Yakai Zhao

List of Publications by Year
in descending order

36 papers	1,333 citations	361045 20 h-index	344852 36 g-index
36 all docs	36 docs citations	36 times ranked	1163 citing authors

#	Article	IF	Citations
1	Hydrogen-assisted failure in Inconel 718 fabricated by laser powder bed fusion: The role of solidification substructure in the embrittlement. Scripta Materialia, 2022, 207, 114308.	2.6	20
2	Nanomechanical and microstructural characterization on the synergetic strengthening in selectively laser melted austenitic stainless steel. Scripta Materialia, 2022, 209, 114359.	2.6	7
3	Decoupling the roles of constituent phases in the strengthening of hydrogenated nanocrystalline dual-phase high-entropy alloys. Scripta Materialia, 2022, 210, 114472.	2.6	8
4	Long-whisker type TiB phase introduced by micron-sized precursors and its prominent strengthening effect in titanium matrix composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 841, 143021.	2.6	6
5	Rate-dependent mechanical behavior of single-, bi-, twinned-, and poly-crystals of CoCrFeNi high-entropy alloy. Journal of Materials Science and Technology, 2022, 120, 253-264.	5.6	10
6	Effect of initial dislocation density on the plastic deformation response of 316L stainless steel manufactured by directed energy deposition. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 851, 143591.	2.6	21
7	Bimodality of incipient plastic strength in face-centered cubic high-entropy alloys. Acta Materialia, 2021, 202, 124-134.	3.8	36
8	Hydrogen uptake and its influence in selective laser melted austenitic stainless steel: A nanoindentation study. Scripta Materialia, 2021, 194, 113718.	2.6	20
9	Exploring the hydrogen absorption and strengthening behavior in nanocrystalline face-centered cubic high-entropy alloys. Scripta Materialia, 2021, 203, 114069.	2.6	12
10	Compositionally graded CoCrFeNiTi high-entropy alloys manufactured by laser powder bed fusion: A combinatorial assessment. Journal of Alloys and Compounds, 2021, 883, 160825.	2.8	21
11	Effect of grain size on the strain rate sensitivity of CoCrFeNi high-entropy alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 782, 139281.	2.6	32
12	Influence of severe plastic deformation on the microstructure and hardness of a CoCrFeNi high-entropy alloy: A comparison with CoCrFeNiMn. Materials Characterization, 2019, 154, 304-314.	1.9	53
13	Influences of hydrogen charging method on the hydrogen distribution and nanomechanical properties of face-centered cubic high-entropy alloy: A comparative study. Scripta Materialia, 2019, 168, 76-80.	2.6	39
14	Evolution of microstructure and hardness in Hf25Nb25Ti25Zr25 high-entropy alloy during high-pressure torsion. Journal of Alloys and Compounds, 2019, 788, 318-328.	2.8	37
15	Effect of Solidification Rate on the Microstructure and Strain-Rate-Sensitive Mechanical Behavior of AlCoCrFeNi High-Entropy Alloy Prepared by Bridgman Solidification. Materials Transactions, 2019, 60, 929-934.	0.4	4
16	Influence of hydrogen on incipient plasticity in CoCrFeMnNi high-entropy alloy. Scripta Materialia, 2019, 161, 23-27.	2.6	30
17	In-situ synchrotron X-ray diffraction study of dual-step strain variation in laser shock peened metallic glasses. Scripta Materialia, 2018, 149, 112-116.	2.6	4
18	Influence of pre-strain on the gaseous hydrogen embrittlement resistance of a high-entropy alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 718, 43-47.	2.6	41

#	Article	IF	Citations
19	Statistical analysis of the size- and rate-dependence of yield and plastic flow in nanocrystalline copper pillars. Acta Materialia, 2017, 127, 332-340.	3.8	11
20	A novel way to estimate the nanoindentation hardness of only-irradiated layer and its application to ion irradiated Fe-12Cr alloy. Journal of Nuclear Materials, 2017, 487, 343-347.	1.3	10
21	Resistance of CoCrFeMnNi high-entropy alloy to gaseous hydrogen embrittlement. Scripta Materialia, 2017, 135, 54-58.	2.6	166
22	Hydrogen-induced nanohardness variations in a CoCrFeMnNi high-entropy alloy. International Journal of Hydrogen Energy, 2017, 42, 12015-12021.	3.8	35
23	Annealing effect on plastic flow in nanocrystalline CoCrFeMnNi high-entropy alloy: A nanomechanical analysis. Acta Materialia, 2017, 140, 443-451.	3.8	61
24	Time-dependent nanoscale plasticity in nanocrystalline nickel rods and tubes. Scripta Materialia, 2016, 112, 79-82.	2.6	8
25	Hydrogen-induced softening in nanocrystalline Ni investigated by nanoindentation. Philosophical Magazine, 2016, 96, 3442-3450.	0.7	11
26	Spherical nanoindentation creep behavior of nanocrystalline and coarse-grained CoCrFeMnNi high-entropy alloys. Acta Materialia, 2016, 109, 314-322.	3.8	156
27	On the contributions of different micromechanisms for enhancement in the strength of TIâ€“6Alâ€“4V alloy upon B addition: A nanomechanical analysis. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 649, 123-127.	2.6	13
28	The role of hydrogen in hardening/softening steel: Influence of the charging process. Scripta Materialia, 2015, 107, 46-49.	2.6	99
29	Strainâ€Dependent Plasticity Evolution of Window Glass. Journal of the American Ceramic Society, 2015, 98, 186-189.	1.9	4
30	Microalloying Effect on the Activation Energy of Hot Deformation. Steel Research International, 2015, 86, 817-820.	1.0	2
31	On the nanomechanical characteristics of thermally-treated alloy 690: Grain boundaries versus grain interior. Journal of Alloys and Compounds, 2014, 582, 141-145.	2.8	21
32	Hydrogen-induced hardening and softening of Niâ€“Nbâ€“Zr amorphous alloys: Dependence on the Zr content. Scripta Materialia, 2014, 93, 56-59.	2.6	30
33	Effect of hydrogen on the yielding behavior and shear transformation zone volume in metallic glass ribbons. Acta Materialia, 2014, 78, 213-221.	3.8	36
34	Predicting flow curves of two-phase steels from spherical nanoindentation data of constituent phases: Isostrain method vs. non-isostrain method. International Journal of Plasticity, 2014, 59, 108-118.	4.1	47
35	Indentation size effect and shear transformation zone size in a bulk metallic glass in two different structural states. Acta Materialia, 2012, 60, 6862-6868.	3.8	130
36	Estimation of the shear transformation zone size in a bulk metallic glass through statistical analysis of the first pop-in stresses during spherical nanoindentation. Scripta Materialia, 2012, 66, 923-926.	2.6	92