

Zhi-Peng Xie

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77
papers

981
citations

19
h-index

25
g-index

81
ext. papers

1,195
ext. citations

3.3
avg, IF

4.25
L-index

#	Paper	IF	Citations
77	Spark plasma sintering of TiC ceramic with tungsten carbide as a sintering additive. <i>Journal of the European Ceramic Society</i> , 2013 , 33, 2971-2977	6	42
76	Surface Modification Mechanism of Stearic Acid to Zirconia Powders Induced by Ball Milling for Water-Based Injection Molding. <i>Journal of the American Ceramic Society</i> , 2011 , 94, 1327-1330	3.8	41
75	A Novel Oscillatory Pressure-Assisted Hot Pressing for Preparation of High-Performance Ceramics. <i>Journal of the American Ceramic Society</i> , 2014 , 97, 1012-1015	3.8	39
74	Controlled growth of SiC flexible field emitters with clear and sharp tips. <i>RSC Advances</i> , 2014 , 4, 8376-8387	3.7	35
73	Preparation of Spherical AlN Granules Directly by Carbothermal Reduction-Nitridation Method. <i>Journal of the American Ceramic Society</i> , 2015 , 98, 392-397	3.8	34
72	Preferred Orientation of SiC Nanowires Induced by Substrates. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 2591-2594	3.8	34
71	Water-Based Gelcasting of Surface-Coated Silicon Nitride Powder. <i>Journal of the American Ceramic Society</i> , 2001 , 84, 701-707	3.8	32
70	Surface oxidation to improve water-based gelcasting of silicon nitride. <i>Journal of Materials Science</i> , 2000 , 35, 3519-3524	4.3	31
69	Sintering of High-Performance Silicon Nitride Ceramics Under Vibratory Pressure. <i>Journal of the American Ceramic Society</i> , 2015 , 98, 698-701	3.8	29
68	A new gel casting of ceramics by reaction of sodium alginate and calcium iodate at increased temperatures. <i>Journal of Materials Science Letters</i> , 2001 , 20, 1255-1257		29
67	Microstructure and Thermo-Kinetics Analysis in Combustion Synthesis of Si ₃ N ₄ with High β -Phase Content. <i>Journal of the American Ceramic Society</i> , 2015 , 98, 263-268	3.8	26
66	An oscillatory pressure sintering of zirconia powder: Rapid densification with limited grain growth. <i>Journal of the American Ceramic Society</i> , 2017 , 100, 2774-2780	3.8	23
65	Additive manufacturing and characterization of complex Al ₂ O ₃ parts based on a novel stereolithography method. <i>International Journal of Applied Ceramic Technology</i> , 2017 , 14, 836-844	2	23
64	Crystalline boron nitride nanosheets by sonication-assisted hydrothermal exfoliation. <i>Journal of Advanced Ceramics</i> , 2019 , 8, 72-78	10.7	23
63	A novel approach to improve flexural strength of Al ₂ O ₃ -20 wt% ZrO ₂ composites by oscillatory pressure sintering. <i>Journal of the American Ceramic Society</i> , 2018 , 101, 1397-1401	3.8	21
62	Crystal Growth in the Combustion Synthesis of Si ₃ N ₄ Using Si with Different Particle Sizes. <i>Journal of the American Ceramic Society</i> , 2015 , 98, 3398-3403	3.8	21
61	Kinetics mechanism of microwave sintering in ceramic materials. <i>Science in China Series D: Earth Sciences</i> , 2009 , 52, 2727-2731		21

