

# Tao He

## List of Publications by Year in descending order

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75  
papers

2,955  
citations

136950

32  
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182427

51  
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79  
all docs

79  
docs citations

79  
times ranked

3692  
citing authors

#	ARTICLE	IF	CITATIONS
1	Terahertz Detectors Based on Carbon Nanomaterials. <i>Advanced Functional Materials</i> , 2022, 32, 2107499.	14.9	19
2	Terahertz Metamaterial Absorbers. <i>Advanced Materials Technologies</i> , 2022, 7, .	5.8	27
3	Metamaterials-Based Photoelectric Conversion: From Microwave to Optical Range. <i>Laser and Photonics Reviews</i> , 2022, 16, .	8.7	11
4	Photocatalytic materials applications for sustainable agriculture. <i>Progress in Materials Science</i> , 2022, 130, 100965.	32.8	10
5	Recent advances in and comprehensive consideration of the oxidation half reaction in photocatalytic CO <sub>2</sub> conversion. <i>Journal of Materials Chemistry A</i> , 2021, 9, 87-110.	10.3	30
6	Study on nanoporous CuBi <sub>2</sub> O <sub>4</sub> photocathode coated with TiO <sub>2</sub> overlayer for photoelectrochemical CO <sub>2</sub> reduction. <i>Chemosphere</i> , 2021, 264, 128508.	8.2	24
7	Facile modulation of different vacancies in ZnS nanoplates for efficient solar fuel production. <i>Journal of Materials Chemistry A</i> , 2021, 9, 7977-7990.	10.3	21
8	Water-Gas Shift Reaction on Titania-Supported Single-Metal-Atom Catalysts: The Role of Cation (Ti) and Oxygen Vacancy. <i>Journal of Physical Chemistry C</i> , 2021, 125, 8620-8629.	3.1	12
9	ZnSe/CdSe Z-scheme composites with Se vacancy for efficient photocatalytic CO <sub>2</sub> reduction. <i>Applied Catalysis B: Environmental</i> , 2021, 286, 119887.	20.2	74
10	Role of TiO <sub>2</sub> coating layer on the performance of Cu <sub>2</sub> O photocathode in photoelectrochemical CO <sub>2</sub> reduction. <i>Nanotechnology</i> , 2021, 32, 395707.	2.6	7
11	Hybrid Density Functional Theory Study on Structural and Optoelectronic Properties of ZnSe <sub>1-x</sub> Te <sub>x</sub> for the Photocatalytic Applications. <i>Journal of Physical Chemistry C</i> , 2021, 125, 16235-16245.	3.1	13
12	Efficient reduction of CO <sub>2</sub> to CO over grain boundary rich gold film reconstructed by O <sub>2</sub> plasma treatment. <i>Applied Catalysis A: General</i> , 2021, 625, 118333.	4.3	6
13	Recent advances in zinc chalcogenide-based nanocatalysts for photocatalytic reduction of CO <sub>2</sub> . <i>Journal of Materials Chemistry A</i> , 2021, 9, 23364-23381.	10.3	25
14	Ar-plasma activated Au film with under-coordinated facet for enhanced and sustainable CO <sub>2</sub> reduction to CO. <i>Journal of CO<sub>2</sub> Utilization</i> , 2021, 54, 101776.	6.8	9
15	Enhancing TiO <sub>2</sub> activity for CO <sub>2</sub> photoreduction through MgO decoration. <i>Journal of CO<sub>2</sub> Utilization</i> , 2020, 35, 106-114.	6.8	43
16	Electrochemical reduction of CO <sub>2</sub> : Two- or three-electrode configuration. <i>International Journal of Energy Research</i> , 2020, 44, 548-559.	4.5	13
17	Boosting visible-light driven solar-fuel production over g-C <sub>3</sub> N <sub>4</sub> /tetra(4-carboxyphenyl)porphyrin iron(III) chloride hybrid photocatalyst via incorporation with carbon dots. <i>Applied Catalysis B: Environmental</i> , 2020, 265, 118595.	20.2	31
18	New aspects of C <sub>2</sub> selectivity in electrochemical CO <sub>2</sub> reduction over oxide-derived copper. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 2046-2053.	2.8	35

