Katherine T Faber

List of Publications by Year
in descending order

47 papers	1,275 citations	331670 21 h-index	361022 35 g-index
49 all docs	49 docs citations	49 times ranked	1598 citing authors

#	Article	IF	Citations
1	Directionally aligned macroporous SiOC via freeze casting of preceramic polymers. Journal of the European Ceramic Society, 2015, 35, 2225-2232.	5.7	106
2	3D analysis of a LiCoO2â€“Li(Ni1/3Mn1/3Co1/3)O2 Li-ion battery positive electrode using x-ray nano-tomography. Electrochemistry Communications, 2013, 28, 127-130.	4.7	93
3	The interaction of calciumâ€“magnesiumâ€“aluminosilicate with ytterbium silicate environmental barrier materials. Surface and Coatings Technology, 2015, 284, 44-50.	4.8	80
4	The influence of calciumâ€“magnesiumâ€“aluminosilicate deposits on internal stresses in Yb2Si2O7 multilayer environmental barrier coatings. Acta Materialia, 2016, 105, 189-198.	7.9	78
5	X-ray micro-computed tomography and tortuosity calculations of percolating pore networks. Acta Materialia, 2014, 71, 126-135.	7.9	72
6	Three-dimensional morphological measurements of LiCoO2 and LiCoO2/Li(Ni1/3Mn1/3Co1/3)O2 lithium-ion battery cathodes. Journal of Power Sources, 2013, 227, 267-274.	7.8	66
7	Chemical and Mechanical Consequences of Environmental Barrier Coating Exposure to Calciumâ€“Magnesiumâ€“Aluminosilicate. Journal of the American Ceramic Society, 2011, 94, s178.	3.8	61
8	Challenges in Ceramic Science: A Report from the Workshop on Emerging Research Areas in Ceramic Science. Journal of the American Ceramic Society, 2012, 95, 3699-3712.	3.8	59
9	Suspension- and solution-based freeze casting for porous ceramics. Journal of Materials Research, 2017, 32, 3372-3382.	2.6	46
10	Catalytic graphitization of three-dimensional wood-derived porous scaffolds. Journal of Materials Research, 2011, 26, 18-25.	2.6	40
11	Noninvasive methods for the investigation of ancient Chinese jades: an integrated analytical approach. Analytical and Bioanalytical Chemistry, 2007, 387, 791-801.	3.7	39
12	Effect of pyrolyzation temperature on wood-derived carbon and silicon carbide. Journal of the European Ceramic Society, 2009, 29, 3069-3077.	5.7	39
13	Onâ€Site Identification of Early BÃ¶ttger Red Stoneware Using Portable <scp>XRF</scp>/Raman Instruments: 2, Glaze & Gilding Analysis. Journal of the American Ceramic Society, 2015, 98, 3006-3013.	3.8	36
14	Three-Phase 3D Reconstruction of a LiCoO₂ Cathode via FIB-SEM Tomography. Microscopy and Microanalysis, 2016, 22, 140-148.	0.4	34
15	Onâ€Site Identification of Early BÃ–TTGER Red Stoneware Made at Meissen Using Portable <scp>XRF</scp>: 1, Body Analysis. Journal of the American Ceramic Society, 2014, 97, 2745-2754.	3.8	33
16	Hierarchical porous ceramics via two-stage freeze casting of preceramic polymers. Scripta Materialia, 2019, 162, 72-76.	5.2	31
17	Dense freezeâ€cast Li₇La₃Zr₂O₁₂ solid electrolytes with oriented open porosity and contiguous ceramic scaffold. Journal of the American Ceramic Society, 2019, 102, 1021-1029.	3.8	27
18	Effect of Interface Properties on Microcracking of Iron Titanate. Scripta Materialia, 1998, 38, 1449-1453.	5.2	23

