

# Youxing Chen

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

66

papers

2,311

citations

25

h-index

47

g-index

70

ext. papers

2,720

ext. citations

6.1

avg, IF

4.76

L-index

#	Paper	IF	Citations
66	High-Throughput Nanoindentation Mapping of Additively Manufactured T91 Steel. <i>Jom</i> , <b>2022</b> , 74, 1469-1476	14.76	0
65	Quantifying physical parameters to predict brittle/ ductile behavior. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2021</b> , 808, 140899	5.3	1
64	A comparison study of void swelling in additively manufactured and cold-worked 316L stainless steels under ion irradiation. <i>Journal of Nuclear Materials</i> , <b>2021</b> , 551, 152946	3.3	1
63	Microstructural evolution and hydrogen storage properties of melt-spun eutectic Mg <sub>76</sub> Ni <sub>12</sub> Y <sub>10</sub> Al <sub>3.5</sub> alloy with low hydrides formation/decomposition enthalpy. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 16644-16653	6.7	5
62	Radiation tolerance and microstructural changes of nanocrystalline Cu-Ta alloy to high dose self-ion irradiation. <i>Acta Materialia</i> , <b>2020</b> , 195, 621-630	8.4	8
61	Recent Studies on the Microstructural Response of Nanotwinned Metals to In Situ Heavy Ion Irradiation. <i>Jom</i> , <b>2020</b> , 72, 160-169	2.1	1
60	A nanocrystalline AlCoCuNi medium-entropy alloy with high thermal stability via entropy and boundary engineering. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2020</b> , 774, 138925	5.3	16
59	Hierarchical nanotwins in single-crystal-like nickel with high strength and corrosion resistance produced via a hybrid technique. <i>Nanoscale</i> , <b>2020</b> , 12, 1356-1365	7.7	15
58	Enhanced hydrogen absorption kinetics by introducing fine eutectic and long-period stacking ordered structure in ternary eutectic Mg <sub>70</sub> Ni <sub>15</sub> Al <sub>15</sub> alloy. <i>Journal of Alloys and Compounds</i> , <b>2020</b> , 820, 153187	5.7	11
57	Nanostructured Materials under Extreme Environments. <i>Jom</i> , <b>2020</b> , 72, 3993-3994	2.1	1
56	Effects of three-dimensional Cu/Nb interfaces on strengthening and shear banding in nanoscale metallic multilayers. <i>Acta Materialia</i> , <b>2020</b> , 199, 593-601	8.4	18
55	9R phase enabled superior radiation stability of nanotwinned Cu alloys via in situ radiation at elevated temperature. <i>Acta Materialia</i> , <b>2019</b> , 167, 248-256	8.4	10
54	Energetic, structural and mechanical properties of terraced interfaces. <i>Acta Materialia</i> , <b>2019</b> , 171, 92-107	8.4	9
53	Grain refinement mechanisms and strength-hardness correlation of ultra-fine grained grade 91 steel processed by equal channel angular extrusion. <i>International Journal of Pressure Vessels and Piping</i> , <b>2019</b> , 172, 212-219	2.4	17
52	High-Throughput Nanomechanical Screening of Phase-Specific and Temperature-Dependent Hardness in Al <sub>x</sub> FeCrNiMn High-Entropy Alloys. <i>Jom</i> , <b>2019</b> , 71, 3368-3377	2.1	10
51	Interface Facilitated Reorientation of Mg Nanolayers in Mg-Nb Nanolaminates. <i>Jom</i> , <b>2019</b> , 71, 1215-1220	2.1	5
50	In situ study on surface roughening in radiation-resistant Ag nanowires. <i>Nanotechnology</i> , <b>2018</b> , 29, 215708	8.4	13

