## Kathy Lu

## List of Publications by Year in descending order

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133	2,543	218677  26  h-index	42
papers	citations		g-index
152	152	152	2489
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Formation Mechanism of TiO <sub>2</sub> Nanotubes and Their Applications in Photoelectrochemical Water Splitting and Supercapacitors. Langmuir, 2013, 29, 5911-5919.	3.5	156
2	3DP process for fine mesh structure printing. Powder Technology, 2008, 187, 11-18.	4.2	110
3	Porous and high surface area silicon oxycarbide-based materials—A review. Materials Science and Engineering Reports, 2015, 97, 23-49.	31.8	90
4	Thermal stability and electrical conductivity of carbon-enriched silicon oxycarbide. Journal of Materials Chemistry C, 2016, 4, 1829-1837.	5.5	83
5	Effect of particle size on three dimensional printed mesh structures. Powder Technology, 2009, 192, 178-183.	4.2	71
6	Optimization of a Nanoparticle Suspension for Freeze Casting. Journal of the American Ceramic Society, 2006, 89, 2459-2465.	3.8	64
7	Enhanced piezocatalytic performance of ZnO nanosheet microspheres by enriching the surface oxygen vacancies. Journal of Materials Science, 2020, 55, 14112-14124.	3.7	60
8	Preparation of Micro‶Mesoporous <scp>SiOC</scp> Bulk Ceramics. Journal of the American Ceramic Society, 2015, 98, 1753-1761.	3.8	59
9	Hierarchically Branched Titania Nanotubes with Tailored Diameters and Branch Numbers. Langmuir, 2012, 28, 2937-2943.	3.5	57
10	Polymer derived silicon oxycarbide-based coatings. International Materials Reviews, 2018, 63, 139-161.	19.3	56
11	Additive and pyrolysis atmosphere effects on polysiloxane-derived porous SiOC ceramics. Journal of the European Ceramic Society, 2017, 37, 4547-4557.	5.7	54
12	Polishing effect on anodic titania nanotube formation. Electrochimica Acta, 2011, 56, 6014-6020.	5 <b>.</b> 2	51
13	Effects of transition metals on the evolution of polymer-derived SiOC ceramics. Carbon, 2021, 171, 88-95.	10.3	50
14	Rheological behavior of carbon nanotube-alumina nanoparticle dispersion systems. Powder Technology, 2007, 177, 154-161.	4.2	46
15	Theoretical analysis of colloidal interaction energy in nanoparticle suspensions. Ceramics International, 2008, 34, 1353-1360.	4.8	43
16	Highly Porous SiOC Bulk Ceramics with Water Vapor Assisted Pyrolysis. Journal of the American Ceramic Society, 2015, 98, 2357-2365.	3.8	39
17	Influence of Patterned Concave Depth and Surface Curvature on Anodization of Titania Nanotubes and Alumina Nanopores. Langmuir, 2011, 27, 12179-12185.	3 <b>.</b> 5	38
18	Novel Patterns by Focused Ion Beam Guided Anodization. Langmuir, 2011, 27, 800-808.	<b>3.</b> 5	37

#	Article	IF	CITATIONS
19	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
20	Study of spark plasma sintered nanostructured ferritic steel alloy with silicon carbide addition. Materials Science & Description A: Structural Materials: Properties, Microstructure and Processing, 2016, 670, 75-80.	5.6	32
21	Colloidal dispersion and rheology study of nanoparticles. Journal of Materials Science, 2006, 41, 5613-5618.	3.7	30
22	A Novel Method To Prepare B/N Codoped Anatase TiO <sub>2</sub> . Journal of Physical Chemistry C, 2015, 119, 7732-7737.	3.1	30
23	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
24	Highly ordered titania nanotube arrays with square, triangular, and sunflower structures. Chemical Communications, 2011, 47, 10085.	4.1	28
25	Unique nanopore pattern formation by focused ion beam guided anodization. Nanotechnology, 2010, 21, 405301.	2.6	27
26	Phase transformation, oxidation stability, and electrical conductivity of TiO2-polysiloxane derived ceramics. Journal of Materials Science, 2016, 51, 10166-10177.	3.7	27
27	Fundamental understanding of water vapor effect on SiOC evolution during pyrolysis. Journal of the European Ceramic Society, 2016, 36, 411-422.	5.7	27
28	Preparation and photocatalytic performance of TiO <sub>2</sub> /PbTiO <sub>3</sub> fiber composite enhanced by external force induced piezoelectric field. Journal of the American Ceramic Society, 2019, 102, 5415-5423.	3.8	27
29	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
30	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
31	Flash pyrolysis of polymer-derived SiOC ceramics. Journal of the European Ceramic Society, 2018, 38, 4906-4914.	5.7	24
32	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
33	Morphology and composition of nickel–boron nanolayer coating on boron carbide particles. Journal of Materials Science, 2008, 43, 4247-4256.	3.7	22
34	Effects of SiO2-forming additive on polysiloxane derived SiOC ceramics. Microporous and Mesoporous Materials, 2018, 266, 75-82.	4.4	22
35	Effect of additive structure and size on SiO <sub>2</sub> formation in polymerâ€derived Si <scp>OC</scp> ceramics. Journal of the American Ceramic Society, 2018, 101, 5378-5388.	3.8	22
36	Moireì•Pattern Nanopore and Nanorod Arrays by Focused Ion Beam Guided Anodization and Nanoimprint Molding. Langmuir, 2011, 27, 4117-4125.	3.5	20

