

# Wang Zhang

## List of Publications by Citations

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114  
papers

4,160  
citations

33  
h-index

61  
g-index

119  
ext. papers

5,020  
ext. citations

8.7  
avg, IF

5.48  
L-index

#	Paper	IF	Citations
114	Fluorine-Free Synthesis of High-Purity Ti C T (T=OH, O) via Alkali Treatment. <i>Angewandte Chemie - International Edition</i> , <b>2018</b> , 57, 6115-6119	16.4	387
113	"Egg-Box"-Assisted Fabrication of Porous Carbon with Small Mesopores for High-Rate Electric Double Layer Capacitors. <i>ACS Nano</i> , <b>2015</b> , 9, 11225-33	16.7	242
112	Bioinspired Multifunctional Paper-Based rGO Composites for Solar-Driven Clean Water Generation. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 14628-36	9.5	187
111	Enhanced Light-Harvesting and Photocatalytic Properties in Morph-TiO <sub>2</sub> from Green-Leaf Biotemplates. <i>Advanced Functional Materials</i> , <b>2009</b> , 19, 45-56	15.6	184
110	Novel Photoanode Structure Templated from Butterfly Wing Scales. <i>Chemistry of Materials</i> , <b>2009</b> , 21, 33-40	9.6	182
109	One step fabrication of C-doped BiVO <sub>4</sub> with hierarchical structures for a high-performance photocatalyst under visible light irradiation. <i>Journal of Materials Chemistry A</i> , <b>2013</b> , 1, 8367	13	128
108	Hierarchical Porous Carbonized Lotus Seedpods for Highly Efficient Solar Steam Generation. <i>Chemistry of Materials</i> , <b>2018</b> , 30, 6217-6221	9.6	126
107	High-Density Hotspots Engineered by Naturally Piled-Up Subwavelength Structures in Three-Dimensional Copper Butterfly Wing Scales for Surface-Enhanced Raman Scattering Detection. <i>Advanced Functional Materials</i> , <b>2012</b> , 22, 1578-1585	15.6	103
106	Ag/diatomite for highly efficient solar vapor generation under one-sun irradiation. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 17817-17821	13	101
105	Highly porous graphitic materials prepared by catalytic graphitization. <i>Carbon</i> , <b>2013</b> , 64, 132-140	10.4	92
104	Bioinspired fabrication of hierarchically structured, pH-tunable photonic crystals with unique transition. <i>ACS Nano</i> , <b>2013</b> , 7, 4911-8	16.7	91
103	The synthesis of hierarchical porous iron oxide with wood templates. <i>Microporous and Mesoporous Materials</i> , <b>2005</b> , 85, 82-88	5.3	88
102	Fabrication of ZnO microtubes with adjustable nanopores on the walls by the templating of butterfly wing scales. <i>Nanotechnology</i> , <b>2006</b> , 17, 840-844	3.4	85
101	3D-Structured Carbonized Sunflower Heads for Improved Energy Efficiency in Solar Steam Generation. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 2171-2179	9.5	85
100	3D Network Magnetophotonic Crystals Fabricated on Morpho Butterfly Wing Templates. <i>Advanced Functional Materials</i> , <b>2012</b> , 22, 2072-2080	15.6	81
99	Quantum Dots of 1T Phase Transitional Metal Dichalcogenides Generated via Electrochemical Li Intercalation. <i>ACS Nano</i> , <b>2018</b> , 12, 308-316	16.7	80
98	Recent development of biomass-derived carbons and composites as electrode materials for supercapacitors. <i>Materials Chemistry Frontiers</i> , <b>2019</b> , 3, 2543-2570	7.8	79

