

Elizabeth

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

85
papers

4,020
citations

27
h-index

63
g-index

92
ext. papers

4,607
ext. citations

4.3
avg, IF

5.74
L-index

#	Paper	IF	Citations
85	Evaluation of ultra-high temperature ceramics for aer propulsion use. <i>Journal of the European Ceramic Society</i> , 2002 , 22, 2757-2767	6	616
84	Paralinear Oxidation of CVD SiC in Water Vapor. <i>Journal of the American Ceramic Society</i> , 1997 , 80, 197-208	3.8	357
83	SiC Recession Caused by SiO ₂ Scale Volatility under Combustion Conditions: II, Thermodynamics and Gaseous-Diffusion Model. <i>Journal of the American Ceramic Society</i> , 1999 , 82, 1826-1834	3.8	241
82	Variation of the Oxidation Rate of Silicon Carbide with Water-Vapor Pressure. <i>Journal of the American Ceramic Society</i> , 2004 , 82, 625-636	3.8	232
81	Oxidation and Volatilization of Silica Formers in Water Vapor. <i>Journal of the American Ceramic Society</i> , 2003 , 86, 1238-1248	3.8	202
80	A Comparison of the Oxidation Kinetics of SiC and Si ₃ N ₄ . <i>Journal of the Electrochemical Society</i> , 1995 , 142, 925-930	3.9	165
79	Oxidation Kinetics of Chemically Vapor-Deposited Silicon Carbide in Wet Oxygen. <i>Journal of the American Ceramic Society</i> , 1994 , 77, 730-736	3.8	162
78	Theoretical and experimental investigation of the thermochemistry of CrO ₂ (OH) ₂ (g). <i>Journal of Physical Chemistry A</i> , 2007 , 111, 1971-80	2.8	153
77	Predicting oxide stability in high-temperature water vapor. <i>Jom</i> , 2006 , 58, 22-28	2.1	135
76	Mass Spectrometric Identification of SiO ₂ (g) Species from the Reaction of Silica with Water Vapor at Atmospheric Pressure. <i>Journal of the American Ceramic Society</i> , 2005 , 80, 1009-1012	3.8	124
75	SiC and Si ₃ N ₄ recession due to SiO ₂ scale volatility under combustor conditions. <i>Advanced Composite Materials</i> , 1999 , 8, 33-45	2.8	119
74	Oxidation and corrosion of ceramics and ceramic matrix composites. <i>Current Opinion in Solid State and Materials Science</i> , 2001 , 5, 301-309	12	107
73	Alumina Volatility in Water Vapor at Elevated Temperatures. <i>Journal of the American Ceramic Society</i> , 2004 , 87, 1701-1705	3.8	98
72	Influence of Alumina Reaction Tube Impurities on the Oxidation of Chemically-Vapor-Deposited Silicon Carbide. <i>Journal of the American Ceramic Society</i> , 1995 , 78, 1107-1110	3.8	95
71	Water Vapor-Mediated Volatilization of High-Temperature Materials. <i>Annual Review of Materials Research</i> , 2013 , 43, 559-588	12.8	80
70	Interactions of water vapor with oxides at elevated temperatures. <i>Journal of Physics and Chemistry of Solids</i> , 2005 , 66, 471-478	3.9	78
69	Thermodynamics of gas phase species in the SiO ₂ system. <i>Journal of Chemical Thermodynamics</i> , 2005 , 37, 1130-1137	2.9	73

