Tuo Wang

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

117	9,629	51	97
papers	citations	h-index	g-index
132	11,471 ext. citations	13.3	6.83
ext. papers		avg, IF	L-index

#	Paper	IF	Citations
117	CO2 photo-reduction: insights into CO2 activation and reaction on surfaces of photocatalysts. <i>Energy and Environmental Science</i> , 2016 , 9, 2177-2196	35.4	1038
116	Enhanced Surface Reaction Kinetics and Charge Separation of p-n Heterojunction Co3O4/BiVO4 Photoanodes. <i>Journal of the American Chemical Society</i> , 2015 , 137, 8356-9	16.4	611
115	Sub-10 nm rutile titanium dioxide nanoparticles for efficient visible-light-driven photocatalytic hydrogen production. <i>Nature Communications</i> , 2015 , 6, 5881	17.4	535
114	Tungsten oxide single crystal nanosheets for enhanced multichannel solar light harvesting. <i>Advanced Materials</i> , 2015 , 27, 1580-6	24	341
113	Mechanistic Understanding of the Plasmonic Enhancement for Solar Water Splitting. <i>Advanced Materials</i> , 2015 , 27, 5328-42	24	301
112	Promoted Fixation of Molecular Nitrogen with Surface Oxygen Vacancies on Plasmon-Enhanced TiO Photoelectrodes. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 5278-5282	16.4	271
111	Controllable synthesis of nanotube-type graphitic C3N4 and their visible-light photocatalytic and fluorescent properties. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 2885	13	223
110	Dendritic Au/TiO[hanorod arrays for visible-light driven photoelectrochemical water splitting. <i>Nanoscale</i> , 2013 , 5, 9001-9	7.7	211
109	Selective deposition of AgPOIbn monoclinic BiVO(D40) for highly efficient photocatalysis. <i>Small</i> , 2013 , 9, 3951-6, 3950	11	200
108	Effective Charge Carrier Utilization in Photocatalytic Conversions. <i>Accounts of Chemical Research</i> , 2016 , 49, 911-21	24.3	200
107	Monoclinic porous BiVO4 networks decorated by discrete g-C3N4 nano-islands with tunable coverage for highly efficient photocatalysis. <i>Small</i> , 2014 , 10, 2783-90, 2741	11	187
106	Controllable fabrication of nanostructured materials for photoelectrochemical water splitting via atomic layer deposition. <i>Chemical Society Reviews</i> , 2014 , 43, 7469-84	58.5	187
105	Rational design of yolk-shell nanostructures for photocatalysis. <i>Chemical Society Reviews</i> , 2019 , 48, 18	74 ₅ 890	7 171
104	Gradient doping of phosphorus in FeO nanoarray photoanodes for enhanced charge separation. <i>Chemical Science</i> , 2017 , 8, 91-100	9.4	168
103	Surface, Bulk, and Interface: Rational Design of Hematite Architecture toward Efficient Photo-Electrochemical Water Splitting. <i>Advanced Materials</i> , 2018 , 30, e1707502	24	157
102	Synergistic Cocatalytic Effect of Carbon Nanodots and Co3 O4 Nanoclusters for the Photoelectrochemical Water Oxidation on Hematite. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 5851-5	16.4	153
101	Propane dehydrogenation over Pt-Cu bimetallic catalysts: the nature of coke deposition and the role of copper. <i>Nanoscale</i> , 2014 , 6, 10000-8	7.7	146

100	Reduced Graphene Oxide (rGO)/BiVO4 Composites with Maximized Interfacial Coupling for Visible Lght Photocatalysis. <i>ACS Sustainable Chemistry and Engineering</i> , 2014 , 2, 2253-2258	8.3	140
99	Stable Aqueous Photoelectrochemical CO2 Reduction by a Cu2 O Dark Cathode with Improved Selectivity for Carbonaceous Products. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 8840-5	16.4	135
