Zhaowu Wang

List of Publications by Year
in descending order

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60 papers	4,759 citations	109311 35 h-index	133244 59 g-index
60 all docs	60 docs citations	60 times ranked	4219 citing authors

#	Article	IF	Citations
1	Ultrathin FeOOH Nanolayers with Abundant Oxygen Vacancies on BiVO₄ Photoanodes for Efficient Water Oxidation. Angewandte Chemie - International Edition, 2018, 57, 2248-2252.	13.8	558
2	Photoanodes based on TiO₂and Î±-Fe₂O₃for solar water splitting â€“ superior role of 1D nanoarchitectures and of combined heterostructures. Chemical Society Reviews, 2017, 46, 3716-3769.	38.1	535
3	Anionâ€Modulated HER and OER Activities of 3D Niâ€“Vâ€Based Interstitial Compound Heterojunctions for Highâ€Efficiency and Stable Overall Water Splitting. Advanced Materials, 2019, 31, e1901174.	21.0	479
4	Preparation of heterometallic CoNi-MOFs-modified BiVO4: a steady photoanode for improved performance in photoelectrochemical water splitting. Applied Catalysis B: Environmental, 2020, 266, 118513.	20.2	208
5	Towards Longâ€Term Photostability of Nickel Hydroxide/BiVO₄ Photoanodes for Oxygen Evolution Catalysts via Inâ€…Situ Catalyst Tuning. Angewandte Chemie - International Edition, 2020, 59, 6213-6218.	13.8	169
6	Promoting the hydrogen evolution reaction through oxygen vacancies and phase transformation engineering on layered double hydroxide nanosheets. Journal of Materials Chemistry A, 2020, 8, 2490-2497.	10.3	159
7	Tantalum Nitride Nanorod Arrays: Introducing Niâ€“Fe Layered Double Hydroxides as a Cocatalyst Strongly Stabilizing Photoanodes in Water Splitting. Chemistry of Materials, 2015, 27, 2360-2366.	6.7	158
8	Stable Cocatalystâ€Free BiVO₄ Photoanodes with Passivated Surface States for Photocorrosion Inhibition. Angewandte Chemie - International Edition, 2020, 59, 23094-23099.	13.8	154
9	Fabrication of BiVO4 photoanode cocatalyzed with NiCo-layered double hydroxide for enhanced photoactivity of water oxidation. Applied Catalysis B: Environmental, 2020, 263, 118280.	20.2	139
10	Super-hydrophilic CoAl-LDH on BiVO4 for enhanced photoelectrochemical water oxidation activity. Applied Catalysis B: Environmental, 2021, 286, 119875.	20.2	119
11	Strongly Enhanced Water Splitting Performance of Ta₃N₅ Nanotube Photoanodes with Subnitrides. Advanced Materials, 2016, 28, 2432-2438.	21.0	106
12	Study of active sites on Se-MnS/NiS heterojunctions as highly efficient bifunctional electrocatalysts for overall water splitting. Journal of Materials Chemistry A, 2019, 7, 26975-26983.	10.3	104
13	Hematite Photoanodes: Synergetic Enhancement of Light Harvesting and Charge Management by Sandwiched with Fe₂TiO₅/Fe₂O₃/Pt Structures. Advanced Functional Materials, 2017, 27, 1703527.	14.9	96
14	Influence of chloride, sulfate and bicarbonate anions on the corrosion behavior of AZ31 magnesium alloy. Journal of Alloys and Compounds, 2010, 496, 500-507.	5.5	94
15	Ptâ€Induced Defects Curing on BiVO₄ Photoanodes for Nearâ€Threshold Charge Separation. Advanced Energy Materials, 2021, 11, 2102384.	19.5	76
16	C/N Vacancy Coâ€Enhanced Visibleâ€Lightâ€Driven Hydrogen Evolution of gâ€C₃N₄ Nanosheets Through Controlled He⁺ Ion Irradiation. Solar Rrl, 2019, 3, 1800298.	5.8	75
17	Stable Unbiased Photoâ€Electrochemical Overall Water Splitting Exceeding 3% Efficiency via Covalent Triazine Framework/Metal Oxide Hybrid Photoelectrodes. Advanced Materials, 2021, 33, e2008264.	21.0	74
18	Synergistic effects of P-doping and a MnO₂ cocatalyst on Fe₂O₃ nanorod photoanodes for efficient solar water splitting. Journal of Materials Chemistry A, 2018, 6, 7021-7026.	10.3	71