97	Infrared detection based on localized modification of Morpho butterfly wings. <i>Advanced Materials</i> , <b>2015</b> , 27, 1077-82	24	74
96	Morphology genetic materials templated from natural species. <i>Advanced Materials</i> , <b>2015</b> , 27, 464-78	24	63
95	Morphosynthesis of hierarchical ZnO replica using butterfly wing scales as templates. <i>Microporous and Mesoporous Materials</i> , <b>2006</b> , 92, 227-233	5.3	63
94	Inspiration from butterfly and moth wing scales: Characterization, modeling, and fabrication. <i>Progress in Materials Science</i> , <b>2015</b> , 68, 67-96	42.2	59
93	Biomimetic zinc oxide replica with structural color using butterfly ( <i>Ideopsis similis</i> ) wings as templates. <i>Bioinspiration and Biomimetics</i> , <b>2006</b> , 1, 89-95	2.6	58
92	Optical Functional Materials Inspired by Biology. <i>Advanced Optical Materials</i> , <b>2016</b> , 4, 195-224	8.1	54
91	Facile Self-Cross-Linking Synthesis of 3D Nanoporous Co <sub>3</sub> O <sub>4</sub> /Carbon Hybrid Electrode Materials for Supercapacitors. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 16035-44	9.5	53
90	Fluorine-free Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> (T = O, OH) nanosheets (~500 nm) for nitrogen fixation under ambient conditions. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 14462-14465	13	50
89	A facile low-temperature synthesis of highly distributed and size-tunable cobalt oxide nanoparticles anchored on activated carbon for supercapacitors. <i>Journal of Power Sources</i> , <b>2015</b> , 273, 945-953	8.9	45
88	Bioinspired Au@CuS coupled photothermal materials: enhanced infrared absorption and photothermal conversion from butterfly wings. <i>Nano Energy</i> , <b>2015</b> , 17, 52-62	17.1	43
87	Single porous SnO <sub>2</sub> microtubes templated from <i>Papilio maackii</i> bristles: new structure towards superior gas sensing. <i>Journal of Materials Chemistry A</i> , <b>2014</b> , 2, 4543-4550	13	43
86	Highly sensitive, reproducible and uniform SERS substrates with a high density of three-dimensionally distributed hotspots: gyroid-structured Au periodic metallic materials. <i>NPG Asia Materials</i> , <b>2018</b> , 10, e462-e462	10.3	40
85	A highly sensitive room temperature H <sub>2</sub> S gas sensor based on SnO <sub>2</sub> multi-tube arrays bio-templated from insect bristles. <i>Dalton Transactions</i> , <b>2015</b> , 44, 7911-6	4.3	39
84	Ultralight, flexible carbon hybrid aerogels from bacterial cellulose for strong microwave absorption. <i>Carbon</i> , <b>2020</b> , 162, 283-291	10.4	36
83	Light-Driven Overall Water Splitting Enabled by a Photo-Dember Effect Realized on 3D Plasmonic Structures. <i>ACS Nano</i> , <b>2016</b> , 10, 6693-701	16.7	34
82	N-doped catalytic graphitized hard carbon for high-performance lithium/sodium-ion batteries. <i>Scientific Reports</i> , <b>2018</b> , 8, 9934	4.9	34
81	A 3D hierarchical hybrid nanostructure of carbon nanotubes and activated carbon for high-performance supercapacitors. <i>Journal of Materials Chemistry A</i> , <b>2014</b> , 2, 3505	13	33
80	Metal-organic frameworks reactivate deceased diatoms to be efficient CO <sub>2</sub> absorbents. <i>Advanced Materials</i> , <b>2014</b> , 26, 1229-34	24	33

