

# Zhenyi Zhang

## List of Publications by Year in descending order

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75  
papers

9,893  
citations

50566

48  
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87275

74  
g-index

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all docs

75  
docs citations

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times ranked

13588  
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrospun Semiconductor-Based Nano-Heterostructures for Photocatalytic Energy Conversion and Environmental Remediation: Opportunities and Challenges. <i>Energy and Environmental Materials</i> , 2023, 6, .	7.3	37
2	Plasmonic Active "Hot Spots" Confined Photocatalytic CO <sub>2</sub> Reduction with High Selectivity for CH <sub>4</sub> Production. <i>Advanced Materials</i> , 2022, 34, e2109330.	11.1	108
3	Plasmon-enhanced photocatalytic cumulative effect on 2D semiconductor heterojunctions towards highly-efficient visible-light-driven solar-to-fuels conversion. <i>Chemical Engineering Journal</i> , 2022, 437, 135308.	6.6	16
4	Self-assembly of highly-dispersed phosphotungstic acid clusters onto graphitic carbon nitride nanosheets as fascinating molecular-scale Z-scheme heterojunctions for photocatalytic solar-to-fuels conversion. <i>Applied Catalysis B: Environmental</i> , 2021, 281, 119473.	10.8	59
5	Uniform decoration of UiO-66-NH <sub>2</sub> nanooctahedra on TiO <sub>2</sub> electrospun nanofibers for enhancing photocatalytic H <sub>2</sub> production based on multi-step interfacial charge transfer. <i>Dalton Transactions</i> , 2021, 50, 6152-6160.	1.6	10
6	Engineering 2D multi-hetero-interface in the well-designed nanosheet composite photocatalyst with broad electron-transfer channels for highly-efficient solar-to-fuels conversion. <i>Applied Catalysis B: Environmental</i> , 2021, 286, 119944.	10.8	22
7	Smart Design, Controllable Synthesis, and Functional Applications of Low-Dimensional Hetero-Structured Materials. <i>Journal of Nanomaterials</i> , 2021, 2021, 1-2.	1.5	0
8	Wide-range and highly-sensitive optical thermometers based on the temperature-dependent energy transfer from Er to Nd in Er/Yb/Nd codoped NaYF <sub>4</sub> upconversion nanocrystals. <i>Chemical Engineering Journal</i> , 2020, 385, 123906.	6.6	91
9	Facile Synthesis of Lacunary Keggin-Type Phosphotungstates-Decorated g-C <sub>3</sub> N <sub>4</sub> Nanosheets for Enhancing Photocatalytic H <sub>2</sub> Generation. <i>Polymers</i> , 2020, 12, 1961.	2.0	18
10	Multilevel polarization-fields enhanced capture and photocatalytic conversion of particulate matter over flexible schottky-junction nanofiber membranes. <i>Journal of Hazardous Materials</i> , 2020, 395, 122639.	6.5	38
11	An electron-donating strategy to guide the construction of MOF photocatalysts toward co-catalyst-free highly efficient photocatalytic H <sub>2</sub> evolution. <i>Journal of Materials Chemistry A</i> , 2019, 7, 24180-24185.	5.2	90
12	AgBr/BiOBr Nano-Heterostructure-Decorated Polyacrylonitrile Nanofibers: A Recyclable High-Performance Photocatalyst for Dye Degradation under Visible-Light Irradiation. <i>Polymers</i> , 2019, 11, 1718.	2.0	36
13	Multidimension-Controllable Synthesis of Ant Nest-Structural Electrode Materials with Unique 3D Hierarchical Porous Features toward Electrochemical Applications. <i>Advanced Functional Materials</i> , 2019, 29, 1808994.	7.8	46
14	Energy transfer from Er to Nd ions by the thermal effect and promotion of the photocatalysis of the NaYF <sub>4</sub> :Yb,Er,Nd/W <sub>18</sub> O <sub>49</sub> heterostructure. <i>Nanoscale</i> , 2019, 11, 7433-7439.	2.8	38
15	BiOBr nanosheets-decorated TiO <sub>2</sub> nanofibers as hierarchical "n heterojunctions photocatalysts for pollutant degradation. <i>Journal of Materials Science</i> , 2019, 54, 8426-8435.	1.7	61
16	IR-Driven strong plasmonic-coupling on Ag nanorices/W <sub>18</sub> O <sub>49</sub> nanowires heterostructures for photo/thermal synergistic enhancement of H <sub>2</sub> evolution from ammonia borane. <i>Applied Catalysis B: Environmental</i> , 2019, 252, 164-173.	10.8	176
17	UV-Vis-NIR-Driven Plasmonic Photocatalysts with Dual-Resonance Modes for Synergistically Enhancing H <sub>2</sub> Generation. <i>Solar Rrl</i> , 2018, 2, 1800039.	3.1	47
18	Cu-ZSM-5 zeolite supported on SiC monolith with enhanced catalytic activity for NH <sub>3</sub> -SCR. <i>Catalysis Communications</i> , 2018, 108, 23-26.	1.6	17

