

Zi-Rong Tang

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104
papers

10,842
citations

53
h-index

104
g-index

109
ext. papers

12,827
ext. citations

11.8
avg, IF

7.05
L-index

#	Paper	IF	Citations
104	TiO ₂ -graphene nanocomposites for gas-phase photocatalytic degradation of volatile aromatic pollutant: is TiO ₂ -graphene truly different from other TiO ₂ -carbon composite materials?. <i>ACS Nano</i> , 2010 , 4, 7303-14	16.7	1455
103	Engineering the unique 2D mat of graphene to achieve graphene-TiO ₂ nanocomposite for photocatalytic selective transformation: what advantage does graphene have over its forebear carbon nanotube?. <i>ACS Nano</i> , 2011 , 5, 7426-35	16.7	621
102	Recent progress in carbon quantum dots: synthesis, properties and applications in photocatalysis. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 3717-3734	13	604
101	Graphene transforms wide band gap ZnS to a visible light photocatalyst. The new role of graphene as a macromolecular photosensitizer. <i>ACS Nano</i> , 2012 , 6, 9777-89	16.7	591
100	Toward improving the graphene-semiconductor composite photoactivity via the addition of metal ions as generic interfacial mediator. <i>ACS Nano</i> , 2014 , 8, 623-33	16.7	336
99	One-dimension-based spatially ordered architectures for solar energy conversion. <i>Chemical Society Reviews</i> , 2015 , 44, 5053-75	58.5	317
98	Synthesis of one-dimensional CdS@TiO ₂ core-shell nanocomposites photocatalyst for selective redox: the dual role of TiO ₂ shell. <i>ACS Applied Materials & Interfaces</i> , 2012 , 4, 6378-85	9.5	309
97	One-dimensional CdS@MoS ₂ core-shell nanowires for boosted photocatalytic hydrogen evolution under visible light. <i>Applied Catalysis B: Environmental</i> , 2017 , 202, 298-304	21.8	279
96	Identification of Bi ₂ WO ₆ as a highly selective visible-light photocatalyst toward oxidation of glycerol to dihydroxyacetone in water. <i>Chemical Science</i> , 2013 , 4, 1820	9.4	271
95	Improving the photocatalytic performance of graphene-TiO ₂ nanocomposites via a combined strategy of decreasing defects of graphene and increasing interfacial contact. <i>Physical Chemistry Chemical Physics</i> , 2012 , 14, 9167-75	3.6	256
94	Photocorrosion Inhibition of Semiconductor-Based Photocatalysts: Basic Principle, Current Development, and Future Perspective. <i>ACS Catalysis</i> , 2019 , 9, 4642-4687	13.1	253
93	Transforming CdS into an efficient visible light photocatalyst for selective oxidation of saturated primary C-H bonds under ambient conditions. <i>Chemical Science</i> , 2012 , 3, 2812	9.4	205
92	Nanocomposite of Ag ₂ AgBr/TiO ₂ as a photoactive and durable catalyst for degradation of volatile organic compounds in the gas phase. <i>Applied Catalysis B: Environmental</i> , 2011 , 106, 445-452	21.8	192
91	CdS/graphene nanocomposites as visible light photocatalyst for redox reactions in water: A green route for selective transformation and environmental remediation. <i>Journal of Catalysis</i> , 2013 , 303, 60-69	7.3	190
90	One-dimensional nanostructure based materials for versatile photocatalytic applications. <i>RSC Advances</i> , 2014 , 4, 12685	3.7	182
89	An Efficient Self-Assembly of CdS Nanowires/Reduced Graphene Oxide Nanocomposites for Selective Reduction of Nitro Organics under Visible Light Irradiation. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 8251-8261	3.8	173
88	A critical and benchmark comparison on graphene-, carbon nanotube-, and fullerene-semiconductor nanocomposites as visible light photocatalysts for selective oxidation. <i>Journal of Catalysis</i> , 2013 , 299, 210-221	7.3	154

