Zi-Rong Tang

List of Publications by Year
in descending order

105	15,103	16411	27345
papers	citations	64 h-index	106 g-index

110	110	110	13993
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	TiO₂â^'Graphene Nanocomposites for Gas-Phase Photocatalytic Degradation of Volatile Aromatic Pollutant: Is TiO₂â^'Graphene Truly Different from Other TiO₂â^'Carbon Composite Materials?. ACS Nano, 2010, 4, 7303-7314.	7.3	1,559
2	Recent progress in carbon quantum dots: synthesis, properties and applications in photocatalysis. Journal of Materials Chemistry A, 2017, 5, 3717-3734.	5.2	853
3	Engineering the Unique 2D Mat of Graphene to Achieve Graphene-TiO₂ Nanocomposite for Photocatalytic Selective Transformation: What Advantage does Graphene Have over Its Forebear Carbon Nanotube?. ACS Nano, 2011, 5, 7426-7435.	7.3	662
4	Graphene Transforms Wide Band Gap ZnS to a Visible Light Photocatalyst. The New Role of Graphene as a Macromolecular Photosensitizer. ACS Nano, 2012, 6, 9777-9789.	7.3	642
5	Photocorrosion Inhibition of Semiconductor-Based Photocatalysts: Basic Principle, Current Development, and Future Perspective. ACS Catalysis, 2019, 9, 4642-4687.	5.5	432
6	Cooperative Coupling of Oxidative Organic Synthesis and Hydrogen Production over Semiconductor-Based Photocatalysts. Chemical Reviews, 2021, 121, 13051-13085.	23.0	426
7	One-dimension-based spatially ordered architectures for solar energy conversion. Chemical Society Reviews, 2015, 44, 5053-5075.	18.7	367
8	Toward Improving the Grapheneâ€“Semiconductor Composite Photoactivity via the Addition of Metal Ions as Generic Interfacial Mediator. ACS Nano, 2014, 8, 623-633.	7.3	352
9	Synthesis of One-Dimensional CdS@TiO₂ Coreâ€“Shell Nanocomposites Photocatalyst for Selective Redox: The Dual Role of TiO₂ Shell. ACS Applied Materials & Interfaces, 2012, 4, 6378-6385.	4.0	345
10	One-dimensional CdS@MoS2 core-shell nanowires for boosted photocatalytic hydrogen evolution under visible light. Applied Catalysis B: Environmental, 2017, 202, 298-304.	10.8	334
11	Identification of Bi2WO6 as a highly selective visible-light photocatalyst toward oxidation of glycerol to dihydroxyacetone in water. Chemical Science, 2013, 4, 1820.	3.7	313
12	Improving the photocatalytic performance of grapheneâ€“TiO2 nanocomposites via a combined strategy of decreasing defects of graphene and increasing interfacial contact. Physical Chemistry Chemical Physics, 2012, 14, 9167.	1.3	277
13	Microstructure and surface control of MXene films for water purification. Nature Sustainability, 2019, 2, 856-862.	11.5	273
14	Ti₃C₂T_x-Based Three-Dimensional Hydrogel by a Graphene Oxide-Assisted Self-Convergence Process for Enhanced Photoredox Catalysis. ACS Nano, 2019, 13, 295-304.	7.3	247
15	Dynamic Evolution of Atomically Dispersed Cu Species for CO₂ Photoreduction to Solar Fuels. ACS Catalysis, 2019, 9, 4824-4833.	5.5	230
16	Transforming CdS into an efficient visible light photocatalyst for selective oxidation of saturated primary Câ€“H bonds under ambient conditions. Chemical Science, 2012, 3, 2812.	3.7	229
17	Boosting the activity and stability of Ag-Cu2O/ZnO nanorods for photocatalytic CO2 reduction. Applied Catalysis B: Environmental, 2020, 268, 118380.	10.8	211
18	Selective Organic Transformations over Cadmium Sulfide-Based Photocatalysts. ACS Catalysis, 2020, 10, 6262-6280.	5.5	211

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19	Nanocomposite of Agâ€“AgBrâ€“TiO2 as a photoactive and durable catalyst for degradation of volatile organic compounds in the gas phase. Applied Catalysis B: Environmental, 2011, 106, 445-452.	10.8	209