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19	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
20	Toughening by Stress-Induced Microcracking in Two-Phase Ceramics. Journal of the American Ceramic Society, 1988, 71, C-399-C-401.	3.8	22
21	Ceramic Laminates by Gelcasting. International Journal of Applied Ceramic Technology, 2009, 6, 593-606.	2.1	21
22	Dense garnet-type electrolyte with coarse grains for improved air stability and ionic conductivity. Journal of Energy Storage, 2020, 27, 101128.	8.1	21
23	Thermal properties of wood-derived copperâ€“silicon carbide composites fabricated via electrodeposition. Composites Science and Technology, 2010, 70, 478-484.	7.8	19
24	Nucleation-controlled freeze casting of preceramic polymers for uniaxial pores in Si-based ceramics. Scripta Materialia, 2017, 130, 32-36.	5.2	18
25	Thermal conductivity of wood-derived graphite and copperâ€“graphite composites produced via electrodeposition. Composites Part A: Applied Science and Manufacturing, 2013, 53, 182-189.	7.6	17
26	X-ray nanotomography analysis of the microstructural evolution of LiMn2O4 electrodes. Journal of Power Sources, 2017, 360, 460-469.	7.8	17
27	Modeling Macro-Sized, High Aspect Ratio Through-Hole Filling by Multi-Component Additive-Assisted Copper Electrodeposition. Journal of the Electrochemical Society, 2013, 160, D3093-D3102.	2.9	16
28	Processing of wood-derived copperâ€“silicon carbide composites via electrodeposition. Composites Science and Technology, 2010, 70, 485-491.	7.8	14
29	Fracture Diodes: Directional Asymmetry of Fracture Toughness. Physical Review Letters, 2021, 126, 025503.	7.8	14
30	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
31	Effects of zinc oxide filler on the curing and mechanical response of alkyd coatings. Polymer, 2020, 191, 122222.	3.8	13
32	Freezeâ€cast yttriaâ€stabilized zirconia pore networks: Effects of alcohol additives. International Journal of Applied Ceramic Technology, 2018, 15, 296-306.	2.1	12
33	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
34	Hierarchical porous SiOC via freeze casting and self-assembly of block copolymers. Scripta Materialia, 2021, 191, 204-209.	5.2	9
35	Robust Cellular Shapeâ€Memory Ceramics via Gradientâ€Controlled Freeze Casting. Advanced Engineering Materials, 2019, 21, 1900398.	3.5	8
36	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

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37	Small Volumes Create Super(elastic) Effects. Science, 2013, 341, 1464-1465.	12.6	6
38	Looking Back, Looking Forward: Materials Science in Art, Archaeology, and Art Conservation. Annual Review of Materials Research, 2021, 51, 435-460.	9.3	6
39	Coarsening of dendrites in solution-based freeze-cast ceramic systems. Acta Materialia, 2021, 215, 117039.	7.9	6
40	Wood-derived copperâ€“graphite composites produced via additive-assisted electrodeposition. Composites Science and Technology, 2013, 89, 61-68.	7.8	4
41	Interfacial frictional stresses and fracture toughness of biomorphic graphite/copper interfaces. Materials Letters, 2016, 174, 106-109.	2.6	4
42	Outâ€ofâ€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
43	Freezeâ€cast honeycomb structures via gravityâ€enhanced convection. Journal of the American Ceramic Society, 2021, 104, 4309-4315.	3.8	2
44	Nanoscale engineering of gold particles in 18th century BÃ¶ttger lusters and glazes. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2120753119.	7.1	1
45	Emerging Opportunities in Ceramics: Reports from the 4th International Congress on Ceramics. International Journal of Applied Ceramic Technology, 2013, 10, 377-378.	2.1	0
46	Julia Randall Weertman (1926â€“2018). Nature Materials, 2018, 17, 949-949.	27.5	0
47	Deposition of Electrically Conductive Zirconium Monoxide (ZrO) via Plasma Sprayâ€Physical Vapor Deposition (PSâ€PVD). Journal of the American Ceramic Society, 0, , .	3.8	0