Kathy Lu

List of Publications by Year
in descending order

133	2,543	218677	265206
papers	citations	26 h-index	42 g-index

152	152	152	2489
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	SiOC coatings on yttria stabilized zirconia microspheres using a fluidized bed coating process. Powder Technology, 2022, 396, 158-166.	4.2	4
2	Polysiloxane coatings on microspheres based on Multiphase Flow with Interface Exchange-Discrete Element Modelling. Particuology, 2022, 69, 88-99.	3.6	1
3	Helium ion irradiation effects on microstructure evolution and mechanical properties of silicon oxycarbide. Ceramics International, 2022, 48, 16063-16071.	4.8	4
4	Effects of processing temperature on the corrosion and tribocorrosion resistance of perhydropolysilazane-derived coatings on AISI 304 steel. Surface and Coatings Technology, 2022, 439, 128463.	4.8	7
5	Kr ion irradiation study of polymerâ€derived SiFeOCâ€“Câ€“SiC nanocomposite. Journal of the American Ceramic Society, 2022, 105, 5664-5675.	3.8	1
6	In-situ microstructure observation of oxidized SiC layer in surrogate TRISO fuel particles under krypton ion irradiation. Journal of Alloys and Compounds, 2022, 920, 165833.	5.5	3
7	Effects of transition metals on the evolution of polymer-derived SiOC ceramics. Carbon, 2021, 171, 88-95.	10.3	50
8	Microstructural evolution of a silicon carbide-carbon coated nanostructured ferritic alloy composite during in-situ Kr ion irradiation at 300Â°C 450Â°C. Journal of Materials Science and Technology, 2021, 71, 75-83.	10.7	5
9	Flexible ZnO Nanoparticle-Poly(methyl methacrylate) Hybrid Films and Their Ultraviolet Shielding Behaviors. Jom, 2021, 73, 432-440.	1.9	10
10	Electrically conductive and thermally stable SiCâ€TiC containing nanocomposites via flash pyrolysis. Journal of the American Ceramic Society, 2021, 104, 2460-2471.	3.8	11
11	Phase content prediction in polymerâ€derived ceramics with metal additives. Journal of the American Ceramic Society, 2021, 104, 5379-5391.	3.8	14
12	Water vapor oxidation of SiC layer in surrogate TRISO fuel particles. Composites Part B: Engineering, 2021, 215, 108807.	12.0	9
13	Oxidation behaviors of matrix-grade graphite during water vapor ingress accidents for high temperature gas-cooled reactors. Carbon, 2021, 185, 161-176.	10.3	4
14	Porous SiOC/SiC ceramicsviaan active-filler-catalyzed polymer-derived method. Materials Chemistry Frontiers, 2021, 5, 6530-6545.	5.9	16
15	Nanoscale characterization of crystalline and amorphous phases in silicon oxycarbide ceramics using 4D-STEM. Materials Characterization, 2021, 181, 111512.	4.4	11
16	Nickelâ€containing magnetoceramics from water vaporâ€assisted pyrolysis of polysiloxane and nickel 2,4â€pentanedionate. Journal of the American Ceramic Society, 2020, 103, 145-157.	3.8	17
17	Hybrid materials â€“ a review on co-dispersion, processing, patterning, and properties. International Materials Reviews, 2020, 65, 463-501.	19.3	7
18	Microstructure evolution of nanostructured ferritic alloy with and without Cr3C2 coated SiC at high temperatures. Journal of Materials Science and Technology, 2020, 43, 126-134.	10.7	3

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19	High temperature oxidation behaviors of SiON coated AISI 441 in Arâ€¯+â€¯O2, Ar+H2O, and Arâ€¯+â€¯CO2 atmospheres. Corrosion Science, 2020, 166, 108429.	6.6	15
20	Photothermal self-healing of gold nanoparticleâ€“polystyrene hybrids. Nanoscale, 2020, 12, 20726-20736.	5.6	8