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37	Freeze cast carbon nanotube-alumina nanoparticle green composites. Journal of Materials Science, 2008, 43, 652-659.	3.7	19
38	Surface patterning nanoparticle-based arrays. Journal of Materials Science, 2010, 45, 582-588.	3.7	19
39	Effects of titania nanotube distance and arrangement during focused ion beam guided anodization. Journal of Materials Chemistry, 2011, 21, 8835.	6.7	19
40	Attaching Titania Nanoparticles onto Shortened Carbon Nanotubes by Electrostatic Attraction. International Journal of Applied Ceramic Technology, 2009, 6, 216-222.	2.1	18
41	Gradient and alternating diameter nanopore templates by focused ion beam guided anodization. Electrochimica Acta, 2010, 56, 435-440.	5.2	18
42	Effect of Atmosphere on Interconnectâ€Seal Class Interaction for Solid Oxide Fuel/Electrolyzer Cells. Journal of the American Ceramic Society, 2011, 94, 875-885.	3.8	18
43	Porous and ultrahigh surface area SiOC ceramics based on perhydropolysilazane and polysiloxane. Microporous and Mesoporous Materials, 2020, 306, 110477.	4.4	18
44	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
45	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
46	Formation, Structure and Properties of Freeze-Cast Kaolinite-Silica Nanocomposites. Journal of the American Ceramic Society, 2011, 94, 1256-1264.	3.8	17
47	Effects of Rodâ€ike Particles on the Microstructure and Strength of Porous Silica Nanoparticle Composites. Journal of the American Ceramic Society, 2013, 96, 398-406.	3.8	17
48	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
49	Thermophysical property and electrical conductivity of titanium isopropoxide – polysiloxane derived ceramics. Journal of the European Ceramic Society, 2019, 39, 4029-4037.	5.7	17
50	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
51	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
52	Freeze Casting as a Nanoparticle Materialâ€Forming Method. International Journal of Applied Ceramic Technology, 2008, 5, 219-227.	2.1	16
53	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
54	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

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55	Co <sub>3</sub> O <sub>4</sub> /Sm-Doped CeO <sub>2</sub> /Co <sub>3</sub> O <sub>4</sub> Trilayer Coating on AISI 441 Interconnect for Solid Oxide Fuel Cells. ACS Applied Materials & Samp; Interfaces, 2017, 9, 6022-6029.	8.0	16
56	Porous SiOC/SiC ceramics <i>via</i> an active-filler-catalyzed polymer-derived method. Materials Chemistry Frontiers, 2021, 5, 6530-6545.	5.9	16
57	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
58	Study of an intermediate temperature solid oxide fuel cell sealing glass system. Journal of Power Sources, 2014, 245, 752-757.	7.8	15
59	High temperature oxidation behaviors of SiON coated AISI 441 in Ar + O2, Ar+H2O, and Ar + CO2 atmospheres. Corrosion Science, 2020, 166, 108429.	6.6	15
60	Equiaxed zinc oxide nanoparticle synthesis. Chemical Engineering Journal, 2010, 160, 788-793.	12.7	14
61	Phase content prediction in polymerâ€derived ceramics with metal additives. Journal of the American Ceramic Society, 2021, 104, 5379-5391.	3.8	14
62	<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
63	Nickel–Boron Nanolayerâ€Coated Boron Carbide Pressureless Sintering. Journal of the American Ceramic Society, 2009, 92, 1500-1505.	3.8	12
64	Newfound capability of focused ion beam patterning guided anodization. Electrochimica Acta, 2012, 63, 256-262.	5.2	12
65	Evolution of Pores and Tortuosity During Sintering. Journal of the American Ceramic Society, 2014, 97, 2383-2386.	3.8	12
66	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
67	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
68	Synthesis of SiOC using solvent-modified polymer precursors. Materials Chemistry and Physics, 2019, 237, 121844.	4.0	12
69	Corrosion and tribocorrosion mitigation of perhydropolysilazane-derived coatings on low carbon steel. Corrosion Science, 2020, 177, 108946.	6.6	12
70	Microstructural Evolution of Nanoparticle Aqueous Colloidal Suspensions During Freeze Casting. Journal of the American Ceramic Society, 2007, 90, 071018043821001-???.	3.8	11
71	Effect of solvent in preparation of SiOC bulk ceramics. Materials Chemistry and Physics, 2018, 218, 140-146.	4.0	11
72	Patterning of ZnO Quantum Dot and PMMA Hybrids with a Solvent-Assisted Technique. Langmuir, 2019, 35, 5855-5863.	3.5	11

