

Zhaoping Lu

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

127
papers

5,429
citations

32
h-index

72
g-index

134
ext. papers

7,080
ext. citations

6.4
avg, IF

5.79
L-index

#	Paper	IF	Citations
127	Phase Equilibria of the Ti-Ta-Si Ternary System at 1100 and 1300 °C. <i>Journal of Phase Equilibria and Diffusion</i> , 2022 , 43, 58-67	1	0
126	Design of Hierarchical Porosity Via Manipulating Chemical and Microstructural Complexities in High-Entropy Alloys for Efficient Water Electrolysis.. <i>Advanced Science</i> , 2022 , e2105808	13.6	2
125	Revealing the role of local shear strain partition of transformable particles in a TRIP-reinforced bulk metallic glass composite via digital image correlation. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2022 , 29, 807-813	3.1	
124	Corrosion and irradiation behavior of Fe-based amorphous coating in lead-bismuth eutectic liquids. <i>Science China Technological Sciences</i> , 2022 , 65, 440-449	3.5	1
123	Local chemical fluctuation mediated ultra-sluggish martensitic transformation in high-entropy intermetallics.. <i>Materials Horizons</i> , 2021 ,	14.4	1
122	Effects of stacking fault energy on the deformation behavior of CoNiCrFeMn high-entropy alloys: A molecular dynamics study. <i>Applied Physics Letters</i> , 2021 , 119, 201907	3.4	0
121	Prediction of Ti-Zr-Nb-Ta high-entropy alloys with desirable hardness by combining machine learning and experimental data. <i>Applied Physics Letters</i> , 2021 , 119, 201905	3.4	1
120	Substantially enhanced plasticity of bulk metallic glasses by densifying local atomic packing. <i>Nature Communications</i> , 2021 , 12, 6582	17.4	5
119	Self-supported efficient hydrogen evolution catalysts with a core-shell structure designed phase separation. <i>Nanoscale</i> , 2021 ,	7.7	0
118	Unravel unusual hardening behavior of a PdNiB metallic glass in its supercooled liquid region. <i>Applied Physics Letters</i> , 2021 , 118, 121902	3.4	0
117	High-entropy carbide-nitrides with enhanced toughness and sinterability. <i>Science China Materials</i> , 2021 , 64, 2037-2044	7.1	5
116	Chemical short-range ordering and its strengthening effect in refractory high-entropy alloys. <i>Physical Review B</i> , 2021 , 103,	3.3	6
115	IrW nanochannel support enabling ultrastable electrocatalytic oxygen evolution at 2 A cm in acidic media. <i>Nature Communications</i> , 2021 , 12, 3540	17.4	26
114	Local chemical fluctuation mediated ductility in body-centered-cubic high-entropy alloys. <i>Materials Today</i> , 2021 , 46, 28-34	21.8	20
113	Short-range ordering and its effects on mechanical properties of high-entropy alloys. <i>Journal of Materials Science and Technology</i> , 2021 , 62, 214-220	9.1	80
112	Self-supporting nanoporous Ni/metallic glass composites with hierarchically porous structure for efficient hydrogen evolution reaction. <i>Journal of Materials Science and Technology</i> , 2021 , 73, 145-150	9.1	7
111	Atomic vibration as an indicator of the propensity for configurational rearrangements in metallic glasses. <i>Materials Horizons</i> , 2021 , 8, 2359-2372	14.4	5