98	Hydrogen Production via Glycerol Steam Reforming over Ni/Al2O3: Influence of Nickel Precursors. <i>ACS Sustainable Chemistry and Engineering</i> , 2013 , 1, 1052-1062	8.3	135
97	Monoclinic WO3 nanomultilayers with preferentially exposed (002) facets for photoelectrochemical water splitting. <i>Nano Energy</i> , 2015 , 11, 189-195	17.1	128
96	Thin Heterojunctions and Spatially Separated Cocatalysts To Simultaneously Reduce Bulk and Surface Recombination in Photocatalysts. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 13734-1	3 738	124
95	Glycerol steam reforming over perovskite-derived nickel-based catalysts. <i>Applied Catalysis B: Environmental</i> , 2014 , 144, 277-285	21.8	124
94	Grain-Boundary-Rich Copper for Efficient Solar-Driven Electrochemical CO Reduction to Ethylene and Ethanol. <i>Journal of the American Chemical Society</i> , 2020 , 142, 6878-6883	16.4	121
93	Nano-designed semiconductors for electro- and photoelectro-catalytic conversion of carbon dioxide. <i>Chemical Society Reviews</i> , 2018 , 47, 5423-5443	58.5	119
92	Tuning Cu/Cu O Interfaces for the Reduction of Carbon Dioxide to Methanol in Aqueous Solutions. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 15415-15419	16.4	118
91	Dendritic Hematite Nanoarray Photoanode Modified with a Conformal Titanium Dioxide Interlayer for Effective Charge Collection. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 12878-12882	16.4	117
90	Crucial Role of Surface Hydroxyls on the Activity and Stability in Electrochemical CO Reduction. Journal of the American Chemical Society, 2019 , 141, 2911-2915	16.4	115
89	Au nanoparticle sensitized ZnO nanopencil arrays for photoelectrochemical water splitting. <i>Nanoscale</i> , 2015 , 7, 77-81	7.7	115
88	Spatial separation of oxidation and reduction co-catalysts for efficient charge separation: Pt@TiO@MnO hollow spheres for photocatalytic reactions. <i>Chemical Science</i> , 2016 , 7, 890-895	9.4	111
87	Single-Crystal Semiconductors with Narrow Band Gaps for Solar Water Splitting. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 10718-32	16.4	109
86	Surviving High-Temperature Calcination: ZrO -Induced Hematite Nanotubes for Photoelectrochemical Water Oxidation. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 4150-4155	16.4	104
85	The Development of Cocatalysts for Photoelectrochemical CO Reduction. <i>Advanced Materials</i> , 2019 , 31, e1804710	24	104
84	Single-crystal silicon-based electrodes for unbiased solar water splitting: current status and prospects. <i>Chemical Society Reviews</i> , 2019 , 48, 2158-2181	58.5	103
83	Enhanced Charge Separation through ALD-Modified Fe2 O3 /Fe2 TiO5 Nanorod Heterojunction for Photoelectrochemical Water Oxidation. <i>Small</i> , 2016 , 12, 3415-22	11	101

82	Mesoporous anatase TiO2 nanocups with plasmonic metal decoration for highly active visible-light photocatalysis. <i>Chemical Communications</i> , 2013 , 49, 5817-9	5.8	96
81	Gold Nanorod@TiO2 Yolk-Shell Nanostructures for Visible-Light-Driven Photocatalytic Oxidation of Benzyl Alcohol. <i>Small</i> , 2015 , 11, 1892-9	11	92
80	Homogeneous Cu2O p-n junction photocathodes for solar water splitting. <i>Applied Catalysis B: Environmental</i> , 2018 , 226, 31-37	21.8	90