20	One-dimensional nanostructure based materials for versatile photocatalytic applications. RSC Advances, 2014, 4, 12685.	1.7	205
21	Rationally designed transition metal hydroxide nanosheet arrays on graphene for artificial CO2 reduction. Nature Communications, 2020, 11, 5181.	5.8	205
22	3D graphene-based gel photocatalysts for environmental pollutants degradation. Environmental Pollution, 2019, 253, 365-376.	3.7	204
23	CdSâ€“graphene nanocomposites as visible light photocatalyst for redox reactions in water: A green route for selective transformation and environmental remediation. Journal of Catalysis, 2013, 303, 60-69.	3.1	202
24	One dimensional CdS based materials for artificial photoredox reactions. Journal of Materials Chemistry A, 2017, 5, 2387-2410.	5.2	190
25	An Efficient Self-Assembly of CdS Nanowiresâ€“Reduced Graphene Oxide Nanocomposites for Selective Reduction of Nitro Organics under Visible Light Irradiation. Journal of Physical Chemistry C, 2013, 117, 8251-8261.	1.5	186
26	Coupling Strategy for CO₂Valorization Integrated with Organic Synthesis by Heterogeneous Photocatalysis. Angewandte Chemie - International Edition, 2021, 60, 21150-21172.	7.2	182
27	Two-Dimensional MoS₂ Nanosheet-Coated Bi₂S₃ Discoids: Synthesis, Formation Mechanism, and Photocatalytic Application. Langmuir, 2015, 31, 4314-4322.	1.6	178
28	Nanostructured metal phosphides: from controllable synthesis to sustainable catalysis. Chemical Society Reviews, 2021, 50, 7539-7586.	18.7	177
29	Ti3C2Tx MXene as a Janus cocatalyst for concurrent promoted photoactivity and inhibited photocorrosion. Applied Catalysis B: Environmental, 2018, 237, 43-49.	10.8	174
30	Photoredox catalysis over graphene aerogel-supported composites. Journal of Materials Chemistry A, 2018, 6, 4590-4604.	5.2	171
31	A critical and benchmark comparison on graphene-, carbon nanotube-, and fullerene-semiconductor nanocomposites as visible light photocatalysts for selective oxidation. Journal of Catalysis, 2013, 299, 210-221.	3.1	166
32	A simple yet efficient visible-light-driven CdS nanowires-carbon nanotube 1Dâ€“1D nanocomposite photocatalyst. Journal of Catalysis, 2014, 309, 146-155.	3.1	161
33	Visible-light-driven integrated organic synthesis and hydrogen evolution over 1D/2D CdS-Ti3C2Tx MXene composites. Applied Catalysis B: Environmental, 2020, 269, 118783.	10.8	159
34	Photothermal catalytic CO2 reduction over nanomaterials. Chem Catalysis, 2021, 1, 272-297.	2.9	150
35	Transition metal doping BiOBr nanosheets with oxygen vacancy and exposed {102} facets for visible light nitrogen fixation. Applied Catalysis B: Environmental, 2021, 281, 119516.	10.8	141
36	Efficient Photoredox-Mediated Câ€“C Coupling Organic Synthesis and Hydrogen Production over Engineered Semiconductor Quantum Dots. ACS Catalysis, 2020, 10, 14327-14335.	5.5	128

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37	Photoredox dual reaction for selective alcohol oxidation and hydrogen evolution over nickel surface-modified ZnIn2S4. Applied Catalysis B: Environmental, 2020, 271, 118946.	10.8	125
38	A facile and high-yield approach to synthesize one-dimensional CeO2 nanotubes with well-shaped hollow interior as a photocatalyst for degradation of toxic pollutants. RSC Advances, 2011, 1, 1772.	1.7	119
39	Cooperative Syngas Production and Câ^'N Bond Formation in One Photoredox Cycle. Angewandte Chemie - International Edition, 2021, 60, 7962-7970.	7.2	118
40	Visible-Light-Driven Oxidation of Primary Câ€“H Bonds over CdS with Dual Co-catalysts Graphene and TiO2. Scientific Reports, 2013, 3, 3314.	1.6	116