110	Facile route to bulk ultrafine-grain steels for high strength and ductility. <i>Nature</i> , 2021 , 590, 262-267	50.4	22
109	A general and transferable deep learning framework for predicting phase formation in materials. <i>Npj Computational Materials</i> , 2021 , 7,	10.9	9
108	Enhancing dynamic mechanical properties of bulk metallic glass composites via deformation-induced martensitic transformation. <i>Scripta Materialia</i> , 2020 , 186, 346-351	5.6	9
107	Snoek-type damping performance in strong and ductile high-entropy alloys. <i>Science Advances</i> , 2020 , 6, eaba7802	14.3	23
106	Simultaneously enhancing the strength and plasticity of Ti-based bulk metallic glass composites via microalloying with Ta. <i>Materials Research Letters</i> , 2020 , 8, 23-30	7.4	10
105	Formation mechanism and characterization of immiscible nanoporous binary CuAg alloys with excellent surface-enhanced Raman scattering performance by chemical dealloying of glassy precursors. <i>Inorganic Chemistry Frontiers</i> , 2020 , 7, 1127-1139	6.8	10
104	Enhanced crystallization resistance and thermal stability via suppressing the metastable superlattice phase in Ni-(Pd)-P metallic glasses. <i>Journal of Materials Science and Technology</i> , 2020 , 42, 203-211	9.1	2
103	Ordered nitrogen complexes overcoming strength-ductility trade-off in an additively manufactured high-entropy alloy. <i>Virtual and Physical Prototyping</i> , 2020 , 15, 532-542	10.1	11
102	Interpretable machine-learning strategy for soft-magnetic property and thermal stability in Fe-based metallic glasses. <i>Npj Computational Materials</i> , 2020 , 6,	10.9	19
101	Ultrahigh-strength and ductile superlattice alloys with nanoscale disordered interfaces. <i>Science</i> , 2020 , 369, 427-432	33.3	72
100	Enhanced Corrosion Resistance of an Alumina-forming Austenitic Steel Against Molten Al. <i>Oxidation of Metals</i> , 2020 , 94, 465-475	1.6	2
99	Reentrant glass transition leading to ultrastable metallic glass. <i>Materials Today</i> , 2020 , 34, 66-77	21.8	21
98	Flexible Honeycombed Nanoporous/Glassy Hybrid for Efficient Electrocatalytic Hydrogen Generation. <i>Advanced Materials</i> , 2019 , 31, e1904989	24	44
97	Self-supported NiCoP/nanoporous copper as highly active electrodes for hydrogen evolution reaction. <i>Scripta Materialia</i> , 2019 , 173, 51-55	5.6	9
96	Polyamorphic transition in a transition metal based metallic glass under high pressure. <i>Physical Review B</i> , 2019 , 99,	3.3	6
95	Formation, structure and properties of biocompatible TiZrHfNbTa high-entropy alloys. <i>Materials Research Letters</i> , 2019 , 7, 225-231	7.4	65
94	Transformation-reinforced high-entropy alloys with superior mechanical properties via tailoring stacking fault energy. <i>Journal of Alloys and Compounds</i> , 2019 , 792, 444-455	5.7	53
93	Work-hardenable Zr-based bulk metallic glass composites reinforced with ex-situ TiNi fibers. <i>Journal of Alloys and Compounds</i> , 2019 , 806, 1497-1508	5.7	5