68	Oxygen Tracer Diffusion in La _{2-x} Sr _x CuO _{4-y} Single Crystals. <i>Journal of the American Ceramic Society</i> , 1993 , 76, 2363-2369	3.8	67
67	Paralinear Oxidation of Silicon Nitride in a Water-Vapor/Oxygen Environment. <i>Journal of the American Ceramic Society</i> , 2003 , 86, 1256-1261	3.8	62
66	Effect of Environment on the Stress-Rupture Behavior of a Carbon-Fiber-Reinforced Silicon Carbide Ceramic Matrix Composite. <i>Journal of the American Ceramic Society</i> , 2004 , 87, 1536-1542	3.8	55
65	Oxidation of ZrB ₂ -SiC ₂₂₁₋₂₂₈		54
64	Oxidation of Ultrahigh Temperature Ceramics in Water Vapor. <i>Journal of the Electrochemical Society</i> , 2004 , 151, B558	3.9	50
63	Oxidation of Chemically-Vapor-Deposited Silicon Carbide in Carbon Dioxide. <i>Journal of the American Ceramic Society</i> , 2005 , 81, 1949-1952	3.8	45
62	High temperature oxidation of ceramic matrix composites. <i>Pure and Applied Chemistry</i> , 1998 , 70, 493-500.	3.1	38
61	Additive Effects on Si ₃ N ₄ Oxidation/Volatilization in Water Vapor. <i>Journal of the American Ceramic Society</i> , 2003 , 86, 1262-1271	3.8	34
60	SiO(g) formation from SiC in mixed oxidizing-reducing gases. <i>Oxidation of Metals</i> , 1995 , 44, 527-544	1.6	33
59	A method for assessing the volatility of oxides in high-temperature high-velocity water vapor. <i>Journal of the European Ceramic Society</i> , 2016 , 36, 1135-1147	6	31
58	Tailoring thermal properties of multi-component rare earth monosilicates. <i>Acta Materialia</i> , 2020 , 195, 698-707	8.4	27
57	Thermogravimetric Analysis and Defect Models of the Oxygen Nonstoichiometry in La _{2-x} Sr _x CuO _{4-y} . <i>Journal of the American Ceramic Society</i> , 1994 , 77, 2727-2737	3.8	27
56	Part II: Experimental verification of computationally predicted preferential oxidation of refractory high entropy ultra-high temperature ceramics. <i>Acta Materialia</i> , 2020 , 197, 81-90	8.4	25
55	Oxidation of Carbon Fiber-Reinforced Silicon Carbide Matrix Composites at Reduced Oxygen Partial Pressures. <i>Journal of the American Ceramic Society</i> , 2011 , 94, 2185-2192	3.8	23
54	Borosilicate Glass-Induced Fiber Degradation of SiC/BN/SiC Composites Exposed in Combustion Environments. <i>International Journal of Applied Ceramic Technology</i> , 2016 , 13, 434-442	2	23
53	SiC Depletion in ZrB ₂ /30 vol% SiC at Ultrahigh Temperatures. <i>Journal of the American Ceramic Society</i> , 2015 , 98, 1673-1683	3.8	21
52	A Review of SiC Fiber Oxidation with a New Study of Hi-Nicalon SiC Fiber Oxidation . <i>Advanced Engineering Materials</i> , 2016 , 18, 1698-1709	3.5	21
51	Determination of Retained B ₂ O ₃ Content in ZrB ₂ -30 vol% SiC Oxide Scales. <i>Journal of the American Ceramic Society</i> , 2015 , 98, 287-295	3.8	20