41	Cocatalyst decorated ZnIn2S4 composites for cooperative alcohol conversion and H2 evolution. Applied Catalysis B: Environmental, 2021, 298, 120541.	10.8	116
42	Composites of Titanate Nanotube and Carbon Nanotube as Photocatalyst with High Mineralization Ratio for Gas-Phase Degradation of Volatile Aromatic Pollutant. Journal of Physical Chemistry C, 2011, 115, 7880-7886.	1.5	115
43	3D carbon quantum dots/graphene aerogel as a metal-free catalyst for enhanced photosensitization efficiency. Applied Catalysis B: Environmental, 2018, 233, 11-18.	10.8	112
44	Energy dispersive X-ray spectroscopy of bimetallic nanoparticles in an aberration corrected scanning transmission electron microscope. Faraday Discussions, 2008, 138, 337-351.	1.6	109
45	One-dimensional copper-based heterostructures toward photo-driven reduction of CO₂to sustainable fuels and feedstocks. Journal of Materials Chemistry A, 2019, 7, 8676-8689.	5.2	106
46	Gold nanorods-based hybrids with tailored structures for photoredox catalysis: fundamental science, materials design and applications. Nano Today, 2019, 27, 48-72.	6.2	104
47	A nanotree-like CdS/ZnO nanocomposite with spatially branched hierarchical structure for photocatalytic fine-chemical synthesis. Nanoscale, 2014, 6, 7193.	2.8	99
48	Noble metal free CdS@CuS-NixP hybrid with modulated charge transfer for enhanced photocatalytic performance. Applied Catalysis B: Environmental, 2019, 257, 117934.	10.8	99
49	Graphene Oxide as a Surfactant and Support for In-Situ Synthesis of Auâ€“Pd Nanoalloys with Improved Visible Light Photocatalytic Activity. Journal of Physical Chemistry C, 2014, 118, 5299-5308.	1.5	97
50	Heterostructured semiconductor nanowire arrays for artificial photosynthesis. Materials Horizons, 2016, 3, 270-282.	6.4	95
51	Tuning the Optical Property and Photocatalytic Performance of Titanate Nanotube toward Selective Oxidation of Alcohols under Ambient Conditions. ACS Applied Materials & Interfaces, 2012, 4, 1512-1520.	4.0	93
52	Switching Light for Site-Directed Spatial Loading of Cocatalysts onto Heterojunction Photocatalysts with Boosted Redox Catalysis. ACS Catalysis, 2020, 10, 3194-3202.	5.5	93
53	Efficient photoredox conversion of alcohol to aldehyde and H₂ by heterointerface engineering of bimetalâ€“semiconductor hybrids. Chemical Science, 2019, 10, 3514-3522.	3.7	90
54	Ceria prepared using supercritical antisolvent precipitation: a green support for goldâ€“palladium nanoparticles for the selective catalytic oxidation of alcohols. Journal of Materials Chemistry, 2009, 19, 8619.	6.7	88

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55	3D graphene/AgBr/Ag cascade aerogel for efficient photocatalytic disinfection. Applied Catalysis B: Environmental, 2019, 245, 343-350.	10.8	87
56	Broadband Light Harvesting and Unidirectional Electron Flow for Efficient Electron Accumulation for Hydrogen Generation. Angewandte Chemie - International Edition, 2019, 58, 10003-10007.	7.2	86
57	Nanocrystalline cerium oxide produced by supercritical antisolvent precipitation as a support for high-activity gold catalysts. Journal of Catalysis, 2007, 249, 208-219.	3.1	82
58	Constructing one-dimensional silver nanowire-doped reduced graphene oxide integrated with CdS nanowire network hybrid structures toward artificial photosynthesis. Nanoscale, 2015, 7, 861-866.	2.8	81
59	Tunable plasmonic coreâ€“shell heterostructure design for broadband light driven catalysis. Chemical Science, 2018, 9, 8914-8922.	3.7	80
60	Activating two-dimensional Ti3C2Tx-MXene with single-atom cobalt for efficient CO2 photoreduction. Cell Reports Physical Science, 2021, 2, 100371.	2.8	80
