

Wei Zhou

List of Publications by Year in descending order

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99
times ranked

11621
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#	ARTICLE	IF	CITATIONS
1	Emerging Multifunctional Metal-Organic Framework Materials. <i>Advanced Materials</i> , 2016, 28, 8819-8860.	21.0	1,227
2	Unveiling the Activity Origin of a Copper-based Electrocatalyst for Selective Nitrate Reduction to Ammonia. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 5350-5354.	13.8	760
3	Recent Progress in Metal-Organic Frameworks for Applications in Electrocatalytic and Photocatalytic Water Splitting. <i>Advanced Science</i> , 2017, 4, 1600371.	11.2	594
4	In Situ Bond Modulation of Graphitic Carbon Nitride to Construct p-n Homojunctions for Enhanced Photocatalytic Hydrogen Production. <i>Advanced Functional Materials</i> , 2016, 26, 6822-6829.	14.9	583
5	Dynamic traction of lattice-confined platinum atoms into mesoporous carbon matrix for hydrogen evolution reaction. <i>Science Advances</i> , 2018, 4, eaao6657.	10.3	460
6	Synthesis of Particulate Hierarchical Tandem Heterojunctions toward Optimized Photocatalytic Hydrogen Production. <i>Advanced Materials</i> , 2018, 30, e1804282.	21.0	411
7	Photoassisted Construction of Holey Defective $\text{g-C}_3\text{N}_4$ Photocatalysts for Efficient Visible-Light-Driven H_2O_2 Production. <i>Small</i> , 2018, 14, 1703142.	10.0	353
8	Surface Modulation of Hierarchical MoS_2 Nanosheets by Ni Single Atoms for Enhanced Electrocatalytic Hydrogen Evolution. <i>Advanced Functional Materials</i> , 2018, 28, 1807086.	14.9	314
9	Unveiling the Promotion of Surface-Adsorbed Chalcogenate on the Electrocatalytic Oxygen Evolution Reaction. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 22470-22474.	13.8	257
10	Direct and Selective Photocatalytic Oxidation of CH_4 to Oxygenates with O_2 on Cocatalysts/ZnO at Room Temperature in Water. <i>Journal of the American Chemical Society</i> , 2019, 141, 20507-20515.	13.7	253
11	Intramolecular electronic coupling in porous iron cobalt (oxy)phosphide nanoboxes enhances the electrocatalytic activity for oxygen evolution. <i>Energy and Environmental Science</i> , 2019, 12, 3348-3355.	30.8	234
12	A modular strategy for decorating isolated cobalt atoms into multichannel carbon matrix for electrocatalytic oxygen reduction. <i>Energy and Environmental Science</i> , 2018, 11, 1980-1984.	30.8	225
13	Oxygen vacancies induced special CO_2 adsorption modes on Bi_2MoO_6 for highly selective conversion to CH_4 . <i>Applied Catalysis B: Environmental</i> , 2019, 259, 118088.	20.2	221
14	Isolated Cobalt Centers on $\text{W}_{18}\text{O}_{49}$ Nanowires Perform as a Reaction Switch for Efficient CO_2 Photoreduction. <i>Journal of the American Chemical Society</i> , 2021, 143, 2173-2177.	13.7	199
15	Hierarchical MoS_2 Hollow Architectures with Abundant Mo Vacancies for Efficient Sodium Storage. <i>ACS Nano</i> , 2019, 13, 5533-5540.	14.6	187
16	Anion Etching for Accessing Rapid and Deep Self-Reconstruction of Precatalysts for Water Oxidation. <i>Matter</i> , 2020, 3, 2124-2137.	10.0	177
17	Cubic quantum dot/hexagonal microsphere ZnIn_2S_4 heterophase junctions for exceptional visible-light-driven photocatalytic H_2 evolution. <i>Journal of Materials Chemistry A</i> , 2017, 5, 8451-8460.	10.3	176
18	Implanting Isolated Ru Atoms into Edge-Rich Carbon Matrix for Efficient Electrocatalytic Hydrogen Evolution. <i>Advanced Energy Materials</i> , 2020, 10, 2000882.	19.5	144

