Wei Zhou

List of Publications by Citations

92 papers	5,977 citations	35 h-index	77 g-index
99 ext. papers	7,961 ext. citations	11.6 avg, IF	6.49 L-index

#	Paper	IF	Citations
92	Emerging Multifunctional Metal-Organic Framework Materials. *Advanced Materials*, **2016**, 28, 8819-8860	24	955
91	Recent Progress in Metal-Organic Frameworks for Applications in Electrocatalytic and Photocatalytic Water Splitting. *Advanced Science*, **2017**, 4, 1600371	13.6	440
90	In Situ Bond Modulation of Graphitic Carbon Nitride to Construct p□ Homojunctions for Enhanced Photocatalytic Hydrogen Production. *Advanced Functional Materials*, **2016**, 26, 6822-6829	15.6	429
89	Dynamic traction of lattice-confined platinum atoms into mesoporous carbon matrix for hydrogen evolution reaction. *Science Advances*, **2018**, 4, eaao6657	14.3	344
88	Synthesis of Particulate Hierarchical Tandem Heterojunctions toward Optimized Photocatalytic Hydrogen Production. *Advanced Materials*, **2018**, 30, e1804282	24	251
87	Surface Modulation of Hierarchical MoS2 Nanosheets by Ni Single Atoms for Enhanced Electrocatalytic Hydrogen Evolution. *Advanced Functional Materials*, **2018**, 28, 1807086	15.6	237
86	Unveiling the Activity Origin of a Copper-based Electrocatalyst for Selective Nitrate Reduction to Ammonia. *Angewandte Chemie - International Edition*, **2020**, 59, 5350-5354	16.4	232
85	Photoassisted Construction of Holey Defective g-C N Photocatalysts for Efficient Visible-Light-Driven H O Production. *Small*, **2018**, 14, 1703142	11	231
84	A modular strategy for decorating isolated cobalt atoms into multichannel carbon matrix for electrocatalytic oxygen reduction. *Energy and Environmental Science*, **2018**, 11, 1980-1984	35.4	173
83	Intramolecular electronic coupling in porous iron cobalt (oxy)phosphide nanoboxes enhances the electrocatalytic activity for oxygen evolution. *Energy and Environmental Science*, **2019**, 12, 3348-3355	35.4	147
82	Hierarchical MoS Hollow Architectures with Abundant Mo Vacancies for Efficient Sodium Storage. *ACS Nano*, **2019**, 13, 5533-5540	16.7	134
81	Cubic quantum dot/hexagonal microsphere ZnIn2S4 heterophase junctions for exceptional visible-light-driven photocatalytic H2 evolution. *Journal of Materials Chemistry A*, **2017**, 5, 8451-8460	13	132
80	Oxygen vacancies induced special CO2 adsorption modes on Bi2MoO6 for highly selective conversion to CH4. *Applied Catalysis B: Environmental*, **2019**, 259, 118088	21.8	100
79	Direct and Selective Photocatalytic Oxidation of CH to Oxygenates with O on Cocatalysts/ZnO at Room Temperature in Water. *Journal of the American Chemical Society*, **2019**, 141, 20507-20515	16.4	99
78	Unveiling the Promotion of Surface-Adsorbed Chalcogenate on the Electrocatalytic Oxygen Evolution Reaction. *Angewandte Chemie - International Edition*, **2020**, 59, 22470-22474	16.4	93
77	Anion Etching for Accessing Rapid and Deep Self-Reconstruction of Precatalysts for Water Oxidation. *Matter*, **2020**, 3, 2124-2137	12.7	86
76	Improved charge separation and surface activation via boron-doped layered polyhedron SrTiO3 for co-catalyst free photocatalytic CO2 conversion. *Applied Catalysis B: Environmental*, **2017**, 219, 10-17	21.8	85