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19	In Situ Generation of Copper Species Nanocrystals in TiO <sub>2</sub> Electrospun Nanofibers: A Multi-hetero-junction Photocatalyst for Highly Efficient Water Reduction. ACS Sustainable Chemistry and Engineering, 2018, 6, 1934-1940.	3.2	25
20	IR-Driven Ultrafast Transfer of Plasmonic Hot Electrons in Nonmetallic Branched Heterostructures for Enhanced H <sub>2</sub> Generation. Advanced Materials, 2018, 30, 1705221.	11.1	119
21	Strong up-conversion luminescence of rare-earth doped oxide films enhanced by gap modes on ZnO nanowires. Nanoscale, 2018, 10, 726-732.	2.8	11
22	Near-Infrared Plasmonic Energy Upconversion in a Nonmetallic Heterostructure for Efficient H <sub>2</sub> Evolution from Ammonia Borane. Advanced Science, 2018, 5, 1800748.	5.6	71
23	RGO-functionalized polymer nanofibrous membrane with exceptional surface activity and ultra-low airflow resistance for PM <sub>2.5</sub> filtration. Environmental Science: Nano, 2018, 5, 1813-1820.	2.2	47
24	A Nonmetal Plasmonic Z-scheme Photocatalyst with UV-to NIR-Driven Photocatalytic Protons Reduction. Advanced Materials, 2017, 29, 1606688.	11.1	345
25	A self-cleaning coating material of TiO <sub>2</sub> porous microspheres/cement composite with high-efficient photocatalytic depollution performance. Materials Letters, 2017, 200, 1-5.	1.3	30
26	First-principles calculation of the structure and electronic properties of Fe-substituted Bi <sub>2</sub> Ti <sub>2</sub> O <sub>7</sub> . Semiconductor Science and Technology, 2017, 32, 125007.	1.0	7
27	Switchable optical nonlinear properties of W18O49 nanowires by Ag nanoparticles supported. Science China: Physics, Mechanics and Astronomy, 2017, 60, 1.	2.0	2
28	Photo-assisted self-optimizing of charge-carriers transport channel in the recrystallized multi-heterojunction nanofibers for highly efficient photocatalytic H <sub>2</sub> generation. Applied Catalysis B: Environmental, 2017, 203, 599-606.	10.8	53
29	Facile in situ synthesis of plasmonic nanoparticles-decorated g-C <sub>3</sub> N <sub>4</sub> /TiO <sub>2</sub> heterojunction nanofibers and comparison study of their photosynergistic effects for efficient photocatalytic H <sub>2</sub> evolution. Nanoscale, 2016, 8, 11034-11043.	2.8	204
30	Hierarchical Sheet-on-Sheet ZnIn <sub>2</sub> S <sub>4</sub> /g-C <sub>3</sub> N <sub>4</sub> Heterostructure with Highly Efficient Photocatalytic H <sub>2</sub> production Based on Photoinduced Interfacial Charge Transfer. Scientific Reports, 2016, 6, 19221.	1.6	277
31	Direct evidence of plasmonic enhancement on catalytic reduction of 4-nitrophenol over silver nanoparticles supported on flexible fibrous networks. Applied Catalysis B: Environmental, 2016, 188, 245-252.	10.8	158
32	Multichannel-Improved Charge-Carrier Dynamics in Well-Designed Hetero-nanostructural Plasmonic Photocatalysts toward Highly Efficient Solar-to-Fuels Conversion. Advanced Materials, 2015, 27, 5906-5914.	11.1	239
33	Controllable assembly of SnO <sub>2</sub> nanocubes onto TiO <sub>2</sub> electrospun nanofibers toward humidity sensing applications. Journal of Materials Chemistry C, 2015, 3, 6701-6708.	2.7	37
34	Rational tailoring of ZnSnO <sub>3</sub> /TiO <sub>2</sub> heterojunctions with bioinspired surface wettability for high-performance humidity nanosensors. Nanoscale, 2015, 7, 4149-4155.	2.8	40
35	Study on the modified montmorillonite for adsorbing formaldehyde. Applied Surface Science, 2015, 356, 150-156.	3.1	52
36	Selective photocatalytic decomposition of formic acid over AuPd nanoparticle-decorated TiO <sub>2</sub> nanofibers toward high-yield hydrogen production. Applied Catalysis B: Environmental, 2015, 162, 204-209.	10.8	107