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19	Photoâ€driven Oxygen Vacancies Extends Charge Carrier Lifetime for Efficient Solar Water Splitting. Angewandte Chemie - International Edition, 2021, 60, 17601-17607.	13.8	67
20	Oxygen-Vacancy-Dominated Cocatalyst/Hematite Interface for Boosting Solar Water Splitting. ACS Applied Materials & Interfaces, 2019, 11, 22272-22277.	8.0	66
21	Yttrium-Induced Regulation of Electron Density in NiFe Layered Double Hydroxides Yields Stable Solar Water Splitting. ACS Catalysis, 2020, 10, 10570-10576.	11.2	66
22	Enhanced Solar Water Splitting by Swift Charge Separation in Au/FeOOH Sandwiched Singleâ€Crystalline Fe₂O₃ Nanoflake Photoelectrodes. ChemSusChem, 2017, 10, 2720-2727.	6.8	60
23	One-step hydrothermal deposition of F:FeOOH onto BiVO4 photoanode for enhanced water oxidation. Chemical Engineering Journal, 2020, 392, 123703.	12.7	60
24	In situ construction of hybrid Co(OH)2 nanowires for promoting long-term water splitting. Applied Catalysis B: Environmental, 2021, 292, 120063.	20.2	58
25	Ultrathin FeOOH Nanolayers with Abundant Oxygen Vacancies on BiVO₄ Photoanodes for Efficient Water Oxidation. Angewandte Chemie, 2018, 130, 2270-2274.	2.0	57
26	One-dimensional hematite photoanodes with spatially separated Pt and FeOOH nanolayers for efficient solar water splitting. Journal of Materials Chemistry A, 2017, 5, 17056-17063.	10.3	55
27	Steering electron transfer using interface engineering on front-illuminated robust BiVO4 photoanodes. Nano Energy, 2021, 89, 106360.	16.0	53
28	Plasma-Induced Vacancy Defects in Oxygen Evolution Cocatalysts on Ta₃N₅ Photoanodes Promoting Solar Water Splitting. ACS Catalysis, 2018, 8, 10564-10572.	11.2	52
29	Towards Longâ€Term Photostability of Nickel Hydroxide/BiVO₄ Photoanodes for Oxygen Evolution Catalysts via Inâ€…Situ Catalyst Tuning. Angewandte Chemie, 2020, 132, 6272-6277.	2.0	52
30	Preparation of double-layered Coâ€'Ci/NiFeOOH co-catalyst for highly meliorated PEC performance in water splitting. , 2022, 1, 100024.		46
31	Constructing NiFe-metal-organic frameworks from NiFe-layered double hydroxide as a highly efficient cocatalyst for BiVO4 photoanode PEC water splitting. Chemical Engineering Journal, 2022, 433, 133592.	12.7	43
32	Interface-Confined Surface Engineering via Photoelectrochemical Etching toward Solar Neutral Water Splitting. ACS Catalysis, 2022, 12, 1686-1696.	11.2	42
33	Efficient hydrogen production from MIL-53(Fe) catalyst-modified Mo:BiVO₄ photoelectrodes. Catalysis Science and Technology, 2017, 7, 4971-4976.	4.1	41
34	Enhanced Charge Transport in Tantalum Nitride Nanotube Photoanodes for Solar Water Splitting. ChemSusChem, 2015, 8, 2615-2620.	6.8	40
35	Novel highly active and self-healing Co(CO₃)_xOH_y cocatalysts on BiVO₄ photoanodes for effective solar water oxidation. Journal of Materials Chemistry A, 2020, 8, 2563-2570.	10.3	40
36	Ultrastable and high-performance seawater-based photoelectrolysis system for solar hydrogen generation. Applied Catalysis B: Environmental, 2022, 304, 120883.	20.2	39