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19	Solar-heating boosted catalytic reduction of CO <sub>2</sub> under full-solar spectrum. Chinese Journal of Catalysis, 2020, 41, 131-139.	14.0	58
20	Composition-tunable ZnS <sub>1-x</sub> Se nanobelt solid solutions for efficient solar-fuel production. Chinese Journal of Catalysis, 2020, 41, 1663-1673.	14.0	6
21	Crystal Facet-Dependent CO <sub>2</sub> Photoreduction over Porous ZnO Nanocatalysts. ACS Applied Materials & Interfaces, 2020, 12, 56039-56048.	8.0	52
22	Unraveling the selectivity puzzle of H <sub>2</sub> evolution over CO <sub>2</sub> photoreduction using ZnS nanocatalysts with phase junction. Applied Catalysis B: Environmental, 2020, 274, 119115.	20.2	23
23	Visible and near-infrared dual-band photodetector based on gold-silicon metamaterial. Applied Physics Letters, 2020, 116, .	3.3	10
24	First-principles calculations of wurtzite ZnS <sub>1-x</sub> Sex solid solutions for photocatalysis. Materials Today Communications, 2019, 21, 100672.	1.9	10
25	Computational study on interactions between CO <sub>2</sub> and (TiO <sub>2</sub> ) <sub>n</sub> clusters at specific sites. Chinese Journal of Chemical Physics, 2019, 32, 674-686.	1.3	29
26	Low-epsilon titanium oxide antenna infrared photodetector. Optics Express, 2019, 27, 5280.	3.4	1
27	Optimization of charge behavior in nanoporous CuBi <sub>2</sub> O <sub>4</sub> photocathode for photoelectrochemical reduction of CO <sub>2</sub> . Catalysis Today, 2019, 335, 388-394.	4.4	38
28	ZnTe-based nanocatalysts for CO <sub>2</sub> reduction. Current Opinion in Green and Sustainable Chemistry, 2019, 16, 7-12.	5.9	18
29	A computational study on linear and bent adsorption of CO <sub>2</sub> on different surfaces for its photoreduction. Catalysis Today, 2019, 335, 278-285.	4.4	13
30	Influence of defects in porous ZnO nanoplates on CO <sub>2</sub> photoreduction. Catalysis Today, 2019, 335, 300-305.	4.4	38
31	Cu <sub>2</sub> O-tipped ZnO nanorods with enhanced photoelectrochemical performance for CO <sub>2</sub> photoreduction. Applied Surface Science, 2018, 443, 209-216.	6.1	46
32	Synergistic Effect of Charge Generation and Separation in Epitaxially Grown BiOCl/Bi <sub>2</sub> S <sub>3</sub> Nano-Heterostructure. ACS Applied Materials & Interfaces, 2018, 10, 15304-15313.	8.0	95
33	Interfacial charge kinetics of ZnO/ZnTe heterostructured nanorod arrays for CO <sub>2</sub> photoreduction. Electrochimica Acta, 2018, 272, 203-211.	5.2	15
34	Highly efficient visible-light driven photocatalytic reduction of CO <sub>2</sub> over g-C <sub>3</sub> N <sub>4</sub> nanosheets/tetra(4-carboxyphenyl)porphyrin iron(III) chloride heterogeneous catalysts. Applied Catalysis B: Environmental, 2018, 221, 312-319.	20.2	186
35	Modification of Ag nanoparticles on the surface of SrTiO <sub>3</sub> particles and resultant influence on photoreduction of CO <sub>2</sub> . Applied Surface Science, 2018, 434, 717-724.	6.1	36
36	Visible-light-driven CO <sub>2</sub> photoreduction over Zn <sub>x</sub> Cd <sub>1-x</sub> S solid solution coupling with tetra(4-carboxyphenyl)porphyrin iron(III) chloride. Physical Chemistry Chemical Physics, 2018, 20, 16985-16991.	2.8	25