61	Photoredox coupling of benzyl alcohol oxidation with CO2 reduction over CdS/TiO2 heterostructure under visible light irradiation. Applied Catalysis B: Environmental, 2022, 307, 121158.	10.8	78
62	Earth-Abundant MoS₂ and Cobalt Phosphate Dual Cocatalysts on 1D CdS Nanowires for Boosting Photocatalytic Hydrogen Production. Langmuir, 2019, 35, 11056-11065.	1.6	77
63	A Unique Silk Mat-Like Structured Pd/CeO₂ as an Efficient Visible Light Photocatalyst for Green Organic Transformation in Water. ACS Sustainable Chemistry and Engineering, 2013, 1, 1258-1266.	3.2	74
64	Synthesis of Titanate Nanotubeâ€“CdS Nanocomposites with Enhanced Visible Light Photocatalytic Activity. Inorganic Chemistry, 2013, 52, 11758-11766.	1.9	74
65	Multifunctional graphene-based composite photocatalysts oriented by multifaced roles of graphene in photocatalysis. Chinese Journal of Catalysis, 2022, 43, 708-730.	6.9	65
66	New insight into the enhanced visible light photocatalytic activity over boron-doped reduced graphene oxide. Nanoscale, 2015, 7, 7030-7034.	2.8	62
67	1D CdS nanowireâ€“2D BiVO₄ nanosheet heterostructures toward photocatalytic selective fine-chemical synthesis. RSC Advances, 2015, 5, 16476-16483.	1.7	60
68	Roles of Graphene Oxide in Heterogeneous Photocatalysis. ACS Materials Au, 2021, 1, 37-54.	2.6	56
69	One-pot, high-yield synthesis of one-dimensional ZnO nanorods with well-defined morphology as a highly selective photocatalyst. RSC Advances, 2013, 3, 5956.	1.7	55
70	Noncovalently Functionalized Graphene-Directed Synthesis of Ultralarge Graphene-Based TiO₂ Nanosheet Composites: Tunable Morphology and Photocatalytic Applications. Journal of Physical Chemistry C, 2014, 118, 27325-27335.	1.5	54
71	Defect-promoted visible light-driven C C coupling reactions pairing with CO2 reduction. Journal of Catalysis, 2020, 390, 244-250.	3.1	54
72	Surface/Interface Engineering of Carbonâ€Based Materials for Constructing Multidimensional Functional Hybrids. Solar Rrl, 2020, 4, 1900577.	3.1	52

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73	Synthesis of high surface area CuMn2O4 by supercritical anti-solvent precipitation for the oxidation of CO at ambient temperature. Catalysis Science and Technology, 2011, 1, 740.	2.1	50
74	New Nanocrystalline Cu/MnO_x Catalysts Prepared from Supercritical Antisolvent Precipitation. ChemCatChem, 2009, 1, 247-251.	1.8	44
75	One-dimensional CdS nanowiresâ€“CeO₂ nanoparticles composites with boosted photocatalytic activity. New Journal of Chemistry, 2015, 39, 6756-6764.	1.4	43
76	Surface-defect-engineered photocatalyst for nitrogen fixation into value-added chemical feedstocks. Catalysis Science and Technology, 2020, 10, 6098-6110.	2.1	41
77	Coupling Organic Synthesis and Hydrogen Evolution over Composite WO₃/ZnIn₂S₄ Z-Scheme Photocatalyst. Journal of Physical Chemistry C, 2022, 126, 1872-1880.	1.5	39
78	Photocatalytic selective oxidation of aromatic alcohols coupled with hydrogen evolution over CdS/WO3 composites. Chinese Journal of Catalysis, 2022, 43, 1851-1859.	6.9	37
79	Photocatalytic materials for sustainable chemistry via cooperative photoredox catalysis. Catalysis Today, 2023, 410, 85-101.	2.2	36
80	Electrostatic self-assembly of CdS nanowires-nitrogen doped graphene nanocomposites for enhanced visible light photocatalysis. Journal of Energy Chemistry, 2015, 24, 145-156.	7.1	35
81	Synthesis of BiVO4 nanosheets-graphene composites toward improved visible light photoactivity. Journal of Energy Chemistry, 2014, 23, 564-574.	7.1	33
82	A unique coordination-driven route for the precise nanoassembly of metal sulfides on metalâ€“organic frameworks. Nanoscale Horizons, 2020, 5, 714-719.	4.1	33