79	Engineering Gyroid-Structured Functional Materials via Templates Discovered in Nature and in the Lab. <i>Small</i> , <b>2015</b> , 11, 5004-22	11	33
78	ZnO single butterfly wing scales: synthesis and spatial optical anisotropy. <i>Journal of Materials Chemistry</i> , <b>2011</b> , 21, 6140		33
77	Tumor marker detection using surface enhanced Raman spectroscopy on 3D Au butterfly wings. <i>Journal of Materials Chemistry B</i> , <b>2017</b> , 5, 1594-1600	7.3	32
76	Butterfly effects: novel functional materials inspired from the wings scales. <i>Physical Chemistry Chemical Physics</i> , <b>2014</b> , 16, 19767-80	3.6	32
75	Three-Dimensional CdS/Au Butterfly Wing Scales with Hierarchical Rib Structures for Plasmon-Enhanced Photocatalytic Hydrogen Production. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 19649-19655	9.5	32
74	Microwave-assisted anchoring of flowerlike Co(OH) <sub>2</sub> nanosheets on activated carbon to prepare hybrid electrodes for high-rate electrochemical capacitors. <i>Electrochimica Acta</i> , <b>2015</b> , 170, 328-336	6.7	29
73	3D Interconnected Gyroid Au-CuS Materials for Efficient Solar Steam Generation. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 34837-34847	9.5	29
72	Freeze-drying assisted synthesis of hierarchical porous carbons for high-performance supercapacitors. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 21016-21022	13	28
71	Biosynthesis of cathodoluminescent zinc oxide replicas using butterfly ( <i>Papilio paris</i> ) wing scales as templates. <i>Materials Science and Engineering C</i> , <b>2009</b> , 29, 92-96	8.3	28
70	Hierarchical photonic structured stimuli-responsive materials as high-performance colorimetric sensors. <i>Nanoscale</i> , <b>2016</b> , 8, 10316-22	7.7	26
69	Surface plasmon resonance of gold nanocrystals coupled with slow-photon-effect of biomorphic TiO <sub>2</sub> photonic crystals for enhanced photocatalysis under visible-light. <i>Catalysis Today</i> , <b>2016</b> , 274, 15-21	5.3	25
68	In situ synthesis of BiOCl nanosheets on three-dimensional hierarchical structures for efficient photocatalysis under visible light. <i>Nanoscale</i> , <b>2019</b> , 11, 10203-10208	7.7	23
67	Biomimetic Superstructures Assembled from Au Nanostars and Nanospheres for Efficient Solar Evaporation. <i>Advanced Sustainable Systems</i> , <b>2019</b> , 3, 1900003	5.9	23
66	Tunable three-dimensional ZrO <sub>2</sub> photonic crystals replicated from single butterfly wing scales. <i>Journal of Materials Chemistry</i> , <b>2011</b> , 21, 15237		23
65	Photocatalyst of organic pollutants decomposition: TiO <sub>2</sub> /glass fiber cloth composites. <i>Catalysis Today</i> , <b>2016</b> , 274, 2-7	5.3	23
64	Coupling of plasmon and 3D antireflection quasi-photonic crystal structure for enhancement infrared absorption. <i>Journal of Materials Chemistry C</i> , <b>2015</b> , 3, 1672-1679	7.1	22
63	Sulfonic-Group-Grafted TiCT MXene: A Silver Bullet to Settle the Instability of Polyaniline toward High-Performance Zn-Ion Batteries. <i>ACS Nano</i> , <b>2021</b> , 15, 9065-9075	16.7	22
62	Construction of a Bioinspired Hierarchical BiVO <sub>4</sub> /BiOCl Heterojunction and Its Enhanced Photocatalytic Activity for Phenol Degradation. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 32906-32915	9.5	22

