

De-Wei Ni

List of Publications by Year in descending order

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75
papers

2,287
citations

172457

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254184

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78
all docs

78
docs citations

78
times ranked

1202
citing authors

#	ARTICLE	IF	CITATIONS
1	Advances in ultra-high temperature ceramics, composites, and coatings. Journal of Advanced Ceramics, 2022, 11, 1-56.	17.4	256
2	Inherent anisotropy in transition metal diborides and microstructure/property tailoring in ultra-high temperature ceramics—A review. Journal of the European Ceramic Society, 2018, 38, 371-389.	5.7	89
3	Highly textured ZrB ₂ -based ultrahigh temperature ceramics via strong magnetic field alignment. Scripta Materialia, 2009, 60, 615-618.	5.2	84
4	Synthesis of Monodispersed Fine Hafnium Diboride Powders Using Carbo/Borothermal Reduction of Hafnium Dioxide. Journal of the American Ceramic Society, 2008, 91, 2709-2712.	3.8	72
5	Enhanced mass diffusion phenomena in highly defective doped ceria. Acta Materialia, 2013, 61, 6290-6300.	7.9	67
6	Ablation behavior of three-dimensional Cf/SiC-ZrC-ZrB ₂ composites prepared by a joint process of sol-gel and reactive melt infiltration. Corrosion Science, 2018, 134, 49-56.	6.6	52
7	Hot Pressed HfB ₂ and HfB ₂ –20 vol% SiC Ceramics Based on HfB ₂ Powder Synthesized by Borothermal Reduction of HfO ₂ . International Journal of Applied Ceramic Technology, 2010, 7, 830-836.	2.1	50
8	Accelerated creep in solid oxide fuel cell anode supports during reduction. Journal of Power Sources, 2016, 323, 78-89.	7.8	49
9	Pressureless sintering of HfB ₂ –SiC ceramics doped with WC. Journal of the European Ceramic Society, 2012, 32, 3627-3635.	5.7	47
10	Properties and microstructure evolution of Cf/SiC composites fabricated by polymer impregnation and pyrolysis (PIP) with liquid polycarbosilane. Ceramics International, 2017, 43, 7387-7392.	4.8	44
11	Ultrahigh temperature ceramics (UHTCs) based on ZrB ₂ and HfB ₂ systems: Powder synthesis, densification and mechanical properties. Journal of Physics: Conference Series, 2009, 176, 012041.	0.4	43
12	Microstructure and mechanical properties of 3D Cf/SiBCN composites fabricated by polymer infiltration and pyrolysis. Journal of Advanced Ceramics, 2021, 10, 28-38.	17.4	43
13	Textured HfB ₂ -based ultrahigh-temperature ceramics with anisotropic oxidation behavior. Scripta Materialia, 2009, 60, 913-916.	5.2	39
14	Microstructure and mechanical properties of three dimensional Cf/SiC-ZrC-ZrB ₂ composites prepared by reactive melt infiltration method. Journal of the European Ceramic Society, 2016, 36, 3969-3976.	5.7	39
15	Accelerated ceria–zirconia solubilization by cationic diffusion inversion at low oxygen activity. Journal of Materials Chemistry A, 2016, 4, 16871-16878.	10.3	38
16	Influence of temperature and atmosphere on the strength and elastic modulus of solid oxide fuel cell anode supports. Journal of Power Sources, 2016, 311, 1-12.	7.8	38
17	Textured and platelet-reinforced ZrB ₂ -based ultra-high-temperature ceramics. Scripta Materialia, 2011, 65, 37-40.	5.2	37
18	Densification, microstructure evolution and mechanical properties of WC doped HfB ₂ –SiC ceramics. Journal of the European Ceramic Society, 2015, 35, 2707-2714.	5.7	37

