	A crystal plasticity model for metal matrix composites considering thermal mismatch stress induced dislocations and twins. Scientific Reports, 2021, 11, 16053.	1.6	11
8	Revealing extreme twin-boundary shear deformability in metallic nanocrystals. Science Advances, 2021, 7, eabe4758.	4.7	46
9	Enhanced defect annihilation capability of the graphene/copper interface: An in situ study. Scripta Materialia, 2021, 203, 114001.	2.6	14
10	Ferroelectric and Ferroelastic Domain Related Formation and Influential Mechanisms of Vapor Deposited Piezoelectric Thin Films. Coatings, 2021, 11, 1437.	1.2	3
11	Quantifying elastic strain near coherent twin interface in magnesium with nanometric resolution. Materials Characterization, 2020, 160, 110082.	1.9	11
12	Anisotropic thermal conductivity and associated heat transport mechanism in roll-to-roll graphene reinforced copper matrix composites. Acta Materialia, 2020, 197, 342-354.	3.8	45
13	Metal-graphene interfaces in epitaxial and bulk systems: A review. Progress in Materials Science, 2020, 110, 100652.	16.0	114
14	Twin Transmission Across Grain Boundaries in Mg. Minerals, Metals and Materials Series, 2020, , 3-5.	0.3	0
15	Insights into the interfacial bonding strength of TiB/Ti: A first principles study. Journal of Applied Physics, 2019, 126, .	1.1	8
16	Three-dimensional character of the deformation twin in magnesium. Nature Communications, 2019, 10, 3308.	5.8	46
17	A new method to reliably determine elastic strain of various crystal structures from atomic-resolution images. Scientific Reports, 2019, 9, 16399.	1.6	3
18	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

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19	Beyond Indentation Hardness and Modulus: Recent Advances in Nanoindentation Techniques: Part II. Jom, 2018, 70, 485-486.	0.9	3
20	Highâ€Strength Nanotwinned Al Alloys with 9R Phase. Advanced Materials, 2018, 30, 1704629.	11.1	93
21	Alternative misfit dislocations pattern in semi-coherent FCC {100} interfaces. Acta Materialia, 2018, 144, 177-186.	3.8	33
22	Influences of Interfaces on Dynamic Recrystallization and Texture Evolution During Hot Rolling of Graphene Nanoribbon/Cu Composite. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 6401-6415.	1.1	4
23	Thickness-Dependent Strain Rate Sensitivity of Nanolayers via the Nanoindentation Technique. Crystals, 2018, 8, 128.	1.0	2
24	Tensile Failure Modes in Nanograined Metals with Nanotwinned Regions. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 5001-5014.	1.1	5
25	Hot Deformation Behavior and Processing Maps of Diamond/Cu Composites. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 2202-2212.	1.1	6
26	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><mm non-cozone twin-twin interactions in magnesium. Acta Materialia, 2018, 159, 65-76.	3.8	48
27	Deformation mechanisms in FCC Co dominated by high-density stacking faults. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 736, 12-21.	2.6	27
28	Layer thickness dependent strain rate sensitivity of Cu/amorphous CuNb multilayer. Applied Physics Letters, 2017, 110, .	1.5	25
29	Experimentally quantifying critical stresses associated with basal slip and twinning in magnesium using micropillars. Acta Materialia, 2017, 135, 411-421.	3.8	87
30	Interface structures and twinning mechanisms of twins in hexagonal metals. Materials Research Letters, 2017, 5, 449-464.	4.1	87
31	Thickness-dependent a/a domain evolution in ferroelectric PbTiO3 films. Acta Materialia, 2017, 131, 123-130.	3.8	32
32	Size dependent alloying and plastic deformation behaviors of Ti/Ni nano-multilayers. Journal of Alloys and Compounds, 2017, 727, 691-695.	2.8	8
33	High-velocity projectile impact induced 9R phase in ultrafine-grained aluminium. Nature Communications, 2017, 8, 1653.	5.8	66
34	Giant linear strain gradient with extremely low elastic energy in a perovskite nanostructure array. Nature Communications, 2017, 8, 15994.	5.8	82
35	Beyond Indentation Hardness and Modulus: Recent Advances in Nanoindentation Techniques: Part I. Jom, 2017, 69, 2227-2228.	0.9	3
36	Measurement of Heavy Ion Irradiation Induced In-Plane Strain in Patterned Face-Centered-Cubic Metal Films: An <i>in Situ</i> Study. Nano Letters, 2016, 16, 7481-7489.	4.5	14