61	Facilely green synthesis of 3D nano-pyramids Cu/Carbon hybrid sensor electrode materials for simultaneous monitoring of phenolic compounds. <i>Sensors and Actuators B: Chemical</i> , <b>2019</b> , 282, 617-625	8.5	21
60	Demonstration of higher colour response with ambient refractive index in <i>Papilio blumei</i> as compared to <i>Morpho rhetenor</i> . <i>Scientific Reports</i> , <b>2014</b> , 4, 5591	4.9	20
59	Omnidirectional light absorption of disordered nano-hole structure inspired from <i>Papilio ulysses</i> . <i>Optics Letters</i> , <b>2014</b> , 39, 4208-11	3	19
58	The highly efficient photocatalytic and light harvesting property of Ag-TiO with negative nano-holes structure inspired from cicada wings. <i>Scientific Reports</i> , <b>2017</b> , 7, 17277	4.9	19
57	Self-crosslink assisted synthesis of 3D porous branch-like Fe <sub>3</sub> O <sub>4</sub> /C hybrids for high-performance lithium/sodium-ion batteries. <i>RSC Advances</i> , <b>2017</b> , 7, 50307-50316	3.7	19
56	Fabrication of Sensor Materials Inspired by Butterfly Wings. <i>Advanced Materials Technologies</i> , <b>2017</b> , 2, 1600209	6.8	18
55	Design of a structure with low incident and viewing angle dependence inspired by <i>Morpho</i> butterflies. <i>Scientific Reports</i> , <b>2013</b> , 3, 3427	4.9	18
54	Tunable optical photonic devices made from moth wing scales: a way to enlarge natural functional structures. <i>Journal of Materials Chemistry</i> , <b>2011</b> , 21, 13913		18
53	Novel Ag decorated biomorphic SnO <sub>2</sub> inspired by natural 3D nanostructures as SERS substrates. <i>Materials Letters</i> , <b>2012</b> , 74, 43-45	3.3	17
52	Embedment of ZnO nanoparticles in the natural photonic crystals within peacock feathers. <i>Nanotechnology</i> , <b>2008</b> , 19, 365602	3.4	16
51	Angle dependent antireflection property of TiO <sub>2</sub> inspired by cicada wings. <i>Applied Physics Letters</i> , <b>2016</b> , 109, 153701	3.4	16
50	Micron-sized encapsulated-type MoS <sub>2</sub> /C hybrid particulates with an effective confinement effect for improving the cycling performance of LIB anodes. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 6289-6298	13	14
49	High-Sensitivity Light Detection via Gate Tuning of Organometallic Perovskite/PCBM Bulk Heterojunctions on Ferroelectric PbLaZrTiO Gated Graphene Field Effect Transistors. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 12824-12830	9.5	14
48	Large-visual-angle microstructure inspired from quantitative design of <i>Morpho</i> butterflies lamellae deviation using the FDTD/PSO method. <i>Optics Letters</i> , <b>2013</b> , 38, 169-71	3	14
47	Bioinspired Thermo-responsive Photonic Polymers with Hierarchical Structures and Their Unique Properties. <i>Macromolecular Rapid Communications</i> , <b>2015</b> , 36, 1722-8	4.8	13
46	Spectral selectivity of 3D magnetophotonic crystal film fabricated from single butterfly wing scales. <i>Nanoscale</i> , <b>2014</b> , 6, 6133-40	7.7	13
45	Fabrication of Fe-wings used for micro imprinting with a natural butterfly wing structure by in situ carbothermic reduction. <i>Journal of Materials Chemistry B</i> , <b>2013</b> , 1, 1673-1677	7.3	13
44	Reversible thermochromic response based on photonic crystal structure in butterfly wing. <i>Nanophotonics</i> , <b>2018</b> , 7, 217-227	6.3	13

