

Jian Tian

List of Publications by Year in descending order

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98
papers

8,259
citations

38720

50
h-index

46771

89
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98
all docs

98
docs citations

98
times ranked

8767
citing authors

#	ARTICLE	IF	CITATIONS
1	Recent progress in design, synthesis, and applications of one-dimensional TiO ₂ nanostructured surface heterostructures: a review. <i>Chemical Society Reviews</i> , 2014, 43, 6920-6937.	18.7	726
2	2D/2D/2D heterojunction of Ti ₃ C ₂ MXene/MoS ₂ nanosheets/TiO ₂ nanosheets with exposed (001) facets toward enhanced photocatalytic hydrogen production activity. <i>Applied Catalysis B: Environmental</i> , 2019, 246, 12-20.	10.8	373
3	3D Bi ₂ MoO ₆ Nanosheet/TiO ₂ Nanobelt Heterostructure: Enhanced Photocatalytic Activities and Photoelectrochemistry Performance. <i>ACS Catalysis</i> , 2015, 5, 4530-4536.	5.5	323
4	Boosting the Photocatalytic Ability of g-C ₃ N ₄ for Hydrogen Production by Ti ₃ C ₂ MXene Quantum Dots. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 41440-41447.	4.0	289
5	Structure, Synthesis, and Applications of TiO ₂ Nanobelts. <i>Advanced Materials</i> , 2015, 27, 2557-2582.	11.1	287
6	Enhanced Photocatalytic Performances of CeO ₂ /TiO ₂ Nanobelt Heterostructures. <i>Small</i> , 2013, 9, 3864-3872.	5.2	262
7	Ti ₃ C ₂ MXene-derived Ti ₃ C ₂ /TiO ₂ nanoflowers for noble-metal-free photocatalytic overall water splitting. <i>Applied Materials Today</i> , 2018, 13, 217-227.	2.3	250
8	Ag ₂ O nanoparticle/TiO ₂ nanobelt heterostructures with remarkable photo-response and photocatalytic properties under UV, visible and near-infrared irradiation. <i>Applied Catalysis B: Environmental</i> , 2016, 198, 83-90.	10.8	219
9	The selective deposition of MoS ₂ nanosheets onto (101) facets of TiO ₂ nanosheets with exposed (001) facets and their enhanced photocatalytic H ₂ production. <i>Applied Catalysis B: Environmental</i> , 2019, 241, 329-337.	10.8	198
10	Sulfur Vacancy-Rich O-Doped 1T-MoS ₂ Nanosheets for Exceptional Photocatalytic Nitrogen Fixation over CdS. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 7257-7269.	4.0	196
11	The fabrication of 1D/2D CdS nanorod@Ti ₃ C ₂ MXene composites for good photocatalytic activity of hydrogen generation and ammonia synthesis. <i>Chemical Engineering Journal</i> , 2021, 406, 127177.	6.6	187
12	Synergetic effect of defects rich MoS ₂ and Ti ₃ C ₂ MXene as cocatalysts for enhanced photocatalytic H ₂ production activity of TiO ₂ . <i>Chemical Engineering Journal</i> , 2020, 383, 123178.	6.6	175
13	Photocatalytic H ₂ Evolution on TiO ₂ Assembled with Ti ₃ C ₂ MXene and Metallic 1T-WS ₂ as Co-catalysts. <i>Nano-Micro Letters</i> , 2020, 12, 6.	14.4	141
14	Conductive Polymer-Coated VS ₄ Submicrospheres As Advanced Electrode Materials in Lithium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 18797-18805.	4.0	134
15	Enhanced Photocatalytic Property of Reduced Graphene Oxide/TiO ₂ Nanobelt Surface Heterostructures Constructed by an In Situ Photochemical Reduction Method. <i>Small</i> , 2014, 10, 3775-3782.	5.2	130
16	Controllable growth of MoS ₂ nanosheets on novel Cu ₂ S snowflakes with high photocatalytic activity. <i>Applied Catalysis B: Environmental</i> , 2018, 232, 355-364.	10.8	129
17	Co doped MoS ₂ as cocatalyst considerably improved photocatalytic hydrogen evolution of g-C ₃ N ₄ in an alkaline environment. <i>Chemical Engineering Journal</i> , 2021, 421, 130016.	6.6	127
18	Porous g-C ₃ N ₄ with nitrogen defects and cyano groups for excellent photocatalytic nitrogen fixation without co-catalysts. <i>Journal of Colloid and Interface Science</i> , 2019, 556, 206-213.	5.0	125