79	Spatial control of cocatalysts and elimination of interfacial defects towards efficient and robust CIGS photocathodes for solar water splitting. <i>Energy and Environmental Science</i> , 2018 , 11, 2025-2034	35.4	87
78	Enriched Surface Oxygen Vacancies of Photoanodes by Photoetching with Enhanced Charge Separation. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 2044-2048	16.4	83
77	Understanding electronic and optical properties of anatase TiO2 photocatalysts co-doped with nitrogen and transition metals. <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 9549-61	3.6	76
76	Photoelectrochemical CO2 reduction to adjustable syngas on grain-boundary-mediated a-Si/TiO2/Au photocathodes with low onset potentials. <i>Energy and Environmental Science</i> , 2019 , 12, 923	-328	74
75	WO3 photoanodes with controllable bulk and surface oxygen vacancies for photoelectrochemical water oxidation. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 3350-3354	13	69
74	Current Mechanistic Understanding of Surface Reactions over Water-Splitting Photocatalysts. <i>CheM</i> , 2018 , 4, 223-245	16.2	68
73	Facile synthesis of ZnO nanopencil arrays for photoelectrochemical water splitting. <i>Nano Energy</i> , 2014 , 7, 143-150	17.1	66
72	Tunable syngas production from photocatalytic CO reduction with mitigated charge recombination driven by spatially separated cocatalysts. <i>Chemical Science</i> , 2018 , 9, 5334-5340	9.4	65
71	Adjusting the Reduction Potential of Electrons by Quantum Confinement for Selective Photoreduction of CO to Methanol. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 3804-3808	16.4	63
70	Effects of Ga doping on Pt/CeO2-Al2O3 catalysts for propane dehydrogenation. <i>AICHE Journal</i> , 2016 , 62, 4365-4376	3.6	61
69	CeO2-modified Au@SBA-15 nanocatalysts for liquid-phase selective oxidation of benzyl alcohol. <i>Nanoscale</i> , 2015 , 7, 7593-602	7.7	61
68	Highly-oriented Fe2O3/ZnFe2O4 nanocolumnar heterojunction with improved charge separation for photoelectrochemical water oxidation. <i>Chemical Communications</i> , 2016 , 52, 9013-5	5.8	55
67	Transparent ALD-grown Ta2O5 protective layer for highly stable ZnO photoelectrode in solar water splitting. <i>Chemical Communications</i> , 2015 , 51, 7290-3	5.8	53
66	Fabrication of porous nanoflake BiMO (M = W, V, and Mo) photoanodes hydrothermal anion exchange. <i>Chemical Science</i> , 2016 , 7, 6381-6386	9.4	51
65	Selective oxidation of methanol to dimethoxymethane on V2O5MoO3/EAl2O3 catalysts. <i>Applied Catalysis B: Environmental</i> , 2014 , 160-161, 161-172	21.8	48

(2016-2018)

64	Multifunctional TiO2 overlayer for p-Si/n-CdS heterojunction photocathode with improved efficiency and stability. <i>Nano Energy</i> , 2018 , 53, 125-129	17.1	47	
63	The nature of active sites for carbon dioxide electroreduction over oxide-derived copper catalysts. Nature Communications, 2021, 12, 395	17.4	46	
62	Enhancement of photoelectrochemical oxidation by an amorphous nickel boride catalyst on porous BiVO. <i>Nanoscale</i> , 2017 , 9, 16133-16137	7.7	41	
61	Two-dimensional gersiloxenes with tunable bandgap for photocatalytic H evolution and CO photoreduction to CO. <i>Nature Communications</i> , 2020 , 11, 1443	17.4	41	
60	Stable Aqueous Photoelectrochemical CO2 Reduction by a Cu2O Dark Cathode with Improved Selectivity for Carbonaceous Products. <i>Angewandte Chemie</i> , 2016 , 128, 8986-8991	3.6	41	