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37	Synthesis and microstructure of electrodeposited and sputtered nanotwinned face-centered-cubic metals. MRS Bulletin, 2016, 41, 286-291.	1.7	60
38	In Situ TEM Nanoindentation Studies on Stress-Induced Phase Transformations in Metallic Materials. Jom, 2016, 68, 226-234.	0.9	5
39	Characterizing the boundary lateral to the shear direction of deformation twins in magnesium. Nature Communications, 2016, 7, 11577.	5.8	65
40	Plastic deformation in nanocrystalline TiN at ultra-low stress: An in situ nanoindentation study. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 650, 445-453.	2.6	16
41	In Situ Nanoindentation Studies on Detwinning and Work Hardening in Nanotwinned Monolithic Metals. Jom, 2016, 68, 127-135.	0.9	14
42	Effect of martensitic phase transformation on the behavior of 304 austenitic stainless steel under tension. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 649, 174-183.	2.6	63
43	A phase field study focuses on the transverse propagation of deformation twinning for hexagonal-closed packed crystals. International Journal of Plasticity, 2016, 76, 130-146.	4.1	30
44	Damage-tolerant nanotwinned metals with nanovoids under radiation environments. Nature Communications, 2015, 6, 7036.	5.8	97
45	<i>In situ</i>Observation of Defect Annihilation in Kr Ion-Irradiated Bulk Fe/Amorphous-Fe₂Zr Nanocomposite Alloy. Materials Research Letters, 2015, 3, 35-42.	4.1	20
46	Enhanced radiation tolerance in immiscible Cu/Fe multilayers with coherent and incoherent layer interfaces. Journal of Materials Research, 2015, 30, 1300-1309.	1.2	34
47	In situ studies on superior thermal stability of bulk FeZr nanocomposites. Acta Materialia, 2015, 101, 125-135.	3.8	14
48	Unusual size-dependent strengthening mechanisms in helium ion-irradiated immiscible coherent Cu/Co nanolayers. Acta Materialia, 2015, 84, 393-404.	3.8	75
49	In situ studies of radiation induced crystallization in Fe/a-Y2O3 nanolayers. Journal of Nuclear Materials, 2014, 452, 321-327.	1.3	26
50	Plasticity and ultra-low stress induced twin boundary migration in nanotwinned Cu by <i>in situ</i> nanoindentation studies. Applied Physics Letters, 2014, 104, .	1.5	47
51	Repetitive Ultra-low Stress Induced Nanocrystallization in Amorphous Cuâ€'Zrâ€'Al Alloy Evidenced byin situNanoindentation. Materials Research Letters, 2014, 2, 209-216.	4.1	10
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	Quantitative damage and detwinning analysis of nanotwinned copper foil under cyclic loading. Acta Materialia, 2014, 81, 184-193.	3.8	29
54	A new method for reliable determination of strain-rate sensitivity of low-dimensional metallic materials by using nanoindentation. Scripta Materialia, 2014, 77, 5-8.	2.6	39

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55	Two Types of Martensitic Phase Transformations in Magnetic Shape Memory Alloys by Inâ€Šitu Nanoindentation Studies. Advanced Materials, 2014, 26, 3893-3898.	11.1	28
56	Stacking fault and partial dislocation dominated strengthening mechanisms in highly textured Cu/Co multilayers. International Journal of Plasticity, 2013, 49, 152-163.	4.1	109
57	The Role of Surface Oxygen in the Growth of Large Single-Crystal Graphene on Copper. Science, 2013, 342, 720-723.	6.0	977
58	Comparisons of radiation damage in He ion and proton irradiated immiscible Ag/Ni nanolayers. Journal of Nuclear Materials, 2013, 440, 310-318.	1.3	68
59	Strengthening mechanisms of Ag/Ni immiscible multilayers with fcc/fcc interface. Surface and Coatings Technology, 2013, 237, 269-275.	2.2	33
60	Removal of stacking-fault tetrahedra by twin boundaries in nanotwinned metals. Nature Communications, 2013, 4, 1377.	5.8	155
61	Basic criteria for formation of growth twins in high stacking fault energy metals. Applied Physics Letters, 2013, 103, .	1.5	26
62	Superior tolerance of Ag/Ni multilayers against Kr ion irradiation: an <i>in situ</i> study. Philosophical Magazine, 2013, 93, 3547-3562.	0.7	47
63	Formation Mechanisms of High-density Growth Twins in Aluminum with High Stacking-Fault Energy. Materials Research Letters, 2013, 1, 51-60.	4.1	80
64	A formation mechanism for ultra-thin nanotwins in highly textured Cu/Ni multilayers. Journal of Applied Physics, 2012, 111, .	1.1	36
65	Indentation of nanotwinned fcc metals: Implications for nanotwin stability. Acta Materialia, 2012, 60, 4623-4635.	3.8	48
66	Mechanical properties of crystalline Cu/Zr and crystalâ€“amorphous Cu/Cuâ€“Zr multilayers. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 552, 392-398.	2.6	89
67	Microstructure and strengthening mechanisms in Cu/Fe multilayers. Acta Materialia, 2012, 60, 6312-6321.	3.8	104
68	Length scale-dependent deformation behavior of nanolayered Cu/Zr micropillars. Acta Materialia, 2012, 60, 1610-1622.	3.8	115
69	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
70	Significant enhancement in the thermal stability of nanocrystalline metals via immiscible tri-phases. Scripta Materialia, 2012, 67, 177-180.	2.6	16
71	Enhanced radiation tolerance of ultrafine grained Feâ€“Crâ€“Ni alloy. Journal of Nuclear Materials, 2012, 420, 235-240.	1.3	78
72	Radiation damage in helium ion irradiated nanocrystalline Fe. Journal of Nuclear Materials, 2012, 425, 140-146.	1.3	154

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73	Thermal stability of ultrafine grained Feâ€"Crâ€"Ni alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 542, 64-70.	2.6	32
74	Mechanical properties of highly textured Cu/Ni multilayers. Acta Materialia, 2011, 59, 1924-1933.	3.8	202
75	Understanding nanoscale damage at a crack tip of multilayered metallic composites. Applied Physics Letters, 2008, 92, 161905.	1.5	36