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19	Constructing Conductive Interfaces between Nickel Oxide Nanocrystals and Polymer Carbon Nitride for Efficient Electrocatalytic Oxygen Evolution Reaction. <i>Advanced Functional Materials</i> , 2019, 29, 1904020.	14.9	140
20	Hydrogen-Intercalation-Induced Lattice Expansion of Pd@Pt Core-Shell Nanoparticles for Highly Efficient Electrocatalytic Alcohol Oxidation. <i>Journal of the American Chemical Society</i> , 2021, 143, 11262-11270.	13.7	121
21	Selective Photo-oxidation of Methane to Methanol with Oxygen over Dual-Cocatalyst-Modified Titanium Dioxide. <i>ACS Catalysis</i> , 2020, 10, 14318-14326.	11.2	114
22	Improved charge separation and surface activation via boron-doped layered polyhedron SrTiO ₃ for co-catalyst free photocatalytic CO ₂ conversion. <i>Applied Catalysis B: Environmental</i> , 2017, 219, 10-17.	20.2	113
23	Rational design of freestanding MoS ₂ monolayers for hydrogen evolution reaction. <i>Nano Energy</i> , 2017, 39, 409-417.	16.0	107
24	Superficial Hydroxyl and Amino Groups Synergistically Active Polymeric Carbon Nitride for CO ₂ Electroreduction. <i>ACS Catalysis</i> , 2019, 9, 10983-10989.	11.2	105
25	Cation Vacancy-Initiated CO ₂ Photoreduction over ZnS for Efficient Formate Production. <i>ACS Energy Letters</i> , 2019, 4, 1387-1393.	17.4	102
26	Band gap engineering of bulk and nanosheet SnO: an insight into the interlayer Sn-Sn lone pair interactions. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 17816-17820.	2.8	100
27	Ultrathin FeOOH nanosheets as an efficient cocatalyst for photocatalytic water oxidation. <i>Journal of Materials Chemistry A</i> , 2019, 7, 9222-9229.	10.3	100
28	Synthesis of a Boron-Imidazolate Framework Nanosheet with Dimer Copper Units for CO ₂ Electroreduction to Ethylene. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 16687-16692.	13.8	99
29	n-type boron phosphide as a highly stable, metal-free, visible-light-active photocatalyst for hydrogen evolution. <i>Nano Energy</i> , 2016, 28, 158-163.	16.0	94
30	Powder exfoliated MoS ₂ nanosheets with highly monolayer-rich structures as high-performance lithium-/sodium-ion-battery electrodes. <i>Nanoscale</i> , 2019, 11, 1887-1900.	5.6	93
31	Doping \hat{I}^2 -CoMoO ₄ Nanoplates with Phosphorus for Efficient Hydrogen Evolution Reaction in Alkaline Media. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 37038-37045.	8.0	81
32	Periodically Ordered Nanoporous Perovskite Photoelectrode for Efficient Photoelectrochemical Water Splitting. <i>ACS Nano</i> , 2018, 12, 6335-6342.	14.6	74
33	Efficient photocatalytic CO ₂ reduction over Co(II) species modified CdS in aqueous solution. <i>Applied Catalysis B: Environmental</i> , 2018, 226, 252-257.	20.2	70
34	Engineering the crystallinity of MoS ₂ monolayers for highly efficient solar hydrogen production. <i>Journal of Materials Chemistry A</i> , 2017, 5, 8591-8598.	10.3	69
35	Barium disilicide as a promising thin-film photovoltaic absorber: structural, electronic, and defect properties. <i>Journal of Materials Chemistry A</i> , 2017, 5, 25293-25302.	10.3	68
36	Interface engineered <i>in situ</i> anchoring of Co ₉ S ₈ nanoparticles into a multiple doped carbon matrix: highly efficient zinc-air batteries. <i>Nanoscale</i> , 2018, 10, 2649-2657.	5.6	66