59	Bridging the transport pathway of charge carriers in a Ta3N5 nanotube array photoanode for solar water splitting. <i>Nanoscale</i> , 2015 , 7, 13153-8	7.7	41	
58	Controllable Cu -Cu Sites for Electrocatalytic Reduction of Carbon Dioxide. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 15344-15347	16.4	41	
57	Highly loaded Ni-based catalysts for low temperature ethanol steam reforming. <i>Nanoscale</i> , 2016 , 8, 10	1 <i>7-77-</i> 87	41	
56	Promoted Fixation of Molecular Nitrogen with Surface Oxygen Vacancies on Plasmon-Enhanced TiO2 Photoelectrodes. <i>Angewandte Chemie</i> , 2018 , 130, 5376-5380	3.6	37	
55	Passivation of surface states by ALD-grown TiO2 overlayers on Ta3N5 anodes for photoelectrochemical water oxidation. <i>Chemical Communications</i> , 2016 , 52, 8806-9	5.8	37	
54	Atomic Layer Deposition of Lanthanum Stabilized Amorphous Hafnium Oxide Thin Films. <i>Chemistry of Materials</i> , 2009 , 21, 3096-3101	9.6	37	
53	Surviving High-Temperature Calcination: ZrO2-Induced Hematite Nanotubes for Photoelectrochemical Water Oxidation. <i>Angewandte Chemie</i> , 2017 , 129, 4214-4219	3.6	35	
52	Steam reforming of ethanol over skeletal Ni-based catalysts: A temperature programmed desorption and kinetic study. <i>AICHE Journal</i> , 2014 , 60, 635-644	3.6	35	
51	A Low-Cost NiO Hole Transfer Layer for Ohmic Back Contact to Cu O for Photoelectrochemical Water Splitting. <i>Small</i> , 2017 , 13, 1702007	11	34	
50	Bifacial passivation of n-silicon metal i hsulator B emiconductor photoelectrodes for efficient oxygen and hydrogen evolution reactions. <i>Energy and Environmental Science</i> , 2020 , 13, 221-228	35.4	34	
49	Hafnia: Energetics of thin films and nanoparticles. <i>Journal of Applied Physics</i> , 2010 , 107, 123514	2.5	33	
48	Improved Oxygen Evolution Kinetics and Surface States Passivation of Ni-B i Co-Catalyst for a Hematite Photoanode. <i>Engineering</i> , 2017 , 3, 285-289	9.7	32	
47	Synergistic Cocatalytic Effect of Carbon Nanodots and Co3O4 Nanoclusters for the Photoelectrochemical Water Oxidation on Hematite. <i>Angewandte Chemie</i> , 2016 , 128, 5945-5949	3.6	29	

46	Pt-based core-shell nanocatalysts with enhanced activity and stability for CO oxidation. <i>Chemical Communications</i> , 2013 , 49, 10647-9	5.8	27
45	Multifunctional Nickel Film Protected n-Type Silicon Photoanode with High Photovoltage for Efficient and Stable Oxygen Evolution Reaction. <i>Small Methods</i> , 2019 , 3, 1900212	12.8	24
44	A highly efficient photoelectrochemical HO production reaction with CoO as a co-catalyst. <i>Chemical Communications</i> , 2018 , 54, 7026-7029	5.8	24
43	Tuning Cu/Cu2O Interfaces for the Reduction of Carbon Dioxide to Methanol in Aqueous Solutions. <i>Angewandte Chemie</i> , 2018 , 130, 15641-15645	3.6	23
42	Achieving convenient CO electroreduction and photovoltage in tandem using potential-insensitive disordered Ag nanoparticles. <i>Chemical Science</i> , 2018 , 9, 6599-6604	9.4	22
41	Efficient CO electroreduction on facet-selective copper films with high conversion rate. <i>Nature Communications</i> , 2021 , 12, 5745	17.4	19
40	Alternative Strategies Toward Sustainable Ammonia Synthesis. <i>Transactions of Tianjin University</i> , 2020 , 26, 67-91	2.9	18
39	Einkristalline Halbleiter mit kleinen Bandlüken fildie solare Wasserspaltung. <i>Angewandte Chemie</i> , 2015 , 127, 10866-10881	3.6	18