87	Photoredox catalysis over graphene aerogel-supported composites. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 4590-4604	13	149
86	Two-dimensional MoS ₂ nanosheet-coated Bi ₂ O ₃ discoids: synthesis, formation mechanism, and photocatalytic application. <i>Langmuir</i> , 2015 , 31, 4314-22	4	147
85	A simple yet efficient visible-light-driven CdS nanowires-carbon nanotube 1D/1D nanocomposite photocatalyst. <i>Journal of Catalysis</i> , 2014 , 309, 146-155	7.3	146
84	TiCT -Based Three-Dimensional Hydrogel by a Graphene Oxide-Assisted Self-Convergence Process for Enhanced Photoredox Catalysis. <i>ACS Nano</i> , 2019 , 13, 295-304	16.7	143
83	One dimensional CdS based materials for artificial photoredox reactions. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 2387-2410	13	142
82	Microstructure and surface control of MXene films for water purification. <i>Nature Sustainability</i> , 2019 , 2, 856-862	22.1	142
81	Dynamic Evolution of Atomically Dispersed Cu Species for CO ₂ Photoreduction to Solar Fuels. <i>ACS Catalysis</i> , 2019 , 9, 4824-4833	13.1	128
80	3D graphene-based gel photocatalysts for environmental pollutants degradation. <i>Environmental Pollution</i> , 2019 , 253, 365-376	9.3	125
79	Ti ₃ C ₂ T _x MXene as a Janus cocatalyst for concurrent promoted photoactivity and inhibited photocorrosion. <i>Applied Catalysis B: Environmental</i> , 2018 , 237, 43-49	21.8	119
78	Boosting the activity and stability of Ag-Cu ₂ O/ZnO nanorods for photocatalytic CO ₂ reduction. <i>Applied Catalysis B: Environmental</i> , 2020 , 268, 118380	21.8	108
77	Visible-light-driven oxidation of primary C-H bonds over CdS with dual co-catalysts graphene and TiO ₂ . <i>Scientific Reports</i> , 2013 , 3, 3314	4.9	106
76	Composites of Titanate Nanotube and Carbon Nanotube as Photocatalyst with High Mineralization Ratio for Gas-Phase Degradation of Volatile Aromatic Pollutant. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 7880-7886	3.8	104
75	A facile and high-yield approach to synthesize one-dimensional CeO ₂ nanotubes with well-shaped hollow interior as a photocatalyst for degradation of toxic pollutants. <i>RSC Advances</i> , 2011 , 1, 1772	3.7	103
74	Energy dispersive X-ray spectroscopy of bimetallic nanoparticles in an aberration corrected scanning transmission electron microscope. <i>Faraday Discussions</i> , 2008 , 138, 337-51; discussion 421-34	3.6	98
73	Selective Organic Transformations over Cadmium Sulfide-Based Photocatalysts. <i>ACS Catalysis</i> , 2020 , 10, 6262-6280	13.1	91
72	Graphene Oxide as a Surfactant and Support for In-Situ Synthesis of Au/Pd Nanoalloys with Improved Visible Light Photocatalytic Activity. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 5299-5308	3.8	91
71	A nanotree-like CdS/ZnO nanocomposite with spatially branched hierarchical structure for photocatalytic fine-chemical synthesis. <i>Nanoscale</i> , 2014 , 6, 7193-8	7.7	89
70	Tuning the optical property and photocatalytic performance of titanate nanotube toward selective oxidation of alcohols under ambient conditions. <i>ACS Applied Materials & Interfaces</i> , 2012 , 4, 1512-20	9.5	89