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19	Fabrication and properties of Cf/(Ti _{0.2} Zr _{0.2} Hf _{0.2} Nb _{0.2} Ta _{0.2})C-SiC high-entropy ceramic matrix composites via precursor infiltration and pyrolysis. <i>Journal of the European Ceramic Society</i> , 2021, 41, 5863-5871.	5.7	36
20	Densification and grain growth during sintering of porous Ce _{0.9} Gd _{0.1} O _{1.95} tape cast layers: A comprehensive study on heuristic methods. <i>Journal of the European Ceramic Society</i> , 2013, 33, 2529-2537.	5.7	35
21	Ablation behavior of C/C-ZrC and C/SiC-ZrC composites fabricated by a joint process of slurry impregnation and chemical vapor infiltration. <i>Ceramics International</i> , 2018, 44, 4777-4782.	4.8	35
22	Role of WC additive on reaction, solid-solution and densification in HfB ₂ -SiC ceramics. <i>Journal of the European Ceramic Society</i> , 2014, 34, 611-619.	5.7	34
23	Ablation behavior of Cf/ZrC-SiC-based composites fabricated by an improved reactive melt infiltration. <i>Journal of the European Ceramic Society</i> , 2019, 39, 4617-4624.	5.7	34
24	Textured h-BN Ceramics Prepared by Slip Casting. <i>Journal of the American Ceramic Society</i> , 2011, 94, 1397-1404.	3.8	32
25	Design and optimization of porous ceramic supports for asymmetric ceria-based oxygen transport membranes. <i>Journal of Membrane Science</i> , 2016, 513, 85-94.	8.2	31
26	Long-term ablation behavior and mechanisms of 2D-Cf/ZrB ₂ -SiC composites at temperatures up to 2400 °C. <i>Corrosion Science</i> , 2020, 177, 108967.	6.6	31
27	In situ synthesis of ZrB ₂ -MoSi ₂ platelet composites: Reactive hot pressing process, microstructure and mechanical properties. <i>Ceramics International</i> , 2012, 38, 4751-4760.	4.8	30
28	Fabrication and properties of C _f /ZrC-SiC-based composites by an improved reactive melt infiltration. <i>Journal of the American Ceramic Society</i> , 2018, 101, 3253-3258.	3.8	30
29	Camber Evolution and Stress Development of Porous Ceramic Bilayers During Co-Firing. <i>Journal of the American Ceramic Society</i> , 2013, 96, 972-978.	3.8	29
30	Effects of preform pore structure on infiltration kinetics and microstructure evolution of RMI-derived Cf/ZrC-ZrB ₂ -SiC composite. <i>Journal of the European Ceramic Society</i> , 2020, 40, 2683-2690.	5.7	29
31	Multi-cycle and long-term ablation behavior of Cf/ZrB ₂ -SiC composites at 2500 °C. <i>Corrosion Science</i> , 2021, 184, 109385.	6.6	29
32	Interphase degradation of three-dimensional C _f /SiC-ZrC-Zr ₂ composites fabricated via reactive melt infiltration. <i>Journal of the American Ceramic Society</i> , 2017, 100, 4816-4826.	3.8	28
33	Microstructure refinement and mechanical properties improvement of HfB ₂ -SiC composites with the incorporation of HfC. <i>Journal of the European Ceramic Society</i> , 2012, 32, 2557-2563.	5.7	27
34	Modeling kinetics of distortion in porous bi-layered structures. <i>Journal of the European Ceramic Society</i> , 2013, 33, 1297-1305.	5.7	27
35	Sintering of Multilayered Porous Structures: Part II—Experiments and Model Applications. <i>Journal of the American Ceramic Society</i> , 2013, 96, 2666-2673.	3.8	27
36	Densification of Highly Defective Ceria by High Temperature Controlled Re-Oxidation. <i>Journal of the Electrochemical Society</i> , 2014, 161, F3072-F3078.	2.9	27

