

Darryl P Butt

List of Publications by Year in descending order

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82
papers

2,960
citations

279798

23
h-index

168389

53
g-index

83
all docs

83
docs citations

83
times ranked

2851
citing authors

#	ARTICLE	IF	CITATIONS
1	Carbon dioxide disposal in carbonate minerals. <i>Energy</i> , 1995, 20, 1153-1170.	8.8	771
2	Microstructural evolution, microhardness and thermal stability of HPT-processed Cu. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2000, 290, 128-138.	5.6	309
3	Progress on binding CO ₂ in mineral substrates. <i>Energy Conversion and Management</i> , 1997, 38, S259-S264.	9.2	184
4	The Nature of Oxide Films on Tungsten in Acidic and Alkaline Solutions. <i>Journal of the Electrochemical Society</i> , 1998, 145, 2718-2725.	2.9	107
5	Microstructural characterization and pore structure analysis of nuclear graphite. <i>Journal of Nuclear Materials</i> , 2011, 415, 189-197.	2.7	96
6	Corrosion of 304 stainless steel exposed to nitric acid-chloride environments. <i>Corrosion Science</i> , 1997, 39, 2067-2093.	6.6	90
7	Kinetics of Thermal Dehydroxylation and Carbonation of Magnesium Hydroxide. <i>Journal of the American Ceramic Society</i> , 1996, 79, 1892-1898.	3.8	88
8	In situ transmission electron microscopy of electron-beam induced damage process in nuclear grade graphite. <i>Journal of Nuclear Materials</i> , 2011, 412, 321-326.	2.7	85
9	Thermal vaporization and deposition of gallium oxide in hydrogen. <i>Journal of Nuclear Materials</i> , 1999, 264, 71-77.	2.7	80
10	Review of liquid metal corrosion issues for potential containment materials for liquid lead and lead-bismuth eutectic spallation targets as a neutron source. <i>Nuclear Engineering and Design</i> , 2000, 196, 315-325.	1.7	68
11	Environmentally compliant silica conversion coatings prepared by sol-gel method for aluminum alloys. <i>Surface and Coatings Technology</i> , 2006, 201, 401-407.	4.8	68
12	Electrochemical impedance studies of sol-gel based ceramic coatings systems in 3.5% NaCl solution. <i>Electrochimica Acta</i> , 2007, 52, 3310-3316.	5.2	56
13	Thermal Oxidation Kinetics of MoSi ₂ -Based Powders. <i>Journal of the American Ceramic Society</i> , 1999, 82, 2785-2790.	3.8	54
14	Novel anti-corrosion nano-sized vanadia-based thin films prepared by sol-gel method for aluminum alloys. <i>Journal of Materials Processing Technology</i> , 2007, 181, 76-80.	6.3	50
15	Mechanical properties of bone-shaped-short-fiber reinforced composites. <i>Acta Materialia</i> , 1999, 47, 1767-1781.	7.9	49
16	Synthesis and sintering of UN-UO ₂ fuel composites. <i>Journal of Nuclear Materials</i> , 2015, 466, 745-754.	2.7	48
17	Mechanical Behavior of MoSi ₂ Reinforced Si ₃ N ₄ Matrix Composites. <i>Journal of the American Ceramic Society</i> , 1997, 80, 3070-3076.	3.8	44
18	Synthesis and pyrolysis of novel polysilazane to SiBCN ceramic. <i>Journal of Non-Crystalline Solids</i> , 2005, 351, 2995-3005.	3.1	41

