

Zhenyi Zhang

List of Publications by Year in descending order

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75
papers

9,893
citations

44069
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docs citations

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times ranked

11993
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#	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, .	12.8	37
2	Plasmonic Active "Hot Spots"-Confined Photocatalytic CO ₂ Reduction with High Selectivity for CH ₄ Production. <i>Advanced Materials</i> , 2022, 34, e2109330.	21.0	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.	12.7	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.	20.2	59
5	Uniform decoration of UiO-66-NH ₂ nanooctahedra on TiO ₂ electrospun nanofibers for enhancing photocatalytic H ₂ production based on multi-step interfacial charge transfer. <i>Dalton Transactions</i> , 2021, 50, 6152-6160.	3.3	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.	20.2	22
7	Smart Design, Controllable Synthesis, and Functional Applications of Low-Dimensional Hetero-Structured Materials. <i>Journal of Nanomaterials</i> , 2021, 2021, 1-2.	2.7	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 ₄ upconversion nanocrystals. <i>Chemical Engineering Journal</i> , 2020, 385, 123906.	12.7	91
9	Facile Synthesis of Lacunary Keggin-Type Phosphotungstates-Decorated g-C ₃ N ₄ Nanosheets for Enhancing Photocatalytic H ₂ Generation. <i>Polymers</i> , 2020, 12, 1961.	4.5	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.	12.4	38
11	An electron-donating strategy to guide the construction of MOF photocatalysts toward co-catalyst-free highly efficient photocatalytic H ₂ evolution. <i>Journal of Materials Chemistry A</i> , 2019, 7, 24180-24185.	10.3	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.	4.5	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.	14.9	46
14	Energy transfer from Er to Nd ions by the thermal effect and promotion of the photocatalysis of the NaYF ₄ :Yb,Er,Nd/W ₁₈ O ₄₉ heterostructure. <i>Nanoscale</i> , 2019, 11, 7433-7439.	5.6	38
15	BiOBr nanosheets-decorated TiO ₂ nanofibers as hierarchical "n heterojunctions photocatalysts for pollutant degradation. <i>Journal of Materials Science</i> , 2019, 54, 8426-8435.	3.7	61
16	IR-Driven strong plasmonic-coupling on Ag nanorices/W ₁₈ O ₄₉ nanowires heterostructures for photo/thermal synergistic enhancement of H ₂ evolution from ammonia borane. <i>Applied Catalysis B: Environmental</i> , 2019, 252, 164-173.	20.2	176
17	UV-Vis-NIR-Driven Plasmonic Photocatalysts with Dual-Resonance Modes for Synergistically Enhancing H ₂ Generation. <i>Solar Rrl</i> , 2018, 2, 1800039.	5.8	47
18	Cu-ZSM-5 zeolite supported on SiC monolith with enhanced catalytic activity for NH ₃ -SCR. <i>Catalysis Communications</i> , 2018, 108, 23-26.	3.3	17