83	Enhanced ambient ammonia photosynthesis by Mo-doped Bi5O7Br nanosheets with light-switchable oxygen vacancies. Chinese Journal of Catalysis, 2021, 42, 2020-2026.	6.9	32
84	Tip-grafted Ag-ZnO nanorod arrays decorated with Au clusters for enhanced photocatalysis. Catalysis Today, 2020, 340, 121-127.	2.2	31
85	An adaptive geometry regulation strategy for 3D graphene materials: towards advanced hybrid photocatalysts. Chemical Science, 2018, 9, 8876-8882.	3.7	29
86	Toward improving the photocatalytic activity of BiVO₄â€“graphene 2Dâ€“2D composites under visible light by the addition of mediator. RSC Advances, 2014, 4, 58448-58452.	1.7	28
87	Methane conversion over artificial photocatalysts. Catalysis Communications, 2021, 159, 106346.	1.6	25
88	Nanoscale Assembly of CdS/BiVO₄ Hybrids for Coupling Selective Fine Chemical Synthesis and Hydrogen Production under Visible Light. ACS Physical Chemistry Au, 2022, 2, 216-224.	1.9	23
89	Efficient visible-light-driven water remediation by 3D graphene aerogel-supported nitrogen-doped carbon quantum dots. Catalysis Today, 2019, 335, 160-165.	2.2	21
90	Photo-driven Fischerâ€“Tropsch synthesis. Journal of Materials Chemistry A, 2020, 8, 24253-24266.	5.2	21

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91	Constructing film composites of silicon nanowires@CdS quantum dot arrays with ameliorated photocatalytic performance. New Journal of Chemistry, 2018, 42, 14096-14103.	1.4	18
92	Silicon nanowires@Co3O4 arrays film with Zâ€˜scheme band alignment for hydrogen evolution. Catalysis Today, 2019, 335, 294-299.	2.2	18
93	Broadband Light Harvesting and Unidirectional Electron Flow for Efficient Electron Accumulation for Hydrogen Generation. Angewandte Chemie, 2019, 131, 10108-10112.	1.6	17
94	Valorization of Biomass-Derived Platform Molecules via Photoredox Sustainable Catalysis. Transactions of Tianjin University, 2020, 26, 325-340.	3.3	17
95	Suzuki cross-coupling reactions over engineered AuPd alloy nanoparticles by recycling scattered light. Nano Research, 2022, 15, 9967-9975.	5.8	17
96	Benzyl alcohol oxidation and hydrogen generation over MoS2/ZnIn2S4 composite photocatalyst. Research on Chemical Intermediates, 2022, 48, 1-12.	1.3	16
97	Hierarchically tailorable double-array film hybrids with enhanced photocatalytic and photoelectrochemical performances. Applied Catalysis B: Environmental, 2019, 259, 118086.	10.8	15
98	Photochemical dehydrogenation of N-heterocycles over MOF-supported CdS nanoparticles with nickel modification. Applied Catalysis B: Environmental, 2022, 317, 121708.	10.8	14
99	Preparation of Tio2 Using Supercritical CO2 Antisolvent Precipitation (SAS): A Support for High Activity Gold Catalysts. Studies in Surface Science and Catalysis, 2006, 162, 219-226.	1.5	13
100	Inhibiting Pd nanoparticle aggregation and improving catalytic performance using one-dimensional CeO2 nanotubes as support. Chinese Journal of Catalysis, 2013, 34, 1123-1127.	6.9	13
101	The adsorption of methanol at the defective site of single-walled carbon nanotube. Physica B: Condensed Matter, 2010, 405, 770-773.	1.3	12
102	One-dimensional Nanostructures for Photocatalytic Organic Synthesis. Current Organic Chemistry, 2015, 19, 484-497.	0.9	11
103	Au clusters-based visible light photocatalysis. Research on Chemical Intermediates, 2021, 47, 29-50.	1.3	10
104	Hexaaquacobalt(II) (Î¼2-triethylenetetraminehexaacetato)diaquadicobalt(II) tetrahydrate. Acta Crystallographica Section E: Structure Reports Online, 2003, 59, m867-m869.	0.2	4
105	FACILE CYCLOADDITION OF TRANSITION METAL OXIDES ONTO THE SIDEWALL OF BORON-DOPED FULLERENE. Surface Review and Letters, 2009, 16, 525-532.	0.5	0