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List of Publications by Year
in descending order

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94 papers	3,220 citations	218381 26 h-index	168136 53 g-index
97 all docs	97 docs citations	97 times ranked	1945 citing authors

#	Article	IF	Citations
1	Permeability, solubility and diffusivity of hydrogen isotopes in stainless steels at high gas pressures. International Journal of Hydrogen Energy, 2007, 32, 100-116.	3.8	377
2	Effects of alloy composition and strain hardening on tensile fracture of hydrogen-precharged type 316 stainless steels. International Journal of Hydrogen Energy, 2008, 33, 889-904.	3.8	206
3	Deformation of open-cell aluminum foam. Acta Materialia, 2001, 49, 3959-3969.	3.8	180
4	Strengthening mechanisms in directed energy deposited austenitic stainless steel. Acta Materialia, 2019, 164, 728-740.	3.8	171
5	Hydrogen environment embrittlement of stable austenitic steels. International Journal of Hydrogen Energy, 2012, 37, 16231-16246.	3.8	164
6	On the physical differences between tensile testing of type 304 and 316 austenitic stainless steels with internal hydrogen and in external hydrogen. International Journal of Hydrogen Energy, 2010, 35, 9736-9745.	3.8	155
7	Elucidating the variables affecting accelerated fatigue crack growth of steels in hydrogen gas with low oxygen concentrations. Acta Materialia, 2013, 61, 6153-6170.	3.8	129
8	Aluminaâ€“aluminum interpenetrating-phase composites with three-dimensional periodic architecture. Scripta Materialia, 2003, 49, 861-866.	2.6	120
9	Tritium Barriers and Tritium Diffusion in Fusion Reactors. , 2012, , 511-549.		98
10	Uniaxial deformation of open-cell aluminum foam: the role of internal damage. Acta Materialia, 2004, 52, 2895-2902.	3.8	93
11	The role of localized deformation in hydrogen-assisted crack propagation in 21Crâ€“6Niâ€“9Mn stainless steel. Acta Materialia, 2009, 57, 3795-3809.	3.8	92
12	Influence of damage on the tensile behaviour of pure aluminium reinforced with â‰¥40 vol. pct alumina particles. Acta Materialia, 2001, 49, 3699-3709.	3.8	86
13	Effects of microstructure banding on hydrogen assisted fatigue crack growth in X65 pipeline steels. International Journal of Fatigue, 2016, 82, 497-504.	2.8	83
14	Thermal expansion responses of pressure infiltrated SiC/Al metal-matrix composites. Journal of Materials Science, 1997, 32, 2131-2140.	1.7	73
15	Quasistatic and dynamic compression of aluminum-oxide particle reinforced pure aluminum. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 337, 202-211.	2.6	72
16	Effect of reaction on the tensile behavior of infiltrated boron carbideâ€“aluminum composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 337, 264-273.	2.6	72
17	The Relationship Between Crack-Tip Strain and Subcritical Cracking Thresholds for Steels in High-Pressure Hydrogen Gas. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 248-269.	1.1	69
18	Quantification of microdamage phenomena during tensile straining of high volume fraction particle reinforced aluminium. Acta Materialia, 2001, 49, 497-505.	3.8	68

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19	Numerical analysis of the deformation and solidification of a single droplet impinging onto a flat substrate. Journal of Materials Science, 1993, 28, 3313-3321.	1.7	67
20	Microstructure characterization in cryomilled Al 5083. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 430, 230-241.	2.6	66
21	Overview of the DOE hydrogen safety, codes and standards program, part 3: Advances in research and development to enhance the scientific basis for hydrogen regulations, codes and standards. International Journal of Hydrogen Energy, 2017, 42, 7263-7274.	3.8	61
22	Mechanical Properties of Super Duplex Stainless Steel 2507 after Gas Phase Thermal Precharging with Hydrogen. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2007, 38, 2763-2775.	1.1	49
23	Development of methods for evaluating hydrogen compatibility and suitability. International Journal of Hydrogen Energy, 2014, 39, 20434-20439.	3.8	45
24	Hydrogen-assisted crack propagation in 304L/308L and 21Crâ€“6Niâ€“9Mn/308L austenitic stainless steel fusion welds. Corrosion Science, 2012, 60, 136-144.	3.0	40
25	On the use of Considereâ€™s criterion in tensile testing of materials which accumulate internal damage. Scripta Materialia, 1999, 41, 549-551.	2.6	33
26	Tensile Behaviour of Replicated Aluminium Foams. Advanced Engineering Materials, 2004, 6, 444-447.	1.6	30
27	Hydrogen compatibility of austenitic stainless steel tubing and orbital tube welds. International Journal of Hydrogen Energy, 2014, 39, 20585-20590.	3.8	27
28	Enhancing safety of hydrogen containment components through materials testing under in-service conditions. International Journal of Hydrogen Energy, 2017, 42, 7314-7321.	3.8	27
29	Anomalous Annealing Response of Directed Energy Deposited Type 304L Austenitic Stainless Steel. Jom, 2018, 70, 358-363.	0.9	27
30	Effect of laser peening on the hydrogen compatibility of corrosion-resistant nickel alloy. Scripta Materialia, 2008, 58, 782-785.	2.6	25
31	Effect of High-Pressure Hydrogen Gas on Fracture of Austenitic Steels. Journal of Pressure Vessel Technology, Transactions of the ASME, 2008, 130, .	0.4	24
32	Fracture and Fatigue of Commercial Grade API Pipeline Steels in Gaseous Hydrogen. , 2010, , .		22
33	Microstructural development in DED stainless steels: applying welding models to elucidate the impact of processing and alloy composition. Journal of Materials Science, 2021, 56, 762-780.	1.7	22
34	Reactive infiltration processing of aluminum-nickel intermetallic compounds. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1998, 29, 2819-2828.	1.1	19
35	Influence of heat treatment and particle shape on mechanical properties of infiltrated Al2O3particle reinforced Al-2 wt-%Cu. Materials Science and Technology, 2002, 18, 1461-1470.	0.8	19
36	Effect of low temperature on hydrogen-assisted crack propagation in 304L/308L austenitic stainless steel fusion welds. Corrosion Science, 2013, 77, 210-221.	3.0	19