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37	Atomically embedded Ag on transition metal hydroxides triggers the lattice oxygen towards sustained seawater electrolysis. Nano Energy, 2022, 98, 107212.	16.0	37
38	The hydrophilic treatment of a novel co-catalyst for greatly improving the solar water splitting performance over Mo-doped bismuth vanadate. Journal of Colloid and Interface Science, 2022, 607, 219-228.	9.4	35
39	Phosphorus doped two-dimensional CoFe₂O₄ nanobelts decorated with Ru nanoclusters and Coâ€“Fe hydroxide as efficient electrocatalysts toward hydrogen generation. Inorganic Chemistry Frontiers, 2022, 9, 1847-1855.	6.0	34
40	Tungsten induced defects control on BiVO4 photoanodes for enhanced solar water splitting performance and photocorrosion resistance. Applied Catalysis B: Environmental, 2021, 298, 120610.	20.2	32
41	A Transparent, Highâ€Performance, and Stable Sb₂S₃ Photoanode Enabled by Heterojunction Engineering with Conjugated Polycarbazole Frameworks for Unbiased Photoelectrochemical Overall Water Splitting Devices. Advanced Materials, 2022, 34, e2200723.	21.0	30
42	Manganese-based oxygen evolution catalysts boosting stable solar-driven water splitting: MnSe as an intermetallic phase. Journal of Materials Chemistry A, 2020, 8, 25298-25305.	10.3	28
43	Boosting the stability of BiVO₄ photoanodes: in situ cocatalyst passivation and immobilization by functional fluorine anions. Journal of Materials Chemistry A, 2021, 9, 6298-6305.	10.3	28
44	Hematite dodecahedron crystals with high-index facets grown and grafted on one dimensional structures for efficient photoelectrochemical H2 generation. Nano Energy, 2018, 50, 331-338.	16.0	25
45	Reduction of charge carrier recombination by Ce gradient doping and surface polarization for solar water splitting. Chemical Engineering Journal, 2022, 448, 137602.	12.7	22
46	A bridging coordination of urea tailoring metal hydroxides oxygen evolution catalysts promotes stable solar water splitting. Chemical Engineering Journal, 2021, 426, 131062.	12.7	21
47	NiMoO_x as a highly protective layer against photocorrosion for solar seawater splitting. Journal of Materials Chemistry A, 2022, 10, 1270-1277.	10.3	20
48	Stable Cocatalystâ€Free BiVO₄ Photoanodes with Passivated Surface States for Photocorrosion Inhibition. Angewandte Chemie, 2020, 132, 23294-23299.	2.0	19
49	Interface-engineered hematite nanocones as binder-free electrodes for high-performance lithium-ion batteries. Journal of Materials Chemistry A, 2018, 6, 13968-13974.	10.3	18
50	Simultaneous reduction of surface, bulk, and interface recombination for Au nanoparticle-embedded hematite nanorod photoanodes toward efficient water splitting. Journal of Materials Chemistry A, 2019, 7, 5258-5265.	10.3	17
51	Fe2Mo3O8/MoO2@C composites with pseudocapacitive properties and fast diffusion kinetics for the anode of Lithium-Ion batteries. Chemical Engineering Journal, 2022, 431, 133984.	12.7	16
52	A significant cathodic shift in the onset potential of photoelectrochemical water splitting for hematite nanostructures grown from Feâ€“Si alloys. Materials Horizons, 2014, 1, 344-347.	12.2	15
53	Synthesis of free-standing Ta₃N₅nanotube membranes and flow-through visible light photocatalytic applications. Chemical Communications, 2017, 53, 11763-11766.	4.1	13
54	A general method for large-scale fabrication of metal nanoparticles embedded N-doped carbon fiber cloth with highly efficient hydrogen production in all pH range. Electrochimica Acta, 2020, 353, 136475.	5.2	9

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55	Ultrathin FeF_x nanolayers accelerating hole transfer for enhanced photoelectrochemical water oxidation. Journal of Materials Chemistry A, 2018, 6, 19342-19346.	10.3	8
56	Photoâ€driven Oxygen Vacancies Extends Charge Carrier Lifetime for Efficient Solar Water Splitting. Angewandte Chemie, 2021, 133, 17742-17748.	2.0	6
57	Nano SnO₂ in Flexible Carbon Spaces Protected by Rigid TiO₂ for Efficient Reversible Lithium Storage. ChemistrySelect, 2018, 3, 12712-12717.	1.5	5
58	Tantalum nitride nanotube photoanodes: Establishing a beneficial back-contact by lift-off and transfer to titanium nitride layer. Electrochemistry Communications, 2016, 72, 27-31.	4.7	4
59	C/N Vacancy Coâ€Enhanced Visibleâ€Lightâ€Driven Hydrogen Evolution of gâ€C₃N₄ Nanosheets Through Controlled He⁺ Ion Irradiation (Solar RRL 4â•2019). Solar Rrl, 2019, 3, 1970043.	5.8	3
60	Enhanced performance of NiF2/BiVO4 photoanode for photoelectrochemical water splitting. Frontiers in Energy, 2021, 15, 760-771.	2.3	3