

Xianghai An

List of Publications by Year in Descending Order

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Version: 2024-04-23

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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.

61

papers

2,255

citations

26

h-index

46

g-index

63

ext. papers

2,966

ext. citations

7.9

avg, IF

5.37

L-index

#	Paper	IF	Citations
61	Mechanical properties and deformation behaviours of submicron-sized CuAl single crystals. <i>Acta Materialia</i> , 2022 , 223, 117460	8.4	3
60	Deformation-induced crystalline-to-amorphous phase transformation in a CrMnFeCoNi high-entropy alloy. <i>Science Advances</i> , 2021 , 7,	14.3	26
59	Composition-dependent dynamic precipitation and grain refinement in Al-Si system under high-pressure torsion. <i>Journal of Materials Science and Technology</i> , 2021 , 68, 199-208	9.1	4
58	Size-dependent deformation behavior of dual-phase, nanostructured CrCoNi medium-entropy alloy. <i>Science China Materials</i> , 2021 , 64, 209-222	7.1	8
57	Effects of elemental segregation on microstructural evolution and local mechanical properties in a dynamically deformed CrMnFeCoNi high entropy alloy. <i>Scripta Materialia</i> , 2021 , 190, 80-85	5.6	6
56	Key roles of particles in grain refinement and material strengthening for an aluminum matrix composite. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021 , 801, 140414	5.3	9
55	Can experiment determine the stacking fault energy of metastable alloys?. <i>Materials and Design</i> , 2021 , 199, 109396	8.1	22
54	Unraveling dual phase transformations in a CrCoNi medium-entropy alloy. <i>Acta Materialia</i> , 2021 , 215, 117112	8.4	6
53	Mechanical size effect of eutectic high entropy alloy: Effect of lamellar orientation. <i>Journal of Materials Science and Technology</i> , 2021 , 82, 10-20	9.1	4
52	Structural hierarchy defeats alloy cracking. <i>Science</i> , 2021 , 373, 857-858	33.3	6
51	Remarkable toughness of a nanostructured medium-entropy nitride compound. <i>Nanoscale</i> , 2021 , 13, 15074-15084	7.7	1
50	Enhanced strength-ductility synergy and transformation-induced plasticity of the selective laser melting fabricated 304L stainless steel. <i>Additive Manufacturing</i> , 2020 , 35, 101300	6.1	12
49	Metallic nanocrystals with low angle grain boundary for controllable plastic reversibility. <i>Nature Communications</i> , 2020 , 11, 3100	17.4	22
48	In situ atomistic observation of grain boundary migration subjected to defect interaction. <i>Acta Materialia</i> , 2020 , 199, 42-52	8.4	24
47	In situ atomistic observation of the deformation mechanism of Au nanowires with twin-twin intersection. <i>Journal of Materials Science and Technology</i> , 2020 , 53, 118-125	9.1	9
46	Effect of grain size on fatigue cracking at twin boundaries in a CoCrFeMnNi high-entropy alloy. <i>Journal of Materials Science and Technology</i> , 2020 , 39, 1-6	9.1	26
45	Achieving equal strength joint to parent metal in a friction stir welded ultra-high strength quenching and partitioning steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020 , 793, 139979	5.3	7