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37	Common-cation based Z-scheme ZnS@ZnO core-shell nanostructure for efficient solar-fuel production. Applied Catalysis B: Environmental, 2018, 238, 518-524.	20.2	55
38	Revisiting Electrochemical Reduction of CO <sub>2</sub> on Cu Electrode: Where Do We Stand about the Intermediates?. Journal of Physical Chemistry C, 2018, 122, 18528-18536.	3.1	32
39	Highly efficient visible-light driven solar-fuel production over tetra(4-carboxyphenyl)porphyrin iron(III) chloride using CdS/Bi <sub>2</sub> S <sub>3</sub> heterostructure as photosensitizer. Applied Catalysis B: Environmental, 2018, 238, 656-663.	20.2	80
40	Ethylenediamine-functionalized CdS/tetra(4-carboxyphenyl)porphyrin iron(III) chloride hybrid system for enhanced CO <sub>2</sub> photoreduction. Applied Surface Science, 2018, 459, 292-299.	6.1	22
41	Modulation of oxygen vacancy in hydrangea-like ceria via Zr doping for CO <sub>2</sub> photoreduction. Applied Surface Science, 2018, 452, 498-506.	6.1	25
42	Visible-Light Photoreduction of CO <sub>2</sub> to CH <sub>4</sub> over ZnTe-Modified TiO <sub>2</sub> Coral-Like Nanostructures. ChemPhysChem, 2017, 18, 3203-3210.	2.1	13
43	An electrochemiluminescent biosensor for dopamine detection using a poly(luminol-benzidine) Tj ETQq1 1 0.784314 rgBT/Overload 2.8 30	2.8	30
44	Facile synthesis of Bi <sub>2</sub> S <sub>3</sub> nanoribbons for photocatalytic reduction of CO <sub>2</sub> into CH <sub>3</sub> OH. Applied Surface Science, 2017, 394, 364-370.	6.1	101
45	Controllable Modulation of Morphology and Photocatalytic Performance of ZnO Nanomaterials & via pH Adjustment. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2016, 32, 543-550.	4.9	5
46	Photocatalytic Reduction of CO <sub>2</sub> over Heterostructure Semiconductors into Value-Added Chemicals. Chemical Record, 2016, 16, 1918-1933.	5.8	58
47	Preparation of CdS@CeO <sub>2</sub> core/shell composite for photocatalytic reduction of CO <sub>2</sub> under visible-light irradiation. Applied Surface Science, 2016, 390, 550-559.	6.1	96
48	Simple colorimetric detection of dopamine using modified silver nanoparticles. Science China Chemistry, 2016, 59, 387-393.	8.2	24
49	Synthesis and characterization of polyaniline/Zr-Co-substituted nickel ferrite (NiFe <sub>1.2</sub> Zr <sub>0.4</sub> Co <sub>0.4</sub> O <sub>4</sub> ) nanocomposites: their application for the photodegradation of methylene blue. Desalination and Water Treatment, 2016, 57, 12168-12177.	1.0	4
50	Influence of monomer concentration during polymerization on performance and catalytic mechanism of resultant poly(3,4-ethylenedioxythiophene) counter electrodes for dye-sensitized solar cells. Electrochimica Acta, 2015, 173, 796-803.	5.2	23
51	Hollow and mesoporous ZnTe microspheres: synthesis and visible-light photocatalytic reduction of carbon dioxide into methane. RSC Advances, 2015, 5, 6186-6194.	3.6	48
52	Fast, sensitive and selective colorimetric gold bioassay for dopamine detection. Journal of Materials Chemistry B, 2015, 3, 6019-6025.	5.8	29
53	Preparation of 2D hydroxyl-rich carbon nitride nanosheets for photocatalytic reduction of CO <sub>2</sub> . RSC Advances, 2015, 5, 33254-33261.	3.6	109
54	Photoreduction of carbon dioxide using strontium zirconate nanoparticles. Science China Materials, 2015, 58, 634-639.	6.3	12