38	Zeolite growth by synergy between solution-mediated and solid-phase transformations. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 14360	13	17
37	Transparent Ta2O5 Protective Layer for Stable Silicon Photocathode under Full Solar Spectrum. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 5510-5515	3.9	16
36	Thin Heterojunctions and Spatially Separated Cocatalysts To Simultaneously Reduce Bulk and Surface Recombination in Photocatalysts. <i>Angewandte Chemie</i> , 2016 , 128, 13938-13942	3.6	16
35	Photocatalysis: Selective Deposition of Ag3PO4 on Monoclinic BiVO4(040) for Highly Efficient Photocatalysis (Small 23/2013). <i>Small</i> , 2013 , 9, 3950-3950	11	15
34	Enriched Surface Oxygen Vacancies of Photoanodes by Photoetching with Enhanced Charge Separation. <i>Angewandte Chemie</i> , 2020 , 132, 2060-2064	3.6	15
33	Selective oxidation of methanol to dimethoxymethane over V 2 O 5 /TiO 2 Al 2 O 3 catalysts. <i>Science Bulletin</i> , 2015 , 60, 1009-1018	10.6	13
32	Structure versus Thermal Stability: The Periodic Structure of Atomic Layer Deposition-Grown Al-Incorporated HfO2 Films and Its Effects on Amorphous Stabilization. <i>Chemistry of Materials</i> , 2011 , 23, 1679-1685	9.6	13
31	Construction of uniform buried pn junctions on pyramid Si photocathodes using a facile and safe spin-on method for photoelectrochemical water splitting. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 224	1-230	12
30	Controllable Cu0-Cu+ Sites for Electrocatalytic Reduction of Carbon Dioxide. <i>Angewandte Chemie</i> , 2021 , 133, 15472-15475	3.6	12
29	Controllable Distribution of Oxygen Vacancies in Grain Boundaries of p-Si/TiO Heterojunction Photocathodes for Solar Water Splitting. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 4034-403	37 ^{6.4}	12

28	Optical properties of La-incorporated HfO2 upon crystallization. <i>Applied Physics Letters</i> , 2011 , 98, 1229	0 4 .4	11
27	Dendritic Hematite Nanoarray Photoanode Modified with a Conformal Titanium Dioxide Interlayer for Effective Charge Collection. <i>Angewandte Chemie</i> , 2017 , 129, 13058-13062	3.6	10
26	Adjusting the Reduction Potential of Electrons by Quantum Confinement for Selective Photoreduction of CO2 to Methanol. <i>Angewandte Chemie</i> , 2019 , 131, 3844-3848	3.6	9
25	Subnanoscale Lanthanum Distribution in Lanthanum-Incorporated Hafnium Oxide Thin Films Grown Using Atomic Layer Deposition. <i>Chemistry of Materials</i> , 2010 , 22, 3798-3806	9.6	9
24	Double-Side Si Photoelectrode Enabled by Chemical Passivation for Photoelectrochemical Hydrogen and Oxygen Evolution Reactions. <i>Advanced Functional Materials</i> , 2021 , 31, 2007222	15.6	8
23	Photocatalysts: Monoclinic Porous BiVO4 Networks Decorated by Discrete g-C3N4 Nano-Islands with Tunable Coverage for Highly Efficient Photocatalysis (Small 14/2014). <i>Small</i> , 2014 , 10, 2782-2782	11	7
22	Nanosheets: Tungsten Oxide Single Crystal Nanosheets for Enhanced Multichannel Solar Light Harvesting (Adv. Mater. 9/2015). <i>Advanced Materials</i> , 2015 , 27, 1579-1579	24	7
21	Atomic Layer Deposition of Tantalum-Incorporated Hafnium Dioxide: Strategies to Enhance Thermal Stability. <i>Journal of the Electrochemical Society</i> , 2011 , 158, G185	3.9	6
20	Spatial decoupling of light absorption and reaction sites in n-Si photocathodes for solar water splitting. <i>National Science Review</i> , 2021 , 8, nwaa293	10.8	6