21	Enhanced piezocatalytic performance of ZnO nanosheet microspheres by enriching the surface oxygen vacancies. Journal of Materials Science, 2020, 55, 14112-14124.	3.7	60
22	Porous and ultrahigh surface area SiOC ceramics based on perhydropolysilazane and polysiloxane. Microporous and Mesoporous Materials, 2020, 306, 110477.	4.4	18
23	Corrosion and tribocorrosion mitigation of perhydropolysilazane-derived coatings on low carbon steel. Corrosion Science, 2020, 177, 108946.	6.6	12
24	Water vapor oxidation behaviors of nuclear graphite IG-110 for a postulated accident scenario in high temperature gas-cooled reactors. Carbon, 2020, 164, 251-260.	10.3	6
25	Effects of ceramic types on evolution of micrometerâ€sized features during sintering. Journal of the American Ceramic Society, 2019, 102, 569-577.	3.8	3
26	High dose self-ion irradiation of silicon carbide with nanostructured ferritic alloy aid. Journal of Materials Science, 2019, 54, 605-612.	3.7	3
27	Synthesis of SiOC using solvent-modified polymer precursors. Materials Chemistry and Physics, 2019, 237, 121844.	4.0	12
28	In-situ TEM study of microstructural evolution in NFA and Cr3C2@SiC-NFA composite during ion irradiation. Materialia, 2019, 7, 100412.	2.7	4
29	Thermophysical property and electrical conductivity of titanium isopropoxide â€“ polysiloxane derived ceramics. Journal of the European Ceramic Society, 2019, 39, 4029-4037.	5.7	17
30	Phase development of silicon oxycarbide nanocomposites during flash pyrolysis. Journal of Materials Science, 2019, 54, 6073-6087.	3.7	9
31	Sintering behaviors of micron-sized features based on 3D reconstruction. Journal of Materials Science, 2019, 54, 14635-14644.	3.7	0
32	Simulation Study of Nanoparticleâ€“Polymer Organic Suspension Stability. Advanced Theory and Simulations, 2019, 2, 1900010.	2.8	2
33	Effects of different polymer precursors on the characteristics of SiOC bulk ceramics. Applied Physics A: Materials Science and Processing, 2019, 125, 1.	2.3	17
34	Patterning of ZnO Quantum Dot and PMMA Hybrids with a Solvent-Assisted Technique. Langmuir, 2019, 35, 5855-5863.	3.5	11
35	Comparison of traditional and flash pyrolysis of different carbon content silicon oxycarbides. Journal of the European Ceramic Society, 2019, 39, 3035-3041.	5.7	11
36	Carbon content and pyrolysis atmosphere effects on phase development in SiOC systems. Journal of the European Ceramic Society, 2019, 39, 2846-2854.	5.7	30

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37	Understanding ion irradiation resistance of a silicon diffused nanostructured ferritic alloy-chromium carbideâ€“carbon composite. Composites Part B: Engineering, 2019, 167, 746-753.	12.0	2
38	Preparation and photocatalytic performance of TiO₂/PbTiO₃ fiber composite enhanced by external force induced piezoelectric field. Journal of the American Ceramic Society, 2019, 102, 5415-5423.	3.8	27
39	Sub-micron features from polymer-derived SiOC via imprint lithography. Journal of the European Ceramic Society, 2019, 39, 825-831.	5.7	1
40	Monte Carlo Simulation Modeling of Nanoparticleâ€“Polymer Cosuspensions. Langmuir, 2019, 35, 161-170.	3.5	7
41	Effects of SiO2-forming additive on polysiloxane derived SiOC ceramics. Microporous and Mesoporous Materials, 2018, 266, 75-82.	4.4	22
42	Ion irradiation effect on spark plasma sintered silicon carbide ceramics with nanostructured ferritic alloy aid. Journal of the American Ceramic Society, 2018, 101, 3662-3673.	3.8	12
43	Influence of vinyl bonds from PDMS on the pore structure of polymer derived ceramics. Materials Chemistry and Physics, 2018, 209, 217-226.	4.0	12