92	Development of advanced materials via entropy engineering. <i>Scripta Materialia</i> , 2019 , 165, 164-169	5.6	47
91	Enhancement of glass-forming ability and plasticity via alloying the elements having positive heat of mixing with Cu in Cu ₄₈ Zr ₄₈ Al ₄ bulk metallic glass. <i>Journal of Alloys and Compounds</i> , 2019 , 777, 382-397	5.7	19
90	Solving the strength-ductility tradeoff in the medium-entropy NiCoCr alloy via interstitial strengthening of carbon. <i>Intermetallics</i> , 2019 , 106, 77-87	3.5	44
89	Influences of Au ion radiation on microstructure and surface-enhanced Raman scattering of nanoporous copper. <i>Nanotechnology</i> , 2018 , 29, 184001	3.4	4
88	Local structural mechanism for frozen-in dynamics in metallic glasses. <i>Physical Review B</i> , 2018 , 97,	3.3	5
87	Effects of Al addition on atomic structure of Cu-Zr metallic glass. <i>Journal of Applied Physics</i> , 2018 , 123, 055101	2.5	4
86	Microstructure and mechanical properties of FeCoNiCr high-entropy alloy strengthened by nano-Y ₂ O ₃ dispersion. <i>Science China Technological Sciences</i> , 2018 , 61, 179-183	3.5	21
85	Stacking fault energy of face-centered-cubic high entropy alloys. <i>Intermetallics</i> , 2018 , 93, 269-273	3.5	174
84	Effects of cooling rate on the atomic structure of Cu ₆₄ Zr ₃₆ binary metallic glass. <i>Computational Materials Science</i> , 2018 , 141, 59-67	3.2	17
83	Eight in one: high-entropy-alloy nanoparticles synthesized by carbothermal shock. <i>Science Bulletin</i> , 2018 , 63, 737-738	10.6	2
82	Unusual relation between glass-forming ability and thermal stability of high-entropy bulk metallic glasses. <i>Materials Research Letters</i> , 2018 , 6, 495-500	7.4	32
81	Compositional gradient films constructed by sputtering in a multicomponent TiAl(Cr, Fe, Ni) system. <i>Journal of Materials Research</i> , 2018 , 33, 3330-3338	2.5	26
80	Static atomic-scale structural heterogeneity and its effects on glass formation and dynamics of metallic glasses. <i>Intermetallics</i> , 2018 , 101, 133-143	3.5	6
79	A general and scalable approach to produce nanoporous alloy nanowires with rugged ligaments for enhanced electrocatalysis. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 12541-12550	13	22
78	Flexible glassy grid structure for rapid degradation of azo dye. <i>Materials and Design</i> , 2018 , 155, 346-351	8.1	20
77	High-performance hybrid electrode decorated by well-aligned nanoglass arrays for glucose sensing. <i>Biosensors and Bioelectronics</i> , 2018 , 102, 288-295	11.8	27
76	Enhanced strength and ductility in a high-entropy alloy via ordered oxygen complexes. <i>Nature</i> , 2018 , 563, 546-550	50.4	516
75	Ion Irradiation-Enhanced Raman Scattering on Nanoporous Copper. <i>Langmuir</i> , 2018 , 34, 13041-13046	4	5

74	The Effects of Metalloid Elements on the Nanocrystallization Behavior and Soft Magnetic Properties of FeCBSiPCu Amorphous Alloys. <i>Metals</i> , 2018 , 8, 283	2.3	7
73	Beneficial effects of oxygen addition on glass formation in a high-entropy bulk metallic glass. <i>Intermetallics</i> , 2018 , 99, 44-50	3.5	18
72	Experimental Investigation of Phase Equilibria in the Nb-Si-V Ternary System. <i>Journal of Phase Equilibria and Diffusion</i> , 2017 , 38, 110-120	1	1
71	Interdiffusion and Atomic Mobilities in bcc Ti-Ga and Ti-Cu Alloys. <i>Journal of Phase Equilibria and Diffusion</i> , 2017 , 38, 84-93	1	2
70	Phase-Transformation Ductilization of Brittle High-Entropy Alloys via Metastability Engineering. <i>Advanced Materials</i> , 2017 , 29, 1701678	24	280
69	Mechanical heterogeneity and its relation with glass-forming ability in Zr-Cu and Zr-Cu-Al metallic glasses. <i>Intermetallics</i> , 2017 , 90, 159-163	3.5	6
68	Experimental Investigation of the Phase Equilibria in the Co ₃ Nb Ternary System. <i>Journal of Phase Equilibria and Diffusion</i> , 2017 , 38, 723-732	1	
67	Thermal Stability of Copper-Aluminum Alloy Thin Films for Barrierless Copper Metallization on Silicon Substrate. <i>Journal of Electronic Materials</i> , 2017 , 46, 4891-4897	1.9	3
66	Synthesis of well-aligned CuO nanowire array integrated with nanoporous CuO network for oxidative degradation of methylene blue. <i>Corrosion Science</i> , 2017 , 126, 37-43	6.8	17
65	Transformation-induced plasticity in bulk metallic glass composites evidenced by in-situ neutron diffraction. <i>Acta Materialia</i> , 2017 , 124, 478-488	8.4	72
64	Experimental Investigation and Thermodynamic Calculation of the Phase Equilibria in the Cu-Nb-Zr Ternary System. <i>Journal of Phase Equilibria and Diffusion</i> , 2016 , 37, 513-523	1	4
63	Microstructural Control via Copious Nucleation Manipulated by In Situ Formed Nucleants: Large-Sized and Ductile Metallic Glass Composites. <i>Advanced Materials</i> , 2016 , 28, 8156-8161	24	46
62	Development of a novel high-entropy alloy with eminent efficiency of degrading azo dye solutions. <i>Scientific Reports</i> , 2016 , 6, 34213	4.9	64
61	Interdiffusion and Atomic Mobility Studies in Ni-Rich fcc Ni-Co-Al Alloys. <i>Journal of Phase Equilibria and Diffusion</i> , 2016 , 37, 269-276	1	9
60	Effects of Nitrogen on the Glass Formation and Mechanical Properties of a Ti-Based Metallic Glass. <i>Acta Metallurgica Sinica (English Letters)</i> , 2016 , 29, 173-180	2.5	11
59	Formation mechanism and characterization of nanoporous silver with tunable porosity and promising capacitive performance by chemical dealloying of glassy precursor. <i>Acta Materialia</i> , 2016 , 105, 367-377	8.4	43
58	Bendable nanoporous copper thin films with tunable thickness and pore features. <i>Corrosion Science</i> , 2016 , 104, 227-235	6.8	26
57	A precipitation-hardened high-entropy alloy with outstanding tensile properties. <i>Acta Materialia</i> , 2016 , 102, 187-196	8.4	1020

