Yuan Wu

List of Publications by Year
in descending order

107 papers	10,196 citations	66234 42 h-index	33814 99 g-index
109 all docs	109 docs citations	109 times ranked	4843 citing authors

#	Article	IF	Citations
1	A precipitation-hardened high-entropy alloy with outstanding tensile properties. Acta Materialia, 2016, 102, 187-196.	3.8	1,665
2	Effects of Al addition on structural evolution and tensile properties of the FeCoNiCrMn high-entropy alloy system. Acta Materialia, 2014, 62, 105-113.	3.8	1,036
3	Enhanced strength and ductility in a high-entropy alloy via ordered oxygen complexes. Nature, 2018, 563, 546-550.	13.7	988
4	Grain growth and the Hallâ€“Petch relationship in a high-entropy FeCrNiCoMn alloy. Scripta Materialia, 2013, 68, 526-529.	2.6	650
5	Bulk Metallic Glass Composites with Transformationâ€Mediated Workâ€Hardening and Ductility. Advanced Materials, 2010, 22, 2770-2773.	11.1	431
6	Phaseâ€Transformation Ductilization of Brittle Highâ€Entropy Alloys via Metastability Engineering. Advanced Materials, 2017, 29, 1701678.	11.1	421
7	Fe-based bulk metallic glasses: Glass formation, fabrication, properties and applications. Progress in Materials Science, 2019, 103, 235-318.	16.0	321
8	Stacking fault energy of face-centered-cubic high entropy alloys. Intermetallics, 2018, 93, 269-273.	1.8	312
9	Formation of Cuâ€“Zrâ€“Al bulk metallic glass composites with improved tensile properties. Acta Materialia, 2011, 59, 2928-2936.	3.8	290
10	Precipitation behavior and its effects on tensile properties of FeCoNiCr high-entropy alloys. Intermetallics, 2016, 79, 41-52.	1.8	225
11	Polymorphism in a high-entropy alloy. Nature Communications, 2017, 8, 15687.	5.8	192
12	Cooperative deformation in high-entropy alloys at ultralow temperatures. Science Advances, 2020, 6, eaax4002.	4.7	157
13	Formation, structure and properties of biocompatible TiZrHfNbTa high-entropy alloys. Materials Research Letters, 2019, 7, 225-231.	4.1	131
14	Microstructure and mechanical properties of equimolar FeCoCrNi high entropy alloy prepared via powder extrusion. Intermetallics, 2016, 75, 25-30.	1.8	129
15	In-situ neutron diffraction study of deformation behavior of a multi-component high-entropy alloy. Applied Physics Letters, 2014, 104, .	1.5	128
16	Facile route to bulk ultrafine-grain steels for high strength and ductility. Nature, 2021, 590, 262-267.	13.7	98
17	Effects of alloying elements on glass formation, mechanical and soft-magnetic properties of Fe-based metallic glasses. Intermetallics, 2011, 19, 1502-1508.	1.8	96
18	Transformation-induced plasticity in bulk metallic glass composites evidenced by in-situ neutron diffraction. Acta Materialia, 2017, 124, 478-488.	3.8	93

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19	Transformation-reinforced high-entropy alloys with superior mechanical properties via tailoring stacking fault energy. Journal of Alloys and Compounds, 2019, 792, 444-455.	2.8	90
20	Strengthening of a CrMnFeCoNi high-entropy alloy by carbide precipitation. Journal of Alloys and Compounds, 2019, 792, 1028-1035.	2.8	87
21	Ductilizing Bulk Metallic Glass Composite by Tailoring Stacking Fault Energy. Physical Review Letters, 2012, 109, 245506.	2.9	85
22	Flexible Honeycombed Nanoporous/Glassy Hybrid for Efficient Electrocatalytic Hydrogen Generation. Advanced Materials, 2019, 31, e1904989.	11.1	80
23	High-temperature plastic flow of a precipitation-hardened FeCoNiCr high entropy alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 686, 34-40.	2.6	69
24	Improving plasticity of the Zr 46 Cu 46 Al 8 bulk metallic glass via thermal rejuvenation. Science Bulletin, 2018, 63, 840-844.	4.3	69
25	Microstructural Control via Copious Nucleation Manipulated by In Situ Formed Nucleants: Largeâ€Sized and Ductile Metallic Glass Composites. Advanced Materials, 2016, 28, 8156-8161.	11.1	63
26	Extremely high dislocation density and deformation pathway of CrMnFeCoNi high entropy alloy at ultralow temperature. Scripta Materialia, 2020, 188, 21-25.	2.6	62
27	Large magnetocaloric effect in Gd36Y20Al24Co20 bulk metallic glass. Journal of Alloys and Compounds, 2008, 457, 541-544.	2.8	60
28	The Phase Competition and Stability of High-Entropy Alloys. Jom, 2014, 66, 1973-1983.	0.9	60
29	Strong work-hardening behavior in a Ti-based bulk metallic glass composite. Scripta Materialia, 2013, 69, 73-76.	2.6	59
30	Nanoporous silver with tunable pore characteristics and superior surface enhanced Raman scattering. Corrosion Science, 2014, 84, 159-164.	3.0	58
31	Evaluation of pitting corrosion in duplex stainless steel Fe20Cr9Ni for nuclear power application. Acta Materialia, 2020, 197, 172-183.	3.8	58
32	Snoek-type damping performance in strong and ductile high-entropy alloys. Science Advances, 2020, 6, eaba7802.	4.7	56
33	Formation mechanism and characterization of nanoporous silver with tunable porosity and promising capacitive performance by chemical dealloying of glassy precursor. Acta Materialia, 2016, 105, 367-377.	3.8	52
34	Impacts of atomic scale lattice distortion on dislocation activity in high-entropy alloys. Extreme Mechanics Letters, 2017, 17, 38-42.	2.0	52
35	Glass-forming ability enhanced by proper additions of oxygen in a Fe-based bulk metallic glass. Applied Physics Letters, 2009, 95, .	1.5	51
36	Substantially enhanced plasticity of bulk metallic glasses by densifying local atomic packing. Nature Communications, 2021, 12, 6582.	5.8	51

