

# Zhijiang Wang

## List of Publications by Year in descending order

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66  
papers

4,305  
citations

126708

33  
h-index

110170

64  
g-index

67  
all docs

67  
docs citations

67  
times ranked

4604  
citing authors

#	ARTICLE	IF	CITATIONS
1	Microwave absorption enhancement of porous C@CoFe <sub>2</sub> O <sub>4</sub> nanocomposites derived from eggshell membrane. <i>Carbon</i> , 2019, 143, 507-516.	5.4	317
2	Electrochemical reduction of aqueous nitrogen (N <sub>2</sub> ) at a low overpotential on (110)-oriented Mo nanofilm. <i>Journal of Materials Chemistry A</i> , 2017, 5, 18967-18971.	5.2	241
3	SiC@Fe <sub>3</sub> O <sub>4</sub> dielectric-magnetic hybrid nanowires: controllable fabrication, characterization and electromagnetic wave absorption. <i>Journal of Materials Chemistry A</i> , 2014, 2, 16397-16402.	5.2	215
4	Current technology development for CO <sub>2</sub> utilization into solar fuels and chemicals: A review. <i>Journal of Energy Chemistry</i> , 2020, 49, 96-123.	7.1	208
5	Ultrahigh Mass Activity for Carbon Dioxide Reduction Enabled by Gold@Iron Core@Shell Nanoparticles. <i>Journal of the American Chemical Society</i> , 2017, 139, 15608-15611.	6.6	191
6	Magnetite Nanocrystals on Multiwalled Carbon Nanotubes as a Synergistic Microwave Absorber. <i>Journal of Physical Chemistry C</i> , 2013, 117, 5446-5452.	1.5	189
7	Chemoselectivity-induced multiple interfaces in MWCNT/Fe <sub>3</sub> O <sub>4</sub> @ZnO heterotrimers for whole X-band microwave absorption. <i>Nanoscale</i> , 2014, 6, 12298-12302.	2.8	188
8	Eggplant-derived SiC aerogels with high-performance electromagnetic wave absorption and thermal insulation properties. <i>Chemical Engineering Journal</i> , 2019, 373, 598-605.	6.6	178
9	Covalent interaction enhanced electromagnetic wave absorption in SiC/Co hybrid nanowires. <i>Journal of Materials Chemistry A</i> , 2015, 3, 6517-6525.	5.2	163
10	Stacking fault and unoccupied densities of state dependence of electromagnetic wave absorption in SiC nanowires. <i>Journal of Materials Chemistry C</i> , 2015, 3, 4416-4423.	2.7	163
11	Light and Strong Hierarchical Porous SiC Foam for Efficient Electromagnetic Interference Shielding and Thermal Insulation at Elevated Temperatures. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 29950-29957.	4.0	163
12	Lightweight and flexible graphene/SiC-nanowires/ poly(vinylidene fluoride) composites for electromagnetic interference shielding and thermal management. <i>Carbon</i> , 2020, 156, 58-66.	5.4	138
13	Controllable Fabricating Dielectric@Dielectric SiC@C Core@Shell Nanowires for High-Performance Electromagnetic Wave Attenuation. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 40690-40696.	4.0	137
14	Black reduced porous SnO <sub>2</sub> nanosheets for CO <sub>2</sub> electroreduction with high formate selectivity and low overpotential. <i>Applied Catalysis B: Environmental</i> , 2020, 260, 118134.	10.8	107
15	Enhanced microwave absorption of Fe <sub>3</sub> O <sub>4</sub> nanocrystals after heterogeneously growing with ZnO nanoshell. <i>RSC Advances</i> , 2013, 3, 3309.	1.7	106
16	Flexible, conductive, porous, fibrillar polymer@gold nanocomposites with enhanced electromagnetic interference shielding and mechanical properties. <i>Journal of Materials Chemistry C</i> , 2017, 5, 1095-1105.	2.7	99
17	Fabrication of core-multishell MWCNT/Fe <sub>3</sub> O <sub>4</sub> /PANI/Au hybrid nanotubes with high-performance electromagnetic absorption. <i>Journal of Materials Chemistry A</i> , 2015, 3, 10566-10572.	5.2	90
18	Efficient high-temperature electromagnetic wave absorption enabled by structuring binary porous SiC with multiple interfaces. <i>Carbon</i> , 2020, 170, 517-526.	5.4	82

