

Zeng-Bao Jiao

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.

75
papers

2,508
citations

25
h-index

49
g-index

80
ext. papers

3,640
ext. citations

7.4
avg, IF

5.44
L-index

#	Paper	IF	Citations
75	In situ neutron diffraction unravels deformation mechanisms of a strong and ductile FeCrNi medium entropy alloy. <i>Journal of Materials Science and Technology</i> , 2022 , 116, 103-120	9.1	2
74	Synergy of strengthening and toughening of a Cu-rich precipitate-strengthened steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022 , 832, 142487	5.3	1
73	Enhanced strength-ductility synergy via novel bifunctional nano-precipitates in a high-entropy alloy. <i>International Journal of Plasticity</i> , 2022 , 153, 103235	7.6	1
72	Atomistic study of Al partitioning and its influence on nanoscale precipitation of Cu-rich nanocluster-strengthened steels. <i>Materials Characterization</i> , 2022 , 184, 111687	3.9	
71	Boosting electrochemical performance of Li-S batteries by cerium-based MOFs coated with polypyrrole. <i>Journal of Alloys and Compounds</i> , 2022 , 901, 163649	5.7	2
70	Alloying effects on phase stability, mechanical properties, and deformation behavior of CoCrNi-based medium-entropy alloys at low temperatures. <i>Intermetallics</i> , 2022 , 140, 107399	3.5	1
69	High-temperature mechanical behavior of ultra-coarse cemented carbide with grain strengthening. <i>Journal of Materials Science and Technology</i> , 2022 , 104, 8-18	9.1	2
68	Cu-assisted austenite reversion and enhanced TRIP effect in maraging stainless steels. <i>Journal of Materials Science and Technology</i> , 2022 , 104, 52-58	9.1	4
67	Metallic Materials for Making Multi-Scaled Metallic Parts and Structures 2022 , 19-36		
66	Remarkable cryogenic strengthening and toughening in nano-coherent CoCrFeNiTi0.2 high-entropy alloys via energetically-tuning polymorphous precipitates. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022 , 143111	5.3	0
65	L12-strengthened multicomponent Co-Al-Nb-based alloys with high strength and matrix-confined stacking-fault-mediated plasticity. <i>Acta Materialia</i> , 2022 , 229, 117763	8.4	2
64	Intermediate temperature embrittlement in a precipitation-hardened high-entropy alloy: The role of heterogeneous strain distribution and environmentally assisted intergranular damage. <i>Materials Today Physics</i> , 2022 , 24, 100653	8	1
63	High-entropy induced a glass-to-glass transition in a metallic glass.. <i>Nature Communications</i> , 2022 , 13, 2183	17.4	1
62	Microstructure, mechanical properties and biocompatibility of laser metal deposited Ti0.3Nb coatings on a NiTi substrate. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022 , 143402	5.3	0
61	Abrasive wear behavior of TiC-strengthened eutectic high chromium cast iron composites. <i>Materials Today Communications</i> , 2021 , 29, 102906	2.5	2
60	Thermal stability and high-temperature mechanical performance of nanostructured WCuCrC composite. <i>Composites Part B: Engineering</i> , 2021 , 208, 108600	10	11
59	Synergistic alloying effects on nanoscale precipitation and mechanical properties of ultrahigh-strength steels strengthened by Ni3Ti, Mo-enriched, and Cr-rich co-precipitates. <i>Acta Materialia</i> , 2021 , 209, 116788	8.4	11

