

Shuai Wang

List of Publications by Year in descending order

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44
papers

1,725
citations

430442

18
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276539

41
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44
all docs

44
docs citations

44
times ranked

1240
citing authors

#	ARTICLE	IF	CITATIONS
1	Enumeration of the hydrogen-enhanced localized plasticity mechanism for hydrogen embrittlement in structural materials. <i>Acta Materialia</i> , 2019, 165, 734-750.	3.8	295
2	Hydrogen-induced intergranular failure of iron. <i>Acta Materialia</i> , 2014, 69, 275-282.	3.8	204
3	Recent advances on hydrogen embrittlement of structural materials. <i>International Journal of Fracture</i> , 2015, 196, 223-243.	1.1	146
4	Mechanisms of radiation-induced segregation in CrFeCoNi-based single-phase concentrated solid solution alloys. <i>Acta Materialia</i> , 2017, 126, 182-193.	3.8	133
5	Effect of hydrogen environment on the separation of Fe grain boundaries. <i>Acta Materialia</i> , 2016, 107, 279-288.	3.8	106
6	Stable Sodium Metal Batteries via Manipulation of Electrolyte Solvation Structure. <i>Small Methods</i> , 2020, 4, 1900856.	4.6	73
7	Activation volume and density of mobile dislocations in hydrogen-charged iron. <i>Acta Materialia</i> , 2013, 61, 4734-4742.	3.8	66
8	Influence of hydrogen on dislocation self-organization in Ni. <i>Acta Materialia</i> , 2017, 135, 96-102.	3.8	65
9	Enhanced damage resistance and novel defect structure of CrFeCoNi under in situ electron irradiation. <i>Scripta Materialia</i> , 2016, 125, 5-9.	2.6	62
10	Hydrogen embrittlement of the equi-molar FeNiCoCr alloy. <i>Acta Materialia</i> , 2018, 157, 218-227.	3.8	52
11	Hydrogen-modified dislocation structures in a cyclically deformed ferritic-pearlitic low carbon steel. <i>Acta Materialia</i> , 2018, 144, 164-176.	3.8	48
12	Toward Phase and Catalysis Control: Tracking the Formation of Intermetallic Nanoparticles at Atomic Scale. <i>Chem</i> , 2019, 5, 1235-1247.	5.8	45
13	Effects of hydrogen on activation volume and density of mobile dislocations in iron-based alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 562, 101-108.	2.6	42
14	Nitrogen, Oxygen-codoped Vertical Graphene Arrays Coated 3D Flexible Carbon Nanofibers with High Silicon Content as an Ultrastable Anode for Superior Lithium Storage. <i>Advanced Science</i> , 2022, 9, e2104685.	5.6	42
15	Composite Electrolytes Based on Poly(Ethylene Oxide) and Lithium Borohydrides for All-Solid-State Lithium-Sulfur Batteries. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 5396-5404.	3.2	33
16	Microstructure, corrosion behaviour and thermal stability of AA 7150 after ultrasonic shot peening. <i>Surface and Coatings Technology</i> , 2020, 398, 126127.	2.2	30
17	Hydrogen-induced change in core structures of {110}[111] edge and {110}[111] screw dislocations in iron. <i>Scientific Reports</i> , 2013, 3, 2760.	1.6	26
18	Strain field of interstitial hydrogen atom in body-centered cubic iron and its effect on hydrogen-dislocation interaction. <i>Scripta Materialia</i> , 2013, 68, 249-252.	2.6	21