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19	In Situ Generation of Copper Species Nanocrystals in TiO ₂ Electrospun Nanofibers: A Multi-hetero-junction Photocatalyst for Highly Efficient Water Reduction. ACS Sustainable Chemistry and Engineering, 2018, 6, 1934-1940.	6.7	25
20	IR-Driven Ultrafast Transfer of Plasmonic Hot Electrons in Nonmetallic Branched Heterostructures for Enhanced H ₂ Generation. Advanced Materials, 2018, 30, 1705221.	21.0	119
21	Strong up-conversion luminescence of rare-earth doped oxide films enhanced by gap modes on ZnO nanowires. Nanoscale, 2018, 10, 726-732.	5.6	11
22	Near-Infrared Plasmonic Energy Upconversion in a Nonmetallic Heterostructure for Efficient H ₂ Evolution from Ammonia Borane. Advanced Science, 2018, 5, 1800748.	11.2	71
23	RGO-functionalized polymer nanofibrous membrane with exceptional surface activity and ultra-low airflow resistance for PM _{2.5} filtration. Environmental Science: Nano, 2018, 5, 1813-1820.	4.3	47
24	A Nonmetal Plasmonic ZrO ₂ Scheme Photocatalyst with UV- to NIR-Driven Photocatalytic Protons Reduction. Advanced Materials, 2017, 29, 1606688.	21.0	345
25	A self-cleaning coating material of TiO ₂ porous microspheres/cement composite with high-efficient photocatalytic depollution performance. Materials Letters, 2017, 200, 1-5.	2.6	30
26	First-principles calculation of the structure and electronic properties of Fe-substituted Bi ₂ Ti ₂ O ₇ . Semiconductor Science and Technology, 2017, 32, 125007.	2.0	7
27	Switchable optical nonlinear properties of W ₁₈ O ₄₉ nanowires by Ag nanoparticles supported. Science China: Physics, Mechanics and Astronomy, 2017, 60, 1.	5.1	2
28	Photo-assisted self-optimizing of charge-carriers transport channel in the recrystallized multi-heterojunction nanofibers for highly efficient photocatalytic H ₂ generation. Applied Catalysis B: Environmental, 2017, 203, 599-606.	20.2	53
29	Facile in situ synthesis of plasmonic nanoparticles-decorated g-C ₃ N ₄ /TiO ₂ heterojunction nanofibers and comparison study of their photosynergistic effects for efficient photocatalytic H ₂ evolution. Nanoscale, 2016, 8, 11034-11043.	5.6	204
30	Hierarchical Sheet-on-Sheet ZnIn ₂ S ₄ /g-C ₃ N ₄ Heterostructure with Highly Efficient Photocatalytic H ₂ production Based on Photoinduced Interfacial Charge Transfer. Scientific Reports, 2016, 6, 19221.	3.3	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.	20.2	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.	21.0	239
33	Controllable assembly of SnO ₂ nanocubes onto TiO ₂ electrospun nanofibers toward humidity sensing applications. Journal of Materials Chemistry C, 2015, 3, 6701-6708.	5.5	37
34	Rational tailoring of ZnSnO ₃ /TiO ₂ heterojunctions with bioinspired surface wettability for high-performance humidity nanosensors. Nanoscale, 2015, 7, 4149-4155.	5.6	40
35	Study on the modified montmorillonite for adsorbing formaldehyde. Applied Surface Science, 2015, 356, 150-156.	6.1	52
36	Selective photocatalytic decomposition of formic acid over AuPd nanoparticle-decorated TiO ₂ nanofibers toward high-yield hydrogen production. Applied Catalysis B: Environmental, 2015, 162, 204-209.	20.2	107

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37	Ultrathin hexagonal SnS ₂ nanosheets coupled with g-C ₃ N ₄ nanosheets as 2D/2D heterojunction photocatalysts toward high photocatalytic activity. <i>Applied Catalysis B: Environmental</i> , 2015, 163, 298-305.	20.2	616
38	Enhanced visible-light-driven photocatalytic hydrogen generation over g-C ₃ N ₄ through loading the noble metal-free NiS ₂ cocatalyst. <i>RSC Advances</i> , 2014, 4, 6127.	3.6	136
39	Direct evidence of plasmon enhancement on photocatalytic hydrogen generation over Au/Pt-decorated TiO ₂ nanofibers. <i>Nanoscale</i> , 2014, 6, 5217-5222.	5.6	143
40	Electrospun Pt/TiO ₂ hybrid nanofibers for visible-light-driven H ₂ evolution. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 19434-19443.	7.1	19
41	Efficient CO ₂ Capture and Photoreduction by Amine-Functionalized TiO ₂ . <i>Chemistry - A European Journal</i> , 2014, 20, 10220-10222.	3.3	95
42	Intercalated graphitic carbon nitride: a fascinating two-dimensional nanomaterial for an ultra-sensitive humidity nanosensor. <i>Nanoscale</i> , 2014, 6, 9250.	5.6	108
43	Au@TiO ₂ -CdS Ternary Nanostructures for Efficient Visible-Light-Driven Hydrogen Generation. <i>ACS Applied Materials & Interfaces</i> , 2013, 5, 8088-8092.	8.0	177
44	Hierarchical assembly of ultrathin hexagonal SnS ₂ nanosheets onto electrospun TiO ₂ nanofibers: enhanced photocatalytic activity based on photoinduced interfacial charge transfer. <i>Nanoscale</i> , 2013, 5, 606-618.	5.6	344
45	Au/Pt Nanoparticle-Decorated TiO ₂ Nanofibers with Plasmon-Enhanced Photocatalytic Activities for Solar-to-Fuel Conversion. <i>Journal of Physical Chemistry C</i> , 2013, 117, 25939-25947.	3.1	277
46	Up-Conversion Luminescence of NaYF ₄ :Yb ³⁺ /Er ³⁺ Nanoparticles Embedded into PVP Nanotubes with Controllable Diameters. <i>Journal of Physical Chemistry C</i> , 2012, 116, 5787-5791.	3.1	43
47	In ₂ O ₃ 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 ₂ MoO ₆ 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 ₂ TiO ₄ @carbon core/shell nanofibers with high photocatalytic performance. <i>Journal of Hazardous Materials</i> , 2012, 229-230, 265-272.	12.4	26
50	Enhancement of the Visible-Light Photocatalytic Activity of In ₂ O ₃ -TiO ₂ Nanofiber Heteroarchitectures. <i>ACS Applied Materials & Interfaces</i> , 2012, 4, 424-430.	8.0	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 ₂ MoO ₆ /TiO ₂ hierarchical heterostructures with enhanced photocatalytic activity. <i>CrystEngComm</i> , 2012, 14, 605-612.	2.6	228
53	In situ Generation of Well-Dispersed ZnO Quantum Dots on Electrospun Silica Nanotubes with High Photocatalytic Activity. <i>ACS Applied Materials & Interfaces</i> , 2012, 4, 785-790.	8.0	63
54	Electrospinning preparation and photoluminescence properties of poly (methyl methacrylate)/Eu ³⁺ ions composite nanofibers and nanoribbons. <i>Materials Research Bulletin</i> , 2012, 47, 321-327.	5.2	15