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19	High-temperature electromagnetic wave absorption, mechanical and thermal insulation properties of in-situ grown SiC on porous SiC skeleton. <i>Chemical Engineering Journal</i> , 2020, 397, 125250.	6.6	77
20	Enhanced electrochemical reduction of CO <sub>2</sub> to CO on Ag electrocatalysts with increased unoccupied density of states. <i>Journal of Materials Chemistry A</i> , 2016, 4, 12616-12623.	5.2	74
21	Electric field-induced synthesis of dendritic nanostructured $\text{Fe}^{\pm}$ for electromagnetic absorption application. <i>Journal of Materials Chemistry A</i> , 2013, 1, 4571.	5.2	63
22	Effects of fluoride on the structure and properties of microarc oxidation coating on aluminium alloy. <i>Journal of Alloys and Compounds</i> , 2010, 505, 188-193.	2.8	61
23	Surface Ligand Promotion of Carbon Dioxide Reduction through Stabilizing Chemisorbed Reactive Intermediates. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 3057-3061.	2.1	61
24	Fabrication of hydrophobic alumina aerogel monoliths by surface modification and ambient pressure drying. <i>Applied Surface Science</i> , 2010, 256, 5973-5977.	3.1	59
25	Blue Luminescence Emitted from Monodisperse Thiolate-capped Au <sub>11</sub> Clusters. <i>ChemPhysChem</i> , 2009, 10, 1202-1205.	1.0	52
26	Facile Synthesis of Highly Defected Silicon Carbide Sheets for Efficient Absorption of Electromagnetic Waves. <i>Journal of Physical Chemistry C</i> , 2018, 122, 18537-18544.	1.5	49
27	A High-Performance Zinc-Organic Framework with Accessible Open Metal Sites Catalyzes CO <sub>2</sub> and Styrene Oxide into Styrene Carbonate under Mild Conditions. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 2795-2803.	3.2	49
28	Preparation and Characterization of Highly Flexible Al <sub>2</sub> O <sub>3</sub> /Al <sub>2</sub> O <sub>3</sub> Hybrid Composite. <i>Journal of Nanomaterials</i> , 2015, 2015, 1-8.	1.5	47
29	MWCNT/NiO-Fe <sub>3</sub> O <sub>4</sub> hybrid nanotubes for efficient electromagnetic wave absorption. <i>Journal of Alloys and Compounds</i> , 2018, 748, 111-116.	2.8	44
30	Nature of Electromagnetic-Transparent SiO <sub>2</sub> Shell in Hybrid Nanostructure Enhancing Electromagnetic Attenuation. <i>Journal of Physical Chemistry C</i> , 2016, 120, 12967-12973.	1.5	40
31	Cobalt doping-induced strong electromagnetic wave absorption in SiC nanowires. <i>Journal of Alloys and Compounds</i> , 2019, 781, 93-100.	2.8	40
32	Dependence of reduction degree on electromagnetic absorption of graphene nanoribbon unzipped from carbon nanotube. <i>Journal of Colloid and Interface Science</i> , 2019, 552, 196-203.	5.0	37
33	Highly Selective Electrocatalytic Reduction of CO <sub>2</sub> into Methane on Cu-Bi Nanoalloys. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 7261-7266.	2.1	37
34	Large-scale gold nanoparticle superlattice and its SERS properties for the quantitative detection of toxic carbaryl. <i>Nanoscale</i> , 2013, 5, 5274.	2.8	33
35	Highly sensitive and selective carbon nanosensor based on luminescence resonance energy transfer between NaYF <sub>4</sub> :Yb, Ho nanocrystals and gold nanoparticles. <i>Talanta</i> , 2013, 114, 124-130.	2.9	32
36	A facile fabrication of a multi-functional and hierarchical Zn-based MOF as an efficient catalyst for CO <sub>2</sub> fixation at room-temperature. <i>Inorganic Chemistry Frontiers</i> , 2021, 8, 3085-3095.	3.0	31