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37	Effects of nanocrystal formation on the soft magnetic properties of Fe-based bulk metallic glasses. Applied Physics Letters, 2011, 99, .	1.5	50
38	Designing Bulk Metallic Glass Composites with Enhanced Formability and Plasticity. Journal of Materials Science and Technology, 2014, 30, 566-575.	5.6	49
39	Deformation-induced spatiotemporal fluctuation, evolution and localization of strain fields in a bulk metallic glass. International Journal of Plasticity, 2015, 71, 136-145.	4.1	49
40	Aluminum-rich bulk metallic glasses. Scripta Materialia, 2008, 59, 1159-1162.	2.6	48
41	Tailoring grain growth and solid solution strengthening of single-phase CrCoNi medium-entropy alloys by solute selection. Journal of Materials Science and Technology, 2020, 54, 196-205.	5.6	48
42	Stacking Fault Driven Phase Transformation in CrCoNi Medium Entropy Alloy. Nano Letters, 2021, 21, 1419-1426.	4.5	47
43	Oxygen effects on plastic deformation of a Zr-based bulk metallic glass. Applied Physics Letters, 2008, 92, .	1.5	44
44	Microstructure and mechanical properties of FeCoNiCr high-entropy alloy strengthened by nano-Y2O3 dispersion. Science China Technological Sciences, 2018, 61, 179-183.	2.0	44
45	Interpretable machine-learning strategy for soft-magnetic property and thermal stability in Fe-based metallic glasses. Npj Computational Materials, 2020, 6, .	3.5	42
46	Ultrahigh cyclability of a large elastocaloric effect in multiferroic phase-transforming materials. Materials Research Letters, 2019, 7, 137-144.	4.1	41
47	Effects of Sn addition on phase formation and mechanical properties of TiCu-based bulk metallic glass composites. Intermetallics, 2013, 42, 68-76.	1.8	40
48	Deformation-enhanced hierarchical multiscale structure heterogeneity in a Pd-Si bulk metallic glass. Acta Materialia, 2020, 200, 42-55.	3.8	40
49	Glass formation and magnetic properties of Feâ€“Câ€“Siâ€“Bâ€“Pâ€“(Crâ€“Alâ€“Co) bulk metallic glasses fabricated using industrial raw materials. Journal of Magnetism and Magnetic Materials, 2009, 321, 2833-2837.	1.0	38
50	Effects of metalloid elements on the glass-forming ability of Fe-based alloys. Journal of Alloys and Compounds, 2009, 467, 187-190.	2.8	38
51	Effects of drawing on the tensile fracture strength and its reliability of small-sized metallic glasses. Acta Materialia, 2010, 58, 2564-2576.	3.8	37
52	Nonlinear tensile deformation behavior of small-sized metallic glasses. Scripta Materialia, 2009, 61, 564-567.	2.6	36
53	Interpreting size effects of bulk metallic glasses based on a size-independent critical energy density. Intermetallics, 2010, 18, 157-160.	1.8	36
54	Effects of cooling rates on the mechanical properties of a Ti-based bulk metallic glass. Science China: Physics, Mechanics and Astronomy, 2010, 53, 394-398.	2.0	35