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19	Full solar spectrum photocatalytic oxygen evolution by carbon-coated TiO ₂ hierarchical nanotubes. <i>Applied Catalysis B: Environmental</i> , 2019, 243, 711-720.	10.8	117
20	The metallic 1T-phase WS ₂ nanosheets as cocatalysts for enhancing the photocatalytic hydrogen evolution of g-C ₃ N ₄ nanotubes. <i>Applied Catalysis B: Environmental</i> , 2020, 274, 119114.	10.8	116
21	Highly efficient full solar spectrum (UV-vis-NIR) photocatalytic performance of Ag ₂ S quantum dot/TiO ₂ nanobelt heterostructures. <i>Journal of Industrial and Engineering Chemistry</i> , 2017, 45, 189-196.	2.9	103
22	1D Ni-Co oxide and sulfide nanoarray/carbon aerogel hybrid nanostructures for asymmetric supercapacitors with high energy density and excellent cycling stability. <i>Nanoscale</i> , 2016, 8, 16292-16301.	2.8	101
23	Porous ZnO Ultrathin Nanosheets with High Specific Surface Areas and Abundant Oxygen Vacancies for Acetylacetone Gas Sensing. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 24757-24763.	4.0	100
24	Recent Advances in Catalyst Structure and Composition Engineering Strategies for Regulating CO ₂ Electrochemical Reduction. <i>Advanced Materials</i> , 2021, 33, e2005484.	11.1	100
25	Silver oxide decorated graphitic carbon nitride for the realization of photocatalytic degradation over the full solar spectrum: From UV to NIR region. <i>Solar Energy Materials and Solar Cells</i> , 2017, 168, 100-111.	3.0	99
26	Bi ₂ WO ₆ Nanosheets Decorated with Au Nanorods for Enhanced Near-Infrared Photocatalytic Properties Based on Surface Plasmon Resonance Effects and Wide-Range Near-Infrared Light Harvesting. <i>ChemCatChem</i> , 2017, 9, 1511-1516.	1.8	95
27	Two-dimensional/one-dimensional molybdenum sulfide (MoS ₂) nanoflake/graphitic carbon nitride (g-C ₃ N ₄) hollow nanotube photocatalyst for enhanced photocatalytic hydrogen production activity. <i>Journal of Colloid and Interface Science</i> , 2020, 567, 300-307.	5.0	93
28	High-Performance Electrocatalytic Conversion of N ₂ to NH ₃ Using 1T-MoS ₂ Anchored on Ti ₃ C ₂ MXene under Ambient Conditions. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 26060-26067.	4.0	92
29	Hydrogenated TiO ₂ nanobelts as highly efficient photocatalytic organic dye degradation and hydrogen evolution photocatalyst. <i>Journal of Hazardous Materials</i> , 2015, 299, 165-173.	6.5	89
30	Synthesis of few-layer MoS ₂ nanosheets-coated TiO ₂ nanosheets on graphite fibers for enhanced photocatalytic properties. <i>Solar Energy Materials and Solar Cells</i> , 2017, 172, 108-116.	3.0	89
31	Soft-templated formation of double-shelled ZnO hollow microspheres for acetone gas sensing at low concentration/near room temperature. <i>Sensors and Actuators B: Chemical</i> , 2018, 273, 751-759.	4.0	87
32	1T-MoS ₂ nanopatch/Ti ₃ C ₂ MXene/TiO ₂ nanosheet hybrids for efficient photocatalytic hydrogen evolution. <i>Materials Chemistry Frontiers</i> , 2019, 3, 2673-2680.	3.2	81
33	Phosphorous-doped 1T-MoS ₂ decorated nitrogen-doped g-C ₃ N ₄ nanosheets for enhanced photocatalytic nitrogen fixation. <i>Journal of Colloid and Interface Science</i> , 2022, 605, 320-329.	5.0	81
34	Hierarchical assembly of In ₂ O ₃ nanoparticles on ZnO hollow nanotubes using carbon fibers as templates: Enhanced photocatalytic and gas-sensing properties. <i>Journal of Colloid and Interface Science</i> , 2017, 498, 263-270.	5.0	78
35	Facile synthesis of heterojunction of MXenes/TiO ₂ nanoparticles towards enhanced hexavalent chromium removal. <i>Journal of Colloid and Interface Science</i> , 2020, 561, 46-57.	5.0	78
36	Towards full-spectrum (UV, visible, and near-infrared) photocatalysis: achieving an all-solid-state Z-scheme between Ag ₂ O and TiO ₂ using reduced graphene oxide as the electron mediator. <i>Catalysis Science and Technology</i> , 2017, 7, 4193-4205.	2.1	76