44	Water vapor thermal treatment effects on spark plasma sintered nanostructured ferritic alloyâ€silicon carbide systems. Journal of the American Ceramic Society, 2018, 101, 2208-2215.	3.8	2
45	Multiscale Transient and Steady-State Study of the Influence of Microstructure Degradation and Chromium Oxide Poisoning on Solid Oxide Fuel Cell Cathode Performance. Journal of Non-Equilibrium Thermodynamics, 2018, 43, 21-42.	4.2	17
46	Polymer derived silicon oxycarbide-based coatings. International Materials Reviews, 2018, 63, 139-161.	19.3	56
47	Spark plasma sintering of silicon carbide (SiC)-nanostructured ferritic alloy (NFA) composites with carbon barrier layer. Journal of Nuclear Materials, 2018, 498, 50-59.	2.7	8
48	Centrifuge-aided micromolding of micron- and submicron-sized patterns. Journal of the European Ceramic Society, 2018, 38, 637-645.	5.7	6
49	High temperature treatment of Cr3C2@SiC-NFA composites in water vapor environment. Corrosion Science, 2018, 131, 365-375.	6.6	7
50	Sintering behaviors of micron-sized ceramic rod features. Acta Materialia, 2018, 144, 534-542.	7.9	9
51	Water vapor thermal treatment of silicon carbide-nanostructured ferritic steel alloy (SiC-NFA) composite materials. Applied Surface Science, 2018, 452, 248-258.	6.1	3
52	Study of self-ion irradiated nanostructured ferritic alloy (NFA) and silicon carbide-nanostructured ferritic alloy (SiC-NFA) cladding materials. Nuclear Instruments & Methods in Physics Research B, 2018, 427, 44-52.	1.4	2
53	High temperature oxidation behavior of silicon carbide-carbon coated nanostructured ferritic alloy composites in airâ€+â€water vapor environment. Corrosion Science, 2018, 139, 206-214.	6.6	8
54	Atmosphere effects on micron-sized ZnO ridges during sintering. Journal of the European Ceramic Society, 2018, 38, 5007-5014.	5.7	4

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55	Effect of solvent in preparation of SiOC bulk ceramics. Materials Chemistry and Physics, 2018, 218, 140-146.	4.0	11
56	Flash pyrolysis of polymer-derived SiOC ceramics. Journal of the European Ceramic Society, 2018, 38, 4906-4914.	5.7	24
57	Fundamental understanding of centrifugal micromolding for high fidelity patterns. Journal of the European Ceramic Society, 2018, 38, 5167-5173.	5.7	3
58	Effect of additive structure and size on SiO₂ formation in polymerâ€derived Si<scp>OC</scp> ceramics. Journal of the American Ceramic Society, 2018, 101, 5378-5388.	3.8	22
59	Co₃O₄/Sm-Doped CeO₂/Co₃O₄ Trilayer Coating on AISI 441 Interconnect for Solid Oxide Fuel Cells. ACS Applied Materials & Interfaces, 2017, 9, 6022-6029.	8.0	16
60	The role of ceramic and glass science research in meeting societal challenges: Report from an <scp>NSF</scp>â€sponsored workshop. Journal of the American Ceramic Society, 2017, 100, 1777-1803.	3.8	23
61	PMMAâ€“ZnO Hybrid Arrays Using in Situ Polymerization and Imprint Lithography. Journal of Physical Chemistry C, 2017, 121, 11862-11871.	3.1	8
62	Spark plasma sintering of silicon carbide-nanostructured ferritic alloy composites with chromium carbide barrier layer. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 700, 183-190.	5.6	9
63	Spark plasma sintered silicon carbide ceramics with nanostructured ferritic alloy as sintering aid. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 682, 586-592.	5.6	10
64	Roughening and destructive effects of sintering on micron-sized ZnO features. Acta Materialia, 2017, 141, 352-359.	7.9	5
