

# Zeng-Bao Jiao

## List of Publications by Citations

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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	Multicomponent intermetallic nanoparticles and superb mechanical behaviors of complex alloys. <i>Science</i> , <b>2018</b> , 362, 933-937	33.3	513
74	Heterogeneous precipitation behavior and stacking-fault-mediated deformation in a CoCrNi-based medium-entropy alloy. <i>Acta Materialia</i> , <b>2017</b> , 138, 72-82	8.4	286
73	Synergistic effects of Cu and Ni on nanoscale precipitation and mechanical properties of high-strength steels. <i>Acta Materialia</i> , <b>2013</b> , 61, 5996-6005	8.4	134
72	Precipitation mechanism and mechanical properties of an ultra-high strength steel hardened by nanoscale NiAl and Cu particles. <i>Acta Materialia</i> , <b>2015</b> , 97, 58-67	8.4	126
71	Co-precipitation of nanoscale particles in steels with ultra-high strength for a new era. <i>Materials Today</i> , <b>2017</b> , 20, 142-154	21.8	103
70	Effects of alloying elements on glass formation, mechanical and soft-magnetic properties of Fe-based metallic glasses. <i>Intermetallics</i> , <b>2011</b> , 19, 1502-1508	3.5	79
69	Effects of Mn partitioning on nanoscale precipitation and mechanical properties of ferritic steels strengthened by NiAl nanoparticles. <i>Acta Materialia</i> , <b>2015</b> , 84, 283-291	8.4	72
68	Ultrahigh-strength and ductile superlattice alloys with nanoscale disordered interfaces. <i>Science</i> , <b>2020</b> , 369, 427-432	33.3	72
67	High-strength steels hardened mainly by nanoscale NiAl precipitates. <i>Scripta Materialia</i> , <b>2014</b> , 87, 45-48	5.6	66
66	Ultrahigh strength and ductility in newly developed materials with coherent nanolamellar architectures. <i>Nature Communications</i> , <b>2020</b> , 11, 6240	17.4	59
65	Superior high-temperature properties and deformation-induced planar faults in a novel L12-strengthened high-entropy alloy. <i>Acta Materialia</i> , <b>2020</b> , 188, 517-527	8.4	50
64	Glass-forming ability enhanced by proper additions of oxygen in a Fe-based bulk metallic glass. <i>Applied Physics Letters</i> , <b>2009</b> , 95, 161905	3.4	49
63	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> , <b>2019</b> , 29, 1807857	15.6	47
62	Control of nanoscale precipitation and elimination of intermediate-temperature embrittlement in multicomponent high-entropy alloys. <i>Acta Materialia</i> , <b>2020</b> , 189, 47-59	8.4	47
61	Improved ductility and oxidation resistance of cast Ti <sub>3</sub> Al <sub>2</sub> V alloys by microalloying. <i>Journal of Alloys and Compounds</i> , <b>2014</b> , 602, 235-240	5.7	47
60	Strategies for improving ductility of ordered intermetallics. <i>Progress in Natural Science: Materials International</i> , <b>2016</b> , 26, 1-12	3.6	45
59	Effects of nanocrystal formation on the soft magnetic properties of Fe-based bulk metallic glasses. <i>Applied Physics Letters</i> , <b>2011</b> , 99, 052504	3.4	44