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37	An Feâ€“Niâ€“Crâ€“H interatomic potential and predictions of hydrogen-affected stacking fault energies in austenitic stainless steels. International Journal of Hydrogen Energy, 2022, 47, 651-665.	3.8	19
38	â€œAssessment of Metal Matrix Composites for Innovationsâ€•â€ intermediate report of a European Thematic Network. Composites Part A: Applied Science and Manufacturing, 2001, 32, 1161-1166.	3.8	18
39	Effect of microstructural and environmental variables on ductility of austenitic stainless steels. International Journal of Hydrogen Energy, 2021, 46, 12338-12347.	3.8	17
40	Effects of Low Temperature on Hydrogen-Assisted Crack Growth in Forged 304L Austenitic Stainless Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 4334-4350.	1.1	16
41	Microstructure and Mechanical Property Performance of Commercial Grade API Pipeline Steels in High Pressure Gaseous Hydrogen. , 2010, , .		15
42	Microstructural Tailoring of Open-Pore Microcellular Aluminium by Replication Processing. Materials Science Forum, 2006, 512, 281-288.	0.3	14
43	Fracture Resistance and Fatigue Crack Growth of X80 Pipeline Steel in Gaseous Hydrogen. , 2011, , .		13
44	Pressure Cycling of Steel Pressure Vessels With Gaseous Hydrogen. , 2012, , .		10
45	Hydrogen sorption characteristics of nanostructured Pdâ€“10Rh processed by cryomilling. Acta Materialia, 2015, 82, 41-50.	3.8	10
46	Solubility of hydrogen and its isotopes in metals from mixed gases. Journal of Nuclear Materials, 2008, 372, 421-425.	1.3	9
47	Stacking Fault Energy Based Alloy Screening for Hydrogen Compatibility. Jom, 2020, 72, 1982-1992.	0.9	9
48	Interrogating the Effects of Hydrogen on the Behavior of Planar Deformation Bands in Austenitic Stainless Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 1516-1525.	1.1	9
49	Fracture and Fatigue Tolerant Steel Pressure Vessels for Gaseous Hydrogen. , 2010, , .		8
50	Scaling of conductivity and Youngâ€™s modulus in replicated microcellular materials. Journal of Materials Science, 2013, 48, 8140-8146.	1.7	8
51	Orientation Effects on Fatigue Behavior of Additively Manufactured Stainless Steel. , 2017, , .		8
52	The effect of gravity on solution-reprecipitation during liquid phase sintering. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2000, 31, 397-400.	1.1	7
53	Corrigendum to: on the tensile behaviour of infiltrated alumina particle reinforced aluminium composites. Acta Materialia, 2003, 51, 6493-6496.	3.8	7
54	Effects of High-Pressure Gaseous Hydrogen on Structural Metals. , 0, , .		7