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19	Kinetics of Thermal, Passive Oxidation of Nicalon Fibers. Journal of the American Ceramic Society, 1998, 81, 655-660.	3.8	36
20	The UZrC Ternary Phase Diagram above 2473 K. Journal of the American Ceramic Society, 1993, 76, 1409-1419.	3.8	33
21	Title is missing!. Oxidation of Metals, 1999, 51, 383-402.	2.1	28
22	Impression creep behavior of SiC particle-MoSi ₂ composites. Journal of Materials Research, 1996, 11, 1528-1536.	2.6	27
23	Stability of the Perovskite Compounds in the Ce-Ga-O and Pu-Ga-O Systems. Journal of the American Ceramic Society, 2002, 85, 2811-2816.	3.8	26
24	Corrosion of Sic Materials in N ₂ -H ₂ -CO Gaseous Environments: I, Thermodynamics and Kinetics of Reactions. Journal of the American Ceramic Society, 1992, 75, 3257-3267.	3.8	24
25	Kinetics of Thermal Oxidation of Silicon Nitride Powders. Journal of the American Ceramic Society, 1996, 79, 2809-2814.	3.8	24
26	Oxidation kinetics and mechanisms of Ti-Ta alloys. Oxidation of Metals, 1997, 47, 317-353.	2.1	22
27	High-Temperature Oxidation of Ti-48Al-2Nb-2Cr and Ti-25Al-10Nb-3V-1Mo. Oxidation of Metals, 1998, 50, 215-240.	2.1	22
28	Phase Transformations in Calcium-Substituted Lanthanum Ferrite. Journal of the American Ceramic Society, 2014, 97, 2241-2248.	3.8	22
29	Impedance of steels in new and degraded ester based lubricating oil. Electrochimica Acta, 2006, 51, 1497-1504.	5.2	21
30	Synthesis of uranium nitride by a mechanically induced gas-solid reaction. Journal of Nuclear Materials, 2008, 381, 309-311.	2.7	20
31	Effects of Plasma-Sprayed Ceramic Coatings on the Strength Distribution of Silicon Carbide Materials. Journal of the American Ceramic Society, 1990, 73, 2690-2696.	3.8	18
32	The effects of nitrogen on the kinetics and mechanisms of oxidation of Titanium-Tantalum alloys. Oxidation of Metals, 1997, 48, 41-58.	2.1	18
33	Gamma radiation induced effects in floppy and rigid Ge-containing chalcogenide thin films. Journal of Applied Physics, 2014, 115, 043502.	2.5	16
34	Kinetics and Products of Molybdenum Disilicide Powder Oxidation. Journal of the American Ceramic Society, 2002, 85, 507-509.	3.8	15
35	Stability and Decomposition of Ca-Substituted Lanthanum Ferrite in Reducing Atmospheres. Journal of the American Ceramic Society, 2015, 98, 2881-2886.	3.8	15
36	Microgalvanic Corrosion Behavior of Cu-Ag Active Braze Alloys Investigated with SKPFM. Metals, 2016, 6, 91.	2.3	14

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37	Mechanochemical Synthesis of Cerium Monosulfide. <i>Journal of the American Ceramic Society</i> , 2014, 97, 2357-2359.	3.8	13
38	Thermal Expansion of Alkaline-E Doped Lanthanum Ferrite Near the Néel Temperature. <i>Journal of the American Ceramic Society</i> , 2014, 97, 228-234.	3.8	13
39	Sintering Behavior of Lanthana-Bearing Nanostructured Ferritic Steel Consolidated via Spark Plasma Sintering. <i>Advanced Engineering Materials</i> , 2016, 18, 324-332.	3.5	13
40	Corrosion of SiC Materials in N ₂ -H ₂ -CO Gaseous Environments: II, Durability and Mechanical Properties. <i>Journal of the American Ceramic Society</i> , 1992, 75, 3268-3277.	3.8	12
41	Hydrogen corrosion considerations of carbide fuels for nuclear thermal propulsion applications. <i>Journal of Propulsion and Power</i> , 1995, 11, 1338-1348.	2.2	12
42	A comparative study of the strain rate and temperature dependent compression behavior of Ti-46.5Al-3Nb-2Cr-0.2W and Ti-25Al-10Nb-3V-1Mo intermetallic alloys. <i>Scripta Materialia</i> , 1999, 41, 569-574.	5.2	12
43	Effects of Sodium Silicate Exposure at High Temperature on Sintered alpha-Silicon Carbide and Siliconized Silicon Carbide. <i>Journal of the American Ceramic Society</i> , 1989, 72, 1628-1635.	3.8	10
44	Raman and Electrochemical Probes of the Dissolution Kinetics of Tungsten in Hydrogen Peroxide. <i>Journal of Physical Chemistry B</i> , 1998, 102, 9501-9507.	2.6	10
45	Mechanochemical synthesis of uranium sesquisilicide. <i>Journal of Nuclear Materials</i> , 2014, 451, 243-248.	2.7	10
46	In situ characterization of the nitridation of dysprosium during mechanochemical processing. <i>Journal of Alloys and Compounds</i> , 2015, 619, 253-261.	5.5	10
47	Synthesis of dysprosium and cerium nitrides by a mechanically induced gas-solid reaction. <i>Journal of Nuclear Materials</i> , 2009, 392, 121-124.	2.7	9
48	Effect of pitting corrosion in NaCl solutions on the statistics of fracture of beryllium. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 1998, 29, 2753-2760.	2.2	8
49	Durability of molybdenum disilicide in molten alkali borosilicate glass. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1999, 261, 278-283.	5.6	8
50	Thermal removal of gallium from gallia-doped ceria. <i>Journal of Nuclear Materials</i> , 2000, 280, 285-294.	2.7	8
51	Corrosion of diamond-like-carbon-coated nickel in 0.25 m sodium chloride. <i>Philosophical Magazine Letters</i> , 1994, 70, 385-387.	1.2	7
52	Laser Diagnostics of Zirconium Carbide Vaporization. <i>Journal of the American Ceramic Society</i> , 1994, 77, 1411-1417.	3.8	7
53	A Precise Method for Determining the CO ₂ Content of Carbonate Materials. <i>Journal of Chemical Education</i> , 1998, 75, 1610.	2.3	7
54	A Method for Measuring the Corrosion Rate of Materials in Spallation Neutron Source Target/Blanket Cooling Loops. <i>Materials Characterization</i> , 1999, 43, 135-145.	4.4	7