50	Mechanisms for Variability of ZrB ₂ -30 vol% SiC Oxidation Kinetics. <i>Journal of the American Ceramic Society</i> , 2014 , 97, 2279-2285	3.8	18
49	Initial Stages of ZrB ₂ /B ₄ O ₇ vol% SiC Oxidation at 1500°C. <i>Journal of the American Ceramic Society</i> , 2014 , 97, 1645-1651	3.8	17
48	Oxygen diffusion mechanisms during high-temperature oxidation of ZrB ₂ -SiC. <i>Journal of the American Ceramic Society</i> , 2018 , 101, 1765-1779	3.8	16
47	Silicon carbide fiber oxidation behavior in the presence of boron nitride. <i>Journal of the American Ceramic Society</i> , 2018 , 101, 5534-5551	3.8	16
46	Computational and Experimental Study of Thermodynamics of the Reaction of Titania and Water at High Temperatures. <i>Journal of Physical Chemistry A</i> , 2017 , 121, 9508-9517	2.8	15
45	Water Vapor Effects on High-Temperature Oxidation and Volatilization of Ceramics. <i>Journal of the American Ceramic Society</i> , 2003 , 86, 1237-1237	3.8	13
44	Thermodynamics of Si-C-O system. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1993 , 24, 1212-1214		13
43	The thermal and mechanical properties of hafnium orthosilicate: Experiments and first-principles calculations. <i>Materialia</i> , 2020 , 12, 100793	3.2	11
42	High-temperature oxidation of yttrium silicides. <i>Journal of Materials Science</i> , 2018 , 53, 3981-4000	4.3	11
41	Paralinear Oxidation of CVD SiC in Simulated Fuel-Rich Combustion. <i>Journal of the American Ceramic Society</i> , 2004 , 83, 1761-1767	3.8	11
40	The effect of TiO ₂ additions on CaO/MgO/Al ₂ O ₃ /SiO ₂ (CMAS) crystallization behavior from the melt. <i>Journal of the American Ceramic Society</i> , 2019 , 102, 3354-3367	3.8	11
39	Thermochemical stability and microstructural evolution of Yb ₂ Si ₂ O ₇ in high-velocity high-temperature water vapor. <i>Journal of the European Ceramic Society</i> , 2021 , 41, 3141-3149	6	11
38	Oxidation of SiC Fiber-Reinforced SiC Matrix Composites with a BN Interphase. <i>Materials Science Forum</i> , 2011 , 696, 342-347	0.4	10
37	Defect chemistry and transport properties in YBa ₂ Cu ₃ O _{6+x} and (La, Sr) ₂ CuO ₄ . <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 1992 , 13, 165-168	3.1	10
36	Local thermal conductivity measurements to determine the fraction of cristobalite in thermally grown oxides for aerospace applications. <i>Scripta Materialia</i> , 2020 , 177, 214-217	5.6	10
35	Hafnium nitride films for thermorefectance transducers at high temperatures: Potential based on heating from laser absorption. <i>Applied Physics Letters</i> , 2017 , 111, 151902	3.4	9
34	Thermochemistry of volatile metal hydroxides and oxyhydroxides at elevated temperatures. <i>Journal of Materials Research</i> , 2019 , 34, 394-407	2.5	9
33	Anisotropic thermal conductivity tensor of Y ₂ Si ₂ O ₇ for orientational control of heat flow on micrometer scales. <i>Acta Materialia</i> , 2020 , 189, 299-305	8.4	9

32	In Situ Growth of a Yb ₂ O ₃ Layer for Sublimation Suppression for Yb ₁₄ MnSb ₁₁ Thermoelectric Material for Space Power Applications. <i>Journal of Electronic Materials</i> , 2012 , 41, 1267-1273	1.9	9
31	Cyclic Oxidation of Monolithic SiC and Si ₃ N ₄ Materials		9
30	Stability of the Y ₂ O ₃ /BiO ₂ system in high-temperature, high-velocity water vapor. <i>Journal of the American Ceramic Society</i> , 2020 , 103, 2715-2726	3.8	8
29	High-Temperature Na ₂ SO ₄ Deposit-Assisted Corrosion of Silicon Carbide II: Temperature and Time Dependence. <i>Journal of the American Ceramic Society</i> , 2015 , 98, 1275-1284	3.8	7
28	Thermochemical stability of Y ₂ Si ₂ O ₇ in high-temperature water vapor. <i>Journal of the American Ceramic Society</i> , 2020 , 103, 4517-4535	3.8	7
27	High Temperature Materials Corrosion Challenges for Energy Conversion Technologies. <i>Electrochemical Society Interface</i> , 2013 , 22, 69-73	3.6	7
26	Near ultraviolet enhanced 4H-SiC Schottky diode. <i>Applied Physics Letters</i> , 2019 , 115, 261101	3.4	7
25	Thermodynamics and kinetics of gaseous metal hydroxide formation from oxides relevant to power and propulsion applications. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2016 , 55, 32-40	1.9	6
24	Oxidation Behavior of Prospective Silicon Nitride Materials for Advanced Microturbine Applications 2001 ,		6
23	Evolution of microstructure and thermal conductivity of multifunctional environmental barrier coating systems. <i>Materials Today Physics</i> , 2021 , 17, 100304	8	6
22	High-temperature Na ₂ SO ₄ deposit-assisted corrosion of silicon carbide II: Effects of B, C, and Si. <i>Journal of the American Ceramic Society</i> , 2017 , 100, 761-773	3.8	4
21	Feasibility of Using Calcium Silicate Carbonation to Synthesize High-Performance and Low-Carbon Cements. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 5431-5436	8.3	4
20	Sol-gel derived borosilicate glasses and thin film coatings on SiC substrates: Boron loss and carbon retention due to processing and heat treatment. <i>Journal of Non-Crystalline Solids</i> , 2016 , 449, 59-69	3.9	4
19	The Transport Properties and Defect Chemistry of La ₂ -XSrXCuO ₄ - δ <i>Materials Research Society Symposia Proceedings</i> , 1989 , 169, 65		4
18	Oxidation of Liquid Silicon in Air Atmospheres Containing Water Vapor. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 6785-6795	3.9	3
17	Identification of a new oxidation/ dissolution mechanism for boron-accelerated SiC oxidation. <i>Journal of the American Ceramic Society</i> , 2020 , 103, 5214-5231	3.8	3
16	Mixed phase ytterbium silicate environmental-barrier coating materials for improved calcium-magnesium-alumino-silicate resistance. <i>Journal of Materials Research</i> , 2020 , 35, 2358-2372	2.5	3
15	Variable thermochemical stability of RE ₂ Si ₂ O ₇ (RE = Sc, Nd, Er, Yb, or Lu) in high-temperature high-velocity steam. <i>Journal of the American Ceramic Society</i> , 2022 , 105, 1330	3.8	2

