

Kang Guan

List of Publications by Year in descending order

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32
papers

502
citations

933447

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h-index

677142

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33
docs citations

33
times ranked

482
citing authors

#	ARTICLE	IF	CITATIONS
1	Structural, elastic and electronic properties of transition metal carbides TMC (TM=Ti, Zr, Hf and Ta) from first-principles calculations. <i>Solid State Communications</i> , 2011, 151, 602-606.	1.9	92
2	Crystal structure and elastic properties of ZrB compared with ZrB ₂ : A first-principles study. <i>Computational Materials Science</i> , 2010, 49, 814-819.	3.0	79
3	One-step coating and characterization of γ -Al ₂ O ₃ microfiltration membrane. <i>Journal of Membrane Science</i> , 2015, 490, 160-168.	8.2	60
4	Influence of grain boundary and grain size on the mechanical properties of polycrystalline ceramics: Grain-scale simulations. <i>Journal of the American Ceramic Society</i> , 2020, 103, 5900-5913.	3.8	37
5	First-principles study of the structural, vibrational, phonon and thermodynamic properties of transition metal carbides TMC (Ti, Zr and Hf). <i>Solid State Communications</i> , 2011, 151, 61-66.	1.9	36
6	Evolution of porosity, pore size and permeate flux of ceramic membranes during sintering process. <i>Journal of Membrane Science</i> , 2016, 520, 166-175.	8.2	25
7	Effects of channel modification on microstructure and mechanical properties of C/SiC composites prepared by LA-CVI process. <i>Ceramics International</i> , 2018, 44, 16414-16420.	4.8	23
8	Preparation of ZrO ₂ fiber modified Al ₂ O ₃ membrane supports with enhanced strength and permeability. <i>Journal of the European Ceramic Society</i> , 2019, 39, 1712-1716.	5.7	21
9	Design and optimization of ceramic membrane structure: From the perspective of flux matching between support and membrane. <i>Ceramics International</i> , 2021, 47, 12357-12365.	4.8	14
10	Prediction of Permeability for Chemical Vapor Infiltration. <i>Journal of the American Ceramic Society</i> , 2013, 96, 2445-2453.	3.8	12
11	Modeling of pore structure evolution within the fiber bundle during chemical vapor infiltration process. <i>Chemical Engineering Science</i> , 2011, 66, 5852-5861.	3.8	10
12	Modeling of Pore Structure Evolution Between Bundles of Plain Woven Fabrics During Chemical Vapor Infiltration Process: The Influence of Preform Geometry. <i>Journal of the American Ceramic Society</i> , 2013, 96, 51-61.	3.8	10
13	Effect of ZnO/MgO ratio on the crystallization and optical properties of spinel opaque glazes. <i>Journal of the American Ceramic Society</i> , 2018, 101, 1754-1764.	3.8	10
14	Fabrication of super flux and high thermal shock resistance ceramic membrane support. <i>Ceramics International</i> , 2018, 44, 21221-21228.	4.8	10
15	Numerical modeling of SiC by low-pressure chemical vapor deposition from methyltrichlorosilane. <i>Chinese Journal of Chemical Engineering</i> , 2020, 28, 1733-1743.	3.5	8
16	First-principles calculation of interfacial stability, energy, electronic properties, ideal tensile strength and fracture toughness of SiC/BN interface. <i>Applied Physics A: Materials Science and Processing</i> , 2021, 127, 1.	2.3	8
17	Preparation and mechanism analysis of high performance ceramic membrane by spray coating. <i>RSC Advances</i> , 2018, 8, 39884-39892.	3.6	7
18	First-principles study on predicting the crystal structures, mechanical properties and electronic structures of HfC _x N _{1-x} . <i>Journal of the European Ceramic Society</i> , 2021, 41, 3037-3044.	5.7	7

#	ARTICLE	IF	CITATIONS
19	Machine learning and a computational fluid dynamic approach to estimate phase composition of chemical vapor deposition boron carbide. <i>Journal of Advanced Ceramics</i> , 2021, 10, 537-550.	17.4	6
20	Modeling of Thermal Conductivity of CVI-Densified Composites at Fiber and Bundle Level. <i>Materials</i> , 2016, 9, 1011.	2.9	4
21	Thermodynamics investigation of the gas-phase reactions in the chemical vapor deposition of silicon borides with BCl_3 - SiCl_4 - H_2 precursors. <i>Structural Chemistry</i> , 2014, 25, 1369-1384.	2.0	3
22	The comparison of microstructure and oxidation behaviors of (SiC-C)/PyC/SiC and C/PyC/SiC composites in air. <i>Science and Engineering of Composite Materials</i> , 2015, 22, .	1.4	3
23	Estimating thermal conductivities and elastic moduli of porous ceramics using a new microstructural parameter. <i>Journal of the European Ceramic Society</i> , 2019, 39, 647-651.	5.7	3
24	A Dual-scale Model for Estimating the Ablation Rate of C/C Composite Nozzle. <i>Applied Composite Materials</i> , 0, , .	2.5	3
25	Influence of microstructure properties and layer thickness on strength and permeance of ceramic membranes. <i>International Journal of Applied Ceramic Technology</i> , 2017, 14, 562-573.	2.1	2
26	Numerical Study of Thermal Shock Damage Mechanism of Polycrystalline Ceramics. <i>Frontiers in Materials</i> , 2021, 8, .	2.4	2
27	Load-deflection behavior of fracture toughness testing of ceramics by $\langle \text{SEVNB} \rangle$ method. <i>International Journal of Applied Ceramic Technology</i> , 2018, 15, 1310-1315.	2.1	1
28	A Numerical Study of Densification Behavior of Silicon Carbide Matrix Composites in Isothermal Chemical Vapor Infiltration. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2018, 33, 1365-1371.	1.0	1
29	Evaluation of fracture toughness of zirconia ceramics with heterogeneous yttrium distribution microstructures. <i>Journal of the Australian Ceramic Society</i> , 2020, 56, 1229-1235.	1.9	1
30	Influence of La_2O_3 addition on microstructure and mechanical properties of alumina-dispersed zirconia. <i>Journal of the Australian Ceramic Society</i> , 0, , 1.	1.9	1
31	Fracture toughness of $3\text{Y}_2\text{O}_3\text{-TZP}$ ceramic determined by modified SCF method based on femtosecond laser. <i>Journal of the American Ceramic Society</i> , 2022, 105, 614-625.	3.8	1
32	Preparation of porous fused silica support with high UV transmittance for photocatalytic membrane reactors. <i>Ceramics International</i> , 2022, 48, 2898-2901.	4.8	1