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37	Sintering of Multilayered Porous Structures: Part I—Constitutive Models. <i>Journal of the American Ceramic Society</i> , 2013, 96, 2657-2665.	3.8	26
38	Anisotropy oxidation of textured ZrB ₂ /MoSi ₂ ceramics. <i>Journal of the European Ceramic Society</i> , 2012, 32, 3469-3476.	5.7	25
39	3D Cf/SiBCN composites prepared by an improved polymer infiltration and pyrolysis. <i>Journal of Advanced Ceramics</i> , 2018, 7, 266-275.	17.4	25
40	Fast mass interdiffusion in ceria/alumina composite. <i>Journal of Materials Chemistry A</i> , 2015, 3, 17135-17143.	10.3	24
41	Fabrication and optimization of 3D-Cf/HfC-SiC-based composites via sol-gel processing and reactive melt infiltration. <i>Journal of the European Ceramic Society</i> , 2021, 41, 1788-1794.	5.7	24
42	Boride Ceramics: Densification, Microstructure Tailoring and Properties Improvement. <i>Wuji Cailiao Xuebao/Journal of Inorganic Materials</i> , 2012, 27, 225-233.	1.3	24
43	Effect of chemical redox on Gd-doped ceria mass diffusion. <i>Journal of Materials Chemistry A</i> , 2015, 3, 18835-18838.	10.3	23
44	Initial stage of oxidation process and microstructure analysis of HfB ₂ /20 vol.% SiC composite at 1500°C. <i>Scripta Materialia</i> , 2011, 64, 617-620.	5.2	22
45	Effects of co-sintering in self-standing CGO/YSZ and CGO/ScYSZ dense bi-layers. <i>Journal of Materials Science</i> , 2014, 49, 5324-5333.	3.7	22
46	Densification and grain growth kinetics of Ce _{0.9} Gd _{0.1} O _{1.95} in tape cast layers: The influence of porosity. <i>Journal of the European Ceramic Society</i> , 2014, 34, 2371-2379.	5.7	22
47	Mechanical properties and microstructure evolution of 3D C _f /SiBCN composites at elevated temperatures. <i>Journal of the American Ceramic Society</i> , 2018, 101, 4699-4707.	3.8	22
48	Densification of Ce _{0.9} Gd _{0.1} O _{1.95} barrier layer by in-situ solid state reaction. <i>Journal of Power Sources</i> , 2014, 266, 393-400.	7.8	20
49	Reaction Sintering of HfC/W Cermets with High Strength and Toughness. <i>Journal of the American Ceramic Society</i> , 2013, 96, 867-872.	3.8	19
50	Fabrication and microstructure evolution of Csf/ZrB ₂ -SiC composites via direct ink writing and reactive melt infiltration. <i>Journal of Advanced Ceramics</i> , 2021, 10, 1371-1380.	17.4	19
51	Sintering and grain growth kinetics in La _{0.85} Sr _{0.15} MnO ₃ /Ce _{0.9} Gd _{0.1} O _{1.95} (LSM/CGO) porous composite. <i>Journal of the European Ceramic Society</i> , 2014, 34, 3769-3778.	5.7	18
52	Synthesis of nanocrystallized zirconium carbide based on an aqueous solution-derived precursor. <i>RSC Advances</i> , 2017, 7, 22722-22727.	3.6	18
53	Effect of interphase on mechanical properties and microstructures of 3D C _f /SiBCN composites at elevated temperatures. <i>Journal of the American Ceramic Society</i> , 2019, 102, 3630-3640.	3.8	18
54	Effect of ZrC amount and distribution on the thermomechanical properties of C f/SiC-ZrC composites. <i>International Journal of Applied Ceramic Technology</i> , 2019, 16, 1321-1328.	2.1	16

