Youxing Chen

List of Publications by Year
in descending order

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70	3,079	185998	161609
papers	citations	28 h-index	54 g-index

70	70	70	2073
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Corrosion and stress corrosion cracking in supercritical water. Journal of Nuclear Materials, 2007, 371, 176-201.	1.3	359
2	Radiation damage in nanostructured materials. Progress in Materials Science, 2018, 96, 217-321.	16.0	307
3	Length scale-dependent deformation behavior of nanolayered Cu/Zr micropillars. Acta Materialia, 2012, 60, 1610-1622.	3.8	115
4	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
5	Microstructure and strengthening mechanisms in Cu/Fe multilayers. Acta Materialia, 2012, 60, 6312-6321.	3.8	104
6	In situ Evidence of Defect Cluster Absorption by Grain Boundaries in Kr Ion Irradiated Nanocrystalline Ni. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 1966-1974.	1.1	103
7	Radiation-induced Ostwald ripening in oxide dispersion strengthened ferritic steels irradiated at high ion dose. Acta Materialia, 2014, 78, 328-340.	3.8	101
8	Damage-tolerant nanotwinned metals with nanovoids under radiation environments. Nature Communications, 2015, 6, 7036.	5.8	97
9	Ultra-micro-indentation of silicon and compound semiconductors with spherical indenters. Journal of Materials Research, 1999, 14, 2338-2343.	1.2	94
10	In Situ Study of Defect Migration Kinetics and Self-Healing of Twin Boundaries in Heavy Ion Irradiated Nanotwinned Metals. Nano Letters, 2015, 15, 2922-2927.	4.5	90
11	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
12	Response of equal channel angular extrusion processed ultrafine-grained T91 steel subjected to high temperature heavy ion irradiation. Acta Materialia, 2014, 74, 285-295.	3.8	78
13	A roadmap for tailoring the strength and ductility of ferritic/martensitic T91 steel via thermo-mechanical treatment. Acta Materialia, 2016, 112, 361-377.	3.8	76
14	Unusual size-dependent strengthening mechanisms in helium ion-irradiated immiscible coherent Cu/Co nanolayers. Acta Materialia, 2015, 84, 393-404.	3.8	75
15	Effects of three-dimensional Cu/Nb interfaces on strengthening and shear banding in nanoscale metallic multilayers. Acta Materialia, 2020, 199, 593-601.	3.8	68
16	In situ study of defect migration kinetics in nanoporous Ag with enhanced radiation tolerance. Scientific Reports, 2014, 4, 3737.	1.6	67
17	In situ studies on radiation tolerance of nanotwinned Cu. Acta Materialia, 2016, 111, 148-156.	3.8	63
18	Comparison of size dependent strengthening mechanisms in Ag/Fe and Ag/Ni multilayers. Acta Materialia, 2016, 114, 154-163.	3.8	56

