Qingfeng Zeng

List of Publications by Year
in descending order

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57 papers	1,347 citations	331670 21 h-index	361022 35 g-index
57 all docs	57 docs citations	57 times ranked	1322 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. Solid State Communications, 2011, 151, 602-606.	1.9	92
2	Effect of sintering temperature in argon atmosphere on microstructure and properties of 3D printed alumina ceramic cores. Journal of Advanced Ceramics, 2020, 9, 220-231.	17.4	84
3	Crystal structure and elastic properties of ZrB compared with ZrB2: A first-principles study. Computational Materials Science, 2010, 49, 814-819.	3.0	79
4	Emergence of Novel Polynitrogen Molecule-like Species, Covalent Chains, and Layers in Magnesiumâ€“Nitrogen Mg_xN_y Phases under High Pressure. Journal of Physical Chemistry C, 2017, 121, 11037-11046.	3.1	76
5	Evolution of the microstructure and mechanical properties of stereolithography formed alumina cores sintered in vacuum. Journal of the European Ceramic Society, 2020, 40, 4825-4836.	5.7	70
6	Effects of carbon vacancies on the structures, mechanical properties, and chemical bonding of zirconium carbides: a first-principles study. Physical Chemistry Chemical Physics, 2016, 18, 12299-12306.	2.8	53
7	Silica strengthened alumina ceramic cores prepared by 3D printing. Journal of the European Ceramic Society, 2021, 41, 2938-2947.	5.7	53
8	Prediction of stable hafnium carbides: Stoichiometries, mechanical properties, and electronic structure. Physical Review B, 2013, 88, .	3.2	51
9	First-principles study of Zrâ€“N crystalline phases: phase stability, electronic and mechanical properties. RSC Advances, 2017, 7, 4697-4703.	3.6	45
10	Evolutionary search for new high-kdielectric materials: methodology and applications to hafnia-based oxides. Acta Crystallographica Section C, Structural Chemistry, 2014, 70, 76-84.	0.5	44
11	Effect of debinding temperature under an argon atmosphere on the microstructure and properties of 3D-printed alumina ceramics. Materials Characterization, 2020, 168, 110548.	4.4	40
12	Simulated three-dimensional transient temperature field during aircraft braking for C/SiC composite brake disc. Materials & Design, 2011, 32, 2590-2595.	5.1	39
13	Adsorption of atomic and molecular oxygen on 3C-SiC(111) and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"		

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19	First-principles study of structural, mechanical, and thermodynamic properties of cubic Y2O3 under high pressure. Ceramics International, 2017, 43, 3346-3355.	4.8	32
20	Novel high-pressure calcium carbonates. Physical Review B, 2018, 98, .	3.2	32
21	Exploration of stable compounds, crystal structures, and superconductivity in the Be-H system. AIP Advances, 2014, 4, .	1.3	25
22	Formation of Stoichiometric CsFn Compounds. Scientific Reports, 2015, 5, 7875.	3.3	20
23	Monte Carlo simulation of polycrystalline microstructures and finite element stress analysis. Materials & Design, 2014, 55, 740-746.	5.1	18
24	Emergence of novel hydrogen chlorides under high pressure. Physical Chemistry Chemical Physics, 2017, 19, 8236-8242.	2.8	18
25	First-principles investigation on initial stage of 2H-SiC(001) surface oxidation. Science Bulletin, 2009, 54, 1487-1494.	9.0	17
26	A Novel Phase of Li₁₅Si₄ Synthesized under Pressure. Advanced Energy Materials, 2015, 5, 1500214.	19.5	14
27	Influence of sintering temperature and CVI time on mechanical properties of 3D-printed alumina ceramics. Materials Letters, 2021, 285, 129096.	2.6	14
28	First-principles study of electronic structure and optical properties of Er:Lu2O3. Journal of Rare Earths, 2021, 39, 453-459.	4.8	13
29	Prediction of Permeability for Chemical Vapor Infiltration. Journal of the American Ceramic Society, 2013, 96, 2445-2453.	3.8	12
30	First-principles study of structure, mechanical and optical properties of La- and Sc-doped Y2O3. Journal of Rare Earths, 2019, 37, 879-885.	4.8	12
31	3D printed ceramic slurries with improved solid content through optimization of alumina powder and coupling agent. Journal of Manufacturing Processes, 2021, 64, 1206-1213.	5.9	12
32	Thermodynamic Calculation of HfB2 Volatility Diagram. Journal of Phase Equilibria and Diffusion, 2011, 32, 422-427.	1.4	10
33	Modeling of Pore Structure Evolution Between Bundles of Plain Woven Fabrics During Chemical Vapor Infiltration Process: The Influence of Preform Geometry. Journal of the American Ceramic Society, 2013, 96, 51-61.	3.8	10
34	The effect of sintering on the properties of calcium oxide promoted alumina-based ceramic cores via 3D printing. Materials Chemistry and Physics, 2021, 263, 124443.	4.0	10
35	An investigation of the lowest reaction pathway of propeneÂ+ÂBCl3 decomposition in chemical vapor deposition process. Theoretical Chemistry Accounts, 2010, 127, 519-538.	1.4	9
36	Structural, phonon, mechanical, optical, and thermodynamic properties of stable Î²-La2S3 from first-principles calculations. Journal of Rare Earths, 2017, 35, 271-279.	4.8	9

