Yun-Jiang Wang

List of Publications by Year in Descending Order

77 papers	1,252 citations	22 h-index	31 g-index
79 ext. papers	1,652 ext. citations	4.3 avg, IF	5.03 L-index

#	Paper	IF	Citations
77	Correlation between vibrational anomalies and emergent anharmonicity of the local potential energy landscape in metallic glasses. *Physical Review B*, **2022**, 105,	3.3	1
76	Atomistic interpretation of extra temperature and strain-rate sensitivity of heterogeneous dislocation nucleation in a multi-principal-element alloy. *International Journal of Plasticity*, **2022**, 149, 103155	7.6	2
75	Dynamic responses in shocked Cu-Zr nanoglasses with gradient microstructure. *International Journal of Plasticity*, **2022**, 149, 103154	7.6	0
74	Sluggish dynamics of homogeneous flow in high-entropy metallic glasses. *Scripta Materialia*, **2022**, 214, 114673	5.6	1
73	A hierarchically correlated flow defect model for metallic glass: Universal understanding of stress relaxation and creep. *International Journal of Plasticity*, **2022**, 154, 103288	7.6	4
72	Elastic criterion for shear-banding instability in amorphous solids.. *Physical Review E*, **2022**, 105, 045003	2.4	0
71	Disentangling diffusion heterogeneity in high-entropy alloys. *Acta Materialia*, **2021**, 224, 117527	8.4	2
70	Grain boundary-mediated plasticity accommodating the cracking process in nanograined gold: In situ observations and simulations. *Scripta Materialia*, **2021**, 194, 113693	5.6	2
69	Synergistic strengthening mechanisms of rhenium in nickel-based single crystal superalloys. *Intermetallics*, **2021**, 132, 107133	3.5	2
68	Sluggish hydrogen diffusion and hydrogen decreasing stacking fault energy in a high-entropy alloy. *Materials Today Communications*, **2021**, 26, 101902	2.5	7
67	Inelastic deformation of metallic glasses under dynamic cyclic loading. *Scripta Materialia*, **2021**, 194, 113675	5.6	2
66	Dynamic mechanical relaxation and thermal creep of high-entropy La30Ce30Ni10Al20Co10 bulk metallic glass. *Science China: Physics, Mechanics and Astronomy*, **2021**, 64, 1	3.6	11
65	Machine-learning integrated glassy defect from an intricate configurational-thermodynamic-dynamic space. *Physical Review B*, **2021**, 104,	3.3	4
64	Stress relaxation in high-entropy Pd20Pt20Cu20Ni20P20 metallic glass: Experiments, modeling and theory. *Mechanics of Materials*, **2021**, 160, 103959	3.3	1
63	Machine learning atomic-scale stiffness in metallic glass. *Extreme Mechanics Letters*, **2021**, 48, 101446	3.9	2
62	Microstructural effects on the dynamical relaxation of glasses and glass composites: A molecular dynamics study. *Acta Materialia*, **2021**, 220, 117293	8.4	2
61	Unified perspective on structural heterogeneity of a LaCe-based metallic glass from versatile dynamic stimuli. *Intermetallics*, **2020**, 125, 106922	3.5	4