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19	Microstructure evolution during homogenization of a Ï„-type Mgâ€“Znâ€“Al alloy. Journal of Alloys and Compounds, 2008, 448, 316-320.	2.8	50
20	The formation mechanisms of growth twins in polycrystalline Al with high stacking fault energy. Acta Materialia, 2015, 101, 62-70.	3.8	48
21	Superior tolerance of Ag/Ni multilayers against Kr ion irradiation: an in situ study. Philosophical Magazine, 2013, 93, 3547-3562.	0.7	47
22	Plasticity and ultra-low stress induced twin boundary migration in nanotwinned Cu by in situ nanoindentation studies. Applied Physics Letters, 2014, 104, .	1.5	47
23	Enhancement of strength and ductility in ultrafine-grained T91 steel through thermomechanical treatments. Journal of Materials Science, 2013, 48, 7360-7373.	1.7	43
24	Misfit dislocation patterns of Mg-Nb interfaces. Acta Materialia, 2017, 126, 552-563.	3.8	43
25	In situ study of heavy ion irradiation response of immiscible Cu/Fe multilayers. Journal of Nuclear Materials, 2016, 475, 274-279.	1.3	41
26	In situ heavy ion irradiation studies of nanopore shrinkage and enhanced radiation tolerance of nanoporous Au. Scientific Reports, 2017, 7, 39484.	1.6	37
27	A nanocrystalline AlCoCuNi medium-entropy alloy with high thermal stability via entropy and boundary engineering. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 774, 138925.	2.6	35
28	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
29	Superior twin stability and radiation resistance of nanotwinned Ag solid solution alloy. Acta Materialia, 2018, 151, 395-405.	3.8	27
30	9R phase enabled superior radiation stability of nanotwinned Cu alloys via in situ radiation at elevated temperature. Acta Materialia, 2019, 167, 248-256.	3.8	27
31	Hierarchical nanotwins in single-crystal-like nickel with high strength and corrosion resistance producedviaa hybrid technique. Nanoscale, 2020, 12, 1356-1365.	2.8	27
32	Basic criteria for formation of growth twins in high stacking fault energy metals. Applied Physics Letters, 2013, 103, .	1.5	26
33	In situ studies of radiation induced crystallization in Fe/a-Y2O3 nanolayers. Journal of Nuclear Materials, 2014, 452, 321-327.	1.3	26
34	Grain refinement mechanisms and strength-hardness correlation of ultra-fine grained grade 91 steel processed by equal channel angular extrusion. International Journal of Pressure Vessels and Piping, 2019, 172, 212-219.	1.2	25
35	Enhanced hydrogen absorption kinetics by introducing fine eutectic and long-period stacking ordered structure in ternary eutectic Mgâ€“Niâ€“Y alloy. Journal of Alloys and Compounds, 2020, 820, 153187.	2.8	25
36	Simultaneous High-Strength and Deformable Nanolaminates With Thick Biphase Interfaces. Nano Letters, 2022, 22, 1897-1904.	4.5	25

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37	Roles of strain and domain boundaries on the phase transition stability of VO2 thin films. Applied Physics Letters, 2017, 111, .	1.5	24
38	Radiation induced detwinning in nanotwinned Cu. Scripta Materialia, 2017, 130, 37-41.	2.6	24
39	Radiation tolerance and microstructural changes of nanocrystalline Cu-Ta alloy to high dose self-ion irradiation. Acta Materialia, 2020, 195, 621-630.	3.8	24
40	Resilient ZnO nanowires in an irradiation environment: An in situ study. Acta Materialia, 2015, 95, 156-163.	3.8	22
41	In situObservation of Defect Annihilation in Kr Ion-Irradiated Bulk Fe/Amorphous-Fe₂Zr Nanocomposite Alloy. Materials Research Letters, 2015, 3, 35-42.	4.1	20
42	In Situ Studies on Twin-Thickness-Dependent Distribution of Defect Clusters in Heavy Ion-Irradiated Nanotwinned Ag. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 1466-1473.	1.1	17
43	In situ study on enhanced heavy ion irradiation tolerance of porous Mg. Scripta Materialia, 2018, 144, 13-17.	2.6	17
44	A plastic damage model for finite element analysis of cracking of silicon under indentation. Journal of Materials Research, 2010, 25, 2224-2237.	1.2	16
45	Significant enhancement in the thermal stability of nanocrystalline metals via immiscible tri-phases. Scripta Materialia, 2012, 67, 177-180.	2.6	16
46	High-Throughput Nanomechanical Screening of Phase-Specific and Temperature-Dependent Hardness in AlxFeCrNiMn High-Entropy Alloys. Jom, 2019, 71, 3368-3377.	0.9	16
47	Mechanically controlling the reversible phase transformation from zinc blende to wurtzite in AlN. Materials Research Letters, 2017, 5, 426-432.	4.1	15
48	In situ studies on superior thermal stability of bulk FeZr nanocomposites. Acta Materialia, 2015, 101, 125-135.	3.8	14
49	Measurement of Heavy Ion Irradiation Induced In-Plane Strain in Patterned Face-Centered-Cubic Metal Films: An in Situ Study. Nano Letters, 2016, 16, 7481-7489.	4.5	14
50	In situ study on surface roughening in radiation-resistant Ag nanowires. Nanotechnology, 2018, 29, 215708.	1.3	14
51	Energetic, structural and mechanical properties of terraced interfaces. Acta Materialia, 2019, 171, 92-107.	3.8	14
52	Microstructural evolution and hydrogen storage proprieties of melt-spun eutectic Mg76.87Ni12.78Y10.35 alloy with low hydrides formation/decomposition enthalpy. International Journal of Hydrogen Energy, 2020, 45, 16644-16653.	3.8	14
53	A comparison study of void swelling in additively manufactured and cold-worked 316L stainless steels under ion irradiation. Journal of Nuclear Materials, 2021, 551, 152946.	1.3	14
54	Neutron reflectometry investigations of interfacial structures of Ti/TiN layers deposited by magnetron sputtering. Thin Solid Films, 2016, 616, 399-407.	0.8	12