58	High-Entropy Alloy (HEA)-Coated Nanolattice Structures and Their Mechanical Properties. <i>Advanced Engineering Materials</i> , <b>2018</b> , 20, 1700625	3.5	40
57	Glass formation and magnetic properties of Fe <sub>0.8</sub> Si <sub>0.1</sub> B <sub>0.1</sub> (CrAlCo) bulk metallic glasses fabricated using industrial raw materials. <i>Journal of Magnetism and Magnetic Materials</i> , <b>2009</b> , 321, 2833-2837	2.8	36
56	Precipitate transformation from NiAl-type to Ni <sub>2</sub> AlMn-type and its influence on the mechanical properties of high-strength steels. <i>Acta Materialia</i> , <b>2016</b> , 110, 31-43	8.4	35
55	Group precipitation and age hardening of nanostructured Fe-based alloys with ultra-high strengths. <i>Scientific Reports</i> , <b>2016</b> , 6, 21364	4.9	32
54	Synthesis of bulk glassy Fe <sub>0.8</sub> Si <sub>0.1</sub> B <sub>0.1</sub> Co alloys with high glass-forming ability and good soft-magnetic properties. <i>Intermetallics</i> , <b>2010</b> , 18, 1821-1825	3.5	31
53	Hardening mechanisms and impact toughening of a high-strength steel containing low Ni and Cu additions. <i>Acta Materialia</i> , <b>2019</b> , 172, 150-160	8.4	30
52	Mechanical properties and deformation mechanisms of a novel austenite-martensite dual phase steel. <i>International Journal of Plasticity</i> , <b>2020</b> , 128, 102677	7.6	26
51	Enhancing glass-forming ability via frustration of nano-clustering in alloys with a high solvent content. <i>Scientific Reports</i> , <b>2013</b> , 3, 1983	4.9	26
50	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> , <b>2010</b> , 53, 430-434	3.6	25
49	Microstructures and mechanical properties of CoCrFeMnNiV high entropy alloy films. <i>Journal of Alloys and Compounds</i> , <b>2020</b> , 820, 153388	5.7	25
48	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> , <b>2016</b> , 120, 216-227	8.4	25
47	Nanocrystalline Ag-W alloys lose stability upon solute desegregation from grain boundaries. <i>Acta Materialia</i> , <b>2018</b> , 161, 194-206	8.4	24
46	Size effects on the compressive deformation behaviour of a brittle Fe-based bulk metallic glass. <i>Philosophical Magazine Letters</i> , <b>2010</b> , 90, 403-412	1	23
45	Atom-probe study of Cu and NiAl nanoscale precipitation and interfacial segregation in a nanoparticle-strengthened steel. <i>Materials Research Letters</i> , <b>2017</b> , 5, 562-568	7.4	22
44	Effects of boron on the fracture behavior and ductility of cast Ti <sub>0.8</sub> Al <sub>0.2</sub> V alloys. <i>Scripta Materialia</i> , <b>2015</b> , 100, 90-93	5.6	21
43	Formation and crystallization behavior of Fe-based amorphous precursors with pre-existing 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> , <b>2021</b> , 65, 171-181	9.1	20
42	Effects of boron additions and solutionizing treatments on microstructures and ductility of forged Ti <sub>0.8</sub> Al <sub>0.2</sub> V alloys. <i>Journal of Alloys and Compounds</i> , <b>2015</b> , 624, 170-178	5.7	17
41	Achieving exceptional wear resistance in a compositionally complex alloy via tuning the interfacial structure and chemistry. <i>Acta Materialia</i> , <b>2020</b> , 188, 697-710	8.4	16

40	Refractory alloying additions on the thermal stability and mechanical properties of high-entropy alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2020</b> , 797, 140020	5.3	16
39	Synergistic effects of Al and Ti on the oxidation behaviour and mechanical properties of L12-strengthened FeCoCrNi high-entropy alloys. <i>Corrosion Science</i> , <b>2021</b> , 184, 109365	6.8	15
38	Mechanisms for suppressing discontinuous precipitation and improving mechanical properties of NiAl-strengthened steels through nanoscale Cu partitioning. <i>Acta Materialia</i> , <b>2021</b> , 205, 116561	8.4	15
37	A novel ferritic steel family hardened by intermetallic compound G-phase. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2019</b> , 745, 390-399	5.3	13
36	A novel L12-strengthened multicomponent Co-rich high-entropy alloy with both high $\sigma$ -solvus temperature and superior high-temperature strength. <i>Scripta Materialia</i> , <b>2021</b> , 199, 113826	5.6	12
35	Heterogenous columnar-grained high-entropy alloys produce exceptional resistance to intermediate-temperature intergranular embrittlement. <i>Scripta Materialia</i> , <b>2021</b> , 194, 113622	5.6	12
34	Thermal stability and high-temperature mechanical performance of nanostructured WCuCrZrC composite. <i>Composites Part B: Engineering</i> , <b>2021</b> , 208, 108600	10	11
33	Synergistic alloying effects on nanoscale precipitation and mechanical properties of ultrahigh-strength steels strengthened by Ni <sub>3</sub> Ti, Mo-enriched, and Cr-rich co-precipitates. <i>Acta Materialia</i> , <b>2021</b> , 209, 116788	8.4	11
32	Breaking the strength-ductility paradox in advanced nanostructured Fe-based alloys through combined Cu and Mn additions. <i>Scripta Materialia</i> , <b>2020</b> , 186, 213-218	5.6	10
31	Effect of Mo:W ratio on segregation behavior and creep strength of nickel-based single crystal superalloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2019</b> , 744, 481-489	5.3	10
30	Compositional and microstructural optimization and mechanical-property enhancement of cast Ti alloys based on Ti-6Al-4V alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2017</b> , 704, 91-101	5.3	9
29	Precipitation kinetics and mechanical properties of nanostructured steels with Mo additions. <i>Materials Research Letters</i> , <b>2020</b> , 8, 187-194	7.4	8
28	Precipitation behavior in G-phase strengthened ferritic stainless steels. <i>Acta Materialia</i> , <b>2021</b> , 205, 116561	8.4	8
27	Control of discontinuous and continuous precipitation of $\sigma$ -strengthened high-entropy alloys through nanoscale Nb segregation and partitioning. <i>Journal of Alloys and Compounds</i> , <b>2020</b> , 832, 154903	5.7	7
26	Ultrahigh-strength steels strengthened by nanoparticles. <i>Science Bulletin</i> , <b>2017</b> , 62, 1043-1044	10.6	7
25	Compressive fracture characteristics of Zr-based bulk metallic glass. <i>Science China: Physics, Mechanics and Astronomy</i> , <b>2010</b> , 53, 823-827	3.6	4
24	Three-point bending fracture characteristics of bulk metallic glasses. <i>Science China: Physics, Mechanics and Astronomy</i> , <b>2010</b> , 53, 654-657	3.6	4
23	Cu-assisted austenite reversion and enhanced TRIP effect in maraging stainless steels. <i>Journal of Materials Science and Technology</i> , <b>2022</b> , 104, 52-58	9.1	4