75	Rational design of freestanding MoS2 monolayers for hydrogen evolution reaction. *Nano Energy*, **2017**, 39, 409-417	17.1	83
74	Isolated Cobalt Centers on WO Nanowires Perform as a Reaction Switch for Efficient CO Photoreduction. *Journal of the American Chemical Society*, **2021**, 143, 2173-2177	16.4	74
73	Band gap engineering of bulk and nanosheet SnO: an insight into the interlayer Sn-Sn lone pair interactions. *Physical Chemistry Chemical Physics*, **2015**, 17, 17816-20	3.6	73
72	Powder exfoliated MoS nanosheets with highly monolayer-rich structures as high-performance lithium-/sodium-ion-battery electrodes. *Nanoscale*, **2019**, 11, 1887-1900	7.7	71
71	Implanting Isolated Ru Atoms into Edge-Rich Carbon Matrix for Efficient Electrocatalytic Hydrogen Evolution. *Advanced Energy Materials*, **2020**, 10, 2000882	21.8	70
70	n-type boron phosphide as a highly stable, metal-free, visible-light-active photocatalyst for hydrogen evolution. *Nano Energy*, **2016**, 28, 158-163	17.1	70
69	Constructing Conductive Interfaces between Nickel Oxide Nanocrystals and Polymer Carbon Nitride for Efficient Electrocatalytic Oxygen Evolution Reaction. *Advanced Functional Materials*, **2019**, 29, 1904020	15.6	70
68	Superficial Hydroxyl and Amino Groups Synergistically Active Polymeric Carbon Nitride for CO2 Electroreduction. *ACS Catalysis*, **2019**, 9, 10983-10989	13.1	66
67	Ultrathin FeOOH nanosheets as an efficient cocatalyst for photocatalytic water oxidation. *Journal of Materials Chemistry A*, **2019**, 7, 9222-9229	13	63
66	Engineering the crystallinity of MoS2 monolayers for highly efficient solar hydrogen production. *Journal of Materials Chemistry A*, **2017**, 5, 8591-8598	13	60
65	Efficient photocatalytic CO2 reduction over Co(II) species modified CdS in aqueous solution. *Applied Catalysis B: Environmental*, **2018**, 226, 252-257	21.8	57
64	Doping CoMoO Nanoplates with Phosphorus for Efficient Hydrogen Evolution Reaction in Alkaline Media. *ACS Applied Materials & Interfaces*, **2018**, 10, 37038-37045	9.5	55
63	Cation Vacancy-Initiated CO2 Photoreduction over ZnS for Efficient Formate Production. *ACS Energy Letters*, **2019**, 4, 1387-1393	20.1	53
62	Interface engineered in situ anchoring of CoS nanoparticles into a multiple doped carbon matrix: highly efficient zinc-air batteries. *Nanoscale*, **2018**, 10, 2649-2657	7.7	53
61	Periodically Ordered Nanoporous Perovskite Photoelectrode for Efficient Photoelectrochemical Water Splitting. *ACS Nano*, **2018**, 12, 6335-6342	16.7	50
60	Barium disilicide as a promising thin-film photovoltaic absorber: structural, electronic, and defect properties. *Journal of Materials Chemistry A*, **2017**, 5, 25293-25302	13	49
59	High performance Au-Cu alloy for enhanced visible-light water splitting driven by coinage metals. *Chemical Communications*, **2016**, 52, 4694-7	5.8	46
58	A rapidly room-temperature-synthesized Cd/ZnS:Cu nanocrystal photocatalyst for highly efficient solar-light-powered CO2 reduction. *Applied Catalysis B: Environmental*, **2018**, 237, 68-73	21.8	42

57	Selective Photo-oxidation of Methane to Methanol with Oxygen over Dual-Cocatalyst-Modified Titanium Dioxide. *ACS Catalysis*, **2020**, 10, 14318-14326	13.1	34
56	Hittorf's violet phosphorene as a promising candidate for optoelectronic and photocatalytic applications: first-principles characterization. *Physical Chemistry Chemical Physics*, **2018**, 20, 11967-11975	3.6	32
55	Probing the role of nickel dopant in aqueous colloidal ZnS nanocrystals for efficient solar-driven CO2 reduction. *Applied Catalysis B: Environmental*, **2019**, 244, 1013-1020	21.8	32
54	Tailoring Band Structure of TiO2 To Enhance Photoelectrochemical Activity by Codoping S and Mg. *Journal of Physical Chemistry C*, **2015**, 119, 11557-11562	3.8	31
53	Spontaneous Direct Band Gap, High Hole Mobility, and Huge Exciton Energy in Atomic-Thin TiO2 Nanosheet. *Chemistry of Materials*, **2018**, 30, 6449-6457	9.6	31
52	Ultrathin graphene encapsulated Cu nanoparticles: A highly stable and efficient catalyst for photocatalytic H2 evolution and degradation of isopropanol. *Chemical Engineering Journal*, **2020**, 390, 124558	14.7	30
51	Open hollow CoPt clusters embedded in carbon nanoflake arrays for highly efficient alkaline water splitting. *Journal of Materials Chemistry A*, **2018**, 6, 20214-20223	13	29
50	Nitrogen-doped ultrathin graphene encapsulated Cu nanoparticles decorated on SrTiO3 as an efficient water oxidation photocatalyst with activity comparable to BiVO4 under visible-light irradiation. *Applied Catalysis B: Environmental*, **2020**, 279, 119352	21.8	27
49	Boron enhances oxygen evolution reaction activity over Ni foam-supported iron boride nanowires. *Journal of Materials Chemistry A*, **2020**, 8, 13638-13645	13	26
48	Construction of Porous Co9S8 Hollow Boxes with Double Open Ends toward High-Performance Half/Full Sodium-Ion Batteries. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 6305-6314	8.3	26
47	Stabilizing CuGaS by crystalline CdS through an interfacial Z-scheme charge transfer for enhanced photocatalytic CO reduction under visible light. *Nanoscale*, **2020**, 12, 8693-8700	7.7	24
46	Tunable Photocatalytic HER Activity of Single-Layered TiO2 Nanosheets with Transition-Metal Doping and Biaxial Strain. *Journal of Physical Chemistry C*, **2019**, 123, 526-533	3.8	23
45	Visible light driven hydrogen evolution using external and confined CdS: Effect of chitosan on carriers separation. *Applied Catalysis B: Environmental*, **2020**, 277, 119152	21.8	21
44	Synthesis of a Boron-Imidazolate Framework Nanosheet with Dimer Copper Units for CO Electroreduction to Ethylene. *Angewandte Chemie - International Edition*, **2021**, 60, 16687-16692	16.4	21
43	Enhanced Visible-Light-Driven Hydrogen Production of Carbon Nitride by Band Structure Tuning. *Journal of Physical Chemistry C*, **2018**, 122, 17261-17267	3.8	20
42	Integrated selective nitrite reduction to ammonia with tetrahydroisoquinoline semi-dehydrogenation over a vacancy-rich Ni bifunctional electrode. *Journal of Materials Chemistry A*, **2021**, 9, 239-243	13	18
41	Hydrogen-Intercalation-Induced Lattice Expansion of Pd@Pt Core-Shell Nanoparticles for Highly Efficient Electrocatalytic Alcohol Oxidation. *Journal of the American Chemical Society*, **2021**, 143, 11262-11270	16.4	18
40	Scaling law of hydrogen evolution reaction for InSe monolayer with 3d transition metals doping and strain engineering. *Journal of Energy Chemistry*, **2020**, 41, 107-114	12	17