43	Enhanced photocatalytic hydrogen production on three-dimensional gold butterfly wing scales/CdS nanoparticles. <i>Applied Surface Science</i> , <b>2018</b> , 427, 807-812	6.7	12
42	A low-cost, high-efficiency light absorption structure inspired by the Papilio ulysses butterfly. <i>RSC Advances</i> , <b>2017</b> , 7, 22749-22756	3.7	11
41	A highly sensitive gas sensor employing biomorphic SnO with multi-level tubes/pores structure: bio-templated from waste of flax.. <i>RSC Advances</i> , <b>2019</b> , 9, 19993-20001	3.7	10
40	Biomimetic fabrication of WO <sub>3</sub> for water splitting under visible light with high performance. <i>Journal of Nanoparticle Research</i> , <b>2013</b> , 15, 1	2.3	10
39	Angle-independent pH-sensitive composites with natural gyroid structure. <i>Scientific Reports</i> , <b>2017</b> , 7, 42207	4.9	9
38	Efficient photochemical hydrogen production under visible-light over artificial photosynthetic systems. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 8639-8647	6.7	9
37	Butterfly wing architectures inspire sensor and energy applications. <i>National Science Review</i> , <b>2021</b> , 8, nwa107	10.8	9
36	Large-Area 3D Hierarchical Superstructures Assembled from Colloidal Nanoparticles. <i>Small</i> , <b>2019</b> , 15, e1805308	11	8
35	Ordering of Hollow Ag-Au Nanospheres with Butterfly Wings as a Bio-temple. <i>Scientific Reports</i> , <b>2018</b> , 8, 9261	4.9	8
34	Optical Performance Study of Gyroid-Structured TiO <sub>2</sub> Photonic Crystals Replicated from Natural Templates Using a Sol-Gel Method. <i>Advanced Optical Materials</i> , <b>2018</b> , 6, 1800064	8.1	8
33	A bioinspired broadband self-powered photodetector based on photo-pyroelectric-thermoelectric effect able to detect human radiation. <i>Nano Energy</i> , <b>2022</b> , 93, 106812	17.1	8
32	Infrared-induced variation of the magnetic properties of a magnetoplasmonic film with a 3D sub-micron periodic triangular roof-type antireflection structure. <i>Scientific Reports</i> , <b>2015</b> , 5, 8025	4.9	7
31	Photothermal-assist enhanced high-performance self-powered photodetector with bioinspired temperature-autoregulation by passive radiative balance. <i>Nano Energy</i> , <b>2021</b> , 79, 105435	17.1	7
30	Two-dimensional quantum-sheet films with sub-1.2 nm channels for ultrahigh-rate electrochemical capacitance. <i>Nature Nanotechnology</i> , <b>2021</b> ,	28.7	6
29	A flower-inspired divergent light-trapping structure with quasi-spherical symmetry towards a high-performance flexible photodetector. <i>Nanoscale</i> , <b>2020</b> , 12, 20898-20907	7.7	6
28	Electrochemical determination of urinary dopamine from neuroblastoma patients based on Cu nanoplates encapsulated by alginate-derived carbon. <i>Journal of Electroanalytical Chemistry</i> , <b>2019</b> , 853, 113560	4.1	5
27	Biotemplated g-CN/Au Periodic Hierarchical Structures for the Enhancement of Photocatalytic CO Reduction with Localized Surface Plasmon Resonance. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> ,	9.5	5
26	Biocompatible, small-sized and well-dispersed gold nanoparticles regulated by silk fibroin fiber from Bombyx mori cocoons. <i>Frontiers of Materials Science</i> , <b>2019</b> , 13, 126-132	2.5	4