22	In situ neutron diffraction unravels deformation mechanisms of a strong and ductile FeCrNi medium entropy alloy. <i>Journal of Materials Science and Technology</i> , <b>2022</b> , 116, 103-120	9.1	2
21	Boosting electrochemical performance of Li-S batteries by cerium-based MOFs coated with polypyrrole. <i>Journal of Alloys and Compounds</i> , <b>2022</b> , 901, 163649	5.7	2
20	Abrasive wear behavior of TiC-strengthened eutectic high chromium cast iron composites. <i>Materials Today Communications</i> , <b>2021</b> , 29, 102906	2.5	2
19	Copper-Rich Nanoclusters: Ferritic Steels Strengthened <b>2016</b> , 875-886		2
18	High-temperature mechanical behavior of ultra-coarse cemented carbide with grain strengthening. <i>Journal of Materials Science and Technology</i> , <b>2022</b> , 104, 8-18	9.1	2
17	L12-strengthened multicomponent Co-Al-Nb-based alloys with high strength and matrix-confined stacking-fault-mediated plasticity. <i>Acta Materialia</i> , <b>2022</b> , 229, 117763	8.4	2
16	Effects of density difference of constituent elements on glass formation in TiCu-based bulk metallic glasses. <i>Progress in Natural Science: Materials International</i> , <b>2013</b> , 23, 469-474	3.6	1
15	Synergy of strengthening and toughening of a Cu-rich precipitate-strengthened steel. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2022</b> , 832, 142487	5.3	1
14	Enhanced strength-ductility synergy via novel bifunctional nano-precipitates in a high-entropy alloy. <i>International Journal of Plasticity</i> , <b>2022</b> , 153, 103235	7.6	1
13	Alloying effects on phase stability, mechanical properties, and deformation behavior of CoCrNi-based medium-entropy alloys at low temperatures. <i>Intermetallics</i> , <b>2022</b> , 140, 107399	3.5	1
12	Wear-resistance enhancement of nanostructured W-Cu-Cr composites. <i>International Journal of Refractory Metals and Hard Materials</i> , <b>2021</b> , 101, 105673	4.1	1
11	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> , <b>2022</b> , 24, 100653	8	1
10	High-entropy induced a glass-to-glass transition in a metallic glass.. <i>Nature Communications</i> , <b>2022</b> , 13, 2183	17.4	1
9	Low-carbon advanced nanostructured steels: Microstructure, mechanical properties, and applications. <i>Science China Materials</i> , <b>2021</b> , 64, 1580-1597	7.1	0
8	Compositionally complex coherent precipitation-strengthened high-entropy alloys: a critical review. <i>Rare Metals</i> , 1	5.5	0
7	Remarkable cryogenic strengthening and toughening in nano-coherent CoCrFeNiTi0.2 high-entropy alloys via energetically-tuning polymorphous precipitates. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2022</b> , 143111	5.3	0
6	Microstructure, mechanical properties and biocompatibility of laser metal deposited Ti0.3Nb coatings on a NiTi substrate. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2022</b> , 143402	5.3	0
5	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> , <b>2019</b> , 29, 1970131	15.6	

- 4 Atomistic study of Al partitioning and its influence on nanoscale precipitation of Cu-rich nanocluster-strengthened steels. *Materials Characterization*, **2022**, 184, 111687 3.9
- 3 Phase Stability and Precipitation in L12-Strengthened CoCrNi Medium-Entropy Alloys at Intermediate Temperatures. *Journal of Phase Equilibria and Diffusion*, **2021**, 42, 781 1
- 2 Metallic Materials for Making Multi-Scaled Metallic Parts and Structures **2022**, 19-36
- 1 Single-element amorphous palladium nanoparticles formed via phase separation. *Nano Research*,1 10