65	Additive and pyrolysis atmosphere effects on polysiloxane-derived porous SiOC ceramics. Journal of the European Ceramic Society, 2017, 37, 4547-4557.	5.7	54
66	Suspension-based imprint lithography of ZnOâ€“PMMA hybrids. Soft Matter, 2017, 13, 5569-5579.	2.7	6
67	Perovskite-type La0.6Sr0.4Co0.2Fe0.8O3, Ba0.5Sr0.5Co0.2Fe0.8O3, and Sm0.5Sr0.5Co0.2Fe0.8O3 cathode materials and their chromium poisoning for solid oxide fuel cells. Electrochimica Acta, 2016, 211, 445-452.	5.2	33
68	Phase transformation, oxidation stability, and electrical conductivity of TiO2-polysiloxane derived ceramics. Journal of Materials Science, 2016, 51, 10166-10177.	3.7	27
69	Study of spark plasma sintered nanostructured ferritic steel alloy with silicon carbide addition. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 670, 75-80.	5.6	32
70	Fundamental understanding of water vapor effect on SiOC evolution during pyrolysis. Journal of the European Ceramic Society, 2016, 36, 411-422.	5.7	27
71	Thermal stability and electrical conductivity of carbon-enriched silicon oxycarbide. Journal of Materials Chemistry C, 2016, 4, 1829-1837.	5.5	83
72	Preparation of Microâ€/Mesoporous <scp>SiOC</scp> Bulk Ceramics. Journal of the American Ceramic Society, 2015, 98, 1753-1761.	3.8	59

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73	Highly Porous SiOC Bulk Ceramics with Water Vapor Assisted Pyrolysis. Journal of the American Ceramic Society, 2015, 98, 2357-2365.	3.8	39
74	Preparation of separated and open end TiO2 nanotubes. Ceramics International, 2015, 41, 7235-7240.	4.8	8
75	Nanoparticle and poly(methyl methacrylate) co-dispersion in anisole. Journal of Materials Science, 2015, 50, 4836-4844.	3.7	4
76	La0.6Sr0.4Co0.2Fe0.8O3 cathodes incorporated with Sm0.2Ce0.8O2 by three different methods for solid oxide fuel cells. Journal of Power Sources, 2015, 296, 318-326.	7.8	25
77	A Novel Method To Prepare B/N Codoped Anatase TiO₂. Journal of Physical Chemistry C, 2015, 119, 7732-7737.	3.1	30
78	Experimental and Modeling Study of Solvent Diffusion in PDMS for Nanoparticleâ€“Polymer Cosuspension Imprint Lithography. Langmuir, 2015, 31, 9809-9816.	3.5	5
79	Porous and high surface area silicon oxycarbide-based materialsâ€”A review. Materials Science and Engineering Reports, 2015, 97, 23-49.	31.8	90
80	Effect of Thermal Treatment on Chemical Interaction Between Yttrium Borosilicate Glass Sealants and <scp>YSZ</scp> for Planar Solid Oxide Fuel Cells. International Journal of Applied Glass Science, 2014, 5, 410-420.	2.0	9
81	Evolution of Pores and Tortuosity During Sintering. Journal of the American Ceramic Society, 2014, 97, 2383-2386.	3.8	12
82	Study of an intermediate temperature solid oxide fuel cell sealing glass system. Journal of Power Sources, 2014, 245, 752-757.	7.8	15
83	Effect of stoichiometry on (La0.6Sr0.4)xCo0.2Fe0.8O3 cathode evolution in solid oxide fuel cells. Journal of Power Sources, 2014, 267, 421-429.	7.8	9
84	3D microstructure construction and quantitative evaluation of sintered ZrO2 under different sintering conditions. Journal of Materials Science, 2013, 48, 5852-5861.	3.7	7
85	Understanding sintering characteristics of ZnO nanoparticles by FIB-SEM three-dimensional analysis. Journal of the European Ceramic Society, 2013, 33, 2499-2507.	5.7	16
86	Selective focused-ion-beam sculpting of TiO₂nanotubes and mechanism understanding. Physical Chemistry Chemical Physics, 2013, 15, 1854-1862.	2.8	9
87	<scp><scp>ZnO</scp></scp> Submicrometer Rod Array by Soft Lithographic Micromolding with High Solid Loading Nanoparticle Suspension. Journal of the American Ceramic Society, 2013, 96, 73-79.	3.8	13