14	Observation of solid-state bidirectional thermal conductivity switching in antiferroelectric lead zirconate (PbZrO) ₂ . <i>Nature Communications</i> , 2022 , 13, 1573	17.4	2
13	Corrosion of Ceramic Materials 327-388		1
12	The Oxygen Defect Chemistry of La _{2-x} Sr _x CuO _{4-x/2+δ} . <i>Materials Research Society Symposia Proceedings</i> , 1990 , 209, 867		1
11	Oxidation and Corrosion of Ceramics 2013 , 1-93		0
10	YbPO ₄ : A Novel Environmental Barrier Coating Candidate with Superior Thermochemical Stability. <i>Materialia</i> , 2021 , 101289	3.2	0
9	Interfacial reactions between B ₂ O ₃ and spark plasma sintered Yb ₂ Si ₂ O ₇ . <i>Journal of the American Ceramic Society</i> , 2021 , 104, 5392-5401	3.8	0
8	Thermomechanical and thermochemical stability of HfSiO ₄ for environmental barrier coating applications. <i>Journal of the American Ceramic Society</i> , 2021 , 104, 3593-3602	3.8	0
7	Na ₂ SO ₄ deposit-induced hot corrosion of SiC fibers relevant for SiC CMCs. <i>Journal of the American Ceramic Society</i> , 2021 , 104, 5908-5922	3.8	0
6	Na ₂ SO ₄ deposit-induced hot corrosion of BN-coated SiC. <i>Journal of the American Ceramic Society</i> , 2021 , 104, 1539-1553	3.8	0
5	High-temperature Na ₂ SO ₄ interaction with air plasma sprayed Yb ₂ Si ₂ O ₇ /Si EBC system: Topcoat behavior. <i>Journal of the American Ceramic Society</i> , 2021 , 104, 6496	3.8	0
4	Influence of Oxygen Dopants on the HER Catalytic Activity of Electrodeposited MoO _x S _y Electrocatalysts. <i>ACS Applied Energy Materials</i> , 2021 , 4, 13676-13683	6.1	0
3	Investigations into the thermal stability of sol-gel-derived glasses as models for thermally grown oxides. <i>Journal of the American Ceramic Society</i> , 2020 , 103, 7041-7055	3.8	
2	Oxidation and Corrosion of Ceramics 2014 , 1-93		
1	Oxygen Diffusion in La _{2-x} Sr _x CuO _{4-y} . <i>Materials Research Society Symposia Proceedings</i> , 1990 , 209, 795		