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55	Bi ₂ MoO ₆ ultrathin nanosheets on ZnTiO ₃ nanofibers: A 3D open hierarchical heterostructures synergistic system with enhanced visible-light-driven photocatalytic activity. Journal of Hazardous Materials, 2012, 217-218, 422-428.	12.4	86
56	Iron phthalocyanine/TiO ₂ nanofiber heterostructures with enhanced visible photocatalytic activity assisted with H ₂ O ₂ . Journal of Hazardous Materials, 2012, 219-220, 156-163.	12.4	67
57	In situ assembly of well-dispersed Ag nanoparticles (AgNPs) on electrospun carbon nanofibers (CNFs) for catalytic reduction of 4-nitrophenol. Nanoscale, 2011, 3, 3357.	5.6	566
58	Solvothermal synthesis and electrochemical properties of 3D flower-like iron phthalocyanine hierarchical nanostructure. Nanoscale, 2011, 3, 5126.	5.6	30
59	Bi ₄ Ti ₃ O ₁₂ nanosheets/TiO ₂ submicron fibers heterostructures: in situ fabrication and high visible light photocatalytic activity. Journal of Materials Chemistry, 2011, 21, 6922.	6.7	113
60	Core/shell nanofibers of TiO ₂ @carbon embedded by Ag nanoparticles with enhanced visible photocatalytic activity. Journal of Materials Chemistry, 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. Chemical Communications, 2011, 47, 3906.	4.1	276
62	Highly Efficient Decomposition of Organic Dye by Aqueous-Solid Phase Transfer and In Situ Photocatalysis Using Hierarchical Copper Phthalocyanine Hollow Spheres. ACS Applied Materials & Interfaces, 2011, 3, 2573-2578.	8.0	78
63	High Photocatalytic Activity of ZnO@Carbon Nanofiber Heteroarchitectures. ACS Applied Materials & Interfaces, 2011, 3, 590-596.	8.0	415
64	TiO ₂ @carbon core/shell nanofibers: Controllable preparation and enhanced visible photocatalytic properties. Nanoscale, 2011, 3, 2943.	5.6	187
65	Highly dispersed Fe ₃ O ₄ nanosheets on one-dimensional carbon nanofibers: Synthesis, formation mechanism, and electrochemical performance as supercapacitor electrode materials. Nanoscale, 2011, 3, 5034.	5.6	299
66	Hierarchical Nanostructures of Copper(II) Phthalocyanine on Electrospun TiO ₂ Nanofibers: Controllable Solvothermal-Fabrication and Enhanced Visible Photocatalytic Properties. ACS Applied Materials & Interfaces, 2011, 3, 369-377.	8.0	194
67	Dandelion-like Fe ₃ O ₄ @CuTNPc hierarchical nanostructures as a magnetically separable visible-light photocatalyst. Journal of Materials Chemistry, 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. Catalysis Communications, 2011, 12, 880-885.	3.3	42
69	Tin oxide (SnO ₂) nanoparticles/electrospun carbon nanofibers (CNFs) heterostructures: Controlled fabrication and high capacitive behavior. Journal of Colloid and Interface Science, 2011, 356, 706-712.	9.4	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	9.4	44
71	Electrospun nanofibers of V-doped TiO ₂ with high photocatalytic activity. Journal of Colloid and Interface Science, 2010, 351, 57-62.	9.4	121
72	Electrospun Nanofibers of p-Type NiO/n-Type ZnO Heterojunctions with Enhanced Photocatalytic Activity. ACS Applied Materials & Interfaces, 2010, 2, 2915-2923.	8.0	574

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73	Electrospun Nanofibers of ZnO \sim SnO ₂ Heterojunction with High Photocatalytic Activity. Journal of Physical Chemistry C, 2010, 114, 7920-7925.	3.1	345
74	Polyacrylonitrile and Carbon Nanofibers with Controllable Nanoporous Structures by Electrospinning. Macromolecular Materials and Engineering, 2009, 294, 673-678.	3.6	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.	3.1	189