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55	Effect of High-Pressure Hydrogen Gas on Fracture of Austenitic Steels. , 2005, , 483.		6
56	Measurement of Sustained-Load Cracking Thresholds for Steels in Hydrogen Delivery and Storage. , 2008, , .		5
57	Effects of Strength and Microstructure on Hydrogen-Assisted Crack Propagation in 22Cr-13Ni-5Mn Stainless Steel Forgings. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2010, 41, 3348-3357.	1.1	5
58	Hydrogen embrittlement of stainless steels and their welds. , 2012, , 592-623.		5
59	Comparison of Internal and External Hydrogen on Fatigue-Life of Austenitic Stainless Steels. , 2016, , .		5
60	Behaviour of Polymers in High Pressure Environments as Applicable to the Hydrogen Infrastructure. , 2016, , .		5
61	Thermodynamics of Gaseous Hydrogen and Hydrogen Transport in Metals. Materials Research Society Symposia Proceedings, 2008, 1098, 1.	0.1	4
62	Effects of Extreme Hydrogen Environments on the Fracture and Fatigue Behavior of Additively Manufactured Stainless Steels. , 2019, , .		4
63	Fabrication and Testing of Electron Beam Welded Alloy AA2219 Aluminum Pressure Vessels for High-Pressure Hydrogen Service. , 2014, , .		3
64	Global Harmonization of Fatigue Life Testing in Gaseous Hydrogen. , 2018, , .		3
65	Oxygen Impurity Effects on Hydrogen Assisted Fatigue and Fracture of X100 Pipeline Steel. , 2018, , .		3
66	Measurement of Fatigue Crack Growth Rates for SA-372 Gr. J Steel in 100 MPa Hydrogen Gas Following Article KD-10. , 2013, , .		3
67	Microstructural Tailoring of Open-Pore Microcellular Aluminium by Replication Processing. Materials Science Forum, 0, , 281-288.	0.3	3
68	Technical Basis for Master Curve for Fatigue Crack Growth of Ferritic Steels in High-Pressure Gaseous Hydrogen in ASME Section VIII-3 Code. , 2019, , .		3
69	Melt Infiltration Processing of Foams Using Glass-Forming Alloys. Materials Research Society Symposia Proceedings, 2002, 754, 1.	0.1	2
70	Characterization of the Neâ€“Al scattering potential using low energy ion scattering maps. Nuclear Instruments & Methods in Physics Research B, 2011, 269, 1229-1233.	0.6	2
71	Hydrogen-Assisted Twin Boundary Fracture of Type 304 Austenitic Stainless Steel at Low Temperature Investigated by Scanning Probe Microscopy. , 2013, , .		2
72	Micromechanisms of Hydrogen-Assisted Cracking in Super Duplex Stainless Steel Investigated by Scanning Probe Microscopy. , 2014, , .		2

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73	Microstructure, deformation mechanisms and influence of hydrogen on tensile properties of the Co based super alloy DIN 2.4711/UNS N30003. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 662, 36-45.	2.6	2
74	Temperature Effects on Fracture Thresholds of Hydrogen Precharged Stainless Steel Welds. , 2017, , .		2
75	Fracture of Nanocrystalline Aluminum. , 2006, , 669-670.		2
76	Slip transmission and voiding during slip band Intersections in Fe70Ni10Cr20 stainless steel. Scripta Materialia, 2022, 220, 114925.	2.6	2
77	Hydrogen containment materials. , 2008, , 51-81.		1
78	Fatigue Crack Growth of Structural Metals for Hydrogen Service. , 2011, , .		1
79	Hydrogen-Assisted Fracture of Type 316L Tubing and Orbital Welds. , 2013, , .		1
80	Measurement of Fracture Properties for Ferritic Steel in High-Pressure Hydrogen Gas. , 2014, , .		1
81	Effect of Gaseous Hydrogen Charging on Nanohardness of Austenitic Stainless Steels. , 2016, , .		1
82	Notched Fatigue of Austentic Alloys in Gaseous Hydrogen. , 2017, , .		1
83	Tritium embrittlement of austenitic stainless-steel tubing at low helium contents. Fusion Engineering and Design, 2021, 168, 112413.	1.0	1
84	Fatigue and Fracture Behavior of Additively Manufactured Austenitic Stainless Steel. , 2020, , 381-398.		1
85	Structure-property relationships of Au films electrodeposited on Ni. Materials Research Society Symposia Proceedings, 2004, 821, 79.	0.1	0
86	Multi-scale Investigation of the Hydrogen-Assisted Failure of X65 Pipeline Steel. Microscopy and Microanalysis, 2010, 16, 778-779.	0.2	0
87	Comparison of Stainless Steels for High-Pressure Hydrogen Service. , 2014, , .		0
88	Scanning Kelvin Probe Force Microscopy Study of Hydrogen Distribution and Evolution in Duplex Stainless Steel. , 2017, , .		0
89	Contribution of Microstructural Features at Various Length Scales to the Strength of Additively Manufactured Austenitic Stainless Steels. Microscopy and Microanalysis, 2019, 25, 2574-2575.	0.2	0
90	Three-dimensional Analysis of Materials at Multiple Length Scales. Microscopy and Microanalysis, 2020, 26, 1680-1682.	0.2	0

#	Article	IF	Citations
91	Hydrogen Assisted Fracture of Type 316 Stainless Steel at Sub-Ambient Temperature. , 2008, , .		0
92	STRUCTURAL-METALS CONSIDERATIONS FOR THE CONTAINMENT OF HIGH-PRESSURE HYDROGEN GAS. , 2009, , .		0
93	Thermography Assisted Fatigue Testing. , 0, , 193-200.		0
94	Evaluating the Resistance of Austenitic Stainless Steel Welds to Hydrogen Embrittlement. , 2019, , .		0