88	Effects of Rodâ€like Particles on the Microstructure and Strength of Porous Silica Nanoparticle Composites. Journal of the American Ceramic Society, 2013, 96, 398-406.	3.8	17
89	Formation Mechanism of TiO₂ Nanotubes and Their Applications in Photoelectrochemical Water Splitting and Supercapacitors. Langmuir, 2013, 29, 5911-5919.	3.5	156
90	Effects of Solids Loading on Sintering and Properties of Freezeâ€Cast Kaoliniteâ€“Silica Porous Composites. Journal of the American Ceramic Society, 2013, 96, 1763-1771.	3.8	11

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91	Effects of Added Kaolinite on Sintering of Freezeâ€Cast Kaoliniteâ€“Silica Nanocomposite I. Microstructure and Phase Transformation. Journal of the American Ceramic Society, 2012, 95, 883-891.	3.8	3
92	Titania Nanoparticle Suspension for Fabrication of Micrometer Feature Arrays via a Templateâ€Assisted Approach. International Journal of Applied Ceramic Technology, 2012, 9, 911-919.	2.1	7
93	Hierarchically Branched Titania Nanotubes with Tailored Diameters and Branch Numbers. Langmuir, 2012, 28, 2937-2943.	3.5	57
94	Effects of added kaolinite on the strength and porosity of freeze-cast kaoliniteâ€“silica nanocomposites. Journal of Materials Science, 2012, 47, 6882-6890.	3.7	9
95	Newfound capability of focused ion beam patterning guided anodization. Electrochimica Acta, 2012, 63, 256-262.	5.2	12
96	Effects of titania nanotube distance and arrangement during focused ion beam guided anodization. Journal of Materials Chemistry, 2011, 21, 8835.	6.7	19
97	Moirè•Pattern Nanopore and Nanorod Arrays by Focused Ion Beam Guided Anodization and Nanoimprint Molding. Langmuir, 2011, 27, 4117-4125.	3.5	20
98	Novel Patterns by Focused Ion Beam Guided Anodization. Langmuir, 2011, 27, 800-808.	3.5	37
99	Influence of Patterned Concave Depth and Surface Curvature on Anodization of Titania Nanotubes and Alumina Nanopores. Langmuir, 2011, 27, 12179-12185.	3.5	38
100	Highly ordered titania nanotube arrays with square, triangular, and sunflower structures. Chemical Communications, 2011, 47, 10085.	4.1	28
101	Nanoparticle-Based Surface Templating. International Journal of Applied Ceramic Technology, 2011, 8, 965-976.	2.1	6
102	Effect of Atmosphere on Interconnectâ€Seal Glass Interaction for Solid Oxide Fuel/Electrolyzer Cells. Journal of the American Ceramic Society, 2011, 94, 875-885.	3.8	18
103	Formation, Structure and Properties of Freeze-Cast Kaolinite-Silica Nanocomposites. Journal of the American Ceramic Society, 2011, 94, 1256-1264.	3.8	17
104	Polishing effect on anodic titania nanotube formation. Electrochimica Acta, 2011, 56, 6014-6020.	5.2	51
105	Chemical compatibility between Sr-doped lanthanum manganite air electrode and AISI 441 interconnect. International Journal of Hydrogen Energy, 2011, 36, 4440-4448.	7.1	16
106	Focused Ion Beam Lithography and Anodization Combined Nanopore Patterning. Journal of Nanoscience and Nanotechnology, 2010, 10, 6760-6768.	0.9	10
107	Surface patterning nanoparticle-based arrays. Journal of Materials Science, 2010, 45, 582-588.	3.7	19
108	Microstructure analysis of samples sintered at different gravitational conditions. Journal of Materials Science, 2010, 45, 4454-4461.	3.7	6

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109	Compatibility of a seal glass with (Mn,Co)3O4 coated interconnects: Effect of atmosphere. International Journal of Hydrogen Energy, 2010, 35, 7945-7956.	7.1	17
