Haofei Zhou

List of Publications by Year in Descending Order

59 papers	1,419 citations	18 h-index	37 g-index
66 ext. papers	1,989 ext. citations	8.4 avg, IF	5.1 L-index

#	Paper	IF	Citations
59	Predicting the property contour-map and optimum composition of Cu-Co-Si alloys via machine learning. *Materials Today Communications*, **2022**, 30, 103138	2.5	2
58	A gradient Eshelby force on twinning partial dislocations and associated detwinning mechanism in gradient nanotwinned metals. *Journal of the Mechanics and Physics of Solids*, **2022**, 159, 104746	5	1
57	Impact-induced bubble interactions and coalescence in soft materials. *International Journal of Solids and Structures*, **2022**, 238, 111387	3.1	0
56	A geometrical model for grain boundary migration mediated formation of multifold twins. *International Journal of Plasticity*, **2022**, 148, 103128	7.6	1
55	Annihilation Mechanism of Low-Angle Grain Boundary in Nanocrystalline Metals. *Metals*, **2022**, 12, 451	2.3	1
54	Physically-based interpretation of abnormal stress relaxation response in glassy polymers. *Extreme Mechanics Letters*, **2022**, 52, 101667	3.9	1
53	Extra plasticity governed by shear band deflection in gradient metallic glasses.. *Nature Communications*, **2022**, 13, 2120	17.4	2
52	Interactions between Dislocations and Penta-Twins in Metallic Nanocrystals. *Metals*, **2021**, 11, 1775	2.3	0
51	Twinning-assisted dynamic adjustment of grain boundary mobility. *Nature Communications*, **2021**, 12, 6695	17.4	2
50	Shear band mediated □phase transformation in Nb single crystals deformed at 77 K. *Materials Research Letters*, **2021**, 9, 523-530	7.4	4
49	Inclination-governed deformation of dislocation-type grain boundaries. *Journal of Materials Research*, **2021**, 36, 1306-1315	2.5	0
48	Self-powered soft robot in the Mariana Trench. *Nature*, **2021**, 591, 66-71	50.4	131
47	Origin of different thermal cycling effects in Fe80P20 and Ni60Nb40 metallic glasses. *Materials Today Physics*, **2021**, 17, 100349	8	1
46	Modeling for Cyclic Plasticity of Gradient Nanostructured Metals and Fatigue Life Prediction. *International Journal of Applied Mechanics*, **2021**, 13, 2150021	2.4	
45	Machine learning-assisted discovery of strong and conductive Cu alloys: Data mining from discarded experiments and physical features. *Materials and Design*, **2021**, 197, 109248	8.1	18
44	Physically Based Modeling of Cyclic Plasticity for Highly Oriented Nanotwinned Metals. *Journal of Applied Mechanics, Transactions ASME*, **2021**, 88,	2.7	2
43	Coordinated grain boundary deformation governed nanograin annihilation in shear cycling. *Journal of Materials Science and Technology*, **2021**, 86, 180-191	9.1	3

42	Revealing extreme twin-boundary shear deformability in metallic nanocrystals. *Science Advances*, **2021**, 7, eabe4758	14.3	14
41	Penta-Twin Destruction by Coordinated Twin Boundary Deformation. *Nano Letters*, **2021**, 21, 8378-8384	11.5	4
40	Tailoring microstructure of metallic glass for delocalized plasticity by pressure annealing: Forward and inverse studies. *Acta Materialia*, **2021**, 220, 117282	8.4	1
39	Metallic nanocrystals with low angle grain boundary for controllable plastic reversibility. *Nature Communications*, **2020**, 11, 3100	17.4	22
38	Correlated necklace dislocations in highly oriented nanotwinned metals. *Journal of Zhejiang University: Science A*, **2020**, 21, 294-303	2.1	3
37	BioARS: Designing Adaptive and Reconfigurable Bionic Assembly Robotic System with Inchworm Modules **2020**,		1
36	A Review of Physically Based and Thermodynamically Based Constitutive Models for Soft Materials. *Journal of Applied Mechanics, Transactions ASME*, **2020**, 87,	2.7	16
35	Bistable rotating mechanism based on dielectric elastomer actuator. *Smart Materials and Structures* , **2020**, 29, 015008	3.4	6
34	Unraveling the origin of stress-dependent glass transition temperature in metallic glasses. *Journal of the Mechanics and Physics of Solids*, **2020**, 137, 103853	5	2
33	Size-dependent inertial cavitation of soft materials. *Journal of the Mechanics and Physics of Solids*, **2020**, 137, 103859	5	6
32	Role of intersecting grain boundary on the deformation of twin-twin intersection. *Scripta Materialia* , **2020**, 188, 184-189	5.6	6
31	A constitutive model for multi network elastomers pre-stretched by swelling. *Extreme Mechanics Letters*, **2020**, 40, 100926	3.9	11
30	Pressure-induced maximum shear strength and transition from shear banding to uniform plasticity in metallic glass. *Extreme Mechanics Letters*, **2020**, 41, 101058	3.9	7
29	Asymmetric cyclic response of tensile pre-deformed Cu with highly oriented nanoscale twins. *Acta Materialia*, **2019**, 175, 477-486	8.4	8
28	A physically based visco-hyperelastic constitutive model for soft materials. *Journal of the Mechanics and Physics of Solids*, **2019**, 128, 208-218	5	37
27	Effective design space exploration of gradient nanostructured materials using active learning based surrogate models. *Materials and Design*, **2019**, 183, 108085	8.1	10
26	Mechanical Properties of Nanostructured Metals: Molecular Dynamics Studies **2019**, 591-613		1
25	Transition from source- to stress-controlled plasticity in nanotwinned materials below a softening temperature. *Npj Computational Materials*, **2019**, 5,	10.9	11