69	Heterostructured semiconductor nanowire arrays for artificial photosynthesis. <i>Materials Horizons</i> , 2016 , 3, 270-282	14.4	89
68	Ceria prepared using supercritical antisolvent precipitation: a green support for gold-palladium nanoparticles for the selective catalytic oxidation of alcohols. <i>Journal of Materials Chemistry</i> , 2009 , 19, 8619		82
67	Rationally designed transition metal hydroxide nanosheet arrays on graphene for artificial CO reduction. <i>Nature Communications</i> , 2020 , 11, 5181	17.4	82
66	Visible-light-driven integrated organic synthesis and hydrogen evolution over 1D/2D CdS-Ti ₃ C ₂ T _x MXene composites. <i>Applied Catalysis B: Environmental</i> , 2020 , 269, 118783	21.8	81
65	3D carbon quantum dots/graphene aerogel as a metal-free catalyst for enhanced photosensitization efficiency. <i>Applied Catalysis B: Environmental</i> , 2018 , 233, 11-18	21.8	79
64	Nanocrystalline cerium oxide produced by supercritical antisolvent precipitation as a support for high-activity gold catalysts. <i>Journal of Catalysis</i> , 2007 , 249, 208-219	7.3	79
63	Constructing one-dimensional silver nanowire-doped reduced graphene oxide integrated with CdS nanowire network hybrid structures toward artificial photosynthesis. <i>Nanoscale</i> , 2015 , 7, 861-6	7.7	69
62	Photoredox dual reaction for selective alcohol oxidation and hydrogen evolution over nickel surface-modified ZnIn ₂ S ₄ . <i>Applied Catalysis B: Environmental</i> , 2020 , 271, 118946	21.8	68
61	Cooperative Coupling of Oxidative Organic Synthesis and Hydrogen Production over Semiconductor-Based Photocatalysts. <i>Chemical Reviews</i> , 2021 , 121, 13051-13085	68.1	68
60	Synthesis of titanate nanotube-CdS nanocomposites with enhanced visible light photocatalytic activity. <i>Inorganic Chemistry</i> , 2013 , 52, 11758-66	5.1	67
59	3D graphene/AgBr/Ag cascade aerogel for efficient photocatalytic disinfection. <i>Applied Catalysis B: Environmental</i> , 2019 , 245, 343-350	21.8	67
58	Efficient photoredox conversion of alcohol to aldehyde and H ₂ by heterointerface engineering of bimetal-semiconductor hybrids. <i>Chemical Science</i> , 2019 , 10, 3514-3522	9.4	66
57	Gold nanorods-based hybrids with tailored structures for photoredox catalysis: fundamental science, materials design and applications. <i>Nano Today</i> , 2019 , 27, 48-72	17.9	65
56	Noble metal free CdS@CuS-NixP hybrid with modulated charge transfer for enhanced photocatalytic performance. <i>Applied Catalysis B: Environmental</i> , 2019 , 257, 117934	21.8	63
55	A Unique Silk Mat-Like Structured Pd/CeO ₂ as an Efficient Visible Light Photocatalyst for Green Organic Transformation in Water. <i>ACS Sustainable Chemistry and Engineering</i> , 2013 , 1, 1258-1266	8.3	63
54	Broadband Light Harvesting and Unidirectional Electron Flow for Efficient Electron Accumulation for Hydrogen Generation. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 10003-10007	16.4	61
53	1D CdS nanowire-2D BiVO ₄ nanosheet heterostructures toward photocatalytic selective fine-chemical synthesis. <i>RSC Advances</i> , 2015 , 5, 16476-16483	3.7	55
52	Tunable plasmonic core-shell heterostructure design for broadband light driven catalysis. <i>Chemical Science</i> , 2018 , 9, 8914-8922	9.4	54

