Hai-Bin Yu

List of Publications by Citations

36 papers	2,035 citations	20 h-index	38 g-index
38 ext. papers	2,343 ext. citations	8.1 avg, IF	5.24 L-index

#	Paper	IF	Citations
36	The β relaxation in metallic glasses: an overview. *Materials Today*, **2013**, 16, 183-191	21.8	243
35	Relating activation of shear transformation zones to β relaxations in metallic glasses. *Physical Review B*, **2010**, 81,	3.3	238
34	Tensile plasticity in metallic glasses with pronounced β relaxations. *Physical Review Letters*, **2012**, 108, 015504	7.4	204
33	The β relaxation in metallic glasses. *National Science Review*, **2014**, 1, 429-461	10.8	160
32	Correlation between β relaxation and self-diffusion of the smallest constituting atoms in metallic glasses. *Physical Review Letters*, **2012**, 109, 095508	7.4	156
31	Ultrastable metallic glass. *Advanced Materials*, **2013**, 25, 5904-8	24	131
30	The activation energy and volume of flow units of metallic glasses. *Scripta Materialia*, **2012**, 67, 9-12	5.6	122
29	Chemical influence on β relaxations and the formation of molecule-like metallic glasses. *Nature Communications*, **2013**, 4, 2204	17.4	107
28	Suppression of β Relaxation in Vapor-Deposited Ultrastable Glasses. *Physical Review Letters*, **2015**, 115, 185501	7.4	97
27	Structural rearrangements governing Johari-Goldstein relaxations in metallic glasses. *Science Advances*, **2017**, 3, e1701577	14.3	89
26	Stress-induced structural inhomogeneity and plasticity of bulk metallic glasses. *Scripta Materialia*, **2009**, 61, 640-643	5.6	60
25	Atomic mechanism of internal friction in a model metallic glass. *Physical Review B*, **2014**, 90,	3.3	41
24	Relation between β relaxation and fragility in LaCe-based metallic glasses. *Journal of Non-Crystalline Solids*, **2012**, 358, 869-871	3.9	40
23	Fundamental Link between β Relaxation, Excess Wings, and Cage-Breaking in Metallic Glasses. *Journal of Physical Chemistry Letters*, **2018**, 9, 5877-5883	6.4	32
22	A connection between the structural α relaxation and the β relaxation found in bulk metallic glass-formers. *Journal of Chemical Physics*, **2013**, 139, 014502	3.9	31
21	Shadow glass transition as a thermodynamic signature of β relaxation in hyper-quenched metallic glasses. *National Science Review*, **2020**, 7, 1896-1905	10.8	30
20	Unified Criterion for Temperature-Induced and Strain-Driven Glass Transitions in Metallic Glass. *Physical Review Letters*, **2015**, 115, 135701	7.4	28

19	Strain induced fragility transition in metallic glass. *Nature Communications*, **2015**, 6, 7179	17.4	25
18	Statistic Analysis of the Mechanical Behavior of Bulk Metallic Glasses. *Advanced Engineering Materials*, **2009**, 11, 370-373	3.5	21
17	Relating Ultrastable Glass Formation to Enhanced Surface Diffusion via the Johari-Goldstein Relaxation in Molecular Glasses. *Journal of Physical Chemistry Letters*, **2017**, 8, 2739-2744	6.4	20
16	Predicting Complex Relaxation Processes in Metallic Glass. *Physical Review Letters*, **2019**, 123, 105701	7.4	20
15	Engineering Microdomains of Oxides in High-Entropy Alloy Electrodes toward Efficient Oxygen Evolution. *Advanced Materials*, **2021**, 33, e2101845	24	18
14	Origin of ultrafast Ag radiotracer diffusion in shear bands of deformed bulk metallic glass Pd40Ni40P20. *Journal of Applied Physics*, **2013**, 113, 103508	2.5	17
13	Uncovering relaxations in amorphous phase-change materials. *Science Advances*, **2020**, 6, eaay6726	14.3	13
12	Correlation between Viscoelastic Moduli and Atomic Rearrangements in Metallic Glasses. *Journal of Physical Chemistry Letters*, **2016**, 7, 3747-3751	6.4	13
11	Structural origin for vibration-induced accelerated aging and rejuvenation in metallic glasses. *Journal of Chemical Physics*, **2019**, 150, 204507	3.9	11
10	Three-Dimensional Hierarchical Porous Structures of Metallic Glass/Copper Composite Catalysts by 3D Printing for Efficient Wastewater Treatments. *ACS Applied Materials & Interfaces*, **2021**, 13, 7227-7237	9.5	11
9	Enhancement of Strength and Corrosion Resistance of Copper Wires by Metallic Glass Coating. *Materials Transactions*, **2009**, 50, 2451-2454	1.3	10
8	Fast dynamics in a model metallic glass-forming material. *Journal of Chemical Physics*, **2021**, 154, 084505	3.9	9
7	Regenerator performance below 4 K in Tm-based bulk metallic glasses. *Journal of Non-Crystalline Solids*, **2012**, 358, 1716-1719	3.9	7
6	Dynamic heterogeneity, cooperative motion, and Johari-Goldstein [Formula: see text]-relaxation in a metallic glass-forming material exhibiting a fragile-to-strong transition. *European Physical Journal E*, **2021**, 44, 56	1.5	7
5	Metallic Nanoglasses with Promoted Relaxation and Tensile Plasticity. *Nano Letters*, **2021**, 21, 6051-6056	11.5	7
4	Anomalous nonlinear damping in metallic glasses: Signature of elasticity breakdown. *Journal of Chemical Physics*, **2019**, 150, 111104	3.9	4
3	Revealing hidden supercooled liquid states in Al-based metallic glasses by ultrafast scanning calorimetry: Approaching theoretical ceiling of liquid fragility. *Science China Materials*, **2020**, 63, 157-164	7.1	4
2	Nonlinear fragile-to-strong transition in a magnetic glass system driven by magnetic field. *AIP Advances*, **2017**, 7, 125014	1.5	2

Unraveling strongly entropic effect on relaxation in metallic glass: Insights from enhanced atomistic samplings over experimentally relevant timescales. *Physical Review B*, **2020**, 102,