39	Tunable electronic and magnetic properties of antimonene system via Fe doping and defect complex: A first-principles perspective. *Applied Surface Science*, **2018**, 448, 281-287	6.7	16
38	Enhanced adsorption of Cr(VI) on BiOBr under alkaline conditions: interlayer anion exchange. *Environmental Science: Nano*, **2019**, 6, 3601-3610	7.1	16
37	Activated HER performance of defected single layered TiO2 nanosheet via transition metal doping. *International Journal of Hydrogen Energy*, **2020**, 45, 2681-2688	6.7	15
36	Built-In Electric Field Hindering Photogenerated Carrier Recombination in Polar Bilayer SnO/BiOX (X = Cl, Br, I) for Water Splitting. *Journal of Physical Chemistry C*, **2020**, 124, 9696-9702	3.8	12
35	Construction of a 3D/2D g-C3N4/ZnIn2S4 hollow spherical heterostructure for efficient CO2 photoreduction under visible light. *Catalysis Science and Technology*, **2021**, 11, 1282-1291	5.5	11
34	Novel optical and magnetic properties of Li-doped quasi-2D manganate Ca3Mn2O7 particles. *Journal of Materials Chemistry C*, **2017**, 5, 7011-7019	7.1	10
33	Amorphous molybdenum sulfide mediated EDTA with multiple active sites to boost heavy metal ions removal. *Chinese Chemical Letters*, **2020**, 32, 2797-2797	8.1	10
32	Fumaric Acid Assistant Band Structure Tunable Nitrogen Defective g-C3N4 Fabrication for Enhanced Photocatalytic Hydrogen Evolution. *ACS Sustainable Chemistry and Engineering*, **2021**, 9, 7529-7540	8.3	10
31	Sulfur-Doped Flowerlike Porous Carbon Derived from Metal□Organic Frameworks as a High-Performance Potassium-Ion Battery Anode. *ACS Applied Energy Materials*, **2021**, 4, 2282-2291	6.1	10
30	Enhanced Lubrication and Photocatalytic Degradation of Liquid Paraffin by Hollow MoS Microspheres. *ACS Omega*, **2018**, 3, 3120-3128	3.9	9
29	Improved photocatalytic HER activity of □Sb monolayer with doping and strain engineering. *Applied Surface Science*, **2020**, 507, 145194	6.7	9
28	Superionic conduction along ordered hydroxyl networks in molecular-thin nanosheets. *Materials Horizons*, **2019**, 6, 2087-2093	14.4	8
27	Efficient photocatalytic CO2 reduction mediated by transitional metal borides: metal site-dependent activity and selectivity. *Journal of Materials Chemistry A*, **2020**, 8, 21833-21841	13	7
26	Band structure and optical properties of MoS2/SnO2 hetero-bilayer from hybrid functional calculations. *Materials Chemistry and Physics*, **2020**, 239, 122071	4.4	7
25	Unravelling unsaturated edge S in amorphous NiSx for boosting photocatalytic H2 evolution of metastable phase CdS confined inside hydrophilic beads. *Applied Catalysis B: Environmental*, **2022**, 305, 121055	21.8	6
24	Tuning the ferromagnetism of a single layered titanium dioxide nanosheet with hole doping and uniaxial strain. *Journal of Physics Condensed Matter*, **2018**, 30, 305804	1.8	5
23	Coexistence of Magnetism and Ferroelectricity in 3d Transition-Metal-Doped SnTe Monolayer. *Journal of Physical Chemistry C*, **2019**, 123, 28919-28924	3.8	5
22	Electronic and Optical Properties of TiO2 Solid-Solution Nanosheets for Bandgap Engineering: A Hybrid Functional Study. *Journal of Physical Chemistry C*, **2017**, 121, 18683-18691	3.8	5