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37	Metallic 1T-phase MoS ₂ quantum dots/g-C ₃ N ₄ heterojunctions for enhanced photocatalytic hydrogen evolution. <i>Nanoscale</i> , 2019, 11, 12266-12274.	2.8	76
38	Au nanorods decorated TiO ₂ nanobelts with enhanced full solar spectrum photocatalytic antibacterial activity and the sterilization file cabinet application. <i>Chinese Chemical Letters</i> , 2021, 32, 1523-1526.	4.8	76
39	Rationalizing and controlling the phase transformation of semi-metallic 1T ϵ^2 -phase and semi-conductive 2H-phase MoS ₂ as cocatalysts for photocatalytic hydrogen evolution. <i>Chemical Engineering Journal</i> , 2020, 396, 125344.	6.6	71
40	High yield production of reduced TiO ₂ with enhanced photocatalytic activity. <i>Applied Surface Science</i> , 2016, 360, 738-743.	3.1	70
41	A simple gas sensor based on zinc ferrite hollow spheres: Highly sensitivity, excellent selectivity and long-term stability. <i>Sensors and Actuators B: Chemical</i> , 2019, 280, 34-40.	4.0	70
42	Synthesis of novel Ag/Ag ₂ O heterostructures with solar full spectrum (UV, visible and near-infrared) light-driven photocatalytic activity and enhanced photoelectrochemical performance. <i>Catalysis Communications</i> , 2016, 87, 82-85.	1.6	68
43	1 ϵ^2 -phase molybdenum sulfide nanodots enable efficient electrocatalytic nitrogen fixation under ambient conditions. <i>Applied Catalysis B: Environmental</i> , 2020, 272, 118984.	10.8	68
44	Facile preparation of metallic 1T phase molybdenum selenide as cocatalyst coupled with graphitic carbon nitride for enhanced photocatalytic H ₂ production. <i>Journal of Colloid and Interface Science</i> , 2021, 598, 172-180.	5.0	68
45	Gold nanorods/g-C ₃ N ₄ heterostructures for plasmon-enhanced photocatalytic H ₂ evolution in visible and near-infrared light. <i>Journal of Colloid and Interface Science</i> , 2019, 557, 700-708.	5.0	66
46	Construction of hierarchical 2D/2D Ti ₃ C ₂ /MoS ₂ nanocomposites for high-efficiency solar steam generation. <i>Journal of Colloid and Interface Science</i> , 2021, 584, 125-133.	5.0	66
47	Oxygen vacancy-rich BiO _{2-x} ultra-thin nanosheet for efficient full-spectrum responsive photocatalytic oxygen evolution from water splitting. <i>Solar Energy Materials and Solar Cells</i> , 2019, 195, 309-317.	3.0	60
48	Visible photocatalytic and photoelectrochemical activities of TiO ₂ nanobelts modified by In ₂ O ₃ nanoparticles. <i>Journal of Colloid and Interface Science</i> , 2017, 487, 258-265.	5.0	58
49	RuO ₂ /TiO ₂ nanobelt heterostructures with enhanced photocatalytic activity and gas-phase selective oxidation of benzyl alcohol. <i>Solar Energy Materials and Solar Cells</i> , 2016, 151, 7-13.	3.0	55
50	Enabling efficient electrocatalytic conversion of N ₂ to NH ₃ by Ti ₃ C ₂ MXene loaded with semi-metallic 1T ϵ^2 -MoS ₂ nanosheets. <i>Applied Catalysis B: Environmental</i> , 2022, 310, 121277.	10.8	54
51	Titanium carbide MXenes coupled with cadmium sulfide nanosheets as two-dimensional/two-dimensional heterostructures for photocatalytic hydrogen production. <i>Journal of Colloid and Interface Science</i> , 2022, 613, 644-651.	5.0	53
52	TiO ₂ nanobelts with anatase/rutile heterophase junctions for highly efficient photocatalytic overall water splitting. <i>Journal of Colloid and Interface Science</i> , 2020, 567, 181-189.	5.0	52
53	ZnO@Ti ₃ C ₂ MXene interfacial Schottky junction for boosting spatial charge separation in photocatalytic degradation. <i>Journal of Alloys and Compounds</i> , 2022, 905, 164025.	2.8	51
54	Novel Ag ₂ O nanoparticles modified MoS ₂ nanoflowers for piezoelectric-assisted full solar spectrum photocatalysis. <i>Journal of Colloid and Interface Science</i> , 2019, 537, 206-214.	5.0	50