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55	Synthesis of a Bi <sub>2</sub> S <sub>3</sub> /CeO <sub>2</sub> nanocatalyst and its visible light-driven conversion of CO <sub>2</sub> into CH <sub>3</sub> OH and CH <sub>4</sub> . Catalysis Science and Technology, 2015, 5, 5208-5215.	4.1	55
56	Design of a sector bowtie nano-rectenna for optical power and infrared detection. Frontiers of Physics, 2015, 10, 1.	5.0	16
57	Preparation of thickness-tunable BiOCl nanosheets with high photocatalytic activity for photoreduction of CO <sub>2</sub> . RSC Advances, 2015, 5, 100244-100250.	3.6	62
58	Synthesis of Cr-doped SrTiO <sub>3</sub> photocatalyst and its application in visible-light-driven transformation of CO <sub>2</sub> into CH <sub>4</sub> . Journal of CO <sub>2</sub> Utilization, 2015, 12, 43-48.	6.8	85
59	Preparation of polypyrrole thin film counter electrode with pre-stored iodine and resultant influence on its performance. Journal of Power Sources, 2015, 274, 1076-1084.	7.8	21
60	Visible-Light Photocatalytic Conversion of Carbon Dioxide into Methane Using Cu <sub>2</sub> O/TiO <sub>2</sub> Hollow Nanospheres. Chinese Journal of Chemistry, 2015, 33, 112-118.	4.9	47
61	Formation of Highly Stable Self-Assembled Alkyl Phosphonic Acid Monolayers for the Functionalization of Titanium Surfaces and Protein Patterning. Langmuir, 2015, 31, 140-148.	3.5	15
62	In situ synthesis of ZnO/ZnTe common cation heterostructure and its visible-light photocatalytic reduction of CO <sub>2</sub> into CH <sub>4</sub> . Applied Catalysis B: Environmental, 2015, 166-167, 345-352.	20.2	110
63	Preparation and characterization of SrTiO <sub>3</sub> -ZnTe nanocomposites for the visible-light photoconversion of carbon dioxide to methane. RSC Advances, 2014, 4, 48411-48418.	3.6	50
64	Controlled morphology modulation of anodic TiO <sub>2</sub> nanotubes via changing the composition of organic electrolytes. Physical Chemistry Chemical Physics, 2014, 16, 11502.	2.8	7
65	Self-Assembled CoS <sub>2</sub> Nanocrystal Film as an Efficient Counter Electrode for Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2014, 118, 24877-24883.	3.1	69
66	Influence of doping anions on structure and properties of electro-polymerized polypyrrole counter electrodes for use in dye-sensitized solar cells. Journal of Power Sources, 2014, 246, 491-498.	7.8	50
67	High-performance polyaniline counter electrode electropolymerized in presence of sodium dodecyl sulfate for dye-sensitized solar cells. Journal of Power Sources, 2014, 253, 300-304.	7.8	61
68	The working mechanism and performance of polypyrrole as a counter electrode for dye-sensitized solar cells. Journal of Materials Chemistry A, 2014, 2, 12805-12811.	10.3	26
69	The doping mechanism of Cr into TiO <sub>2</sub> and its influence on the photocatalytic performance. Physical Chemistry Chemical Physics, 2013, 15, 20037.	2.8	99
70	Study of H <sub>2</sub> SO <sub>4</sub> concentration on properties of H <sub>2</sub> SO <sub>4</sub> doped polyaniline counter electrodes for dye-sensitized solar cells. Journal of Power Sources, 2013, 242, 438-446.	7.8	46
71	Preparation and photolithography of self-assembled monolayers of 10-mercaptodecanylphosphonic acid on glass mediated by zirconium for protein patterning. Colloids and Surfaces B: Biointerfaces, 2013, 108, 66-71.	5.0	14
72	Synthesis of Indium Borate and Its Application in Photodegradation of 4-Chlorophenol. Environmental Science & Technology, 2012, 46, 2330-2336.	10.0	69

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73	Low temperature fabrication of ZnO compact layer for high performance plastic dye-sensitized ZnO solar cells. <i>Electrochimica Acta</i> , 2012, 69, 97-101.	5.2	28
74	Facile synthesis of ZnO nanocrystals via a solid state reaction for high performance plastic dye-sensitized solar cells. <i>Nano Research</i> , 2012, 5, 1-10.	10.4	42
75	Improved visible light photocatalytic activity of titania doped with tin and nitrogen. <i>Journal of Materials Chemistry</i> , 2011, 21, 144-150.	6.7	106