19	Deep Learning Based Modulation Recognition With Multi-Cue Fusion. <i>IEEE Wireless Communications Letters</i> , 2021 , 10, 1757-1760	5.9	5
18	Controllable Distribution of Oxygen Vacancies in Grain Boundaries of p-Si/TiO2 Heterojunction Photocathodes for Solar Water Splitting. <i>Angewandte Chemie</i> , 2021 , 133, 4080-4083	3.6	4
17	Effect of bicarbonate on CO2 electroreduction over cathode catalysts. <i>Fundamental Research</i> , 2021 , 1, 432-438		4
16	Overestimated solar water splitting performance on oxide semiconductor anodes. <i>Science China Materials</i> , 2017 , 60, 90-92	7.1	3
15	Effective Charge Carrier Utilization in Visible-Light-Driven CO2 Conversion. <i>Semiconductors and Semimetals</i> , 2017 , 97, 429-467	0.6	3
14	Simple strategies for fabrication of a periodic mesoporous aluminosilicate with crystalline walls. <i>Small</i> , 2014 , 10, 4249-56	11	3
13	Transparent, High-Performance and Stable Sb S Photoanode Enabled by Heterojunction Engineering with Conjugated Polycarbazole Frameworks for Unbiased Photoelectrochemical Overall Water Splitting Devices <i>Advanced Materials</i> , 2022 , e2200723	24	3
12	Reduction of nonspecific binding for cellular imaging using quantum dots conjugated with vitamin E. <i>AICHE Journal</i> , 2014 , 60, 1591-1597	3.6	2
11	Solar Water Splitting: Mechanistic Understanding of the Plasmonic Enhancement for Solar Water Splitting (Adv. Mater. 36/2015). <i>Advanced Materials</i> , 2015 , 27, 5444-5444	24	2

10	Arificial Leaves for Solar Fuels. Chinese Journal of Chemistry, 2021, 39, 1450-1458	4.9	2
9	Performance Prediction of Multiple Photoanodes Systems for Unbiased Photoelectrochemical Water Splitting 2021 , 3, 939-946		2
8	Innentitelbild: Thin Heterojunctions and Spatially Separated Cocatalysts To Simultaneously Reduce Bulk and Surface Recombination in Photocatalysts (Angew. Chem. 44/2016). <i>Angewandte Chemie</i> , 2016 , 128, 13818-13818	3.6	1
7	Frontispiece: Stable Aqueous Photoelectrochemical CO2 Reduction by a Cu2O Dark Cathode with Improved Selectivity for Carbonaceous Products. <i>Angewandte Chemie - International Edition</i> , 2016 , 55,	16.4	1
6	Titelbild: Tuning Cu/Cu2O Interfaces for the Reduction of Carbon Dioxide to Methanol in Aqueous Solutions (Angew. Chem. 47/2018). <i>Angewandte Chemie</i> , 2018 , 130, 15507-15507	3.6	1
5	InnenrEktitelbild: Surviving High-Temperature Calcination: ZrO2-Induced Hematite Nanotubes for Photoelectrochemical Water Oxidation (Angew. Chem. 15/2017). <i>Angewandte Chemie</i> , 2017 , 129, 4427	-4427	
4	REktitelbild: Promoted Fixation of Molecular Nitrogen with Surface Oxygen Vacancies on Plasmon-Enhanced TiO2 Photoelectrodes (Angew. Chem. 19/2018). <i>Angewandte Chemie</i> , 2018 , 130, 56	5 8-5 65	56
3	Innentitelbild: Synergistic Cocatalytic Effect of Carbon Nanodots and Co3O4 Nanoclusters for the Photoelectrochemical Water Oxidation on Hematite (Angew. Chem. 19/2016). <i>Angewandte Chemie</i> , 2016 , 128, 5704-5704	3.6	
2	Titelbild: Dendritic Hematite Nanoarray Photoanode Modified with a Conformal Titanium Dioxide Interlayer for Effective Charge Collection (Angew. Chem. 42/2017). <i>Angewandte Chemie</i> , 2017 , 129, 12	9 <i>67</i> -12	967
1	The impact of Al2O3 back interface layer on low-temperature growth of ultrathin Cu(In,Ga)Se2	0.7	