

Katherine T Faber

List of Publications by Year in descending order

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47
papers

1,275
citations

331670

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35
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all docs

49
docs citations

49
times ranked

1598
citing authors

#	ARTICLE	IF	CITATIONS
1	Nanoscale engineering of gold particles in 18th century Böttger lusters and glazes. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2120753119.	7.1	1
2	Hierarchical porous SiOC via freeze casting and self-assembly of block copolymers. Scripta Materialia, 2021, 191, 204-209.	5.2	9
3	Fracture Diodes: Directional Asymmetry of Fracture Toughness. Physical Review Letters, 2021, 126, 025503.	7.8	14
4	Freeze-cast honeycomb structures via gravity-enhanced convection. Journal of the American Ceramic Society, 2021, 104, 4309-4315.	3.8	2
5	Looking Back, Looking Forward: Materials Science in Art, Archaeology, and Art Conservation. Annual Review of Materials Research, 2021, 51, 435-460.	9.3	6
6	Coarsening of dendrites in solution-based freeze-cast ceramic systems. Acta Materialia, 2021, 215, 117039.	7.9	6
7	Dense garnet-type electrolyte with coarse grains for improved air stability and ionic conductivity. Journal of Energy Storage, 2020, 27, 101128.	8.1	21
8	Effects of zinc oxide filler on the curing and mechanical response of alkyd coatings. Polymer, 2020, 191, 122222.	3.8	13
9	Guiding and Trapping Cracks With Compliant Inclusions for Enhancing Toughness of Brittle Composite Materials. Journal of Applied Mechanics, Transactions ASME, 2020, 87, .	2.2	11
10	Dense freeze-cast $\text{Li}_{7-x}\text{La}_3\text{Zr}_2\text{O}_{12}$ solid electrolytes with oriented open porosity and contiguous ceramic scaffold. Journal of the American Ceramic Society, 2019, 102, 1021-1029.	3.8	27
11	Robust Cellular Shape-Memory Ceramics via Gradient-Controlled Freeze Casting. Advanced Engineering Materials, 2019, 21, 1900398.	3.5	8
12	Out-of-plane mechanical characterization of acicular mullite and aluminum titanate diesel particulate filters. International Journal of Applied Ceramic Technology, 2019, 16, 1173-1183.	2.1	4
13	In-situ observation of evolving microstructural damage and associated effective electro-mechanical properties of PZT during bipolar electrical fatigue. Acta Materialia, 2019, 164, 704-713.	7.9	13
14	Hierarchical porous ceramics via two-stage freeze casting of preceramic polymers. Scripta Materialia, 2019, 162, 72-76.	5.2	31
15	Freeze-cast yttria-stabilized zirconia pore networks: Effects of alcohol additives. International Journal of Applied Ceramic Technology, 2018, 15, 296-306.	2.1	12
16	Julia Randall Weertman (1926-2018). Nature Materials, 2018, 17, 949-949.	27.5	0
17	Freeze-cast alumina pore networks: Effects of processing parameters in steady-state solidification regimes of aqueous slurries. Journal of the European Ceramic Society, 2018, 38, 5134-5143.	5.7	7
18	The role of ceramic and glass science research in meeting societal challenges: Report from an NSF-sponsored workshop. Journal of the American Ceramic Society, 2017, 100, 1777-1803.	3.8	23