56	High thermal stability and sluggish crystallization kinetics of high-entropy bulk metallic glasses. <i>Journal of Applied Physics</i> , 2016 , 119, 245112	2.5	53
55	Thermodynamic Assessments of the Au-Tb and Au-Lu Systems. <i>Journal of Phase Equilibria and Diffusion</i> , 2016 , 37, 319-326	1	0
54	Precipitation behavior and its effects on tensile properties of FeCoNiCr high-entropy alloys. <i>Intermetallics</i> , 2016 , 79, 41-52	3.5	145
53	Thermodynamic Assessments of the Sc-M (M: Cr, Gd, Mo, W and Zr) Systems. <i>Journal of Phase Equilibria and Diffusion</i> , 2015 , 36, 3-9	1	1
52	Thermodynamic Assessments of the Au-Nd and Au-Dy Systems. <i>Journal of Phase Equilibria and Diffusion</i> , 2015 , 36, 241-247	1	3
51	Experimental Determination of Phase Equilibria in the Ag-Cu-Sb Ternary System. <i>Journal of Phase Equilibria and Diffusion</i> , 2015 , 36, 503-509	1	1
50	Experimental Investigation of Isothermal Sections (1000, 1200 °C) in the Ni-Ti-Zr System. <i>Journal of Phase Equilibria and Diffusion</i> , 2015 , 36, 414-421	1	4
49	Inherent structure length in metallic glasses: simplicity behind complexity. <i>Scientific Reports</i> , 2015 , 5, 12137	4.9	18
48	Experimental Investigation of the Phase Equilibria in the Co-Nb-V Ternary System. <i>Journal of Phase Equilibria and Diffusion</i> , 2015 , 36, 592-598	1	5
47	Nanoporous silver with tunable pore characteristics and superior surface enhanced Raman scattering. <i>Corrosion Science</i> , 2014 , 84, 159-164	6.8	49
46	Effects of Al addition on structural evolution and tensile properties of the FeCoNiCrMn high-entropy alloy system. <i>Acta Materialia</i> , 2014 , 62, 105-113	8.4	687
45	Alloying effects of the elements with a positive heat of mixing on the glass forming ability of Al-La-Ni amorphous alloys. <i>Science China: Physics, Mechanics and Astronomy</i> , 2014 , 57, 122-127	3.6	4
44	Experimental Investigation and Thermodynamic Calculation of the Phase Equilibria in the Cu-Cr-W and Cu-Cr-Mo Systems. <i>Journal of Phase Equilibria and Diffusion</i> , 2014 , 35, 314-325	1	2
43	Thermodynamic Database for Phase Diagrams of Mn-RE Binary Alloy Systems. <i>Journal of Phase Equilibria and Diffusion</i> , 2014 , 35, 612-621	1	4
42	Designing Bulk Metallic Glass Composites with Enhanced Formability and Plasticity. <i>Journal of Materials Science and Technology</i> , 2014 , 30, 566-575	9.1	40
41	Effects of Sn addition on phase formation and mechanical properties of TiCu-based bulk metallic glass composites. <i>Intermetallics</i> , 2013 , 42, 68-76	3.5	33
40	Experimental Investigation of Phase Equilibria in the Fe-Si-Zr Ternary System. <i>Journal of Phase Equilibria and Diffusion</i> , 2013 , 34, 277-288	1	10
39	Experimental Investigation of Phase Equilibria in the Cu-Fe-Zr Ternary System. <i>Journal of Phase Equilibria and Diffusion</i> , 2013 , 34, 438-446	1	13