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55	Defect evolution in heavy ion irradiated nanotwinned Cu with nanovoids. Journal of Nuclear Materials, 2017, 496, 293-300.	1.3	12
56	In situ neutron diffraction study on temperature dependent deformation mechanisms of ultrafine grained austenitic Feâ€“14Crâ€“16Ni alloy. International Journal of Plasticity, 2014, 53, 125-134.	4.1	10
57	Radiation Enhanced Absorption of Frank Loops by Nanovoids in Cu. Jom, 2016, 68, 235-241.	0.9	10
58	Atomistic modeling of Mg/Nb interfaces: shear strength and interaction with lattice glide dislocations. Journal of Materials Science, 2018, 53, 5733-5744.	1.7	10
59	Effects of coherency stress and vacancy sources/sinks on interdiffusion across coherent multilayer interfaces â€“ Part II: Interface sharpening and intermixing rate. Acta Materialia, 2012, 60, 2539-2553.	3.8	9
60	Effects of coherency stress and vacancy sources/sinks on interdiffusion across coherent multilayer interfaces â€“ Part I: Theory. Acta Materialia, 2012, 60, 2528-2538.	3.8	8
61	High-Throughput Nanoindentation Mapping of Additively Manufactured T91 Steel. Jom, 2022, 74, 1469-1476.	0.9	6
62	Interface Facilitated Reorientation of Mg Nanolayers in Mg-Nb Nanolaminates. Jom, 2019, 71, 1215-1220.	0.9	5
63	Recent Studies on the Microstructural Response of Nanotwinned Metals to In Situ Heavy Ion Irradiation. Jom, 2020, 72, 160-169.	0.9	5
64	Epitaxial nanotwinned metals and alloys: synthesis-twin structureâ€“property relations. CrystEngComm, 2021, 23, 6637-6649.	1.3	5
65	Quantifying physical parameters to predict brittle/ ductile behavior. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 808, 140899.	2.6	3
66	Nanostructured metallic materials in extreme environments. , 2014, , .		1
67	The Role of Bcc Mg/Nb Interfaces in Nanocomposite Deformation Observed via In-Situ Mechanical Testing in TEM. Microscopy and Microanalysis, 2017, 23, 754-755.	0.2	1
68	In situ TEM Investigation of Mechanically Induced Phase Transformations in Nanoscale Composites. Microscopy and Microanalysis, 2018, 24, 1828-1829.	0.2	1
69	Nanostructured Materials under Extreme Environments. Jom, 2020, 72, 3993-3994.	0.9	1
70	Energetic, Structural and Mechanical Properties of Terraced Interfaces. SSRN Electronic Journal, 0, , .	0.4	1