25	Chemistry and morphology of the pygidial glands in four Pterostichini ground beetle taxa (Coleoptera: Carabidae: Pterostichinae). <i>Zoology</i> , <b>2020</b> , 142, 125772	1.7	4
24	AgBr/diatomite for the efficient visible-light-driven photocatalytic degradation of Rhodamine B. <i>Journal of Nanoparticle Research</i> , <b>2018</b> , 20, 1	2.3	4
23	Photonic structure arrays generated using butterfly wing scales as biological units. <i>Journal of Materials Chemistry B</i> , <b>2015</b> , 3, 1743-1747	7.3	4
22	High-Efficiency g-C <sub>3</sub> N <sub>4</sub> Based Photocatalysts for CO <sub>2</sub> Reduction: Modification Methods. <i>Advanced Fiber Materials</i> , 1	10.9	4
21	Pygidial gland secretions of <i>Carabus</i> Linnaeus, 1758 (Coleoptera: Carabidae): chemicals released by three species. <i>Chemoecology</i> , <b>2020</b> , 30, 59-68	2	4
20	Microstructures of responsive photonic crystals on the stimuli-responsive performance: Effects and simulation. <i>Sensors and Actuators B: Chemical</i> , <b>2020</b> , 305, 127421	8.5	4
19	A bioinspired Au-CuS/CuS film with efficient low-angle-dependent and thermal-assisted photodetection properties. <i>IScience</i> , <b>2021</b> , 24, 102167	6.1	4
18	Mapping thermal radiation in plasmonic structures. <i>Chemical Physics</i> , <b>2019</b> , 526, 110423	2.3	3
17	Hydrothermal Synthesis Au-Bi <sub>2</sub> Te <sub>3</sub> Nanocomposite Thermoelectric Film with a Hierarchical Sub-Micron Antireflection Quasi-Periodic Structure. <i>International Journal of Molecular Sciences</i> , <b>2015</b> , 16, 12547-59	6.3	3
16	Photonic Crystals: 3D Network Magnetophotonic Crystals Fabricated on Morpho Butterfly Wing Templates (Adv. Funct. Mater. 10/2012). <i>Advanced Functional Materials</i> , <b>2012</b> , 22, 2071-2071	15.6	3
15	Bio-templated germanium photonic crystals by a facile liquid phase deposition process. <i>RSC Advances</i> , <b>2016</b> , 6, 73156-73159	3.7	3
14	Synthesis and Applications of Porous Glass. <i>Journal of Shanghai Jiaotong University (Science)</i> , <b>2019</b> , 24, 681-698	0.6	3
13	A bioinspired switchable selective infrared solar absorber by tunable optical coupling. <i>Journal of Materials Chemistry C</i> , <b>2021</b> , 9, 4150-4157	7.1	3
12	Naturally safe: Cellular noise for document security. <i>Journal of Biophotonics</i> , <b>2019</b> , 12, e201900218	3.1	2
11	Germanium-dioxide periodic nanostructure from inverse replication of butterfly wings. <i>Materials Letters</i> , <b>2018</b> , 227, 55-57	3.3	2
10	Optical characters measurement and simulation of 2D cross grating microstructures of butterfly wings. <i>International Journal of Precision Engineering and Manufacturing</i> , <b>2012</b> , 13, 1647-1653	1.7	2
9	A bioinspired solar evaporator for continuous and efficient desalination by salt dilution and secretion. <i>Journal of Materials Chemistry A</i> , <b>2021</b> , 9, 17985-17993	13	2
8	An integrated photothermal-photocatalytic materials for efficient photocatalytic performance boosting by synergistic photothermally. <i>Applied Surface Science</i> , <b>2022</b> , 153382	6.7	2

7	Understanding and modifications on lithium deposition in lithium metal batteries. <i>Rare Metals</i> ,1	5.5	2
6	Morph-Genetic Materials Inspired from Butterfly Wing Scales. <i>Advanced Topics in Science and Technology in China</i> , <b>2012</b> , 75-122	0.2	1
5	Bioinspired multilevel interconnected networks with porous multiwalled nanotubes built by heterogeneous nanocrystallites. <i>Journal of the American Ceramic Society</i> , <b>2020</b> , 103, 604-613	3.8	1
4	Photothermal enhancement of highly efficient photocatalysis with bioinspired thermal radiation balance characteristics. <i>Applied Surface Science</i> , <b>2022</b> , 153304	6.7	1
3	Optical Optimization with Microstructure Evolution Inspired from Lepidopteran Scales. <i>Advanced Optical Materials</i> ,2200710	8.1	0
2	3D Assembly: Large-Area 3D Hierarchical Superstructures Assembled from Colloidal Nanoparticles (Small 18/2019). <i>Small</i> , <b>2019</b> , 15, 1970096	11	
1	Bioinspired Engineering of Photothermal Materials <b>2018</b> , 99-128		