49	Superior twin stability and radiation resistance of nanotwinned Ag solid solution alloy. <i>Acta Materialia</i> , <b>2018</b> , 151, 395-405	8.4	20
48	Radiation damage in nanostructured materials. <i>Progress in Materials Science</i> , <b>2018</b> , 96, 217-321	42.2	178
47	Atomistic modeling of Mg/Nb interfaces: shear strength and interaction with lattice glide dislocations. <i>Journal of Materials Science</i> , <b>2018</b> , 53, 5733-5744	4.3	8
46	In situ TEM Investigation of Mechanically Induced Phase Transformations in Nanoscale Composites. <i>Microscopy and Microanalysis</i> , <b>2018</b> , 24, 1828-1829	0.5	1
45	In situ study on enhanced heavy ion irradiation tolerance of porous Mg. <i>Scripta Materialia</i> , <b>2018</b> , 144, 13-17	5.6	10
44	Misfit dislocation patterns of Mg-Nb interfaces. <i>Acta Materialia</i> , <b>2017</b> , 126, 552-563	8.4	33
43	Mechanically controlling the reversible phase transformation from zinc blende to wurtzite in AlN. <i>Materials Research Letters</i> , <b>2017</b> , 5, 426-432	7.4	11
42	Defect evolution in heavy ion irradiated nanotwinned Cu with nanovoids. <i>Journal of Nuclear Materials</i> , <b>2017</b> , 496, 293-300	3.3	9
41	Roles of strain and domain boundaries on the phase transition stability of VO <sub>2</sub> thin films. <i>Applied Physics Letters</i> , <b>2017</b> , 111, 153102	3.4	16
40	The Role of Bcc Mg/Nb Interfaces in Nanocomposite Deformation Observed via In-Situ Mechanical Testing in TEM. <i>Microscopy and Microanalysis</i> , <b>2017</b> , 23, 754-755	0.5	1
39	In Situ Studies on Twin-Thickness-Dependent Distribution of Defect Clusters in Heavy Ion-Irradiated Nanotwinned Ag. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2017</b> , 48, 1466-1473	2.3	16
38	Radiation induced detwinning in nanotwinned Cu. <i>Scripta Materialia</i> , <b>2017</b> , 130, 37-41	5.6	19
37	In situ heavy ion irradiation studies of nanopore shrinkage and enhanced radiation tolerance of nanoporous Au. <i>Scientific Reports</i> , <b>2017</b> , 7, 39484	4.9	27
36	In situ studies on radiation tolerance of nanotwinned Cu. <i>Acta Materialia</i> , <b>2016</b> , 111, 148-156	8.4	56
35	A roadmap for tailoring the strength and ductility of ferritic/martensitic T91 steel via thermo-mechanical treatment. <i>Acta Materialia</i> , <b>2016</b> , 112, 361-377	8.4	50
34	Radiation Enhanced Absorption of Frank Loops by Nanovoids in Cu. <i>Jom</i> , <b>2016</b> , 68, 235-241	2.1	9
33	Measurement of Heavy Ion Irradiation Induced In-Plane Strain in Patterned Face-Centered-Cubic Metal Films: An in Situ Study. <i>Nano Letters</i> , <b>2016</b> , 16, 7481-7489	11.5	13
32	In situ study of heavy ion irradiation response of immiscible Cu/Fe multilayers. <i>Journal of Nuclear Materials</i> , <b>2016</b> , 475, 274-279	3.3	35