60	Statistical complexity of potential energy landscape as a dynamic signature of the glass transition. *Physical Review B*, **2020**, 101,	3.3	7
59	Atomistic structural mechanism for the glass transition: Entropic contribution. *Physical Review B*, **2020**, 101,	3.3	17
58	Novel atomic-scale mechanism of incipient plasticity in a chemically complex CrCoNi medium-entropy alloy associated with inhomogeneity in local chemical environment. *Acta Materialia*, **2020**, 194, 283-294	8.4	32
57	Dislocation nucleation and evolution at the ferrite-cementite interface under cyclic loadings. *Acta Materialia*, **2020**, 186, 267-277	8.4	13
56	Self-sharpening tungsten high-entropy alloy. *Acta Materialia*, **2020**, 186, 257-266	8.4	32
55	Ultrasonic plasticity of metallic glass near room temperature. *Applied Materials Today*, **2020**, 21, 100866	6.6	8
54	Complexity of plastic instability in amorphous solids: Insights from spatiotemporal evolution of vibrational modes. *European Physical Journal E*, **2020**, 43, 56	1.5	2
53	Unraveling strongly entropic effect on relaxation in metallic glass: Insights from enhanced atomistic samplings over experimentally relevant timescales. *Physical Review B*, **2020**, 102,	3.3	1
52	Hierarchical-microstructure based modeling for plastic deformation of partial recrystallized copper. *Mechanics of Materials*, **2019**, 139, 103207	3.3	3
51	Revisiting the structure property relationship of metallic glasses: Common spatial correlation revealed as a hidden rule. *Physical Review B*, **2019**, 99,	3.3	23
50	One-step annealing optimizes strength-ductility tradeoff in pearlitic steel wires. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2019**, 757, 1-13	5.3	16
49	Atomistic insights on the influence of pre-oxide shell layer and size on the compressive mechanical properties of nickel nanowires. *Journal of Applied Physics*, **2019**, 125, 165102	2.5	4
48	Assessing the utility of structure in amorphous materials. *Journal of Chemical Physics*, **2019**, 150, 114502	3.9	25
47	Incorporating a soft ordered phase into an amorphous configuration enhances its uniform plastic deformation under shear. *AIP Advances*, **2019**, 9, 015329	1.5	0
46	Ratchetting in Cold-Drawn Pearlitic Steel Wires. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2019**, 50, 4561-4568	2.3	5
45	Fast surface dynamics enabled cold joining of metallic glasses. *Science Advances*, **2019**, 5, eaax7256	14.3	44
44	Susceptibility of shear banding to chemical short-range order in metallic glasses. *Scripta Materialia*, **2019**, 162, 141-145	5.6	12
43	Structural Parameter of Orientational Order to Predict the Boson Vibrational Anomaly in Glasses. *Physical Review Letters*, **2019**, 122, 015501	7.4	25

42	Enhancing strength without compromising ductility in copper by combining extrusion machining and heat treatment. *Journal of Materials Processing Technology*, **2019**, 267, 52-60	5.3	13
41	A free energy landscape perspective on the nature of collective diffusion in amorphous solids. *Acta Materialia*, **2018**, 157, 165-173	8.4	20
40	Oxyhydroxide of metallic nanowires in a molecular HO and HO environment and their effects on mechanical properties. *Physical Chemistry Chemical Physics*, **2018**, 20, 17289-17303	3.6	14
39	Investigation of high spin states in 133Cs. *European Physical Journal A*, **2018**, 54, 1	2.5	1
38	Atomic structure of the Fe/Fe3C interface with the Isaichev orientation in pearlite. *Philosophical Magazine*, **2017**, 97, 2375-2386	1.6	11
37	Atomic theory of viscoelastic response and memory effects in metallic glasses. *Physical Review B*, **2017**, 96,	3.3	20
36	Strain gradient drives shear banding in metallic glasses. *Physical Review B*, **2017**, 96,	3.3	13
35	Universal structural softening in metallic glasses indicated by boson heat capacity peak. *Applied Physics Letters*, **2017**, 111, 261901	3.4	10
34	Size-dependent plastic deformation and failure mechanisms of nanotwinned Ni3Al: Insights from an atomistic cracking model. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2016**, 649, 449-460	5.3	16
33	Mechanism transition and strong temperature dependence of dislocation nucleation from grain boundaries: An accelerated molecular dynamics study. *Physical Review B*, **2016**, 94,	3.3	23
32	Transition from stress-driven to thermally activated stress relaxation in metallic glasses. *Physical Review B*, **2016**, 94,	3.3	44
31	Understanding the serrated flow and Johari-Goldstein relaxation of metallic glasses. *Journal of Non-Crystalline Solids*, **2016**, 444, 23-30	3.9	16
30	Intrinsic structural defects on medium range in metallic glasses. *Intermetallics*, **2016**, 75, 36-41	3.5	14
29	Direct atomic-scale evidence for shear□dilatation correlation in metallic glasses. *Scripta Materialia*, **2016**, 112, 37-41	5.6	19
28	Correlation between strain rate sensitivity and □relaxation of metallic glasses. *AIP Advances*, **2016**, 6, 075022	1.5	0
27	Effects of oxidation on tensile deformation of iron nanowires: Insights from reactive molecular dynamics simulations. *Journal of Applied Physics*, **2016**, 120, 135104	2.5	23
26	Prediction of pressure-promoted thermal rejuvenation in metallic glasses. *Npj Computational Materials*, **2016**, 2,	10.9	44
25	Time-, stress-, and temperature-dependent deformation in nanostructured copper: Creep tests and simulations. *Journal of the Mechanics and Physics of Solids*, **2016**, 94, 191-206	5	35