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73	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
74	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
75	Effects of Solids Loading on Sintering and Properties of Freezeâ€Cast Kaolinite–Silica Porous Composites. Journal of the American Ceramic Society, 2013, 96, 1763-1771.	3.8	11
76	Nanoscale characterization of crystalline and amorphous phases in silicon oxycarbide ceramics using 4D-STEM. Materials Characterization, 2021, 181, 111512.	4.4	11
77	Hierarchical and Nanosized Pattern Formation Using Dual Beam Focused Ion Beam Microscope. Journal of Nanoscience and Nanotechnology, 2009, 9, 2598-2602.	0.9	10
78	Focused Ion Beam Lithography and Anodization Combined Nanopore Patterning. Journal of Nanoscience and Nanotechnology, 2010, 10, 6760-6768.	0.9	10
79	Spark plasma sintered silicon carbide ceramics with nanostructured ferritic alloy as sintering aid. Materials Science & Dipineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 682, 586-592.	5.6	10
80	Flexible ZnO Nanoparticle-Poly(methyl methacrylate) Hybrid Films and Their Ultraviolet Shielding Behaviors. Jom, 2021, 73, 432-440.	1.9	10
81	Effects of added kaolinite on the strength and porosity of freeze-cast kaolinite–silica nanocomposites. Journal of Materials Science, 2012, 47, 6882-6890.	3.7	9
82	Selective focused-ion-beam sculpting of TiO <sub>2</sub> nanotubes and mechanism understanding. Physical Chemistry Chemical Physics, 2013, 15, 1854-1862.	2.8	9
83	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
84	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
85	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
86	Sintering behaviors of micron-sized ceramic rod features. Acta Materialia, 2018, 144, 534-542.	7.9	9
87	Phase development of silicon oxycarbide nanocomposites during flash pyrolysis. Journal of Materials Science, 2019, 54, 6073-6087.	3.7	9
88	Water vapor oxidation of SiC layer in surrogate TRISO fuel particles. Composites Part B: Engineering, 2021, 215, 108807.	12.0	9
89	Preparation of separated and open end TiO2 nanotubes. Ceramics International, 2015, 41, 7235-7240.	4.8	8
90	PMMA–ZnO Hybrid Arrays Using in Situ Polymerization and Imprint Lithography. Journal of Physical Chemistry C, 2017, 121, 11862-11871.	3.1	8