51	Switching Light for Site-Directed Spatial Loading of Cocatalysts onto Heterojunction Photocatalysts with Boosted Redox Catalysis. <i>ACS Catalysis</i> , 2020 , 10, 3194-3202	13.1	52
50	One-dimensional copper-based heterostructures toward photo-driven reduction of CO ₂ to sustainable fuels and feedstocks. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 8676-8689	13	51
49	New insight into the enhanced visible light photocatalytic activity over boron-doped reduced graphene oxide. <i>Nanoscale</i> , 2015 , 7, 7030-4	7.7	49
48	Noncovalently Functionalized Graphene-Directed Synthesis of Ultralarge Graphene-Based TiO ₂ Nanosheet Composites: Tunable Morphology and Photocatalytic Applications. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 27325-27335	3.8	49
47	One-pot, high-yield synthesis of one-dimensional ZnO nanorods with well-defined morphology as a highly selective photocatalyst. <i>RSC Advances</i> , 2013 , 3, 5956	3.7	48
46	Transition metal doping BiOBr nanosheets with oxygen vacancy and exposed {102} facets for visible light nitrogen fixation. <i>Applied Catalysis B: Environmental</i> , 2021 , 281, 119516	21.8	48
45	Efficient Photoredox-Mediated C-C Coupling Organic Synthesis and Hydrogen Production over Engineered Semiconductor Quantum Dots. <i>ACS Catalysis</i> , 2020 , 10, 14327-14335	13.1	46
44	Nanostructured metal phosphides: from controllable synthesis to sustainable catalysis. <i>Chemical Society Reviews</i> , 2021 , 50, 7539-7586	58.5	45
43	Earth-Abundant MoS and Cobalt Phosphate Dual Cocatalysts on 1D CdS Nanowires for Boosting Photocatalytic Hydrogen Production. <i>Langmuir</i> , 2019 , 35, 11056-11065	4	42
42	Synthesis of high surface area CuMn ₂ O ₄ by supercritical anti-solvent precipitation for the oxidation of CO at ambient temperature. <i>Catalysis Science and Technology</i> , 2011 , 1, 740	5.5	42
41	New Nanocrystalline Cu/MnOx Catalysts Prepared from Supercritical Antisolvent Precipitation. <i>ChemCatChem</i> , 2009 , 1, 247-251	5.2	41
40	Electrostatic self-assembly of CdS nanowires-nitrogen doped graphene nanocomposites for enhanced visible light photocatalysis. <i>Journal of Energy Chemistry</i> , 2015 , 24, 145-156	12	34
39	One-dimensional CdS nanowires-TiO ₂ nanoparticles composites with boosted photocatalytic activity. <i>New Journal of Chemistry</i> , 2015 , 39, 6756-6764	3.6	33
38	Photothermal catalytic CO ₂ reduction over nanomaterials. <i>Chem Catalysis</i> , 2021 , 1, 272-297		33
37	Cooperative Syngas Production and C-N Bond Formation in One Photoredox Cycle. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 7962-7970	16.4	33
36	Coupling Strategy for CO Valorization Integrated with Organic Synthesis by Heterogeneous Photocatalysis. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 21150-21172	16.4	32
35	Surface/Interface Engineering of Carbon-Based Materials for Constructing Multidimensional Functional Hybrids. <i>Solar Rrl</i> , 2020 , 4, 1900577	7.1	31
34	Activating two-dimensional Ti ₃ C ₂ T _x -MXene with single-atom cobalt for efficient CO ₂ photoreduction. <i>Cell Reports Physical Science</i> , 2021 , 2, 100371	6.1	29

33	Synthesis of BiVO ₄ nanosheets-graphene composites toward improved visible light photoactivity. <i>Journal of Energy Chemistry</i> , 2014 , 23, 564-574	12	28
32	Toward improving the photocatalytic activity of BiVO ₄ /graphene 2D/2D composites under visible light by the addition of mediator. <i>RSC Advances</i> , 2014 , 4, 58448-58452	3-7	26
31	Defect-promoted visible light-driven C-C coupling reactions pairing with CO ₂ reduction. <i>Journal of Catalysis</i> , 2020 , 390, 244-250	7-3	26
30	Cocatalyst decorated ZnIn ₂ S ₄ composites for cooperative alcohol conversion and H ₂ evolution. <i>Applied Catalysis B: Environmental</i> , 2021 , 298, 120541	21.8	26
29	A unique coordination-driven route for the precise nanoassembly of metal sulfides on metal-organic frameworks. <i>Nanoscale Horizons</i> , 2020 , 5, 714-719	10.8	22
28	Tip-grafted Ag-ZnO nanorod arrays decorated with Au clusters for enhanced photocatalysis. <i>Catalysis Today</i> , 2020 , 340, 121-127	5-3	20
27	An adaptive geometry regulation strategy for 3D graphene materials: towards advanced hybrid photocatalysts. <i>Chemical Science</i> , 2018 , 9, 8876-8882	9-4	20
26	Surface-defect-engineered photocatalyst for nitrogen fixation into value-added chemical feedstocks. <i>Catalysis Science and Technology</i> , 2020 , 10, 6098-6110	5-5	17
25	Preparation of TiO ₂ Using Supercritical CO ₂ Antisolvent Precipitation (SAS): A Support for High Activity Gold Catalysts. <i>Studies in Surface Science and Catalysis</i> , 2006 , 162, 219-226	1.8	12
24	Efficient visible-light-driven water remediation by 3D graphene aerogel-supported nitrogen-doped carbon quantum dots. <i>Catalysis Today</i> , 2019 , 335, 160-165	5-3	12
23	Broadband Light Harvesting and Unidirectional Electron Flow for Efficient Electron Accumulation for Hydrogen Generation. <i>Angewandte Chemie</i> , 2019 , 131, 10108-10112	3-6	11
22	Constructing film composites of silicon nanowires@CdS quantum dot arrays with ameliorated photocatalytic performance. <i>New Journal of Chemistry</i> , 2018 , 42, 14096-14103	3-6	11
21	The adsorption of methanol at the defective site of single-walled carbon nanotube. <i>Physica B: Condensed Matter</i> , 2010 , 405, 770-773	2.8	11
20	Silicon nanowires@Co ₃ O ₄ arrays film with Z-scheme band alignment for hydrogen evolution. <i>Catalysis Today</i> , 2019 , 335, 294-299	5-3	10
19	Inhibiting Pd nanoparticle aggregation and improving catalytic performance using one-dimensional CeO ₂ nanotubes as support. <i>Chinese Journal of Catalysis</i> , 2013 , 34, 1123-1127	11-3	9
18	Hierarchically tailorable double-array film hybrids with enhanced photocatalytic and photoelectrochemical performances. <i>Applied Catalysis B: Environmental</i> , 2019 , 259, 118086	21.8	8
17	Valorization of Biomass-Derived Platform Molecules via Photoredox Sustainable Catalysis. <i>Transactions of Tianjin University</i> , 2020 , 26, 325-340	2.9	8
16	Photoredox coupling of benzyl alcohol oxidation with CO ₂ reduction over CdS/TiO ₂ heterostructure under visible light irradiation. <i>Applied Catalysis B: Environmental</i> , 2022 , 307, 121158	21.8	7