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55	Thermal damage and microstructure evolution mechanisms of Cf/SiBCN composites during plasma ablation. <i>Corrosion Science</i> , 2020, 169, 108621.	6.6	16
56	Improved ablation resistance of 3D-Cf/SiBCN composites with (PyC/SiC) ₃ multi-layers as interphase. <i>Journal of the European Ceramic Society</i> , 2021, 41, 1114-1120.	5.7	16
57	Microstructure and mechanical properties of reaction bonded B ₄ C-SiC composites: The effect of polycarbosilane addition. <i>Ceramics International</i> , 2017, 43, 5887-5895.	4.8	15
58	Enhanced densification of thin tape cast Ceria-Gadolinium Oxide (CGO) layers by rheological optimization of slurries. <i>Ceramics International</i> , 2017, 43, 5647-5653.	4.8	15
59	Synthesis and characterization of nano-crystallized HfC based on an aqueous solution-derived precursor. <i>RSC Advances</i> , 2018, 8, 39284-39290.	3.6	15
60	Microstructure, mechanical properties and oxidation resistance of SiC _f /SiC composites incorporated with boron nitride nanotubes. <i>RSC Advances</i> , 2016, 6, 83482-83492.	3.6	14
61	Synthesis mechanism and sintering behavior of tungsten carbide powder produced by a novel solid state reaction of W ₂ N. <i>International Journal of Refractory Metals and Hard Materials</i> , 2012, 35, 202-206.	3.8	13
62	Finite Element Modeling of Camber Evolution During Sintering of Bilayer Structures. <i>Journal of the American Ceramic Society</i> , 2014, 97, 2965-2972.	3.8	13
63	Reaction mechanism and microstructure development of ZrSi ₂ melt-infiltrated Cf/SiC-ZrC-ZrB ₂ composites: The influence of preform pore structures. <i>Journal of Materiomics</i> , 2018, 4, 266-275.	5.7	13
64	Fabrication and properties of C _f /Ta ₄ HfC ₅ SiC composite via precursor infiltration and pyrolysis. <i>Journal of the American Ceramic Society</i> , 2021, 104, 6601-6610.	3.8	11
65	Chemical reactions and thermal stress induced microstructure evolution in 2D-Cf/ZrB ₂ -SiC composites. <i>Journal of Materials Science and Technology</i> , 2021, 83, 75-82.	10.7	11
66	Modeling constrained sintering of bi-layered tubular structures. <i>Journal of the European Ceramic Society</i> , 2015, 35, 941-950.	5.7	10
67	Ablation behavior and mechanism of C _f /SiBCN composites in plasma ablation flame. <i>Journal of the American Ceramic Society</i> , 2020, 103, 1321-1331.	3.8	10
68	Releasing cation diffusion in self-limited nanocrystalline defective ceria thin films. <i>RSC Advances</i> , 2017, 7, 13784-13788.	3.6	9
69	Mechanical Properties of Supports and Half-Cells for Solid Oxide Electrolysis Influenced by Alumina-Zirconia Composites. <i>Fuel Cells</i> , 2017, 17, 132-143.	2.4	8
70	A thermoset hybrid sol for the syntheses of zirconium carbide-silicon carbide foam via replica method. <i>Journal of Porous Materials</i> , 2019, 26, 409-417.	2.6	7
71	Microstructure and mechanical behaviors of 2D-Cf/ZrB ₂ -SiC composites at elevated temperatures. <i>Journal of the European Ceramic Society</i> , 2022, 42, 5410-5418.	5.7	7
72	Instability of supercritical porosity in highly doped ceria under reduced oxygen partial pressure. <i>Scripta Materialia</i> , 2015, 94, 13-16.	5.2	6

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73	The effect of Al ₂ O ₃ on the high-temperature oxidation resistance of SiC-B ₄ C ceramic under air atmosphere. International Journal of Applied Ceramic Technology, 2018, 15, 1146-1156.	2.1	6
74	C/SiOC Composites by a Modified PIP Using Solid Polysiloxane: Fabrication, Microstructure and Mechanical Properties. Wujì Cailiao Xuebao/Journal of Inorganic Materials, 2019, 34, 1349.	1.3	6
75	Comparative Study on Quantitation of Phase Component and Phase Composition of HfB ₂ -SiC-HfC Ceramics. Wujì Cailiao Xuebao/Journal of Inorganic Materials, 2014, 29, 1105.	1.3	0