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91	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
92	High temperature oxidation behavior of silicon carbide-carbon coated nanostructured ferritic alloy composites in airâ€+†water vapor environment. Corrosion Science, 2018, 139, 206-214.	6.6	8
93	Photothermal self-healing of gold nanoparticle–polystyrene hybrids. Nanoscale, 2020, 12, 20726-20736.	5.6	8
94	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
95	3D microstructure construction and quantitative evaluation of sintered ZrO2 under different sintering conditions. Journal of Materials Science, 2013, 48, 5852-5861.	3.7	7
96	High temperature treatment of Cr3C2@SiC-NFA composites in water vapor environment. Corrosion Science, 2018, 131, 365-375.	6.6	7
97	Monte Carlo Simulation Modeling of Nanoparticle–Polymer Cosuspensions. Langmuir, 2019, 35, 161-170.	3.5	7
98	Hybrid materials – a review on co-dispersion, processing, patterning, and properties. International Materials Reviews, 2020, 65, 463-501.	19.3	7
99	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
100	Microstructure analysis of samples sintered at different gravitational conditions. Journal of Materials Science, 2010, 45, 4454-4461.	3.7	6
101	Nanoparticle-Based Surface Templating. International Journal of Applied Ceramic Technology, 2011, 8, 965-976.	2.1	6
102	Suspension-based imprint lithography of ZnO–PMMA hybrids. Soft Matter, 2017, 13, 5569-5579.	2.7	6
103	Centrifuge-aided micromolding of micron- and submicron-sized patterns. Journal of the European Ceramic Society, 2018, 38, 637-645.	5.7	6
104	Water vapor oxidation behaviors of nuclear graphite IC-110 for a postulated accident scenario in high temperature gas-cooled reactors. Carbon, 2020, 164, 251-260.	10.3	6
105	Experimental and Modeling Study of Solvent Diffusion in PDMS for Nanoparticle–Polymer Cosuspension Imprint Lithography. Langmuir, 2015, 31, 9809-9816.	3.5	5
106	Roughening and destructive effects of sintering on micron-sized ZnO features. Acta Materialia, 2017, 141, 352-359.	7.9	5
107	Microstructural evolution of a silicon carbide-carbon coated nanostructured ferritic alloy composite during in-situ Kr ion irradiation at 300°C 450°C. Journal of Materials Science and Technology, 2021, 71, 75-83.	10.7	5
108	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

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109	Fundamental mechanisms of focused ion beam guided anodization. Journal of Applied Physics, 2010, 108, .	2.5	4
110	Nanoparticle and poly(methyl methacrylate) co-dispersion in anisole. Journal of Materials Science, 2015, 50, 4836-4844.	3.7	4
111	Atmosphere effects on micron-sized ZnO ridges during sintering. Journal of the European Ceramic Society, 2018, 38, 5007-5014.	5.7	4
112	In-situ TEM study of microstructural evolution in NFA and Cr3C2@SiC-NFA composite during ion irradiation. Materialia, 2019, 7, 100412.	2.7	4
113	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
114	SiOC coatings on yttria stabilized zirconia microspheres using a fluidized bed coating process. Powder Technology, 2022, 396, 158-166.	4.2	4
115	Helium ion irradiation effects on microstructure evolution and mechanical properties of silicon oxycarbide. Ceramics International, 2022, 48, 16063-16071.	4.8	4
116	Nickel–boron nanolayer evolution on boron carbide particle surfaces during thermal treatment. Thin Solid Films, 2009, 517, 4479-4483.	1.8	3
117	Effects of Added Kaolinite on Sintering of Freezeâ€Cast Kaolinite–Silica Nanocomposite I. Microstructure and Phase Transformation. Journal of the American Ceramic Society, 2012, 95, 883-891.	3.8	3
118	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
119	Fundamental understanding of centrifugal micromolding for high fidelity patterns. Journal of the European Ceramic Society, 2018, 38, 5167-5173.	5.7	3
120	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
121	High dose self-ion irradiation of silicon carbide with nanostructured ferritic alloy aid. Journal of Materials Science, 2019, 54, 605-612.	3.7	3
122	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
123	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
124	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
125	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
126	Simulation Study of Nanoparticle–Polymer Organic Suspension Stability. Advanced Theory and Simulations, 2019, 2, 1900010.	2.8	2

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127	Understanding ion irradiation resistance of a silicon diffused nanostructured ferritic alloy-chromium carbide–carbon composite. Composites Part B: Engineering, 2019, 167, 746-753.	12.0	2
128	Sub-micron features from polymer-derived SiOC via imprint lithography. Journal of the European Ceramic Society, 2019, 39, 825-831.	5.7	1
129	Polysiloxane coatings on microspheres based on Multiphase Flow with Interface Exchange-Discrete Element Modelling. Particuology, 2022, 69, 88-99.	3.6	1
130	Kr ion irradiation study of polymerâ€derived SiFeOC–C–SiC nanocomposite. Journal of the American Ceramic Society, 2022, 105, 5664-5675.	3.8	1
131	Work in Progress: Development and Implementation of a Web-Based Resource to Prepare International Faculty for the American Classroom. , 2006, , .		O
132	Sintering behaviors of micron-sized features based on 3D reconstruction. Journal of Materials Science, 2019, 54, 14635-14644.	3.7	0
133	Applying Nickel Nanolayer Coating onto BB4BC Particles for Processing Improvement. Ceramic Engineering and Science Proceedings, 0, , 117-129.	0.1	O