60	Elimination of Surface Spallation of Alumina Green Bodies Prepared by Acrylamide-Based Gelcasting via Poly(vinylpyrrolidone). <i>Journal of the American Ceramic Society</i> , 2003 , 86, 266-272	3.8	21
59	Effects of different backbone binders on the characteristics of zirconia parts using wax-based binder system via ceramic injection molding. <i>Journal of Advanced Ceramics</i> , 2016 , 5, 321-328	10.7	19
58	R-Curve Behavior of 3Y-TZP at Cryogenic Temperatures. <i>Journal of the American Ceramic Society</i> , 2011 , 94, 2775-2778	3.8	18
57	Fabrication of Blue-Colored Zirconia Ceramics via Heterogeneous Nucleation Method. <i>Crystal Growth and Design</i> , 2009 , 9, 4373-4377	3.5	18
56	Effect of Acid Cleaning and Calcination on Rheological Properties of Concentrated Aqueous Suspensions of Silicon Nitride Powder. <i>Journal of the American Ceramic Society</i> , 2004 , 85, 293-298	3.8	18
55	Accelerated sintering and phase transformation of TiO ₂ in microwave radiation. <i>Journal of Materials Research</i> , 1998 , 13, 3417-3422	2.5	18
54	Effect of Fe-Contained Species on the Preparation of Si ₃ N ₄ Fibers in Combustion Synthesis. <i>Journal of the American Ceramic Society</i> , 2016 , 99, 1464-1471	3.8	17
53	Novel Preparation of Translucent Alumina Ceramics Induced by Doping Additives via Chemical Precipitation Method. <i>Journal of the American Ceramic Society</i> , 2011 , 94, 3211-3215	3.8	17
52	3D printing of dense structural ceramic microcomponents with low cost: Tailoring the sintering kinetics and the microstructure evolution. <i>Journal of the American Ceramic Society</i> , 2019 , 102, 2257-2262	3.8	17
51	Synthesis and growth mechanism of approximate spherical Si ₃ N ₄ particles via carbothermal reduction-nitridation method. <i>Journal of the American Ceramic Society</i> , 2017 , 100, 5779-5786	3.8	15
50	Hydrolysis Control of AlN Powders for the Aqueous Processing of Spherical AlN Granules. <i>Journal of the American Ceramic Society</i> , 2013 , 96, 1383-1389	3.8	15
49	Effectively Inhibiting Abnormal Grain Growth of Alumina in ZTA with Low-Content Fine-Sized ZrO ₂ Inclusions Introduced by Infiltration and In Situ Precipitation. <i>Journal of the American Ceramic Society</i> , 2010 , 93, 4001-4004	3.8	15
48	Improved Resistance to Damage of Silicon Carbide-Whisker-Reinforced Silicon Nitride-Matrix Composites by Whisker-Oriented Alignment. <i>Journal of the American Ceramic Society</i> , 2001 , 84, 161-164	3.8	15
47	Promising high-thermal-conductivity substrate material for high-power electronic device: silicon nitride ceramics. <i>Rare Metals</i> , 2020 , 39, 463-478	5.5	13
46	Water-Soluble Binder System Based on Poly-Methyl Methacrylate and Poly-Ethylene Glycol for Injection Molding of Large-Sized Ceramic Parts. <i>International Journal of Applied Ceramic Technology</i> , 2013 , 10, 339-347	2	13
45	Preparation and Properties of Porous Alumina with Highly Ordered and Unidirectional Oriented Pores by a Self-Organization Process. <i>Journal of the American Ceramic Society</i> , 2011 , 94, 1978-1981	3.8	13
44	Injection molding of ultra-fine Si ₃ N ₄ powder for gas-pressure sintering. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2015 , 22, 654-659	3.1	12
43	An oscillatory pressure sintering of zirconia powder: Densification trajectories and mechanical properties. <i>Journal of the American Ceramic Society</i> , 2018 , 101, 1824-1829	3.8	11