21	Rational Design of a High-Durability Pt-Based ORR Catalyst Supported on Mn/N Codoped Carbon Sheets for PEMFCs. *Energy & Fuels*, **2022**, 36, 1707-1715	4.1	5
20	Unveiling the Origin of Catalytic Sites of Pt Nanoparticles Decorated on Oxygen-Deficient Vanadium-Doped Cobalt Hydroxide Nanosheet for Hybrid Sodium□Air Batteries. *ACS Applied Energy Materials*, **2020**, 3, 7464-7473	6.1	5
19	Computational Design of Copper doped Indium for electrocatalytic Reduction of CO2 to Formic Acid. *ChemCatChem*, **2020**, 12, 5632-5636	5.2	5
18	Large Interlayer Spacing of Few-Layered Cobalt-Tin-Based Sulfide Providing Superior Sodium Storage. *ACS Applied Materials & Interfaces*, **2020**, 12, 41546-41556	9.5	5
17	Tridecaboron diphosphide: a new infrared light active photocatalyst for efficient CO2 photoreduction under mild reaction conditions. *Journal of Materials Chemistry A*, **2021**, 9, 2421-2428	13	5
16	Hydrated electrons mediated in-situ construction of cubic phase CdS/Cd thin layer on a millimeter-scale support for photocatalytic hydrogen evolution. *Journal of Colloid and Interface Science*, **2022**, 607, 769-781	9.3	5
15	Lithium doped nickel oxide nanocrystals with a tuned electronic structure for oxygen evolution reaction. *Chemical Communications*, **2021**, 57, 6070-6073	5.8	5
14	Activated edge of single layered TiO2 nanoribbons through transition metal doping and strain approaches for hydrogen production. *Applied Surface Science*, **2021**, 545, 148947	6.7	4
13	Selectivity Origin of Organic Electrosynthesis Controlled by Electrode Materials: A Case Study on Pinacols. *ACS Catalysis*, **2021**, 11, 8958-8967	13.1	4
12	Viable approach toward efficient p-type conductivity in Al-doped anatase TiO2 via strain engineering. *RSC Advances*, **2017**, 7, 20542-20547	3.7	3
11	Tunable HER activity from doping and strain strategies for □Sb monolayer: DFT calculations. *Computational Materials Science*, **2020**, 185, 109966	3.2	3
10	Single-atom catalysts for thermal- and electro-catalytic hydrogenation reactions. *Journal of Materials Chemistry A*,	13	2
9	Synthesis of a Boron□midazolate Framework Nanosheet with Dimer Copper Units for CO2 Electroreduction to Ethylene. *Angewandte Chemie*, **2021**, 133, 16823-16828	3.6	2
8	Efficient electrochemical water oxidation to hydrogen peroxide over intrinsic carbon defect-rich carbon nanofibers. *Journal of Materials Chemistry A*,	13	2
7	Structure-Designed Preparation of Pod-Like CuCo2S4/rGO as Advanced Anode Material Targeting Superior Sodium Storage. *ChemElectroChem*, **2021**, 8, 3666	4.3	2
6	Constructing Sn(II)-doped SrNb2O6 for visible light response driven H2 and O2 evolution from water. *Catalysis Science and Technology*, **2019**, 9, 3619-3622	5.5	1
5	Prediction of functionalized graphene as potential catalysts for overall water splitting. *Applied Surface Science*, **2022**, 578, 151989	6.7	1
4	Regulating the surface state of ZnIn2S4 by gamma-ray irradiation for enhanced photocatalytic hydrogen evolution. *Catalysis Science and Technology*,	5.5	1

List of Publications

3	Design of BiOBr0.25I0.75 for synergy photoreduction Cr(VI) and capture Cr(III) over wide pH range. *Chinese Chemical Letters*, **2021**,	8.1	1
2	Hollow core-shell Z-scheme heterojunction on self-floating carbon fiber cloth with robust photocatalytic-photothermal performance. *Journal of Cleaner Production*, **2022**, 132166	10.3	0
1	Photocatalysis and hydrogen production from water solution **2020**, 555-577		