Liang Zhang

List of Publications by Citations

32 papers	579 citations	16 h-index	23 g-index
33 ext. papers	720 ext. citations	3.9 avg, IF	4.4 L-index

#	Paper	IF	Citations
32	Atomistic simulation of tensile deformation behavior of Σ5 tilt grain boundaries in copper bicrystal. *Scientific Reports*, **2014**, 4, 5919	4.9	49
31	A review on atomistic simulation of grain boundary behaviors in face-centered cubic metals. *Computational Materials Science*, **2016**, 118, 180-191	3.2	49
30	Deformation mechanisms in nanotwinned copper by molecular dynamics simulation. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2017**, 687, 343-351	5.3	42
29	Brittle versus ductile behaviour of nanotwinned copper: A molecular dynamics study. *Acta Materialia*, **2015**, 89, 1-13	8.4	38
28	The shear response of copper bicrystals with Σ11 symmetric and asymmetric tilt grain boundaries by molecular dynamics simulation. *Nanoscale*, **2015**, 7, 7224-33	7.7	36
27	Stacking fault tetrahedron induced plasticity in copper single crystal. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2017**, 680, 27-38	5.3	34
26	The formation and destruction of stacking fault tetrahedron in fcc metals: A molecular dynamics study. *Scripta Materialia*, **2017**, 136, 78-82	5.6	32
25	Dynamic interaction between grain boundary and stacking fault tetrahedron. *Scripta Materialia*, **2018**, 144, 78-83	5.6	31
24	Grain boundary induced deformation mechanisms in nanocrystalline Al by molecular dynamics simulation: From interatomic potential perspective. *Computational Materials Science*, **2019**, 156, 421-433	3.2	25
23	Interaction between nano-voids and migrating grain boundary by molecular dynamics simulation. *Acta Materialia*, **2019**, 173, 206-224	8.4	24
22	Coupled grain boundary motion in aluminium: the effect of structural multiplicity. *Scientific Reports*, **2016**, 6, 25427	4.9	24
21	Inverse Hall-Petch relationship of high-entropy alloy by atomistic simulation. *Materials Letters*, **2020** , 274, 128024	3.3	21
20	Deformation twinning and dislocation processes in nanotwinned copper by molecular dynamics simulations. *Computational Materials Science*, **2018**, 142, 59-71	3.2	19
19	Molecular dynamics study on the atomic mechanisms of coupling motion of [0 0 1] symmetric tilt grain boundaries in copper bicrystal. *Materials Research Express*, **2014**, 1, 015019	1.7	19
18	Molecular dynamics study on the grain boundary dislocation source in nanocrystalline copper under tensile loading. *Materials Research Express*, **2015**, 2, 035009	1.7	18
17	Strengthening mechanisms and dislocation processes in textured nanotwinned copper. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2016**, 676, 474-486	5.3	16
16	Nonlinear elastic response of single crystal Cu under uniaxial loading by molecular dynamics study. *Materials Letters*, **2018**, 227, 236-239	3.3	16

15	Shear response of grain boundaries with metastable structures by molecular dynamics simulations. *Modelling and Simulation in Materials Science and Engineering*, **2018**, 26, 035008	2	14
14	Brittle versus ductile fracture behaviour in nanotwinned FCC crystals. *Materials Letters*, **2015**, 152, 65-67	3.3	12
13	Influence of temperature and local structure on the shear-coupled grain boundary migration. *Physica Status Solidi (B): Basic Research*, **2017**, 254, 1600477	1.3	10
12	A dual deformation mechanism of grain boundary at different stress stages. *Materials Letters*, **2016**, 167, 278-283	3.3	8
11	Molecular dynamics simulation on generalized stacking fault energies of FCC metals under preloading stress. *Chinese Physics B*, **2015**, 24, 088106	1.2	7
10	Prediction on Mechanical Properties of Non-Equiatomic High-Entropy Alloy by Atomistic Simulation and Machine Learning. *Metals*, **2021**, 11, 922	2.3	7
9	Evaluation of Mechanical Properties of Σ5(210)/[001] Tilt Grain Boundary with Self-Interstitial Atoms by Molecular Dynamics Simulation. *Journal of Nanomaterials*, **2017**, 2017, 1-11	3.2	6
8	Membrane-less Direct Formate Fuel Cell Using an Fe-N-Doped Bamboo Internode as the Binder-Free and Monolithic Air-Breathing Cathode. *ACS Applied Materials & Interfaces*, **2020**, 12, 27095-27103	9.5	5
7	Molecular dynamics simulation and machine learning of mechanical response in non-equiatomic FeCrNiCoMn high-entropy alloy. *Journal of Materials Research and Technology*, **2021**, 13, 2043-2054	5.5	5
6	Mechanical response and plastic deformation of coherent twin boundary with perfect and defective structures. *Mechanics of Materials*, **2020**, 141, 103266	3.3	4
5	Tension/compression asymmetry of grain boundaries with non-planar structure. *Materials Research Express*, **2016**, 3, 085025	1.7	2
4	Atomistic Simulation of the Interaction Between Point Defects and Twin Boundary. *Physica Status Solidi (B): Basic Research*, **2018**, 255, 1800228	1.3	2
3	Molecular Dynamics Simulation on Σ Grain Boundaries of Copper Bicrystal under Tensile and Shear Deformation. *Materials Research Society Symposia Proceedings*, **2014**, 1651, 1		2
2	Understanding the Radiation Resistance Mechanisms of Nanocrystalline Metals from Atomistic Simulation. *Metals*, **2021**, 11, 1875	2.3	1
1	Atomistic Simulation of the Interaction Between Point Defects and Twin Boundary (Phys. Status Solidi B 9/2018). *Physica Status Solidi (B): Basic Research*, **2018**, 255, 1870133	1.3	