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	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
2	Molten Salt Fuels: Properties, Purification, and Corrosion Control. , 2021, , 366-376.		3
3	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
4	Reviewâ€"Electrochemical Measurements in Molten Salt Systems: A Guide and Perspective. Journal of the Electrochemical Society, 2019, 166, D645-D659.	2.9	10
5	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
6	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
7	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
8	Irradiation effect on deuterium behaviour in low-dose HFIR neutron-irradiated tungsten. Nuclear Fusion, 2015, 55, 013008.	3.5	61
9	Experimental Method for Creep Crack Growth Testing in Controlled Environments at High Temperatures. Experimental Mechanics, 2015, 55, 417-426.	2.0	1
10	Corrosion of 316 stainless steel in high temperature molten Li2BeF4 (FLiBe) salt. Journal of Nuclear Materials, 2015, 461, 143-150.	2.7	76
11	High-Temperature Corrosion of UNS N10003 in Molten Li₂BeF₄(FLiBe) Salt. Corrosion, 2015, 71, 1257-1266.	1.1	33
12	Phenomenology, methods and experimental program for fluoride-salt-cooled, high-temperature reactors (FHRs). Progress in Nuclear Energy, 2014, 77, 390-405.	2.9	20
13	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
14	Corrosion of ferriticâ€"martensitic steels in steam and supercritical water. Journal of Nuclear Materials, 2013, 441, 604-611.	2.7	88
15	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
16	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
17	Deuterium trapping at defects created with neutron and ion irradiations in tungsten. Nuclear Fusion, 2013, 53, 073006.	3.5	99
18	Retention of Hydrogen Isotopes in Neutron Irradiated Tungsten. Materials Transactions, 2013, 54, 437-441.	1.2	25

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19	Corrosion of austenitic alloys in high temperature supercritical carbon dioxide. Corrosion Science, 2012, 60, 246-255.	6.6	141
20	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
21	Spectral emissivity measurements of candidate materials for very high temperature reactors. Nuclear Engineering and Design, 2012, 251, 78-83.	1.7	31
22	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
23	In Situ Measurements of Spectral Emissivity of Materials for Very High Temperature Reactors. Nuclear Technology, 2011, 175, 460-467.	1.2	21
24	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
25	The deuterium depth profile in neutron-irradiated tungsten exposed to plasma. Physica Scripta, 2011, T145, 014051.	2.5	50
26	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
27	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
28	Strong, Ductile Magnesium-Zinc Nanocomposites. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2009, 40, 3038-3045.	2.2	93
29	Mgâ€“6Zn/1.5%SiC nanocomposites fabricated by ultrasonic cavitation-based solidification processing. Journal of Materials Science, 2008, 43, 5521-5526.	3.7	85
30	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
31	Experiments coupled with modeling to establish the Mg-rich phase equilibria of Mgâ€“Alâ€“Ca. Acta Materialia, 2008, 56, 5245-5254.	7.9	37
32	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
33	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
34	A computational/directional solidification method to establish saddle points on the Mgâ€“Alâ€“Ca liquidus. Scripta Materialia, 2008, 58, 397-400.	5.2	7
35	Recent Developments on Ultrasonic Cavitation Based Solidification Processing of Bulk Magnesium Nanocomposites. International Journal of Metalcasting, 2008, 2, 57-65.	1.9	32
36	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

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37	Study on Mechanical Properties and Microstructure of Magnesium/SiC Nanocomposites Fabricated by Ultrasonic Cavitation Based Solidification Processing. , 2007, , 985.		0
38	Liquation Cracking in Aluminum Welds. Materials Science Forum, 2007, 539-543, 4036-4041.	0.3	8
39	Hot Cracking Susceptibility of Ternary Mg-Al-Ca Alloys. Advanced Materials Research, 2006, 15-17, 501-506.	0.3	3
40	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
41	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
42	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