58	Synergistic effects of Al and Ti on the oxidation behaviour and mechanical properties of L12-strengthened FeCoCrNi high-entropy alloys. <i>Corrosion Science</i> , 2021 , 184, 109365	6.8	15
57	A novel L12-strengthened multicomponent Co-rich high-entropy alloy with both high σ -solvus temperature and superior high-temperature strength. <i>Scripta Materialia</i> , 2021 , 199, 113826	5.6	12
56	Formation and crystallization behavior of Fe-based amorphous precursors with pre-existing γ -Fe nanoparticles Structure and magnetic properties of high-Cu-content Fe-Si-B-Cu-Nb nanocrystalline alloys. <i>Journal of Materials Science and Technology</i> , 2021 , 65, 171-181	9.1	20
55	Heterogenous columnar-grained high-entropy alloys produce exceptional resistance to intermediate-temperature intergranular embrittlement. <i>Scripta Materialia</i> , 2021 , 194, 113622	5.6	12
54	Precipitation behavior in G-phase strengthened ferritic stainless steels. <i>Acta Materialia</i> , 2021 , 205, 116542	4.4	8
53	Mechanisms for suppressing discontinuous precipitation and improving mechanical properties of NiAl-strengthened steels through nanoscale Cu partitioning. <i>Acta Materialia</i> , 2021 , 205, 116561	8.4	15
52	Low-carbon advanced nanostructured steels: Microstructure, mechanical properties, and applications. <i>Science China Materials</i> , 2021 , 64, 1580-1597	7.1	0
51	Phase Stability and Precipitation in L12-Strengthened CoCrNi Medium-Entropy Alloys at Intermediate Temperatures. <i>Journal of Phase Equilibria and Diffusion</i> , 2021 , 42, 781	1	
50	Wear-resistance enhancement of nanostructured W-Cu-Cr composites. <i>International Journal of Refractory Metals and Hard Materials</i> , 2021 , 101, 105673	4.1	1
49	Breaking the strength-ductility paradox in advanced nanostructured Fe-based alloys through combined Cu and Mn additions. <i>Scripta Materialia</i> , 2020 , 186, 213-218	5.6	10
48	Precipitation kinetics and mechanical properties of nanostructured steels with Mo additions. <i>Materials Research Letters</i> , 2020 , 8, 187-194	7.4	8
47	Achieving exceptional wear resistance in a compositionally complex alloy via tuning the interfacial structure and chemistry. <i>Acta Materialia</i> , 2020 , 188, 697-710	8.4	16
46	Control of nanoscale precipitation and elimination of intermediate-temperature embrittlement in multicomponent high-entropy alloys. <i>Acta Materialia</i> , 2020 , 189, 47-59	8.4	47
45	Superior high-temperature properties and deformation-induced planar faults in a novel L12-strengthened high-entropy alloy. <i>Acta Materialia</i> , 2020 , 188, 517-527	8.4	50
44	Mechanical properties and deformation mechanisms of a novel austenite-martensite dual phase steel. <i>International Journal of Plasticity</i> , 2020 , 128, 102677	7.6	26
43	Control of discontinuous and continuous precipitation of σ -strengthened high-entropy alloys through nanoscale Nb segregation and partitioning. <i>Journal of Alloys and Compounds</i> , 2020 , 832, 154903	5.7	7
42	Microstructures and mechanical properties of CoCrFeMnNiV high entropy alloy films. <i>Journal of Alloys and Compounds</i> , 2020 , 820, 153388	5.7	25
41	Ultrahigh strength and ductility in newly developed materials with coherent nanolamellar architectures. <i>Nature Communications</i> , 2020 , 11, 6240	17.4	59

40	Refractory alloying additions on the thermal stability and mechanical properties of high-entropy alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020 , 797, 140020	5.3	16
39	Ultra-high-strength and ductile superlattice alloys with nanoscale disordered interfaces. <i>Science</i> , 2020 , 369, 427-432	33.3	72
38	Metallic Glass Catalysts: Attractive In Situ Self-Reconstructed Hierarchical Gradient Structure of Metallic Glass for High Efficiency and Remarkable Stability in Catalytic Performance (Adv. Funct. Mater. 19/2019). <i>Advanced Functional Materials</i> , 2019 , 29, 1970131	15.6	
37	Hardening mechanisms and impact toughening of a high-strength steel containing low Ni and Cu additions. <i>Acta Materialia</i> , 2019 , 172, 150-160	8.4	30
36	Attractive In Situ Self-Reconstructed Hierarchical Gradient Structure of Metallic Glass for High Efficiency and Remarkable Stability in Catalytic Performance. <i>Advanced Functional Materials</i> , 2019 , 29, 1807857	15.6	47
35	Effect of Mo:W ratio on segregation behavior and creep strength of nickel-based single crystal superalloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019 , 744, 481-489	5.3	10
34	A novel ferritic steel family hardened by intermetallic compound G-phase. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019 , 745, 390-399	5.3	13
33	High-Entropy Alloy (HEA)-Coated Nanolattice Structures and Their Mechanical Properties. <i>Advanced Engineering Materials</i> , 2018 , 20, 1700625	3.5	40
32	Multicomponent intermetallic nanoparticles and superb mechanical behaviors of complex alloys. <i>Science</i> , 2018 , 362, 933-937	33.3	513
31	Nanocrystalline Ag-W alloys lose stability upon solute desegregation from grain boundaries. <i>Acta Materialia</i> , 2018 , 161, 194-206	8.4	24
30	Atom-probe study of Cu and NiAl nanoscale precipitation and interfacial segregation in a nanoparticle-strengthened steel. <i>Materials Research Letters</i> , 2017 , 5, 562-568	7.4	22
29	Heterogeneous precipitation behavior and stacking-fault-mediated deformation in a CoCrNi-based medium-entropy alloy. <i>Acta Materialia</i> , 2017 , 138, 72-82	8.4	286
28	Ultra-high-strength steels strengthened by nanoparticles. <i>Science Bulletin</i> , 2017 , 62, 1043-1044	10.6	7
27	Compositional and microstructural optimization and mechanical-property enhancement of cast Ti alloys based on Ti-6Al-4V alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017 , 704, 91-101	5.3	9
26	Co-precipitation of nanoscale particles in steels with ultra-high strength for a new era. <i>Materials Today</i> , 2017 , 20, 142-154	21.8	103
25	Group precipitation and age hardening of nanostructured Fe-based alloys with ultra-high strengths. <i>Scientific Reports</i> , 2016 , 6, 21364	4.9	32
24	Strategies for improving ductility of ordered intermetallics. <i>Progress in Natural Science: Materials International</i> , 2016 , 26, 1-12	3.6	45
23	Precipitate transformation from NiAl-type to Ni ₂ AlMn-type and its influence on the mechanical properties of high-strength steels. <i>Acta Materialia</i> , 2016 , 110, 31-43	8.4	35