110	Seal glass compatibility with bare and (Mn,Co)3O4 coated AISI 441 alloy in solid oxide fuel/electrolyzer cell atmospheres. International Journal of Hydrogen Energy, 2010, 35, 11908-11917.	7.1	17
111	Equiaxed zinc oxide nanoparticle synthesis. Chemical Engineering Journal, 2010, 160, 788-793.	12.7	14
112	Gradient and alternating diameter nanopore templates by focused ion beam guided anodization. Electrochimica Acta, 2010, 56, 435-440.	5.2	18
113	Thermochemical Compatibility of a Seal Glass with Different Solid Oxide Cell Components. International Journal of Applied Ceramic Technology, 2010, 7, 10-21.	2.1	15
114	Fundamental mechanisms of focused ion beam guided anodization. Journal of Applied Physics, 2010, 108, .	2.5	4
115	Unique nanopore pattern formation by focused ion beam guided anodization. Nanotechnology, 2010, 21, 405301.	2.6	27
116	Hierarchical and Nanosized Pattern Formation Using Dual Beam Focused Ion Beam Microscope. Journal of Nanoscience and Nanotechnology, 2009, 9, 2598-2602.	0.9	10
117	Compaction of different boron carbide powders using uniaxial die compaction and combustion driven compaction. Journal of Materials Science, 2009, 44, 414-421.	3.7	4
118	Nickelâ€“Boron Nanolayerâ€Coated Boron Carbide Pressureless Sintering. Journal of the American Ceramic Society, 2009, 92, 1500-1505.	3.8	12
119	Attaching Titania Nanoparticles onto Shortened Carbon Nanotubes by Electrostatic Attraction. International Journal of Applied Ceramic Technology, 2009, 6, 216-222.	2.1	18
120	Nickelâ€“boron nanolayer evolution on boron carbide particle surfaces during thermal treatment. Thin Solid Films, 2009, 517, 4479-4483.	1.8	3
121	Effect of particle size on three dimensional printed mesh structures. Powder Technology, 2009, 192, 178-183.	4.2	71
122	Shape memory alloy/glass composite seal for solid oxide electrolyzer and fuel cells. International Journal of Hydrogen Energy, 2008, 33, 3970-3975.	7.1	26
123	Freeze cast carbon nanotube-alumina nanoparticle green composites. Journal of Materials Science, 2008, 43, 652-659.	3.7	19
124	Morphology and composition of nickelâ€“boron nanolayer coating on boron carbide particles. Journal of Materials Science, 2008, 43, 4247-4256.	3.7	22
125	3DP process for fine mesh structure printing. Powder Technology, 2008, 187, 11-18.	4.2	110
126	Theoretical analysis of colloidal interaction energy in nanoparticle suspensions. Ceramics International, 2008, 34, 1353-1360.	4.8	43

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127	Freeze Casting as a Nanoparticle Materialâ€Forming Method. International Journal of Applied Ceramic Technology, 2008, 5, 219-227.	2.1	16
128	Rheological behavior of carbon nanotube-alumina nanoparticle dispersion systems. Powder Technology, 2007, 177, 154-161.	4.2	46
129	Microstructural Evolution of Nanoparticle Aqueous Colloidal Suspensions During Freeze Casting. Journal of the American Ceramic Society, 2007, 90, 071018043821001-???.	3.8	11
130	Work in Progress: Development and Implementation of a Web-Based Resource to Prepare International Faculty for the American Classroom. , 2006, , .		0
131	Optimization of a Nanoparticle Suspension for Freeze Casting. Journal of the American Ceramic Society, 2006, 89, 2459-2465.	3.8	64
132	Colloidal dispersion and rheology study of nanoparticles. Journal of Materials Science, 2006, 41, 5613-5618.	3.7	30
133	Applying Nickel Nanolayer Coating onto BB4BC Particles for Processing Improvement. Ceramic Engineering and Science Proceedings, 0, , 117-129.	0.1	0