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55	Large-scale synthesis of porous nickel boride for robust hydrogen evolution reaction electrocatalyst. Applied Surface Science, 2019, 470, 591-595.	3.1	48
56	1T-phase MoS ₂ quantum dots as a superior co-catalyst to Pt decorated on carbon nitride nanorods for photocatalytic hydrogen evolution from water. Materials Chemistry Frontiers, 2019, 3, 2032-2040.	3.2	45
57	Growth of porous ZnO single crystal hierarchical architectures with ultrahigh sensing performances to ethanol and acetone gases. Ceramics International, 2017, 43, 1121-1128.	2.3	44
58	Adsorption and intercalation of organic pollutants and heavy metal ions into MgAl-LDHs nanosheets with high capacity. RSC Advances, 2016, 6, 92402-92410.	1.7	41
59	Bi ₂ O ₃ nanoparticles incorporated porous TiO ₂ films as an effective p-n junction with enhanced photocatalytic activity. Journal of the American Ceramic Society, 2017, 100, 1339-1349.	1.9	41
60	Integrating the Z-scheme heterojunction into a novel Ag ₂ O@reduced TiO ₂ photocatalyst: Broadened light absorption and accelerated charge separation co-mediated highly efficient UV/visible/NIR light photocatalysis. Journal of Colloid and Interface Science, 2019, 538, 689-698.	5.0	39
61	Synthesis of salicylic acid-modified graphite carbon nitride for enhancing photocatalytic nitrogen fixation. Journal of Colloid and Interface Science, 2020, 571, 318-325.	5.0	38
62	In ₂ O ₃ Nanoparticles Decorated ZnO Hierarchical Structures for n-Butanol Sensor. ACS Applied Nano Materials, 2020, 3, 3295-3304.	2.4	37
63	A cation exchange strategy to construct Rod-shell CdS/Cu ₂ S nanostructures for broad spectrum photocatalytic hydrogen production. Journal of Colloid and Interface Science, 2022, 608, 158-163.	5.0	37
64	TiO ₂ Nanobelts Decorated with In ₂ S ₃ Nanoparticles as Photocatalysts with Enhanced Full-Solar Spectrum (UV-vis-NIR) Photocatalytic Activity toward the Degradation of Tetracycline. Particle and Particle Systems Characterization, 2017, 34, 1700127.	1.2	36
65	Scalable and low-cost fabrication of hydrophobic PVDF/WS ₂ porous membrane for highly efficient solar steam generation. Journal of Colloid and Interface Science, 2021, 588, 369-377.	5.0	36
66	Synthesis of In ₂ O ₃ nanoparticle/TiO ₂ nanobelt heterostructures for near room temperature ethanol sensing. RSC Advances, 2017, 7, 11503-11509.	1.7	35
67	Vanadium sulfide sub-microspheres: A new near-infrared-driven photocatalyst. Journal of Colloid and Interface Science, 2017, 498, 442-448.	5.0	35
68	Fabrication of TiO ₂ nanoflowers with bronze (TiO ₂ (B))/anatase heterophase junctions for efficient photocatalytic hydrogen production. International Journal of Hydrogen Energy, 2019, 44, 24398-24406.	3.8	34
69	Synergistic Enhancement of Electrocatalytic Nitrogen Reduction over Few-Layer MoSe ₂ -Decorated Ti ₃ C ₂ T _x MXene. ACS Catalysis, 2022, 12, 6385-6393.	5.5	33
70	The metallic 1T-WS ₂ as cocatalysts for promoting photocatalytic N ₂ fixation performance of Bi ₅ O ₇ Br nanosheets. Chinese Chemical Letters, 2021, 32, 3501-3504.	4.8	32
71	One-dimensional screw-like MoS ₂ with oxygen partially replacing sulfur as an electrocatalyst for the N ₂ reduction reaction. Chemical Engineering Journal, 2022, 433, 134504.	6.6	32
72	MOF-derived Fe ₂ O ₃ @MoS ₂ : An efficient electrocatalyst for ammonia synthesis under mild conditions. Chemical Engineering Journal, 2022, 430, 132694.	6.6	31