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19	Suspension- and solution-based freeze casting for porous ceramics. <i>Journal of Materials Research</i> , 2017, 32, 3372-3382.	2.6	46
20	X-ray nanotomography analysis of the microstructural evolution of LiMn ₂ O ₄ electrodes. <i>Journal of Power Sources</i> , 2017, 360, 460-469.	7.8	17
21	Nucleation-controlled freeze casting of preceramic polymers for uniaxial pores in Si-based ceramics. <i>Scripta Materialia</i> , 2017, 130, 32-36.	5.2	18
22	Three-Phase 3D Reconstruction of a LiCoO ₂ Cathode via FIB-SEM Tomography. <i>Microscopy and Microanalysis</i> , 2016, 22, 140-148.	0.4	34
23	Interfacial frictional stresses and fracture toughness of biomorphic graphite/copper interfaces. <i>Materials Letters</i> , 2016, 174, 106-109.	2.6	4
24	The influence of calcium–magnesium–aluminosilicate deposits on internal stresses in Yb ₂ Si ₂ O ₇ multilayer environmental barrier coatings. <i>Acta Materialia</i> , 2016, 105, 189-198.	7.9	78
25	On-Site Identification of Early Ttger Red Stoneware Using Portable XRF/Raman Instruments: 2, Glaze & Gilding Analysis. <i>Journal of the American Ceramic Society</i> , 2015, 98, 3006-3013.	3.8	36
26	Directionally aligned macroporous SiOC via freeze casting of preceramic polymers. <i>Journal of the European Ceramic Society</i> , 2015, 35, 2225-2232.	5.7	106
27	The interaction of calcium–magnesium–aluminosilicate with ytterbium silicate environmental barrier materials. <i>Surface and Coatings Technology</i> , 2015, 284, 44-50.	4.8	80
28	On-Site Identification of Early Ttger Red Stoneware Made at Meissen Using Portable XRF: 1, Body Analysis. <i>Journal of the American Ceramic Society</i> , 2014, 97, 2745-2754.	3.8	33
29	X-ray micro-computed tomography and tortuosity calculations of percolating pore networks. <i>Acta Materialia</i> , 2014, 71, 126-135.	7.9	72
30	Thermal conductivity of wood-derived graphite and copper–graphite composites produced via electrodeposition. <i>Composites Part A: Applied Science and Manufacturing</i> , 2013, 53, 182-189.	7.6	17
31	Three-dimensional morphological measurements of LiCoO ₂ and LiCoO ₂ /Li(Ni _{1/3} Mn _{1/3} Co _{1/3})O ₂ lithium-ion battery cathodes. <i>Journal of Power Sources</i> , 2013, 227, 267-274.	7.8	66
32	Small Volumes Create Super(elastic) Effects. <i>Science</i> , 2013, 341, 1464-1465.	12.6	6
33	3D analysis of a LiCoO ₂ –Li(Ni _{1/3} Mn _{1/3} Co _{1/3})O ₂ Li-ion battery positive electrode using x-ray nano-tomography. <i>Electrochemistry Communications</i> , 2013, 28, 127-130.	4.7	93
34	Wood-derived copper–graphite composites produced via additive-assisted electrodeposition. <i>Composites Science and Technology</i> , 2013, 89, 61-68.	7.8	4
35	Emerging Opportunities in Ceramics: Reports from the 4 th International Congress on Ceramics. <i>International Journal of Applied Ceramic Technology</i> , 2013, 10, 377-378.	2.1	0
36	Modeling Macro-Sized, High Aspect Ratio Through-Hole Filling by Multi-Component Additive-Assisted Copper Electrodeposition. <i>Journal of the Electrochemical Society</i> , 2013, 160, D3093-D3102.	2.9	16

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37	Challenges in Ceramic Science: A Report from the Workshop on Emerging Research Areas in Ceramic Science. <i>Journal of the American Ceramic Society</i> , 2012, 95, 3699-3712.	3.8	59
38	Chemical and Mechanical Consequences of Environmental Barrier Coating Exposure to Calcium-Magnesium-Aluminosilicate. <i>Journal of the American Ceramic Society</i> , 2011, 94, s178.	3.8	61
39	Catalytic graphitization of three-dimensional wood-derived porous scaffolds. <i>Journal of Materials Research</i> , 2011, 26, 18-25.	2.6	40
40	Thermal properties of wood-derived copper-silicon carbide composites fabricated via electrodeposition. <i>Composites Science and Technology</i> , 2010, 70, 478-484.	7.8	19
41	Processing of wood-derived copper-silicon carbide composites via electrodeposition. <i>Composites Science and Technology</i> , 2010, 70, 485-491.	7.8	14
42	Ceramic Laminates by Gelcasting. <i>International Journal of Applied Ceramic Technology</i> , 2009, 6, 593-606.	2.1	21
43	Effect of pyrolyzation temperature on wood-derived carbon and silicon carbide. <i>Journal of the European Ceramic Society</i> , 2009, 29, 3069-3077.	5.7	39
44	Noninvasive methods for the investigation of ancient Chinese jades: an integrated analytical approach. <i>Analytical and Bioanalytical Chemistry</i> , 2007, 387, 791-801.	3.7	39
45	Effect of Interface Properties on Microcracking of Iron Titanate. <i>Scripta Materialia</i> , 1998, 38, 1449-1453.	5.2	23
46	Toughening by Stress-Induced Microcracking in Two-Phase Ceramics. <i>Journal of the American Ceramic Society</i> , 1988, 71, C-399-C-401.	3.8	22
47	Deposition of Electrically Conductive Zirconium Monoxide (ZrO) via Plasma Spray-Physical Vapor Deposition (PS-PVD). <i>Journal of the American Ceramic Society</i> , 0, , .	3.8	0