38	Experimental Investigation and Thermodynamic Calculation of the Phase Equilibria in the Cr-Hf-Ti Ternary System. <i>Journal of Phase Equilibria and Diffusion</i> , 2013 , 34, 375-384	1	1
37	Experimental Investigation and Thermodynamic Calculation of the Phase Equilibria in the Cu-Ni-Sb Ternary System. <i>Journal of Electronic Materials</i> , 2013 , 42, 2961-2974	1.9	1
36	A Modified Model to Predict Self-Diffusion Coefficients in Metastable fcc, bcc and hcp Structures. <i>Journal of Phase Equilibria and Diffusion</i> , 2013 , 34, 17-24	1	14
35	High speed characterization of the magnetoelectric hysteresis loop. <i>IEEE Transactions on Magnetics</i> , 2013 , 49, 5671-5674	2	2
34	Experimental Investigation and Thermodynamic Calculation of the Phase Equilibria in the Al-Bi-Sn Ternary System. <i>Journal of Phase Equilibria and Diffusion</i> , 2012 , 33, 9-19	1	20
33	Experimental Determination of Phase Equilibria in the Co-Cr-V Ternary System. <i>Journal of Phase Equilibria and Diffusion</i> , 2012 , 33, 189-194	1	9
32	Cooling rate effect on Young's modulus and hardness of a Zr-based metallic glass. <i>Journal of Alloys and Compounds</i> , 2011 , 509, 3269-3273	5.7	30
31	Atomistic structural evolution with cooling rates during the solidification of liquid nickel. <i>Intermetallics</i> , 2011 , 19, 630-635	3.5	11
30	The unification of filament and interfacial resistive switching mechanisms for titanium dioxide based memory devices. <i>Journal of Applied Physics</i> , 2011 , 109, 104504	2.5	14
29	Thermodynamic Assessments of the Bi-Tb and Bi-Y Systems. <i>Journal of Phase Equilibria and Diffusion</i> , 2011 , 32, 441-446	1	12
28	Self-organization of core-shell and core-shell-corona structures in small liquid droplets. <i>Applied Physics Letters</i> , 2011 , 98, 204106	3.4	41
27	Comparison of the interfacial and electrical properties of HfAlO films on Ge with S and GeO ₂ passivation. <i>Applied Physics Letters</i> , 2011 , 98, 162903	3.4	16
26	Atomic-scale structural evolution from disorder to order in an amorphous metal. <i>Journal of Applied Physics</i> , 2011 , 110, 123508	2.5	5
25	Metallic liquids and glasses: atomic order and global packing. <i>Physical Review Letters</i> , 2010 , 105, 155501	7.4	130
24	Evolution of atomic ordering in metallic glasses. <i>Intermetallics</i> , 2010 , 18, 2333-2337	3.5	8
23	Effects of Mo additions on the glass-forming ability and magnetic properties of bulk amorphous Fe-C-Si-B-P-Mo alloys. <i>Science China: Physics, Mechanics and Astronomy</i> , 2010 , 53, 430-434	3.6	25
22	Effects of cooling rates on the mechanical properties of a Ti-based bulk metallic glass. <i>Science China: Physics, Mechanics and Astronomy</i> , 2010 , 53, 394-398	3.6	30
21	Bulk metallic glass composites with transformation-mediated work-hardening and ductility. <i>Advanced Materials</i> , 2010 , 22, 2770-3	24	369