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73	Ru nanoparticles decorated TiO ₂ nanobelts: A heterostructure towards enhanced photocatalytic activity and gas-phase selective oxidation of benzyl alcohol. <i>Ceramics International</i> , 2016, 42, 1611-1617.	2.3	29
74	Highly efficient photocatalytic activity of Ag ₃ PO ₄ /Ag/ZnS(en) _{0.5} photocatalysts through Z-scheme photocatalytic mechanism. <i>RSC Advances</i> , 2017, 7, 18392-18399.	1.7	29
75	Noble metal-like behavior of plasmonic Bi particles deposited on reduced TiO ₂ microspheres for efficient full solar spectrum photocatalytic oxygen evolution. <i>Chinese Journal of Catalysis</i> , 2020, 41, 333-340.	6.9	27
76	Fabrication of porous Zn ₂ TiO ₄ @ZnO microtubes and analysis of their acetone gas sensing properties. <i>Rare Metals</i> , 2021, 40, 1528-1535.	3.6	27
77	NiO nanoparticles-decorated ZnO hierarchical structures for isopropanol gas sensing. <i>Rare Metals</i> , 2022, 41, 960-971.	3.6	27
78	TiO ₂ Nanobelt@Co ₉ S ₈ Composites as Promising Anode Materials for Lithium and Sodium Ion Batteries. <i>Nanomaterials</i> , 2017, 7, 252.	1.9	26
79	The fabrication of graphitic carbon nitride hollow nanocages with semi-metal 1T' phase molybdenum disulfide as co-catalysts for excellent photocatalytic nitrogen fixation. <i>Journal of Colloid and Interface Science</i> , 2022, 608, 1229-1237.	5.0	26
80	Heterostructuring 2D TiO ₂ nanosheets in situ grown on Ti ₃ C ₂ T MXene to improve the electrocatalytic nitrogen reduction. <i>Chinese Journal of Catalysis</i> , 2022, 43, 1937-1944.	6.9	25
81	Novel (Ni, Fe)S ₂ /(Ni, Fe)S ₃ S ₄ solid solution hybrid: an efficient electrocatalyst with robust oxygen-evolving performance. <i>Science China Chemistry</i> , 2020, 63, 1030-1039.	4.2	22
82	Synthesis of porous few-layer carbon nitride with excellent photocatalytic nitrogen fixation. <i>Journal of Materiomics</i> , 2020, 6, 128-137.	2.8	22
83	Heterostructuring noble-metal-free 1T' phase MoS ₂ with g-C ₃ N ₄ hollow nanocages to improve the photocatalytic H ₂ evolution activity. <i>Green Energy and Environment</i> , 2023, 8, 864-873.	4.7	22
84	Porous graphitic carbon nitride with nitrogen defects and cobalt-nitrogen (Co N) bonds for efficient broad spectrum (visible and near-infrared) photocatalytic H ₂ production. <i>Journal of Colloid and Interface Science</i> , 2020, 561, 719-729.	5.0	21
85	The high surface energy of NiO {110} facets incorporated into TiO ₂ hollow microspheres by etching Ti plate for enhanced photocatalytic and photoelectrochemical activity. <i>Applied Surface Science</i> , 2017, 396, 1539-1545.	3.1	20
86	Fabrication of molybdenum and tungsten oxide, sulfide, phosphide (Mo _x W _{1-x} O ₂ /Mo _x W _{1-x} S ₂ /Mo _x W _{1-x} P) porous hollow nano-octahedrons from metal-organic frameworks templates as efficient hydrogen evolution reaction electrocatalysts. <i>Journal of Colloid and Interface Science</i> , 2019, 547, 339-349.	5.0	20
87	Non-high temperature method to synthesize carbon coated TiO ₂ nano-dendrites for enhanced wide spectrum photocatalytic hydrogen evolution activity. <i>Journal of Colloid and Interface Science</i> , 2020, 571, 412-418.	5.0	20
88	Remarkable charge separation and photocatalytic efficiency enhancement through TiO ₂ (B)/anatase heterophase junctions of TiO ₂ nanobelts. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 27311-27318.	3.8	19
89	Structure engineering of 1T/2H multiphase MoS ₂ via oxygen incorporation over 2D layered porous g-C ₃ N ₄ for remarkably enhanced photocatalytic hydrogen evolution. <i>Materials Today Nano</i> , 2022, 18, 100204.	2.3	19
90	A novel semi-metallic 1Tâ€²-MoReS ₃ co-catalyst. <i>Chemical Engineering Journal</i> , 2021, 425, 130525.	6.6	16