24	Anisotropy governs strain stiffening in nanotwinned-materials. *Nature Communications*, **2018**, 9, 1586	17.4	4
23	Test sample geometry for fracture toughness measurements of bulk metallic glasses. *Acta Materialia*, **2018**, 145, 477-487	8.4	33
22	Mechanical properties and optimal grain size distribution profile of gradient grained nickel. *Acta Materialia*, **2018**, 153, 279-289	8.4	88
21	Mechanical Properties of Nanostructured Metals: Molecular Dynamics Studies **2018**, 1-23		1
20	Extra strengthening and work hardening in gradient nanotwinned metals. *Science*, **2018**, 362,	33.3	237
19	Processing effects on fracture toughness of metallic glasses. *Scripta Materialia*, **2017**, 130, 152-156	5.6	33
18	History-independent cyclic response of nanotwinned metals. *Nature*, **2017**, 551, 214-217	50.4	136
17	Size effects on tensile and compressive strengths in metallic glass nanowires. *Journal of the Mechanics and Physics of Solids*, **2015**, 84, 130-144	5	48
16	Torsional Detwinning Domino in Nanotwinned One-Dimensional Nanostructures. *Nano Letters*, **2015**, 15, 6082-7	11.5	15
15	Origin of anomalous inverse notch effect in bulk metallic glasses. *Journal of the Mechanics and Physics of Solids*, **2015**, 84, 85-94	5	56
14	A Plastic Deformation Mechanism by Necklace Dislocations Near Crack-like Defects in Nanotwinned Metals. *Journal of Applied Mechanics, Transactions ASME*, **2015**, 82,	2.7	13
13	A jogged dislocation governed strengthening mechanism in nanotwinned metals. *Nano Letters*, **2014**, 14, 5075-80	11.5	74
12	Non-localized deformation in metallic alloys with amorphous structure. *Acta Materialia*, **2014**, 68, 32-41	8.4	54
11	Strain localization and fatigue cracking behaviors of Cu bicrystal with an inclined twin boundary. *Acta Materialia*, **2014**, 73, 167-176	8.4	31
10	An atomistic investigation of structural evolution in metallic glass matrix composites. *International Journal of Plasticity*, **2013**, 44, 147-160	7.6	81
9	Temperature effect on critical shear stress for twin boundary migration. *Computational Materials Science*, **2012**, 60, 231-233	3.2	6
8	Blocking effect of twin boundaries on partial dislocation emission from void surfaces. *Nanoscale Research Letters*, **2012**, 7, 164	5	5
7	Can nanoscale twin boundaries serve as dislocation sources in single crystals?. *Computational Materials Science*, **2011**, 50, 1567-1570	3.2	12

6	Atomistic mechanisms of microstructure evolution in nanotwinned polycrystals. *Scripta Materialia*, **2011**, 65, 265-268	5.6	8
5	Shear band initiation induced by slip-twin boundary interactions. *Scripta Materialia*, **2011**, 65, 715-718	5.6	8
4	Toughening by nano-scaled twin boundaries in nanocrystals. *Modelling and Simulation in Materials Science and Engineering*, **2010**, 18, 065002	2	53
3	Hardening by twin boundary during nanoindentation in nanocrystals. *Nanotechnology*, **2010**, 21, 335704	3.4	26
2	The effect of nanoscale twin boundaries on fracture toughness in nanocrystalline Ni. *Nanotechnology*, **2010**, 21, 035706	3.4	53
1	Molecular Dynamics Simulation of the Interaction Between Nanoscale Twin Boundaries and Partial Dislocations. *Journal of Computational and Theoretical Nanoscience*, **2010**, 7, 1931-1934	0.3	3