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37	First-principles calculation on the electronic structure and optical properties of Eu2+ doped Î³-AlON phosphor. Ceramics International, 2018, 44, 1461-1466.	4.8	9
38	Thermodynamics of the Production of Condensed Phases in the CVD of Methyltrichlorosilane Pyrolysis. Chemical Vapor Deposition, 2009, 15, 281-290.	1.3	8
39	Vibrational and dielectric properties of AlN: A first-principles study. Ceramics International, 2016, 42, 18828-18832.	4.8	8
40	Numerical modeling of SiC by low-pressure chemical vapor deposition from methyltrichlorosilane. Chinese Journal of Chemical Engineering, 2020, 28, 1733-1743.	3.5	8
41	First-principles calculation of interfacial stability, energy, electronic properties, ideal tensile strength and fracture toughness of SiC/BN interface. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	2.3	8
42	Effect of zirconia content and particle size on the properties of 3Dâ€printed aluminaâ€based ceramic cores. Journal of the American Ceramic Society, 2021, 104, 6015-6028.	3.8	8
43	Effect of Water on Oxidation Behavior of 3-D C/SiC Composites Coated with SiC/a-BCx/SiC Coatings. Advanced Composite Materials, 2010, 19, 185-196.	1.9	7
44	First-principles study on predicting the crystal structures, mechanical properties and electronic structures of HfCxN1-x. Journal of the European Ceramic Society, 2021, 41, 3037-3044.	5.7	7
45	Numerical Simulation of Effect of Methyltrichlorosilane Flux on Isothermal Chemical Vapor Infiltration Process of C/SiC Composites. Journal of the American Ceramic Society, 2006, 89, 060623005134016-???.	3.8	6
46	First-principles study of the electronic structure and optical properties of Eu2+â€“M (M = Mn2+, Mg2+,) Tj ETQq0 0 0 rgBT /Overlock 10	4.8	6
47	Machine learning and a computational fluid dynamic approach to estimate phase composition of chemical vapor deposition boron carbide. Journal of Advanced Ceramics, 2021, 10, 537-550.	17.4	6
48	Reaction paths of BCl3Â+ÂCH4Â+ÂH2 in the chemical vapor deposition process. Structural Chemistry, 2012, 23, 1677-1692.	2.0	5
49	PCLab â€“ A software with interactive graphical user interface for Monte Carlo and finite element analysis of microstructure-based layered composites. Advances in Engineering Software, 2015, 90, 53-62.	3.8	5
50	First-principles study of elastic, electronic, and optical properties of Î±-TeO2 under pressure. Journal of Alloys and Compounds, 2019, 776, 417-427.	5.5	5
51	Effect of C/B ratio in reactants on low-pressure CVD boron-doped carbon deposited from a BCl3â€“C3H6â€“H2 mixture. Journal of Coatings Technology Research, 2009, 6, 509-515.	2.5	4
52	Thermodynamic study on the chemical vapor deposition of boron nitride from the BCl3â€“NH3â€“H2 system. Theoretical Chemistry Accounts, 2014, 133, 1.	1.4	4
53	Decomposition reaction rate of BCl3â€“CH4â€“H2 in the gas phase. Theoretical Chemistry Accounts, 2015, 134, 1.	1.4	4
54	Thermodynamics investigation of the gas-phase reactions in the chemical vapor deposition of silicon borides with BCl3â€“SiCl4â€“H2 precursors. Structural Chemistry, 2014, 25, 1369-1384.	2.0	3

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55	Estimating thermal conductivities and elastic moduli of porous ceramics using a new microstructural parameter. Journal of the European Ceramic Society, 2019, 39, 647-651.	5.7	3
56	A Dual-scale Model for Estimating the Ablation Rate of C/C Composite Nozzle. Applied Composite Materials, 0, , .	2.5	3
57	Numerical Analysis of the Microstructure-based Model for Layered Composites via MC and FEM Approaches. Brazilian Journal of Physics, 2016, 46, 87-96.	1.4	2