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91	An iron incorporation-induced nickel hydroxide multiphase with a 2D/3D hierarchical sheet-on-sheet structure for electrocatalytic water oxidation. <i>Chemical Communications</i> , 2019, 55, 10138-10141.	2.2	15
92	Semi-metal 1T ϵ^2 phase MoS ₂ nanosheets for promoted electrocatalytic nitrogen reduction. <i>EcoMat</i> , 2021, 3, e12122.	6.8	15
93	Nitrogen-functionalized carbon nanotube-supported bimetallic PtNi nanoparticles for hydrogen generation from hydrous hydrazine. <i>Chemical Communications</i> , 2021, 57, 8324-8327.	2.2	15
94	Chemical Assembly of Titania P25 on MoO ₃ Nanobelts with Enhanced UV and Visible Photocatalytic Activities. <i>Science of Advanced Materials</i> , 2016, 8, 2313-2321.	0.1	13
95	Cobalt doped Mo ₅ N ₆ as a noble-metal-free novel cocatalyst for promoting photocatalytic hydrogen production of g-C ₃ N ₄ nanosheets. <i>Materials Chemistry Frontiers</i> , 2022, 6, 718-723.	3.2	10
96	Enhanced Photocatalytic Antibacterial Properties of TiO ₂ Nanospheres with Rutile/Anatase Heterophase Junctions and the Archival Paper Protection Application. <i>Nanomaterials</i> , 2021, 11, 2585.	1.9	9
97	Insights into the function of semi-metallic 1T ϵ^2 phase ReS ₂ as cocatalyst decorated g-C ₃ N ₄ nanotubes for enhanced photocatalytic hydrogen production activity. <i>Materials Today Advances</i> , 2022, 15, 100257.	2.5	9
98	Homophase structure for promoting electron transfer in gas-sensing. <i>Sensors and Actuators B: Chemical</i> , 2019, 298, 126940.	4.0	4