44	Improved cyclic softening behavior of ultrafine-grained Cu with high microstructural stability. <i>Scripta Materialia</i> , 2019 , 166, 10-14	5.6	9
43	Selective laser melting enabling the hierarchically heterogeneous microstructure and excellent mechanical properties in an interstitial solute strengthened high entropy alloy. <i>Materials Research Letters</i> , 2019 , 7, 453-459	7.4	68
42	Simultaneously enhancing strength and ductility of a high-entropy alloy via gradient hierarchical microstructures. <i>International Journal of Plasticity</i> , 2019 , 123, 178-195	7.6	90
41	Unique defect evolution during the plastic deformation of a metal matrix composite. <i>Scripta Materialia</i> , 2019 , 162, 316-320	5.6	31
40	Understanding formation of Mg-depletion zones in Al-Mg alloys under high pressure torsion. <i>Journal of Materials Science and Technology</i> , 2019 , 35, 858-864	9.1	10
39	Significance of stacking fault energy in bulk nanostructured materials: Insights from Cu and its binary alloys as model systems. <i>Progress in Materials Science</i> , 2019 , 101, 1-45	42.2	104
38	Excellent ductility and serration feature of metastable CoCrFeNi high-entropy alloy at extremely low temperatures. <i>Science China Materials</i> , 2019 , 62, 853-863	7.1	70
37	Cryogenic-deformation-induced phase transformation in an FeCoCrNi high-entropy alloy. <i>Materials Research Letters</i> , 2018 , 6, 236-243	7.4	115
36	Length-scale-dependent nanoindentation creep behaviour of Ti/Al multilayers by magnetron sputtering. <i>Materials Characterization</i> , 2018 , 139, 165-175	3.9	12
35	Exploring the fatigue strength improvement of Cu-Al alloys. <i>Acta Materialia</i> , 2018 , 144, 613-626	8.4	38
34	Ultrahigh cryogenic strength and exceptional ductility in ultrafine-grained CoCrFeMnNi high-entropy alloy with fully recrystallized structure. <i>Materials Today Nano</i> , 2018 , 4, 46-53	9.7	70
33	Opposite grain size dependence of strain rate sensitivity of copper at low vs high strain rates. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018 , 738, 430-438	5.3	27
32	Improving the strength and retaining the ductility of microstructural graded coarse-grained materials with low stacking fault energy. <i>Materials and Design</i> , 2018 , 160, 21-33	8.1	13
31	Comparative study on plasticity and fracture behaviour of Ti/Al multilayers. <i>Tribology International</i> , 2018 , 126, 344-351	4.9	6
30	Hierarchical microstructure and strengthening mechanisms of a CoCrFeNiMn high entropy alloy additively manufactured by selective laser melting. <i>Scripta Materialia</i> , 2018 , 154, 20-24	5.6	244
29	Cr depletion of the second phase particles in a Zr-Sn-Nb-Fe-Cr alloy: A TEM and SIMS study. <i>Journal of Nuclear Materials</i> , 2017 , 491, 1-8	3.3	7
28	Effect of sample orientation and initial microstructures on the dynamic recrystallization of a Magnesium alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017 , 691, 150-154	5.3	19
27	In-situ high-resolution transmission electron microscopy investigation of grain boundary dislocation activities in a nanocrystalline CrMnFeCoNi high-entropy alloy. <i>Journal of Alloys and Compounds</i> , 2017 , 709, 802-807	5.7	34