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19	Assessment of the impact of hydrogen on the stress developed ahead of a fatigue crack. <i>Acta Materialia</i> , 2019, 174, 181-188.	3.8	19
20	Effect of Mo doping on the gaseous hydrogen embrittlement of a CoCrNi medium-entropy alloy. <i>Corrosion Science</i> , 2021, 189, 109628.	3.0	19
21	Preparation of diamond-like carbon films by cathodic micro-arc discharge in aqueous solutions. <i>Thin Solid Films</i> , 2010, 518, 4211-4214.	0.8	18
22	The microstructure and mechanical properties of copper in electrically assisted tension. <i>Materials and Design</i> , 2020, 196, 109171.	3.3	18
23	On the failure of surface damage to assess the hydrogen-enhanced deformation ahead of crack tip in a cyclically loaded austenitic stainless steel. <i>Scripta Materialia</i> , 2019, 166, 102-106.	2.6	16
24	Regulating Li_2S Deposition by Ostwald Ripening in Lithium-Sulfur Batteries. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 4204-4210.	4.0	16
25	Orientation dependence of dislocation structure in surface grain of pure copper deformed in tension. <i>Acta Materialia</i> , 2021, 203, 116474.	3.8	15
26	Fast Lithium Ionic Conductivity in Complex Hydride-Sulfide Electrolytes by Double Anions Substitution. <i>Small Methods</i> , 2021, 5, e2100609.	4.6	14
27	Nanoscale corrosion investigation of surface nanocrystallized 7150 Al alloy in 3.5 wt% NaCl solution by using FIB-TEM techniques. <i>Corrosion Science</i> , 2022, 195, 110021.	3.0	14
28	Embrittlement of 316L stainless steel in electropulsing treatment. <i>Journal of Materials Research and Technology</i> , 2020, 9, 10669-10678.	2.6	13
29	Flexible Metal Electrodes by Femtosecond Laser-Activated Deposition for Human-Machine Interfaces. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 11971-11980.	4.0	12
30	Physical properties of δ -Fe upon the introduction of H, He, C, and N. <i>Solid State Communications</i> , 2014, 195, 70-73.	0.9	8
31	Microstructure, corrosion behavior and hydrogen evolution of USSP processed AZ31 magnesium alloy with a surface layer containing amorphous Fe-rich composite. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 10172-10182.	3.8	8
32	A comparison of dislocation cellular patterns generated in Inconel 718 alloy and pure Ni fabricated by laser powder bed fusion. <i>Vacuum</i> , 2022, 199, 110974.	1.6	8
33	On the microstructure and tensile properties of Inconel 718 alloy fabricated by selective laser melting and conventional casting. <i>Journal of Micromechanics and Molecular Physics</i> , 2021, 06, .	0.7	7
34	A comparative characterization of defect structure in NiCo and NiFe equimolar solid solution alloys under in situ electron irradiation. <i>Scripta Materialia</i> , 2019, 166, 96-101.	2.6	5
35	Tailoring hydrogen embrittlement resistance of pure Ni by grain boundary engineering. <i>Corrosion Communications</i> , 2022, 6, 48-51.	2.7	5
36	Regulating surface chemistry of separator with LiF for advanced Li-S batteries. <i>Frontiers in Energy</i> , 2022, 16, 601-606.	1.2	4

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37	On the fracture process of intermediate temperature embrittlement of pure copper in electrical-assisted tension. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 826, 141979.	2.6	4
38	Nano-Treating Promoted Natural Aging Al-Zn-Mg-Cu Alloys. <i>Journal of Composites Science</i> , 2022, 6, 114.	1.4	4
39	Using real-time UV-visible spectrophotometer to assess an Al-Zn-Mg-Cu alloy's dissolution in acidic solution. <i>Royal Society Open Science</i> , 2020, 7, 200461.	1.1	3
40	Phase Transition of Mg during Hydrogenation of Mg ₂ Nb ₂ O ₅ Evaporated Composites. <i>Journal of Physical Chemistry C</i> , 2012, 116, 17089-17093.	1.5	2
41	Effect of Hydrogen on Fatigue-Crack Growth of a Ferritic-Pearlitic Low Carbon Steel. , 2017, , .		1
42	Lattice rotation effect on the dislocation pattern of Cu deformed in tension. <i>Philosophical Magazine</i> , 2022, 102, 875-886.	0.7	1
43	Dislocation evolution in copper in the absence and presence of hydrogen. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 842, 143082.	2.6	1
44	Evolution of dislocation cellular pattern in Inconel 718 alloy fabricated by laser powder-bed fusion. <i>Additive Manufacturing</i> , 2022, 55, 102839.	1.7	1