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37	A rapidly room-temperature-synthesized Cd/ZnS:Cu nanocrystal photocatalyst for highly efficient solar-light-powered CO ₂ reduction. <i>Applied Catalysis B: Environmental</i> , 2018, 237, 68-73.	20.2	65
38	Integrated selective nitrite reduction to ammonia with tetrahydroisoquinoline semi-dehydrogenation over a vacancy-rich Ni bifunctional electrode. <i>Journal of Materials Chemistry A</i> , 2021, 9, 239-243.	10.3	65
39	Boron enhances oxygen evolution reaction activity over Ni foam-supported iron boride nanowires. <i>Journal of Materials Chemistry A</i> , 2020, 8, 13638-13645.	10.3	61
40	Unravelling unsaturated edge S in amorphous Ni _x for boosting photocatalytic H ₂ evolution of metastable phase CdS confined inside hydrophilic beads. <i>Applied Catalysis B: Environmental</i> , 2022, 305, 121055.	20.2	58
41	Ultrathin graphene encapsulated Cu nanoparticles: A highly stable and efficient catalyst for photocatalytic H ₂ evolution and degradation of isopropanol. <i>Chemical Engineering Journal</i> , 2020, 390, 124558.	12.7	55
42	High performance Au-Cu alloy for enhanced visible-light water splitting driven by coinage metals. <i>Chemical Communications</i> , 2016, 52, 4694-4697.	4.1	54
43	Spontaneous Direct Band Gap, High Hole Mobility, and Huge Exciton Energy in Atomic-Thin TiO ₂ Nanosheet. <i>Chemistry of Materials</i> , 2018, 30, 6449-6457.	6.7	50
44	Probing the role of nickel dopant in aqueous colloidal ZnS nanocrystals for efficient solar-driven CO ₂ reduction. <i>Applied Catalysis B: Environmental</i> , 2019, 244, 1013-1020.	20.2	50
45	Nitrogen-doped ultrathin graphene encapsulated Cu nanoparticles decorated on SrTiO ₃ as an efficient water oxidation photocatalyst with activity comparable to BiVO ₄ under visible-light irradiation. <i>Applied Catalysis B: Environmental</i> , 2020, 279, 119352.	20.2	47
46	Fumaric Acid Assistant Band Structure Tunable Nitrogen Defective g-C ₃ N ₄ Fabrication for Enhanced Photocatalytic Hydrogen Evolution. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 7529-7540.	6.7	47
47	Construction of Porous Co ₉ S ₈ Hollow Boxes with Double Open Ends toward High-Performance Half/Full Sodium-Ion Batteries. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 6305-6314.	6.7	46
48	Hittorf's violet phosphorene as a promising candidate for optoelectronic and photocatalytic applications: first-principles characterization. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 11967-11975.	2.8	45
49	Selectivity Origin of Organic Electrosynthesis Controlled by Electrode Materials: A Case Study on Pinacols. <i>ACS Catalysis</i> , 2021, 11, 8958-8967.	11.2	45
50	Dissolution of the Heteroatom Dopants and Formation of Ortho-Quinone Moieties in the Doped Carbon Materials during Water Electrooxidation. <i>Journal of the American Chemical Society</i> , 2022, 144, 3250-3258.	13.7	45
51	Open hollow Co-Pt clusters embedded in carbon nanoflake arrays for highly efficient alkaline water splitting. <i>Journal of Materials Chemistry A</i> , 2018, 6, 20214-20223.	10.3	42
52	Stabilizing CuGaS ₂ by crystalline CdS through an interfacial Z-scheme charge transfer for enhanced photocatalytic CO ₂ reduction under visible light. <i>Nanoscale</i> , 2020, 12, 8693-8700.	5.6	39
53	Visible light driven hydrogen evolution using external and confined CdS: Effect of chitosan on carriers separation. <i>Applied Catalysis B: Environmental</i> , 2020, 277, 119152.	20.2	39
54	Tailoring Band Structure of TiO ₂ To Enhance Photoelectrochemical Activity by Codoping S and Mg. <i>Journal of Physical Chemistry C</i> , 2015, 119, 11557-11562.	3.1	34