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37	Ultrathin hexagonal SnS <sub>2</sub> nanosheets coupled with g-C <sub>3</sub> N <sub>4</sub> nanosheets as 2D/2D heterojunction photocatalysts toward high photocatalytic activity. <i>Applied Catalysis B: Environmental</i> , 2015, 163, 298-305.	10.8	616
38	Enhanced visible-light-driven photocatalytic hydrogen generation over g-C <sub>3</sub> N <sub>4</sub> through loading the noble metal-free NiS <sub>2</sub> cocatalyst. <i>RSC Advances</i> , 2014, 4, 6127.	1.7	136
39	Direct evidence of plasmon enhancement on photocatalytic hydrogen generation over Au/Pt-decorated TiO <sub>2</sub> nanofibers. <i>Nanoscale</i> , 2014, 6, 5217-5222.	2.8	143
40	Electrospun Pt/TiO <sub>2</sub> hybrid nanofibers for visible-light-driven H <sub>2</sub> evolution. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 19434-19443.	3.8	19
41	Efficient CO <sub>2</sub> Capture and Photoreduction by Amine-Functionalized TiO <sub>2</sub> . <i>Chemistry - A European Journal</i> , 2014, 20, 10220-10222.	1.7	95
42	Intercalated graphitic carbon nitride: a fascinating two-dimensional nanomaterial for an ultra-sensitive humidity nanosensor. <i>Nanoscale</i> , 2014, 6, 9250.	2.8	108
43	Au@TiO <sub>2</sub> -CdS Ternary Nanostructures for Efficient Visible-Light-Driven Hydrogen Generation. <i>ACS Applied Materials &amp; Interfaces</i> , 2013, 5, 8088-8092.	4.0	177
44	Hierarchical assembly of ultrathin hexagonal SnS <sub>2</sub> nanosheets onto electrospun TiO <sub>2</sub> nanofibers: enhanced photocatalytic activity based on photoinduced interfacial charge transfer. <i>Nanoscale</i> , 2013, 5, 606-618.	2.8	344
45	Au/Pt Nanoparticle-Decorated TiO <sub>2</sub> Nanofibers with Plasmon-Enhanced Photocatalytic Activities for Solar-to-Fuel Conversion. <i>Journal of Physical Chemistry C</i> , 2013, 117, 25939-25947.	1.5	277
46	Up-Conversion Luminescence of NaYF <sub>4</sub> :Yb <sup>3+</sup> /Er <sup>3+</sup> Nanoparticles Embedded into PVP Nanotubes with Controllable Diameters. <i>Journal of Physical Chemistry C</i> , 2012, 116, 5787-5791.	1.5	43
47	In <sub>2</sub> O <sub>3</sub> nanocubes/carbon nanofibers heterostructures with high visible light photocatalytic activity. <i>Journal of Materials Chemistry</i> , 2012, 22, 1786-1793.	6.7	72
48	Hierarchical heterostructures of Bi <sub>2</sub> MoO <sub>6</sub> on carbon nanofibers: controllable solvothermal fabrication and enhanced visible photocatalytic properties. <i>Journal of Materials Chemistry</i> , 2012, 22, 577-584.	6.7	196
49	Controllable synthesis of Zn <sub>2</sub> TiO <sub>4</sub> @carbon core/shell nanofibers with high photocatalytic performance. <i>Journal of Hazardous Materials</i> , 2012, 229-230, 265-272.	6.5	26
50	Enhancement of the Visible-Light Photocatalytic Activity of In <sub>2</sub> O <sub>3</sub> -TiO <sub>2</sub> Nanofiber Heteroarchitectures. <i>ACS Applied Materials &amp; Interfaces</i> , 2012, 4, 424-430.	4.0	320
51	Tubular nanocomposite catalysts based on size-controlled and highly dispersed silver nanoparticles assembled on electrospun silicananotubes for catalytic reduction of 4-nitrophenol. <i>Journal of Materials Chemistry</i> , 2012, 22, 1387-1395.	6.7	251
52	One-dimensional Bi <sub>2</sub> MoO <sub>6</sub> /TiO <sub>2</sub> hierarchical heterostructures with enhanced photocatalytic activity. <i>CrystEngComm</i> , 2012, 14, 605-612.	1.3	228
53	In situ Generation of Well-Dispersed ZnO Quantum Dots on Electrospun Silica Nanotubes with High Photocatalytic Activity. <i>ACS Applied Materials &amp; Interfaces</i> , 2012, 4, 785-790.	4.0	63
54	Electrospinning preparation and photoluminescence properties of poly (methyl methacrylate)/Eu <sup>3+</sup> ions composite nanofibers and nanoribbons. <i>Materials Research Bulletin</i> , 2012, 47, 321-327.	2.7	15