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37	Designed fabrication of lightweight SiC/Si <sub>3</sub> N <sub>4</sub> aerogels for enhanced electromagnetic wave absorption and thermal insulation. <i>Journal of Alloys and Compounds</i> , 2022, 901, 163651.	2.8	31
38	Synergistic Chemisorbing and Electronic Effects for Efficient CO <sub>2</sub> Reduction Using Cysteamine-Functionalized Gold Nanoparticles. <i>ACS Applied Energy Materials</i> , 2019, 2, 192-195.	2.5	27
39	Selective CO <sub>2</sub> Electromethanation on Surface-Modified Cu Catalyst by Local Microenvironment Modulation. <i>ACS Catalysis</i> , 2022, 12, 8252-8258.	5.5	27
40	Durian-like multi-functional Fe <sub>3</sub> O <sub>4</sub> @Au nanoparticles: synthesis, characterization and selective detection of benzidine. <i>Journal of Materials Chemistry A</i> , 2013, 1, 9746.	5.2	25
41	Dicationic Ionic Liquid @MIL-101 for the Cycloaddition of CO <sub>2</sub> and Epoxides under Cocatalyst-free Conditions. <i>Crystal Growth and Design</i> , 2021, 21, 3689-3698.	1.4	25
42	Size-Tunable Synthesis of Monodisperse Water-Soluble Gold Nanoparticles with High X-ray Attenuation. <i>Chemistry - A European Journal</i> , 2010, 16, 1459-1463.	1.7	24
43	<i>In situ</i> fabrication of blue ceramic coatings on wrought Al Alloy 2024 by plasma electrolytic oxidation. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2012, 30, .	0.9	22
44	Effective CO <sub>2</sub> electroreduction toward C <sub>2</sub> H <sub>4</sub> boosted by Ce-doped Cu nanoparticles. <i>Chemical Engineering Journal</i> , 2022, 433, 133769.	6.6	22
45	Synergies between electronic and geometric effects of Mo-doped Au nanoparticles for effective CO <sub>2</sub> electrochemical reduction. <i>Journal of Materials Chemistry A</i> , 2020, 8, 12291-12295.	5.2	21
46	Ultralight, compressible, and high-temperature-resistant dual-phase SiC/Si <sub>3</sub> N <sub>4</sub> felt for efficient electromagnetic wave attenuation. <i>Chemical Engineering Journal</i> , 2021, 425, 130727.	6.6	19
47	Progress and perspective of electrochemical CO <sub>2</sub> reduction on Pd-based nanomaterials. <i>Chemical Engineering Science</i> , 2021, 245, 116869.	1.9	19
48	Graphene-layer-coated boron carbide nanosheets with efficient electromagnetic wave absorption. <i>Applied Surface Science</i> , 2021, 560, 150027.	3.1	17
49	Controllable synthesis of bifunctional NaYF <sub>4</sub> :Yb <sup>3+</sup> /Ho <sup>3+</sup> @SiO <sub>2</sub> /Au nanoparticles with upconversion luminescence and high X-ray attenuation. <i>Journal of Alloys and Compounds</i> , 2011, 509, 9144-9149.	2.8	16
50	Luminescent Au <sub>11</sub> nanocluster superlattices with high thermal stability. <i>Journal of Materials Chemistry</i> , 2012, 22, 3632.	6.7	16
51	Ultralight, tunable monolithic SiC aerogel for electromagnetic absorption with broad absorption band. <i>Ceramics International</i> , 2022, 48, 26416-26424.	2.3	16
52	Growing dendritic SiC on 1D SiC nanowire: Enhancement of electromagnetic wave absorption performance. <i>Journal of Physics and Chemistry of Solids</i> , 2020, 136, 109124.	1.9	14
53	Theoretical insights into the factors affecting the electrochemical reduction of CO <sub>2</sub> . <i>Sustainable Energy and Fuels</i> , 2020, 4, 4352-4369.	2.5	14
54	Composition regulation and defects introduction via amorphous CuEu alloy shell for efficient CO <sub>2</sub> electroreduction toward methane. <i>Journal of CO<sub>2</sub> Utilization</i> , 2020, 41, 101285.	3.3	12

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55	In situ formation of Al <sub>2</sub> O <sub>3</sub> @SiO <sub>2</sub> @SnO <sub>2</sub> composite ceramic coating by microarc oxidation on Al@20%Sn alloy. <i>Applied Surface Science</i> , 2010, 256, 3443-3447.	3.1	9
56	Exceptional size-dependent activity enhancement in the catalytic electroreduction of N <sub>2</sub> over Mo nanoparticles. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 31841-31848.	3.8	9
57	Direct CO <sub>2</sub> electroreduction from NH <sub>4</sub> HCO <sub>3</sub> electrolyte to syngas on bromine-modified Ag catalyst. <i>Energy</i> , 2021, 216, 119250.	4.5	9
58	Efficient CO <sub>2</sub> Electroreduction via Au@C Complex Derived Carbon Nanotube Supported Au Nanoclusters. <i>ChemSusChem</i> , 2021, 14, 4929-4935.	3.6	9
59	Recent progresses in the mechanism, performance, and fabrication methods of metal-derived nanomaterials for efficient electrochemical CO <sub>2</sub> reduction. <i>Journal of Materials Chemistry A</i> , 2021, 9, 4558-4588.	5.2	8
60	Catalysis of solar hydrogen production by iron atoms on the surface of Fe-doped silicon carbide. <i>Catalysis Science and Technology</i> , 2016, 6, 7038-7041.	2.1	7
61	Self-Assembly of Amphiphilic Linear <sup>+</sup> Dendritic Carbosilane Block Surfactant for Waterborne Polyurethane Coating. <i>Polymers</i> , 2020, 12, 1318.	2.0	7
62	Study of the Effect of PGDA Solvent on Film Formation and Curing Process of Two-Component Waterborne Polyurethane Coatings by FTIR Tracking. <i>Coatings</i> , 2020, 10, 461.	1.2	5
63	A Techno-Economic Study of Commercial Electrochemical CO <sub>2</sub> Reduction into Diesel Fuel and Formic Acid. <i>Journal of Electrochemical Science and Technology</i> , 2022, 13, 148-158.	0.9	5
64	Effect of halogen-modification on Ag catalyst for CO <sub>2</sub> electrochemical reduction to syngas from NH <sub>4</sub> HCO <sub>3</sub> electrolyte. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 106415.	3.3	4
65	Determination and Relaxation of Residual Stress in 2024 Al-30vol.% Magnesium Borate Whisker Composites. <i>Journal of Materials Engineering and Performance</i> , 2013, 22, 3126-3133.	1.2	3
66	Morphology characteristics and mechanical properties of hot-pressed micron/sub-micron boron carbide ceramics. <i>Materials Today Communications</i> , 2021, 29, 102751.	0.9	2