15	One-dimensional Nanostructures for Photocatalytic Organic Synthesis. <i>Current Organic Chemistry</i> , 2015 , 19, 484-497	1.7	7
14	Photo-driven Fischer-Tropsch synthesis. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 24253-24266	13	7
13	Roles of Graphene Oxide in Heterogeneous Photocatalysis. <i>ACS Materials Au</i> , 2021 , 1, 37-54		6
12	Methane conversion over artificial photocatalysts. <i>Catalysis Communications</i> , 2021 , 159, 106346	3.2	6
11	Multifunctional graphene-based composite photocatalysts oriented by multifaced roles of graphene in photocatalysis. <i>Chinese Journal of Catalysis</i> , 2022 , 43, 708-730	11.3	5
10	Enhanced ambient ammonia photosynthesis by Mo-doped Bi ₅ O ₇ Br nanosheets with light-switchable oxygen vacancies. <i>Chinese Journal of Catalysis</i> , 2021 , 42, 2020-2026	11.3	5
9	Hexaaquacobalt(II) (η -triethylenetetraminehexaacetato)diaquadicobalt(II) tetrahydrate. <i>Acta Crystallographica Section E: Structure Reports Online</i> , 2003 , 59, m867-m869		4
8	Au clusters-based visible light photocatalysis. <i>Research on Chemical Intermediates</i> , 2021 , 47, 29-50	2.8	4
7	Coupling Organic Synthesis and Hydrogen Evolution over Composite WO ₃ /ZnIn ₂ S ₄ Z-Scheme Photocatalyst. <i>Journal of Physical Chemistry C</i> , 2022 , 126, 1872-1880	3.8	3
6	Benzyl alcohol oxidation and hydrogen generation over MoS ₂ /ZnIn ₂ S ₄ composite photocatalyst. <i>Research on Chemical Intermediates</i> , 2022 , 48, 1	2.8	1
5	Nanoscale Assembly of CdS/BiVO ₄ Hybrids for Coupling Selective Fine Chemical Synthesis and Hydrogen Production under Visible Light. <i>ACS Physical Chemistry Au</i> ,		1
4	Suzuki cross-coupling reactions over engineered AuPd alloy nanoparticles by recycling scattered light. <i>Nano Research</i> , 1	10	1
3	Photocatalytic selective oxidation of aromatic alcohols coupled with hydrogen evolution over CdS/WO ₃ composites. <i>Chinese Journal of Catalysis</i> , 2022 , 43, 1851-1859	11.3	0
2	FACILE CYCLOADDITION OF TRANSITION METAL OXIDES ONTO THE SIDEWALL OF BORON-DOPED FULLERENE. <i>Surface Review and Letters</i> , 2009 , 16, 525-532	1.1	
1	Photocatalytic Abatement of Emerging Micropollutants in Water and Wastewater 2021 , 671-684		