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55	Bi <sub>2</sub> MoO <sub>6</sub> ultrathin nanosheets on ZnTiO <sub>3</sub> nanofibers: A 3D open hierarchical heterostructures synergistic system with enhanced visible-light-driven photocatalytic activity. <i>Journal of Hazardous Materials</i> , 2012, 217-218, 422-428.	6.5	86
56	Iron phthalocyanine/TiO <sub>2</sub> nanofiber heterostructures with enhanced visible photocatalytic activity assisted with H <sub>2</sub> O <sub>2</sub> . <i>Journal of Hazardous Materials</i> , 2012, 219-220, 156-163.	6.5	67
57	In situ assembly of well-dispersed Ag nanoparticles (AgNPs) on electrospun carbon nanofibers (CNFs) for catalytic reduction of 4-nitrophenol. <i>Nanoscale</i> , 2011, 3, 3357.	2.8	566
58	Solvothermal synthesis and electrochemical properties of 3D flower-like iron phthalocyanine hierarchical nanostructure. <i>Nanoscale</i> , 2011, 3, 5126.	2.8	30
59	Bi <sub>4</sub> Ti <sub>3</sub> O <sub>12</sub> nanosheets/TiO <sub>2</sub> submicron fibers heterostructures: in situ fabrication and high visible light photocatalytic activity. <i>Journal of Materials Chemistry</i> , 2011, 21, 6922.	6.7	113
60	Core/shell nanofibers of TiO <sub>2</sub> @carbon embedded by Ag nanoparticles with enhanced visible photocatalytic activity. <i>Journal of Materials Chemistry</i> , 2011, 21, 17746.	6.7	143
61	In situ assembly of well-dispersed gold nanoparticles on electrospun silica nanotubes for catalytic reduction of 4-nitrophenol. <i>Chemical Communications</i> , 2011, 47, 3906.	2.2	276
62	Highly Efficient Decomposition of Organic Dye by Aqueous-Solid Phase Transfer and In Situ Photocatalysis Using Hierarchical Copper Phthalocyanine Hollow Spheres. <i>ACS Applied Materials &amp; Interfaces</i> , 2011, 3, 2573-2578.	4.0	78
63	High Photocatalytic Activity of ZnO@Carbon Nanofiber Heteroarchitectures. <i>ACS Applied Materials &amp; Interfaces</i> , 2011, 3, 590-596.	4.0	415
64	TiO <sub>2</sub> @carbon core/shell nanofibers: Controllable preparation and enhanced visible photocatalytic properties. <i>Nanoscale</i> , 2011, 3, 2943.	2.8	187