22	Copper-Rich Nanoclusters: Ferritic Steels Strengthened 2016 , 875-886		2
21	Effects of welding and post-weld heat treatments on nanoscale precipitation and mechanical properties of an ultra-high strength steel hardened by NiAl and Cu nanoparticles. <i>Acta Materialia</i> , 2016 , 120, 216-227	8.4	25
20	Effects of boron on the fracture behavior and ductility of cast TiBAl _{0.5} V alloys. <i>Scripta Materialia</i> , 2015 , 100, 90-93	5.6	21
19	Effects of boron additions and solutionizing treatments on microstructures and ductility of forged TiBAl _{0.5} V alloys. <i>Journal of Alloys and Compounds</i> , 2015 , 624, 170-178	5.7	17
18	Precipitation mechanism and mechanical properties of an ultra-high strength steel hardened by nanoscale NiAl and Cu particles. <i>Acta Materialia</i> , 2015 , 97, 58-67	8.4	126
17	Effects of Mn partitioning on nanoscale precipitation and mechanical properties of ferritic steels strengthened by NiAl nanoparticles. <i>Acta Materialia</i> , 2015 , 84, 283-291	8.4	72
16	Improved ductility and oxidation resistance of cast TiBAl _{0.5} V alloys by microalloying. <i>Journal of Alloys and Compounds</i> , 2014 , 602, 235-240	5.7	47
15	High-strength steels hardened mainly by nanoscale NiAl precipitates. <i>Scripta Materialia</i> , 2014 , 87, 45-48	5.6	66
14	Synergistic effects of Cu and Ni on nanoscale precipitation and mechanical properties of high-strength steels. <i>Acta Materialia</i> , 2013 , 61, 5996-6005	8.4	134
13	Effects of density difference of constituent elements on glass formation in TiCu-based bulk metallic glasses. <i>Progress in Natural Science: Materials International</i> , 2013 , 23, 469-474	3.6	1
12	Enhancing glass-forming ability via frustration of nano-clustering in alloys with a high solvent content. <i>Scientific Reports</i> , 2013 , 3, 1983	4.9	26
11	Effects of alloying elements on glass formation, mechanical and soft-magnetic properties of Fe-based metallic glasses. <i>Intermetallics</i> , 2011 , 19, 1502-1508	3.5	79
10	Effects of nanocrystal formation on the soft magnetic properties of Fe-based bulk metallic glasses. <i>Applied Physics Letters</i> , 2011 , 99, 052504	3.4	44
9	Synthesis of bulk glassy Fe _{0.5} Si _{0.5} B _{0.5} P _{0.5} Co alloys with high glass-forming ability and good soft-magnetic properties. <i>Intermetallics</i> , 2010 , 18, 1821-1825	3.5	31
8	Size effects on the compressive deformation behaviour of a brittle Fe-based bulk metallic glass. <i>Philosophical Magazine Letters</i> , 2010 , 90, 403-412	1	23
7	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
6	Compressive fracture characteristics of Zr-based bulk metallic glass. <i>Science China: Physics, Mechanics and Astronomy</i> , 2010 , 53, 823-827	3.6	4
5	Three-point bending fracture characteristics of bulk metallic glasses. <i>Science China: Physics, Mechanics and Astronomy</i> , 2010 , 53, 654-657	3.6	4

- 4 Glass-forming ability enhanced by proper additions of oxygen in a Fe-based bulk metallic glass. *Applied Physics Letters*, **2009**, 95, 161905 3-4 49
- 3 Glass formation and magnetic properties of Fe₇₅Si₁₀B₁₀(CrAlCo) bulk metallic glasses fabricated using industrial raw materials. *Journal of Magnetism and Magnetic Materials*, **2009**, 321, 2833-2837 2-8 36
- 2 Single-element amorphous palladium nanoparticles formed via phase separation. *Nano Research*, 1 10
- 1 Compositionally complex coherent precipitation-strengthened high-entropy alloys: a critical review. *Rare Metals*, 1 5-5 0