26	Influence of solid solution strengthening on the local mechanical properties of single crystal and ultrafine-grained binary Cu ₃ Al X solid solutions. <i>Journal of Materials Research</i> , 2017 , 32, 4583-4591	2.5	8
25	Mechanical behaviors of nanowires. <i>Applied Physics Reviews</i> , 2017 , 4, 031104	17.3	39
24	Ultra-high specific strength and deformation behavior of nanostructured Ti/Al multilayers. <i>Journal Physics D: Applied Physics</i> , 2017 , 50, 365302	3	7
23	Kinetics of Domain Switching by Mechanical and Electrical Stimulation in Relaxor-Based Ferroelectrics. <i>Physical Review Applied</i> , 2017 , 8,	4.3	11
22	Influence of deformation microstructure on the precipitation behaviors of an Al-4Mg-0.3Cu alloy. <i>Journal of Alloys and Compounds</i> , 2017 , 695, 2238-2245	5.7	11
21	Effect of a High Density of Stacking Faults on the Young's Modulus of GaAs Nanowires. <i>Nano Letters</i> , 2016 , 16, 1911-6	11.5	48
20	Exceptional high fatigue strength in Cu-15at.%Al alloy with moderate grain size. <i>Scientific Reports</i> , 2016 , 6, 27433	4.9	19
19	Fracture mechanism of an Al/AlN/CrAlN gradient coating on nitrogen implanted magnesium alloy. <i>Surface and Coatings Technology</i> , 2016 , 302, 126-130	4.4	7
18	Microstructural evolution and phase transformation in twinning-induced plasticity steel induced by high-pressure torsion. <i>Acta Materialia</i> , 2016 , 109, 300-313	8.4	48
17	Determination of Young's Modulus of Ultrathin Nanomaterials. <i>Nano Letters</i> , 2015 , 15, 5279-83	11.5	35
16	Influence of Al content on the strain-hardening behavior of aged low density Fe-Mn-Al-C steels with high Al content. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015 , 639, 187-191	5.3	50
15	Improved Fatigue Strengths of Nanocrystalline Cu and Cu ₃ Al Alloys. <i>Materials Research Letters</i> , 2015 , 3, 135-141	7.4	39
14	Effects of loading misalignment and tapering angle on the measured mechanical properties of nanowires. <i>Nanotechnology</i> , 2015 , 26, 435704	3.4	6
13	Concurrent microstructural evolution of ferrite and austenite in a duplex stainless steel processed by high-pressure torsion. <i>Acta Materialia</i> , 2014 , 63, 16-29	8.4	66
12	Enhanced cyclic deformation responses of ultrafine-grained Cu and nanocrystalline Cu ₃ Al alloys. <i>Acta Materialia</i> , 2014 , 74, 200-214	8.4	86
11	Microstructure and mechanical properties of Cu and Cu ₃ Zn alloys produced by equal channel angular pressing. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011 , 528, 4259-4267	5.3	69
10	Enhancing strength and ductility of Mg ₉₂ Gd ₈ Y _{0.5} Zr alloy by forming a bi-ultrafine microstructure. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011 , 528, 4300-4311	5.3	24
9	Effects of stacking fault energy on the thermal stability and mechanical properties of nanostructured Cu-Al alloys during thermal annealing. <i>Journal of Materials Research</i> , 2011 , 26, 407-415	2.5	35

8	Microstructural evolution and shear fracture of Cu-6at.% Al alloy induced by equal channel angular pressing. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010 , 527, 4510-4514	5.3	38
7	MICROSTRUCTURE EVOLUTION AND MECHANICAL PROPERTIES OF FCC METALLIC MATERIALS SUBJECTED TO EQUAL CHANNEL ANGULAR PRESSING. <i>Jinshu Xuebao/Acta Metallurgica Sinica</i> , 2010 , 46, 257-276		4
6	Influence of stacking-fault energy on the accommodation of severe shear strain in Cu-Al alloys during equal-channel angular pressing. <i>Journal of Materials Research</i> , 2009 , 24, 3636-3646	2.5	53
5	Evolution of initial grain boundaries and shear bands in Cu bicrystals during one-pass equal-channel angular pressing. <i>Acta Materialia</i> , 2009 , 57, 1132-1146	8.4	30
4	Microstructural evolution and mechanical properties of Cu-Al alloys subjected to equal channel angular pressing. <i>Acta Materialia</i> , 2009 , 57, 1586-1601	8.4	276
3	High strength and utilizable ductility of bulk ultrafine-grained Cu-Al alloys. <i>Applied Physics Letters</i> , 2008 , 92, 201915	3.4	72
2	Effect of titanium and titania on chemical characteristics of hydroxyapatite plasma-sprayed into water. <i>Materials Science and Engineering C</i> , 2006 , 26, 28-33	8.3	10
1	Enhanced High-Temperature Strength of a Low-Density Dispersion-Strengthened Fe-Mn-Al-C Steel. <i>Advanced Engineering Materials</i> , 2101192	3.5	0