65	Highly dispersed Fe <sub>3</sub> O <sub>4</sub> nanosheets on one-dimensional carbon nanofibers: Synthesis, formation mechanism, and electrochemical performance as supercapacitor electrode materials. <i>Nanoscale</i> , 2011, 3, 5034.	2.8	299
66	Hierarchical Nanostructures of Copper(II) Phthalocyanine on Electrospun TiO <sub>2</sub> Nanofibers: Controllable Solvothermal-Fabrication and Enhanced Visible Photocatalytic Properties. <i>ACS Applied Materials &amp; Interfaces</i> , 2011, 3, 369-377.	4.0	194
67	Dandelion-like Fe <sub>3</sub> O <sub>4</sub> @CuTNPc hierarchical nanostructures as a magnetically separable visible-light photocatalyst. <i>Journal of Materials Chemistry</i> , 2011, 21, 12083.	6.7	54
68	Controllable fabrication of cadmium phthalocyanine nanostructures immobilized on electrospun polyacrylonitrile nanofibers with high photocatalytic properties under visible light. <i>Catalysis Communications</i> , 2011, 12, 880-885.	1.6	42
69	Tin oxide (SnO <sub>2</sub> ) nanoparticles/electrospun carbon nanofibers (CNFs) heterostructures: Controlled fabrication and high capacitive behavior. <i>Journal of Colloid and Interface Science</i> , 2011, 356, 706-712.	5.0	88
70	Enhanced ultraviolet emission from highly dispersed ZnO quantum dots embedded in poly(vinyl) Tj ETQq0 0 0 rgBT, /Overlock, 10 Tf 50 1	5.0	44
71	Electrospun nanofibers of V-doped TiO <sub>2</sub> with high photocatalytic activity. <i>Journal of Colloid and Interface Science</i> , 2010, 351, 57-62.	5.0	121
72	Electrospun Nanofibers of p-n-Type NiO/n-Type ZnO Heterojunctions with Enhanced Photocatalytic Activity. <i>ACS Applied Materials &amp; Interfaces</i> , 2010, 2, 2915-2923.	4.0	574

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73	Electrospun Nanofibers of ZnO $\sim$ SnO <sub>2</sub> Heterojunction with High Photocatalytic Activity. Journal of Physical Chemistry C, 2010, 114, 7920-7925.	1.5	345
74	Polyacrylonitrile and Carbon Nanofibers with Controllable Nanoporous Structures by Electrospinning. Macromolecular Materials and Engineering, 2009, 294, 673-678.	1.7	119
75	ZnO Hollow Nanofibers: Fabrication from Facile Single Capillary Electrospinning and Applications in Gas Sensors. Journal of Physical Chemistry C, 2009, 113, 19397-19403.	1.5	189