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55	Hot corrosion behaviour and its mechanism of a new alumina-forming austenitic stainless steel in molten sodium sulphate. Corrosion Science, 2013, 77, 202-209.	3.0	35
56	Development of electrochemical supercapacitors with uniform nanoporous silver network. Electrochimica Acta, 2015, 182, 224-229.	2.6	35
57	Effects of Mo additions on the glass-forming ability and magnetic properties of bulk amorphous Fe-C-Si-B-P-Mo alloys. Science China: Physics, Mechanics and Astronomy, 2010, 53, 430-434.	2.0	34
58	Strain hardening mediated by coherent nanoprecipitates in ultrahigh-strength steels. Acta Materialia, 2021, 213, 116984.	3.8	34
59	Compressive ductility and fracture resistance in CuZr-based shape-memory metallic-glass composites. International Journal of Plasticity, 2020, 128, 102687.	4.1	33
60	Enhancing glass-forming ability via frustration of nano-clustering in alloys with a high solvent content. Scientific Reports, 2013, 3, 1983.	1.6	31
61	Superior radiation tolerance via reversible disorderingâ€“ordering transition of coherent superlattices. Nature Materials, 2023, 22, 442-449.	13.3	31
62	Size effects on the compressive deformation behaviour of a brittle Fe-based bulk metallic glass. Philosophical Magazine Letters, 2010, 90, 403-412.	0.5	30
63	Bendable nanoporous copper thin films with tunable thickness and pore features. Corrosion Science, 2016, 104, 227-235.	3.0	29
64	Chemical short-range ordering and its strengthening effect in refractory high-entropy alloys. Physical Review B, 2021, 103, .	1.1	27
65	Micro-alloying Effects of Yttrium on Recrystallization Behavior of an Alumina-forming Austenitic Stainless Steel. Journal of Iron and Steel Research International, 2016, 23, 553-558.	1.4	26
66	Enhancement of glass-forming ability and plasticity via alloying the elements having positive heat of mixing with Cu in Cu48Zr48Al4 bulk metallic glass. Journal of Alloys and Compounds, 2019, 777, 382-391.	2.8	26
67	Beneficial effects of oxygen addition on glass formation in a high-entropy bulk metallic glass. Intermetallics, 2018, 99, 44-50.	1.8	25
68	Ordered nitrogen complexes overcoming strengthâ€“ductility trade-off in an additively manufactured high-entropy alloy. Virtual and Physical Prototyping, 2020, 15, 532-542.	5.3	25
69	Designing novel bulk metallic glass composites with a high aluminum content. Scientific Reports, 2013, 3, 3353.	1.6	24
70	Inherent structure length in metallic glasses: simplicity behind complexity. Scientific Reports, 2015, 5, 12137.	1.6	23
71	Improving high-temperature mechanical properties of cast CrFeCoNi high-entropy alloy by highly thermostable in-situ precipitated carbides. Journal of Materials Science and Technology, 2021, 72, 29-38.	5.6	23
72	Relationship between composite structures and compressive properties in CuZr-based bulk metallic glass system. Science Bulletin, 2011, 56, 3960-3964.	1.7	21

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73	Plasticity improvement in a bulk metallic glass composed of an open-cell Cu foam as the skeleton. Composites Science and Technology, 2013, 75, 49-54.	3.8	21
74	Fe-based bulk metallic glass composites without any metalloid elements. Acta Materialia, 2013, 61, 3214-3223.	3.8	21
75	Formation mechanism and characterization of immiscible nanoporous binary Cuâ€“Ag alloys with excellent surface-enhanced Raman scattering performance by chemical dealloying of glassy precursors. Inorganic Chemistry Frontiers, 2020, 7, 1127-1139.	3.0	20
76	Deformation-Induced Martensitic Transformation in Cu-Zr-Zn Bulk Metallic Glass Composites. Metals, 2015, 5, 2134-2147.	1.0	19
77	Effects of non-hydrostaticity and grain size on the pressure-induced phase transition of the CoCrFeMnNi high-entropy alloy. Journal of Applied Physics, 2018, 124, .	1.1	19
78	Alkali-deficiency driven charged out-of-phase boundaries for giant electromechanical response. Nature Communications, 2021, 12, 2841.	5.8	19
79	Nano-network mediated high strength and large plasticity in an Al-based alloy. Materials Letters, 2012, 84, 59-62.	1.3	18
80	Prediction of Structural Type for City-Scale Seismic Damage Simulation Based on Machine Learning. Applied Sciences (Switzerland), 2020, 10, 1795.	1.3	18
81	Role of rare-earth elements in glass formation of Alâ€“Caâ€“Ni amorphous alloys. Journal of Alloys and Compounds, 2012, 513, 387-392.	2.8	16
82	Alloying effects on mechanical properties of the Cuâ€“Zrâ€“Al bulk metallic glass composites. Computational Materials Science, 2013, 79, 187-192.	1.4	16
83	Effect of mechanical tension on corrosive and thermal properties of Cu50Zr40Ti10 metallic glass. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 588, 49-58.	2.6	15
84	Local chemical fluctuation mediated ultra-sluggish martensitic transformation in high-entropy intermetallics. Materials Horizons, 2022, 9, 804-814.	6.4	15
85	Composition effects on glass-forming ability and its indicator Î³. Intermetallics, 2008, 16, 410-417.	1.8	14
86	Nanocrystallization in a Cu-doped Fe-based metallic glass. Journal of Alloys and Compounds, 2016, 688, 822-827.	2.8	14
87	Effects of Nitrogen on the Glass Formation and Mechanical Properties of a Ti-Based Metallic Glass. Acta Metallurgica Sinica (English Letters), 2016, 29, 173-180.	1.5	14
88	Simultaneously enhancing the strength and plasticity of Ti-based bulk metallic glass composites via microalloying with Ta. Materials Research Letters, 2020, 8, 23-30.	4.1	14
89	A quantitative link between microplastic instability and macroscopic deformation behaviors in metallic glasses. Journal of Applied Physics, 2009, 106, 083512.	1.1	12
90	Magnetocaloric effect in Er-Al-Co bulk metallic glasses. Science Bulletin, 2011, 56, 3978-3983.	1.7	11