42	Characterization of lead-based relaxor ferroelectric ceramics sintered in a 2.45 GHz microwave radiation. <i>Journal of Materials Science</i> , 2000 , 35, 203-207	4.3	11
41	A strategy to obtain a high-density and high-strength zirconia ceramic via ceramic injection molding by the modification of oleic acid. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2017 , 24, 718-725	3.1	10
40	Hydrothermal growth of symmetrical ZnO nanorod arrays on nanosheets for gas sensing applications. <i>Frontiers of Materials Science</i> , 2017 , 11, 271-275	2.5	10
39	Coating of Silicon Nitride and its Colloidal Behavior. <i>Journal of Materials Science Letters</i> , 1998 , 17, 1239-1241		10
38	Microwave sintering behaviour of ZrO ₂ -Y ₂ O ₃ with agglomerate. <i>Journal of Materials Science Letters</i> , 1996 , 15, 1158-1160		10
37	Preparation of alumina-toughened zirconia via 3D printing and liquid precursor infiltration: manipulation of the microstructure, the mechanical properties and the low temperature aging behavior. <i>Journal of Materials Science</i> , 2019 , 54, 7447-7459	4.3	10
36	A strategy for defects healing in 3D printed ceramic compact via cold isostatic pressing: Sintering kinetic window and microstructure evolution. <i>Journal of the American Ceramic Society</i> , 2019 , 102, 2263-2271	3.8	10
35	Synthesis of well-dispersed Si ₃ N ₄ with equiaxed structures using carbothermal reduction-oxidation method. <i>Journal of the American Ceramic Society</i> , 2017 , 100, 5363-5366	3.8	9
34	Fabrication of ZrO ₂ /Al ₂ O ₃ Composite by Injection Molding and Solution Infiltration. <i>International Journal of Applied Ceramic Technology</i> , 2011 , 8, 1344-1352	2	9
33	Improving the breakdown strength of rutile capacitor by gelcasting. <i>Journal of Materials Science Letters</i> , 2001 , 20, 1285-1288		9
32	Preparation and characterization of microporous magnesia-based refractory. <i>International Journal of Applied Ceramic Technology</i> , 2020 , 17, 2629-2637	2	8
31	Combustion synthesis of MgSiN ₂ powders and Si ₃ N ₄ -MgSiN ₂ composite powders: Effects of processing parameters. <i>Journal of the American Ceramic Society</i> , 2020 , 103, 122-135	3.8	8
30	How Does Crack Bridging Change at Cryogenic Temperatures?. <i>Journal of the American Ceramic Society</i> , 2015 , 98, 898-901	3.8	6
29	Study of the Comparative Effect of Sintering Methods and Sintering Additives on the Microstructure and Performance of SiN Ceramic. <i>Materials</i> , 2019 , 12,	3.5	6
28	Complex Impedance Analysis on the Orientation Effect of Whiskers in Oriented Silicon Carbide Whisker/Silicon Nitride Composites. <i>Journal of the American Ceramic Society</i> , 2004 , 83, 2689-2692	3.8	6
27	Effect of Al ₂ O ₃ + 4SiO ₂ Additives on Sintering Behavior and Thermal Shock Resistance of MgO-Based Ceramics. <i>Refractories and Industrial Ceramics</i> , 2016 , 57, 417-422	1.1	6
26	Mechanism of ammonium adsorption from wastewater by modified bentonite and optimization by response surface. <i>Bioremediation Journal</i> , 2018 , 22, 1-9	2.3	5
25	Rheological behavior of alumina aqueous suspension in acrylamide/polyacrylamide systems. <i>Journal of Materials Science Letters</i> , 2002 , 21, 1163-1165		5