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55	Tunable Photocatalytic HER Activity of Single-Layered TiO ₂ Nanosheets with Transition-Metal Doping and Biaxial Strain. <i>Journal of Physical Chemistry C</i> , 2019, 123, 526-533.	3.1	34
56	Scaling law of hydrogen evolution reaction for InSe monolayer with 3d transition metals doping and strain engineering. <i>Journal of Energy Chemistry</i> , 2020, 41, 107-114.	12.9	34
57	Pulsed electrocatalysis enables the stabilization and activation of carbon-based catalysts towards H ₂ O ₂ production. <i>Applied Catalysis B: Environmental</i> , 2022, 316, 121688.	20.2	32
58	Amorphous molybdenum sulfide mediated EDTA with multiple active sites to boost heavy metal ions removal. <i>Chinese Chemical Letters</i> , 2021, 32, 2797-2802.	9.0	31
59	Construction of a 3D/2D g-C ₃ N ₄ /ZnIn ₂ S ₄ hollow spherical heterostructure for efficient CO ₂ photoreduction under visible light. <i>Catalysis Science and Technology</i> , 2021, 11, 1282-1291.	4.1	28
60	Sulfur-Doped Flowerlike Porous Carbon Derived from Metal-Organic Frameworks as a High-Performance Potassium-Ion Battery Anode. <i>ACS Applied Energy Materials</i> , 2021, 4, 2282-2291.	5.1	28
61	Enhanced adsorption of Cr(VI) on BiOBr under alkaline conditions: interlayer anion exchange. <i>Environmental Science: Nano</i> , 2019, 6, 3601-3610.	4.3	27
62	Activated HER performance of defected single layered TiO ₂ nanosheet via transition metal doping. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 2681-2688.	7.1	27
63	Tunable electronic and magnetic properties of antimonene system via Fe doping and defect complex: A first-principles perspective. <i>Applied Surface Science</i> , 2018, 448, 281-287.	6.1	24
64	Enhanced Visible-Light-Driven Hydrogen Production of Carbon Nitride by Band Structure Tuning. <i>Journal of Physical Chemistry C</i> , 2018, 122, 17261-17267.	3.1	23
65	Efficient photocatalytic CO ₂ reduction mediated by transitional metal borides: metal site-dependent activity and selectivity. <i>Journal of Materials Chemistry A</i> , 2020, 8, 21833-21841.	10.3	23
66	Superionic conduction along ordered hydroxyl networks in molecular-thin nanosheets. <i>Materials Horizons</i> , 2019, 6, 2087-2093.	12.2	22
67	Built-In Electric Field Hindering Photogenerated Carrier Recombination in Polar Bilayer SnO/BiOX (X =) Tj ETQq1 1 0,784314 reBT /Ove	3.1	22
68	Lithium doped nickel oxide nanocrystals with a tuned electronic structure for oxygen evolution reaction. <i>Chemical Communications</i> , 2021, 57, 6070-6073.	4.1	22
69	Rational Design of a High-Durability Pt-Based ORR Catalyst Supported on Mn/N Codoped Carbon Sheets for PEMFCs. <i>Energy & Fuels</i> , 2022, 36, 1707-1715.	5.1	22
70	Single-atom catalysts for thermal- and electro-catalytic hydrogenation reactions. <i>Journal of Materials Chemistry A</i> , 2022, 10, 5743-5757.	10.3	22
71	Hydrated electrons mediated in-situ construction of cubic phase CdS/Cd thin layer on a millimeter-scale support for photocatalytic hydrogen evolution. <i>Journal of Colloid and Interface Science</i> , 2022, 607, 769-781.	9.4	20
72	Tridecaboron diphosphide: a new infrared light active photocatalyst for efficient CO ₂ photoreduction under mild reaction conditions. <i>Journal of Materials Chemistry A</i> , 2021, 9, 2421-2428.	10.3	19