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55	Kinetics of thermal synthesis of cerium sulfides. Journal of Nuclear Materials, 2008, 378, 291-298.	2.7	7
56	Effect of Grain Boundaries on Krypton Segregation Behavior in Irradiated Uranium Dioxide. Jom, 2014, 66, 2562-2568.	1.9	7
57	Gallium Removal from Weapons-Grade Plutonium and Cerium Oxide Surrogate by a Thermal Technique. Materials Research Society Symposia Proceedings, 1999, 556, 129.	0.1	6
58	Effect of Dysprosia Additive on the Consolidation of CeO_2 by Spark Plasma Sintering. Journal of the American Ceramic Society, 2012, 95, 1524-1529.	3.8	6
59	Microdomain Formation, Oxidation, and Cation Ordering in $\text{LaCa}_{2-x}\text{Fe}_3\text{O}_{8+y}$. Journal of the American Ceramic Society, 2015, 98, 2248-2254.	3.8	6
60	Compatibility of ZrN and HfN with molten LiCl , KCl , NaCl , UCl_3 . Journal of Nuclear Materials, 2010, 405, 266-273.	2.7	5
61	Recrystallization Kinetics of ^3C Silicon Carbide Implanted with 400 keV Cesium Ions. Journal of the American Ceramic Society, 2013, 96, 3290-3295.	3.8	5
62	Thin Ge-Se films as a sensing material for radiation doses. Physica Status Solidi (B): Basic Research, 2014, 251, 1347-1353.	1.5	5
63	The need and options available for permanent CO ₂ disposal. , 2000, , 41-49.		4
64	Endothermic Reactions between Mullite and Silicon Carbide in an Argon Plasma Environment. Journal of the American Ceramic Society, 1998, 81, 233-236.	3.8	4
65	Simulation and process flow of radiation sensors based on chalcogenide glasses for in situ measurement capability. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 2415-2419.	0.8	4
66	On the Statistical Strength of Nicalon Fibers and its Characterization. Ceramic Engineering and Science Proceedings, 0, , 119-126.	0.1	4
67	Thermodynamic considerations of using chlorides to accelerate the carbonate formation from magnesium silicates. , 1999, , 349-354.		4
68	Etching of Silicon Carbide Materials at Elevated Temperatures in a Nitrogen-Based Gas. Journal of the American Ceramic Society, 1991, 74, 457-459.	3.8	3
69	A Review of Carbide Fuel Corrosion for Nuclear Thermal Propulsion Applications. , 1994, , .		3
70	Simulation of the Relaxation Potential Profile of an ac-dc-ac Test. International Journal of Corrosion, 2014, 2014, 1-12.	1.1	3
71	High temperature oxidation kinetics of dysprosium particles. Journal of Alloys and Compounds, 2015, 644, 211-222.	5.5	3
72	Oxidation behavior of welded Zry-3, Zry-4, and $\text{Zr}-1\text{Nb}$ tubes. Nuclear Materials and Energy, 2019, 21, 100714.	1.3	3

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73	Discontinuous Phase Formation and Selective Attack of SiC Materials Exposed to Low Oxygen Partial Pressure Environments. NATO Advanced Study Institutes Series Series E, Applied Sciences, 1994, , 153-164.	0.2	3
74	A simple method for calculating two-phase equilibria in ternary systems. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 1994, 18, 1-7.	1.6	2
75	Use of Metallic Glasses in Molybdenum Disilicide-Stainless Steel Joining. Journal of Materials Engineering and Performance, 2000, 9, 280-285.	2.5	2
76	Kinetics of the nitridation of dysprosium during mechanochemical processing. Journal of Alloys and Compounds, 2015, 620, 413-420.	5.5	2
77	Vaporization Behavior of Non-Stoichiometric Refractory Carbide Materials and Direct Observations of the Vapor Phase Using Laser Diagnostics. NATO Advanced Study Institutes Series Series E, Applied Sciences, 1994, , 363-374.	0.2	2
78	The corrosion of materials in spallation neutron sources. Jom, 1998, 50, 56-59.	1.9	0
79	Use of a Cobalt-Based Metallic Glass for Joining MoSi ₂ to Stainless Steel. Materials Science Forum, 2002, 386-388, 535-540.	0.3	0
80	Stability of the Perovskite Compounds in the Ce-Ga-O and Pu-Ga-O Systems.. ChemInform, 2003, 34, no.	0.0	0
81	Oxidation Kinetics of Hexagonal-Shaped Single-Crystal Silicon Whiskers. Journal of the American Ceramic Society, 1999, 82, 2791-2795.	3.8	0
82	Effects of sintering aides on the hydrothermal oxidation of silicon nitride spherical rolling elements. Corrosion Engineering Science and Technology, 2019, 54, 22-27.	1.4	0