24	Time, stress, and temperature-dependent deformation in nanostructured copper: Stress relaxation tests and simulations. *Acta Materialia*, **2016**, 108, 252-263	8.4	45
23	Characteristics of stress relaxation kinetics of La 60 Ni 15 Al 25 bulk metallic glass. *Acta Materialia*, **2015**, 98, 43-50	8.4	74
22	Bridging shear transformation zone to the atomic structure of amorphous solids. *Journal of Non-Crystalline Solids*, **2015**, 410, 100-105	3.9	3
21	Universal enthalpy-entropy compensation rule for the deformation of metallic glasses. *Physical Review B*, **2015**, 92,	3.3	16
20	Publisher's Note: Universal enthalpy-entropy compensation rule for the deformation of metallic glasses [Phys. Rev. B 92, 174118 (2015)]. *Physical Review B*, **2015**, 92,	3.3	2
19	Thermal expansion accompanying the glass-liquid transition and crystallization. *AIP Advances*, **2015**, 5, 127133	1.5	12
18	Studying the elastic properties of nanocrystalline copper using a model of randomly packed uniform grains. *Computational Materials Science*, **2013**, 79, 56-62	3.2	29
17	Atomistic understanding of diffusion kinetics in nanocrystals from molecular dynamics simulations. *Physical Review B*, **2013**, 88,	3.3	15
16	Entropic effect on creep in nanocrystalline metals. *Acta Materialia*, **2013**, 61, 3866-3871	8.4	26
15	Size-dependent transition of deformation mechanism, and nonlinear elasticity in Ni3Al nanowires. *Applied Physics Letters*, **2013**, 102, 041902	3.4	18
14	Atomistic Design of High Strength Crystalline-Amorphous Nanocomposites. *Materials Transactions*, **2013**, 54, 1592-1596	1.3	8
13	First Report of Lily Blight and Wilt Caused by Fusarium tricinctum in China. *Plant Disease*, **2013**, 97, 993	1.5	11
12	Grain Size Dependence of Creep in Nanocrystalline Copper by Molecular Dynamics. *Materials Transactions*, **2012**, 53, 156-160	1.3	31
11	Effect of water stress on leaf photosynthesis, chlorophyll content, and growth of oriental lily. *Russian Journal of Plant Physiology*, **2011**, 58, 844-850	1.6	32
10	Transition of creep mechanism in nanocrystalline metals. *Physical Review B*, **2011**, 84,	3.3	44
9	CO adsorption on small Au n (n = 1 □7) clusters supported on a reduced rutile TiO 2 (110) surface: a first-principles study. *Chinese Physics B*, **2011**, 20, 036801	1.2	5
8	A comparison of the ideal strength between L12Co3(Al,W) and Ni3Al under tension and shear from first-principles calculations. *Applied Physics Letters*, **2009**, 94, 261909	3.4	62
7	Mechanical properties and electronic structure of superhard diamondlike BC5: A first-principles study. *Journal of Applied Physics*, **2009**, 106, 043513	2.5	14

6	Influence of alloying elements on the elastic properties of ternary and quaternary nickel-base superalloys. *Philosophical Magazine*, **2009**, 89, 2935-2947	1.6	19
5	Influence of the alloying element Re on the ideal tensile and shear strength of γ′-Ni3Al. *Scripta Materialia*, **2009**, 61, 197-200	5.6	44
4	Mechanical and electronic properties of 5d transition metal diborides MB2 (M=Re, W, Os, Ru). *Journal of Applied Physics*, **2009**, 105, 083539	2.5	31
3	Effect of alloying elements on the elastic properties of γ-Ni and γ′-Ni3Al from first-principles calculations. *Materials Research Society Symposia Proceedings*, **2009**, 1224, 1		9
2	A first-principles survey of the partitioning behaviors of alloying elements on γ/γ′ interface. *Journal of Applied Physics*, **2008**, 104, 013109	2.5	15
1	The alloying mechanisms of Re, Ru in the quaternary Ni-based superalloys interface: A first principles calculation. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2008**, 490, 242-249	5.3	35