

# Yin Zhang

## List of Publications by Year in descending order

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34  
papers

3,278  
citations

471509

17  
h-index

361022

35  
g-index

36  
all docs

36  
docs citations

36  
times ranked

2873  
citing authors

#	ARTICLE	IF	CITATIONS
1	Additively manufactured hierarchical stainless steels with high strength and ductility. <i>Nature Materials</i> , 2018, 17, 63-71.	27.5	1,517
2	Tuning element distribution, structure and properties by composition in high-entropy alloys. <i>Nature</i> , 2019, 574, 223-227.	27.8	874
3	Microscale residual stresses in additively manufactured stainless steel. <i>Nature Communications</i> , 2019, 10, 4338.	12.8	120
4	Tracking the sliding of grain boundaries at the atomic scale. <i>Science</i> , 2022, 375, 1261-1265.	12.6	115
5	Deformation-induced crystalline-to-amorphous phase transformation in a CrMnFeCoNi high-entropy alloy. <i>Science Advances</i> , 2021, 7, .	10.3	89
6	Anti-twinning in nanoscale tungsten. <i>Science Advances</i> , 2020, 6, eaay2792.	10.3	49
7	Unraveling dual phase transformations in a CrCoNi medium-entropy alloy. <i>Acta Materialia</i> , 2021, 215, 117112.	7.9	43
8	Electrochemical Deposition of Ni, NiCo Alloy and NiCo@Ceramic Composite Coatings—A Critical Review. <i>Materials</i> , 2020, 13, 3475.	2.9	41
9	Strain gradient plasticity in gradient structured metals. <i>Journal of the Mechanics and Physics of Solids</i> , 2020, 140, 103946.	4.8	41
10	In situ Observation of Li Deposition-Induced Cracking in Garnet Solid Electrolytes. <i>Energy and Environmental Materials</i> , 2022, 5, 524-532.	12.8	36
11	Unraveling the origin of extra strengthening in gradient nanotwinned metals. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	7.1	36
12	In Situ Nano-thermomechanical Experiment Reveals Brittle to Ductile Transition in Silicon Nanowires. <i>Nano Letters</i> , 2019, 19, 5327-5334.	9.1	34
13	Degradation by Kinking in Layered Cathode Materials. <i>ACS Energy Letters</i> , 2021, 6, 3960-3969.	17.4	33
14	Molecular dynamics simulation of strong shock waves propagating in dense deuterium, taking into consideration effects of excited electrons. <i>Physical Review E</i> , 2017, 95, 023201.	2.1	29
15	Molecular dynamics simulations of microscopic structure of ultra strong shock waves in dense helium. <i>Frontiers of Physics</i> , 2016, 11, 1.	5.0	28
16	Mechanically Driven Grain Boundary Formation in Nickel Nanowires. <i>ACS Nano</i> , 2017, 11, 12500-12508.	14.6	28
17	Synthesis and Characterization of Ni@W/Cr2O3 Nanocomposite Coatings Using Electrochemical Deposition Technique. <i>Coatings</i> , 2019, 9, 815.	2.6	21
18	Lattice strains and diffraction elastic constants of cubic polycrystals. <i>Journal of the Mechanics and Physics of Solids</i> , 2020, 138, 103899.	4.8	16

#	ARTICLE	IF	CITATIONS
19	Free-Standing Two-Dimensional Gold Membranes Produced by Extreme Mechanical Thinning. ACS Nano, 2020, 14, 17091-17099.	14.6	15
20	Fabrication of Ni-Co-BN (h) Nanocomposite Coatings with Jet Electrodeposition in Different Pulse Parameters. Coatings, 2019, 9, 50.	2.6	14
21	Atomistic modeling of surface and grain boundary dislocation nucleation in FCC metals. Acta Materialia, 2022, 237, 118155.	7.9	13
22	Fabrication of Ni-Co-P Alloy Coatings Using Jet Electrodeposition with Varying Reciprocating Sweep Speeds and Jet Gaps to Improve Wear and Seawater Corrosion Resistance. Coatings, 2020, 10, 924.	2.6	11
23	Understanding and quantifying electron beam effects during in situ TEM nanomechanical tensile testing on metal thin films. Acta Materialia, 2022, 222, 117441.	7.9	11
24	Grain growth of nanocrystalline aluminum under tensile deformation: A combined in situ TEM and atomistic study. Materialia, 2021, 16, 101068.	2.7	10
25	The Development of an Electric-Driven Control System for a High-Speed Precision Planter Based on the Double Closed-Loop Fuzzy PID Algorithm. Agronomy, 2022, 12, 945.	3.0	10
26	Study on the Wear and Seawater Corrosion Resistance of Ni-Co-P Alloy Coatings with Jet Electrodeposition in Different Jet Voltages and Temperatures of Plating Solution. Coatings, 2020, 10, 639.	2.6	9
27	Abnormal grain growth in ultrafine grained Ni under high-cycle loading. Scripta Materialia, 2022, 209, 114372.	5.2	9
28	Lodged Sugarcane/Crop Dividers Interaction: Analysis of Robotic Sugarcane Harvester in Agriculture via a Rigid-Flexible Coupled Simulation Method. Actuators, 2022, 11, 23.	2.3	7
29	Tuning the near room temperature oxidation behavior of high-entropy alloy nanoparticles. Nano Research, 2022, 15, 3569-3574.	10.4	6
30	The Influence of Co Concentration on the Properties of Conventionally Electrodeposited Ni-Co-Al <sub>2</sub> O <sub>3</sub> -SiC Nanocomposite Coatings. Protection of Metals and Physical Chemistry of Surfaces, 2020, 56, 94-102.	1.1	3
31	Effect of Grit Blasting and Polishing Pretreatments on the Microhardness, Adhesion and Corrosion Properties of Electrodeposited Ni-W/SiC Nanocomposite Coatings on 45 Steel Substrate. Crystals, 2021, 11, 729.	2.2	3
32	Strain gradient plasticity modeling of nanoindentation of additively manufactured stainless steel. Extreme Mechanics Letters, 2021, 49, 101503.	4.1	2
33	Wettability, Microhardness, Wear and Corrosion Resistance of Ni-Co-P-BN(h)-Al <sub>2</sub> O <sub>3</sub> Binary Nanocomposite Coatings Surface with Varying Long-Pulse Laser Parameters. Coatings, 2021, 11, 1467.	2.6	2
34	Learning constitutive relations of plasticity using neural networks and full-field data. Extreme Mechanics Letters, 2022, 52, 101645.	4.1	2