31	Neutron reflectometry investigations of interfacial structures of Ti/TiN layers deposited by magnetron sputtering. <i>Thin Solid Films</i> , <b>2016</b> , 616, 399-407	2.2	9
30	Comparison of size dependent strengthening mechanisms in Ag/Fe and Ag/Ni multilayers. <i>Acta Materialia</i> , <b>2016</b> , 114, 154-163	8.4	42
29	In situ Observation of Defect Annihilation in Kr Ion-Irradiated Bulk Fe/Amorphous-Fe <sub>2</sub> Zr Nanocomposite Alloy. <i>Materials Research Letters</i> , <b>2015</b> , 3, 35-42	7.4	18
28	Resilient ZnO nanowires in an irradiation environment: An in situ study. <i>Acta Materialia</i> , <b>2015</b> , 95, 156-163	8.4	18
27	In situ study of defect migration kinetics and self-healing of twin boundaries in heavy ion irradiated nanotwinned metals. <i>Nano Letters</i> , <b>2015</b> , 15, 2922-7	11.5	78
26	Enhanced radiation tolerance in immiscible Cu/Fe multilayers with coherent and incoherent layer interfaces. <i>Journal of Materials Research</i> , <b>2015</b> , 30, 1300-1309	2.5	25
25	In situ studies on superior thermal stability of bulk FeZr nanocomposites. <i>Acta Materialia</i> , <b>2015</b> , 101, 125-135	8.4	11
24	The formation mechanisms of growth twins in polycrystalline Al with high stacking fault energy. <i>Acta Materialia</i> , <b>2015</b> , 101, 62-70	8.4	36
23	Unusual size-dependent strengthening mechanisms in helium ion-irradiated immiscible coherent Cu/Co nanolayers. <i>Acta Materialia</i> , <b>2015</b> , 84, 393-404	8.4	61
22	Damage-tolerant nanotwinned metals with nanovoids under radiation environments. <i>Nature Communications</i> , <b>2015</b> , 6, 7036	17.4	79
21	In situ study of defect migration kinetics in nanoporous Ag with enhanced radiation tolerance. <i>Scientific Reports</i> , <b>2014</b> , 4, 3737	4.9	57
20	In situ neutron diffraction study on temperature dependent deformation mechanisms of ultrafine grained austenitic Fe <sub>91</sub> Cr <sub>4</sub> Ni <sub>6</sub> alloy. <i>International Journal of Plasticity</i> , <b>2014</b> , 53, 125-134	7.6	8
19	Response of equal channel angular extrusion processed ultrafine-grained T91 steel subjected to high temperature heavy ion irradiation. <i>Acta Materialia</i> , <b>2014</b> , 74, 285-295	8.4	62
18	In situ studies of radiation induced crystallization in Fe/a-Y <sub>2</sub> O <sub>3</sub> nanolayers. <i>Journal of Nuclear Materials</i> , <b>2014</b> , 452, 321-327	3.3	25
17	Plasticity and ultra-low stress induced twin boundary migration in nanotwinned Cu by in situ nanoindentation studies. <i>Applied Physics Letters</i> , <b>2014</b> , 104, 231910	3.4	42
16	Radiation-induced Ostwald ripening in oxide dispersion strengthened ferritic steels irradiated at high ion dose. <i>Acta Materialia</i> , <b>2014</b> , 78, 328-340	8.4	82
15	Enhancement of strength and ductility in ultrafine-grained T91 steel through thermomechanical treatments. <i>Journal of Materials Science</i> , <b>2013</b> , 48, 7360-7373	4.3	37
14	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> , <b>2013</b> , 44, 1966-1974	2.3	81

13	Stacking fault and partial dislocation dominated strengthening mechanisms in highly textured Cu/Co multilayers. <i>International Journal of Plasticity</i> , <b>2013</b> , 49, 152-163	7.6	91
12	Basic criteria for formation of growth twins in high stacking fault energy metals. <i>Applied Physics Letters</i> , <b>2013</b> , 103, 181903	3.4	20
11	Superior tolerance of Ag/Ni multilayers against Kr ion irradiation: an in situ study. <i>Philosophical Magazine</i> , <b>2013</b> , 93, 3547-3562	1.6	41
10	Significant enhancement in the thermal stability of nanocrystalline metals via immiscible tri-phases. <i>Scripta Materialia</i> , <b>2012</b> , 67, 177-180	5.6	10
9	Mechanical properties of crystalline Cu/Zr and crystal/amorphous Cu/CuZr multilayers. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2012</b> , 552, 392-398	5.3	77
8	Microstructure and strengthening mechanisms in Cu/Fe multilayers. <i>Acta Materialia</i> , <b>2012</b> , 60, 6312-6328	8.4	89
7	Length scale-dependent deformation behavior of nanolayered Cu/Zr micropillars. <i>Acta Materialia</i> , <b>2012</b> , 60, 1610-1622	8.4	99
6	Effects of coherency stress and vacancy sources/sinks on interdiffusion across coherent multilayer interfaces [Part I: Theory. <i>Acta Materialia</i> , <b>2012</b> , 60, 2528-2538	8.4	8
5	Effects of coherency stress and vacancy sources/sinks on interdiffusion across coherent multilayer interfaces [Part II: Interface sharpening and intermixing rate. <i>Acta Materialia</i> , <b>2012</b> , 60, 2539-2553	8.4	7
4	A plastic damage model for finite element analysis of cracking of silicon under indentation. <i>Journal of Materials Research</i> , <b>2010</b> , 25, 2224-2237	2.5	13
3	Microstructure evolution during homogenization of a $\beta$ -type Mg <sub>71</sub> Al alloy. <i>Journal of Alloys and Compounds</i> , <b>2008</b> , 448, 316-320	5.7	43
2	Corrosion and stress corrosion cracking in supercritical water. <i>Journal of Nuclear Materials</i> , <b>2007</b> , 371, 176-201	3.3	299
1	Ultra-micro-indentation of silicon and compound semiconductors with spherical indenters. <i>Journal of Materials Research</i> , <b>1999</b> , 14, 2338-2343	2.5	88