Guoping Cao

List of Publications by Year
in descending order

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42 papers	2,203 citations	218677 26 h-index	254184 43 g-index
49 all docs	49 docs citations	49 times ranked	1429 citing authors

#	Article	IF	Citations
1	Mechanical properties and microstructure of SiC-reinforced Mg-(2,4)Al-1Si nanocomposites fabricated by ultrasonic cavitation based solidification processing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 486, 357-362.	5.6	151
2	Corrosion of a stainless steel and nickel-based alloys in high temperature supercritical carbon dioxide environment. Corrosion Science, 2013, 69, 281-291.	6.6	148
3	Corrosion of austenitic alloys in high temperature supercritical carbon dioxide. Corrosion Science, 2012, 60, 246-255.	6.6	141
4	Study on tensile properties and microstructure of cast AZ91D/AlN nanocomposites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 494, 127-131.	5.6	105
5	Hot tearing of ternary Mgâˆ'Alâˆ'Ca alloy castings. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2006, 37, 3647-3663.	2.2	104
6	Hot cracking of binary Mgâ€“Al alloy castings. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 417, 230-238.	5.6	102
7	Deuterium trapping at defects created with neutron and ion irradiations in tungsten. Nuclear Fusion, 2013, 53, 073006.	3.5	99
8	Tensile Properties and Microstructure of SiC Nanoparticleâ€“Reinforced Mg-4Zn Alloy Fabricated by Ultrasonic Cavitationâ€“Based Solidification Processing. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2008, 39, 880-886.	2.2	93
9	Strong, Ductile Magnesium-Zinc Nanocomposites. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2009, 40, 3038-3045.	2.2	93
10	Corrosion of ferriticâ€“martensitic steels in steam and supercritical water. Journal of Nuclear Materials, 2013, 441, 604-611.	2.7	88
11	Mgâ€“6Zn/1.5%SiC nanocomposites fabricated by ultrasonic cavitation-based solidification processing. Journal of Materials Science, 2008, 43, 5521-5526.	3.7	85
12	Trapping of hydrogen isotopes in radiation defects formed in tungsten by neutron and ion irradiations. Journal of Nuclear Materials, 2013, 438, S114-S119.	2.7	76
13	Corrosion of 316 stainless steel in high temperature molten Li2BeF4 (FLiBe) salt. Journal of Nuclear Materials, 2015, 461, 143-150.	2.7	76
14	Nanoparticle effects in cast Mg-1wt% SiC nano-composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 558, 39-43.	5.6	73
15	Mechanical Properties and Microstructure of Mgâˆ•SiC Nanocomposites Fabricated by Ultrasonic Cavitation Based Nanomanufacturing. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2008, 130, .	2.2	66
16	First result of deuterium retention in neutron-irradiated tungsten exposed to high flux plasma in TPE. Journal of Nuclear Materials, 2011, 415, S667-S671.	2.7	65
17	Irradiation effect on deuterium behaviour in low-dose HFIR neutron-irradiated tungsten. Nuclear Fusion, 2015, 55, 013008.	3.5	61
18	Onset of Hot Tearing in Ternary Mg-Al-Sr Alloy Castings. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2010, 41, 2139-2150.	2.2	58

#	Article	IF	Citations
19	The deuterium depth profile in neutron-irradiated tungsten exposed to plasma. Physica Scripta, 2011, T145, 014051.	2.5	50
20	Hot-Tearing Susceptibility of Ternary Mg-Al-Sr Alloy Castings. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2010, 41, 706-716.	2.2	49
21	Laser surface annealing and characterization of Ti2AlC plasma vapor deposition coating on zirconium-alloy substrate. Thin Solid Films, 2016, 615, 202-209.	1.8	44
22	Overview of the USâ€“Japan collaborative investigation on hydrogen isotope retention in neutron-irradiated and ion-damaged tungsten. Fusion Engineering and Design, 2012, 87, 1166-1170.	1.9	43
23	Liquation cracking in partial penetration aluminium welds: assessing tendencies to liquate, crack and backfill. Science and Technology of Welding and Joining, 2004, 9, 149-157.	3.1	40
24	Experiments coupled with modeling to establish the Mg-rich phase equilibria of Mgâ€“Alâ€“Ca. Acta Materialia, 2008, 56, 5245-5254.	7.9	37
25	High-Temperature Corrosion of UNS N10003 in Molten Li₂BeF₄(FLiBe) Salt. Corrosion, 2015, 71, 1257-1266.	1.1	33
26	Recent Developments on Ultrasonic Cavitation Based Solidification Processing of Bulk Magnesium Nanocomposites. International Journal of Metalcasting, 2008, 2, 57-65.	1.9	32
27	Spectral emissivity measurements of candidate materials for very high temperature reactors. Nuclear Engineering and Design, 2012, 251, 78-83.	1.7	31
28	Retention of Hydrogen Isotopes in Neutron Irradiated Tungsten. Materials Transactions, 2013, 54, 437-441.	1.2	25
29	In Situ Measurements of Spectral Emissivity of Materials for Very High Temperature Reactors. Nuclear Technology, 2011, 175, 460-467.	1.2	21
30	Oxidation of Alloy 600 and Alloy 690: Experimentally Accelerated Study in Hydrogenated Supercritical Water. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 1596-1612.	2.2	21
31	Phenomenology, methods and experimental program for fluoride-salt-cooled, high-temperature reactors (FHRs). Progress in Nuclear Energy, 2014, 77, 390-405.	2.9	20
32	Spectral emissivity of candidate alloys for very high temperature reactors in high temperature air environment. Journal of Nuclear Materials, 2013, 441, 667-673.	2.7	16
33	Reviewâ€”Electrochemical Measurements in Molten Salt Systems: A Guide and Perspective. Journal of the Electrochemical Society, 2019, 166, D645-D659.	2.9	10
34	Liquation Cracking in Aluminum Welds. Materials Science Forum, 2007, 539-543, 4036-4041.	0.3	8
35	A computational/directional solidification method to establish saddle points on the Mgâ€“Alâ€“Ca liquidus. Scripta Materialia, 2008, 58, 397-400.	5.2	7
36	Hot Cracking Susceptibility of Ternary Mg-Al-Ca Alloys. Advanced Materials Research, 2006, 15-17, 501-506.	0.3	3

#	Article	IF	Citations
37	Development of a Li₂O Sensor Based on a Yttria Stabilized Zirconia Membrane for Oxide Reduction in a Molten LiCl-Li₂O Electrolyte at 650Â°C. Nuclear Technology, 2020, 206, 577-586.	1.2	3
38	Molten Salt Fuels: Properties, Purification, and Corrosion Control. , 2021, , 366-376.		3
39	Gamma-ray spectra analyses of molten salts in spent nuclear fuels pyroprocessing facilities for mass measurement. Journal of Radioanalytical and Nuclear Chemistry, 2022, 331, 3085-3091.	1.5	2
40	Experimental Method for Creep Crack Growth Testing in Controlled Environments at High Temperatures. Experimental Mechanics, 2015, 55, 417-426.	2.0	1
41	Creep Crack Growth Behavior of Alloys 617 and 800H in Air and Impure Helium Environments at High Temperatures. Metallurgical and Materials Transactions E, 2017, 4, 13-21.	0.5	1
42	Study on Mechanical Properties and Microstructure of Magnesium/SiC Nanocomposites Fabricated by Ultrasonic Cavitation Based Solidification Processing. , 2007, , 985.		0