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91	Work-hardenable Zr-based bulk metallic glass composites reinforced with ex-situ TiNi fibers. Journal of Alloys and Compounds, 2019, 806, 1497-1508.	2.8	9
92	Interface-driven unusual anomalous Hall effect in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">M</mml:mi><mml:msub><mml:mi mathvariant="normal">n</mml:mi><mml:mi>x</mml:mi></mml:msub><mml:mi>Ga</mml:mi><mml:mo>/</mml:mo><mml:mi>Pt</mml:mi> bilayers. Physical Review B, 2019, 100, .	1.1	9
93	An electronic criterion for assessing intrinsic brittleness of metallic glasses. Journal of Chemical Physics, 2014, 141, 024503.	1.2	8
94	Ultrasonic Assisted Sintering Using Heat Converted from Mechanical Energy. Metals, 2020, 10, 971.	1.0	8
95	Enhanced Corrosion Resistance of an Alumina-forming Austenitic Steel Against Molten Al. Oxidation of Metals, 2020, 94, 465-475.	1.0	7
96	Direct synchrotron x-ray measurements of local strain fields in elastically and plastically bent metallic glasses. Intermetallics, 2015, 67, 132-137.	1.8	6
97	Influences of Au ion radiation on microstructure and surface-enhanced Raman scattering of nanoporous copper. Nanotechnology, 2018, 29, 184001.	1.3	6
98	Alloying effects of iridium on glass formation and glass-forming ability of the Zrâ€“Cuâ€“Al system. Journal of Materials Research, 2009, 24, 1619-1623.	1.2	5
99	Experimental and theoretical studies on site preference of Ti in Nd2(Fe,Ti)14B. Journal of Magnetism and Magnetic Materials, 2015, 379, 108-111.	1.0	5
100	Corrosion and irradiation behavior of Fe-based amorphous coating in lead-bismuth eutectic liquids. Science China Technological Sciences, 2022, 65, 440-449.	2.0	5
101	Alloying effects of the elements with a positive heat of mixing on the glass forming ability of Al-La-Ni amorphous alloys. Science China: Physics, Mechanics and Astronomy, 2014, 57, 122-127.	2.0	4
102	Self-Assembled Hexagonal Lu_{1â€“x}In_xFeO₃ Nanopillars Embedded in Orthorhombic Lu_{1â€“x}In_xFeO₃ Nanoparticle Matrixes as Room-Temperature Multiferroic Thin Films for Memory Devices and Spintronic Applications. ACS Applied Nano Materials, 2020, 3, 7516-7523.	2.4	4
103	Unravel unusual hardening behavior of a Pdâ€“Niâ€“P metallic glass in its supercooled liquid region. Applied Physics Letters, 2021, 118, .	1.5	4
104	Enhanced crystallization resistance and thermal stability via suppressing the metastable superlattice phase in Ni-(Pd)-P metallic glasses. Journal of Materials Science and Technology, 2020, 42, 203-211.	5.6	3
105	Unraveling magneto-structural coupling of Ni2MnGa alloy under the application of stress and magnetic field using in situ polarized neutron diffraction. Applied Physics Letters, 2020, 117, .	1.5	3
106	Effects of density difference of constituent elements on glass formation in TiCu-based bulk metallic glasses. Progress in Natural Science: Materials International, 2013, 23, 469-474.	1.8	1
107	Revealing the role of local shear strain partition of transformable particles in a TRIP-reinforced bulk metallic glass composite via digital image correlation. International Journal of Minerals, Metallurgy and Materials, 2022, 29, 807-813.	2.4	1