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73	Novel optical and magnetic properties of Li-doped quasi-2D manganate $\text{Ca}_3\text{Mn}_2\text{O}_7$ particles. <i>Journal of Materials Chemistry C</i> , 2017, 5, 7011-7019.	5.5	18
74	Improved photocatalytic HER activity of In_2S_3 -Sb monolayer with doping and strain engineering. <i>Applied Surface Science</i> , 2020, 507, 145194.	6.1	17
75	Enhanced Lubrication and Photocatalytic Degradation of Liquid Paraffin by Hollow MoS_2 Microspheres. <i>ACS Omega</i> , 2018, 3, 3120-3128.	3.5	14
76	Tunable HER activity from doping and strain strategies for In_2S_3 -Sb monolayer: DFT calculations. <i>Computational Materials Science</i> , 2020, 185, 109966.	3.0	14
77	Fabrication of Ultrathin Two-Dimensional/Two-Dimensional $\text{MoS}_2/\text{ZnIn}_2\text{S}_4$ Hybrid Nanosheets for Highly Efficient Visible-Light-Driven Photocatalytic Hydrogen Evolution. <i>ACS Applied Energy Materials</i> , 2022, 5, 8232-8240.	5.1	14
78	Computational Design of Copper doped Indium for electrocatalytic Reduction of CO_2 to Formic Acid. <i>ChemCatChem</i> , 2020, 12, 5632-5636.	3.7	13
79	Design of $\text{BiOBr}_{0.25}\text{I}_{0.75}$ for synergy photoreduction Cr(VI) and capture Cr(III) over wide pH range. <i>Chinese Chemical Letters</i> , 2022, 33, 3053-3060.	9.0	13
80	Coexistence of Magnetism and Ferroelectricity in 3d Transition-Metal-Doped SnTe Monolayer. <i>Journal of Physical Chemistry C</i> , 2019, 123, 28919-28924.	3.1	12
81	Band structure and optical properties of $\text{MoS}_2/\text{SnO}_2$ hetero-bilayer from hybrid functional calculations. <i>Materials Chemistry and Physics</i> , 2020, 239, 122071.	4.0	11
82	Large Interlayer Spacing of Few-Layered Cobalt-Tin-Based Sulfide Providing Superior Sodium Storage. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 41546-41556.	8.0	11
83	Efficient electrochemical water oxidation to hydrogen peroxide over intrinsic carbon defect-rich carbon nanofibers. <i>Journal of Materials Chemistry A</i> , 2021, 9, 23994-24001.	10.3	11
84	Hollow core-shell Z-scheme heterojunction on self-floating carbon fiber cloth with robust photocatalytic-photothermal performance. <i>Journal of Cleaner Production</i> , 2022, 360, 132166.	9.3	11
85	Activated edge of single layered TiO_2 nanoribbons through transition metal doping and strain approaches for hydrogen production. <i>Applied Surface Science</i> , 2021, 545, 148947.	6.1	10
86	Synthesis of a Boron-Imidazolate Framework Nanosheet with Dimer Copper Units for CO_2 Electroreduction to Ethylene. <i>Angewandte Chemie</i> , 2021, 133, 16823-16828.	2.0	10
87	Transition-metal hydroxide nanosheets with peculiar double-layer structures as efficient electrocatalysts. <i>Chem Catalysis</i> , 2022, 2, 867-882.	6.1	10
88	Unveiling the Origin of Catalytic Sites of Pt Nanoparticles Decorated on Oxygen-Deficient Vanadium-Doped Cobalt Hydroxide Nanosheet for Hybrid Sodium-Air Batteries. <i>ACS Applied Energy Materials</i> , 2020, 3, 7464-7473.	5.1	9
89	Regulating the surface state of ZnIn_2S_4 by gamma-ray irradiation for enhanced photocatalytic hydrogen evolution. <i>Catalysis Science and Technology</i> , 2022, 12, 927-934.	4.1	9
90	Prediction of functionalized graphene as potential catalysts for overall water splitting. <i>Applied Surface Science</i> , 2022, 578, 151989.	6.1	8

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91	Pt-Ni Alloy Nanoparticles via High-Temperature Shock as Efficient Electrocatalysts in the Oxygen Reduction Reaction. ACS Applied Nano Materials, 2022, 5, 8243-8250.	5.0	8
92	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	6
93	Electronic and Optical Properties of TiO ₂ Solid-Solution Nanosheets for Bandgap Engineering: A Hybrid Functional Study. Journal of Physical Chemistry C, 2017, 121, 18683-18691.	3.1	5
94	First-principles study of the quasi-one-dimensional organic-inorganic hybrid perovskites MVCl_3		