24	The contributing factor and elimination of macropores in Si ₃ N ₄ green bodies formed by water-based gelcasting. <i>Journal of Materials Science Letters</i> , 1999 , 18, 1739-1742		5
23	Fabrication of high toughness alumina with elongated grains. <i>Journal of Materials Science Letters</i> , 2001 , 20, 1425-1427		4
22	Effects of Y ₂ O ₃ on the densification and fracture toughness of SPS-sintered TiC. <i>Materials Research Innovations</i> , 2018 , 22, 7-12	1.9	3
21	New route to improve the flexural strength of silicon nitride ceramics by introducing tungsten carbide nanoparticles. <i>International Journal of Applied Ceramic Technology</i> , 2017 , 14, 860-865	2	3
20	Spray freeze granulation of submicron alumina and its sintering behavior via spark plasma sintering. <i>Science of Sintering</i> , 2015 , 47, 279-288	0.7	3
19	Fracture toughness of aluminum nitride ceramics at cryogenic temperatures. <i>Ceramics International</i> , 2014 , 40, 13715-13718	5.1	2
18	Effect of Adding Cr ₂ O ₃ /Fe ₂ O ₃ on Aluminum Titanate Properties. <i>Refractories and Industrial Ceramics</i> , 2015 , 56, 337-343	1.1	2
17	Effect of Blowing-Agent Addition on the Structure and Properties of Magnesia Porous Material. <i>Refractories and Industrial Ceramics</i> , 2017 , 58, 60-64	1.1	2
16	The effect of deionization on concentrated suspension of silicon nitride. <i>Journal of Materials Science Letters</i> , 2001 , 20, 1537-1540		2
15	Microstructure and strength modification of relaxor ferroelectric ceramics through microwave sintering for multilayer capacitors. <i>Science in China Series D: Earth Sciences</i> , 1999 , 42, 337-341		2
14	Enhanced mechanical properties of machinable mica glass ceramics at cryogenic temperatures. <i>MRS Communications</i> , 2016 , 6, 464-468	2.7	2
13	Ultrastrong tough zirconia ceramics by defects-engineering. <i>Journal of the American Ceramic Society</i> ,	3.8	2
12	Non-isothermal kinetic study of high-grade magnesite thermal decomposition and morphological evolution of MgO. <i>International Journal of Applied Ceramic Technology</i> , 2021 , 18, 765-772	2	2
11	DC electric field-assisted hot pressing of zirconia: Methodology, phenomenology, and sintering mechanism. <i>Journal of the American Ceramic Society</i> , 2021 , 104, 5571-5583	3.8	2
10	Structural whiteness of the multi-component glaze dependence on amorphous photonic crystals. <i>Frontiers of Materials Science</i> , 2019 , 13, 206-215	2.5	1
9	Preparation of cordierite powder by chemical coprecipitation flotation evaporation and solid reaction sintering. <i>Journal of the Australian Ceramic Society</i> , 2020 , 56, 1575-1582	1.5	1
8	Dense Mulliteceramic Sintered by SPS and Its Behavior Under Thermal Shock. <i>Refractories and Industrial Ceramics</i> , 2018 , 59, 37-41	1.1	1
7	Development and Characterization on the Isothermal Kinetics of Mg(OH) ₂ -sol Synthesized by Chemical Method. <i>Journal of Asian Ceramic Societies</i> , 1-8	2.4	1

6	Synthesis of Si ₃ N ₄ nanowires by catalyst-free nitridation of (Si + SiO ₂) mixture. <i>Micro and Nano Letters</i> , 2019 , 14, 919-921	0.9	1
5	High Visible Light Photocatalytic Activity of SnO ₂ -x Nanocrystals with Rich Oxygen Vacancy. <i>European Journal of Inorganic Chemistry</i> ,	2.3	1
4	Sintering kinetics involving grain growth and densification of Mg-PSZ nanopowders. <i>Journal of Iron and Steel Research International</i> ,1	1.2	0
3	Fabrication and analysis of lightweight magnesia refractories with micro-nanometer double pore size structure. <i>Journal of the Australian Ceramic Society</i> , 2022 , 58, 627-636	1.5	0
2	Preparation and photoelectrochemical properties of CdS quantum dot-sensitized ZnO nanotube arrays. <i>International Journal of Applied Ceramic Technology</i> , 2019 , 16, 2474-2481	2	
1	Preparation of low thermal conductivity hierarchically porous diatomite ceramics by doped with ZrSiO ₄ opacifier-based foam-gelcasting method. <i>Journal of Materials Science</i> , 2022 , 57, 4941-4951	4.3	