20	Microstructural Evolution of Alloy Powder for Electronic Materials with Liquid Miscibility Gap. <i>Journal of Electronic Materials</i> , 2009 , 38, 2-9	1.9	46
19	Experimental Investigation and Thermodynamic Assessment of Phase Equilibria in the Ag-Au-Sn System. <i>Journal of Electronic Materials</i> , 2009 , 38, 2096-2105	1.9	6
18	Calculation of Thermodynamic Properties in Pure Organic Compounds. <i>Journal of Phase Equilibria and Diffusion</i> , 2009 , 30, 46-58	1	0
17	Thermodynamic Database and the Phase Diagrams of the (U, Th, Pu)-X Binary Systems. <i>Journal of Phase Equilibria and Diffusion</i> , 2009 , 30, 535-552	1	10
16	Ordered clusters and free volume in a ZrNi metallic glass. <i>Applied Physics Letters</i> , 2008 , 93, 011911	3.4	53
15	In situ synchrotron SAXS study of nanocrystallization in Zr ₆₅ Ni ₂₅ Ti ₁₀ metallic glass. <i>Intermetallics</i> , 2008 , 16, 10-15	3.5	19
14	Room temperature ferromagnetism and ferroelectricity in cobalt-doped LiNbO ₃ film. <i>Applied Physics Letters</i> , 2008 , 92, 262901	3.4	21
13	Phase equilibria and phase transformation of the body-centered cubic phase in the Cu-rich portion of the Cu ₃₁ Al system. <i>Journal of Materials Research</i> , 2008 , 23, 2674-2684	2.5	9
12	Self-formed pencil-like bulk composite materials consisting of copper alloy and stainless steel. <i>Journal of Materials Research</i> , 2008 , 23, 933-940	2.5	8
11	Strain-induced ferromagnetism enhancement in Co:ZnO films. <i>Journal of Applied Physics</i> , 2008 , 103, 093915	2.5	41
10	Thermodynamic Assessment of Phase Equilibria in the Sn-Ag-Ni System with Key Experimental Verification. <i>Journal of Electronic Materials</i> , 2008 , 37, 279-287	1.9	2
9	Atomistic mechanism for nanocrystallization of metallic glasses. <i>Acta Materialia</i> , 2008 , 56, 2760-2769	8.4	60
8	Thermodynamic Calculation of Phase Equilibria in the Sn-Ag-Cu-Ni-Au System. <i>Journal of Electronic Materials</i> , 2007 , 36, 1429-1441	1.9	8
7	Enhancement of electrical and ferromagnetic properties by additional Al doping in Co:ZnO thin films. <i>Journal of Physics Condensed Matter</i> , 2007 , 19, 296208	1.8	34
6	Growth mechanism from nano-ordered clusters to nanocrystals in a deeply undercooled melt of Zr-Ni-Ti metallic glass. <i>Journal of Applied Physics</i> , 2007 , 102, 063515	2.5	11
5	Fully epitaxial (Zn,Co)O/ZnO/(Zn,Co)O junction and its tunnel magnetoresistance. <i>Applied Physics Letters</i> , 2007 , 91, 042106	3.4	32
4	Anomalous voltage dependence of tunnel magnetoresistance in (Zn, Co)O-based junction with double barrier. <i>Applied Physics Letters</i> , 2007 , 91, 172109	3.4	10
3	Molecular dynamic simulations and atomic structures of amorphous materials. <i>Applied Physics Letters</i> , 2006 , 88, 203115	3.4	16

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| 2 | Experimental determination and thermodynamic calculation of phase equilibria in the FeMnAl system. <i>Journal of Phase Equilibria and Diffusion</i> , 2006 , 27, 54-62 | 1 | 56 |
| 1 | The Calculation of Phase Equilibrium Between Structural Phases with a Magnetic Transition by the Cluster Variation Method. <i>International Journal of Thermophysics</i> , 1999 , 20, 755-770 | 2.1 | 1 |