Xiongwei Zhong

List of Publications by Year
in descending order

83 papers	6,353 citations	47006 47 h-index	66911 78 g-index
84 all docs	84 docs citations	84 times ranked	7147 citing authors

#	Article	IF	Citations
1	Carbon Nanotubes for Supercapacitor. Nanoscale Research Letters, 2010, 5, 654-668.	5.7	650
2	Engineering dâ€p Orbital Hybridization in Singleâ€Atom Metalâ€Embedded Threeâ€Dimensional Electrodes for Liâ€“S Batteries. Advanced Materials, 2021, 33, e2105947.	21.0	209
3	Liâ€“CO₂ and Naâ€“CO₂ Batteries: Toward Greener and Sustainable Electrical Energy Storage. Advanced Materials, 2020, 32, e1903790.	21.0	200
4	Facile Synthesis of Vanadium-Doped Ni₃S₂ Nanowire Arrays as Active Electrocatalyst for Hydrogen Evolution Reaction. ACS Applied Materials & Interfaces, 2017, 9, 5959-5967.	8.0	196
5	Principles on design and fabrication of nanomaterials as photocatalysts for water-splitting. Renewable and Sustainable Energy Reviews, 2016, 57, 584-601.	16.4	192
6	Synergistic effect of 2D Ti₂C and g-C₃N₄ for efficient photocatalytic hydrogen production. Journal of Materials Chemistry A, 2017, 5, 16748-16756.	10.3	192
7	Ultra-high electrocatalytic activity of VS₂ nanoflowers for efficient hydrogen evolution reaction. Journal of Materials Chemistry A, 2017, 5, 15080-15086.	10.3	189
8	Co single-atom anchored on Co3O4 and nitrogen-doped active carbon toward bifunctional catalyst for zinc-air batteries. Applied Catalysis B: Environmental, 2020, 260, 118188.	20.2	163
9	Surface Reconstruction and Phase Transition on Vanadiumâ€“Cobaltâ€“Iron Trimetal Nitrides to Form Active Oxyhydroxide for Enhanced Electrocatalytic Water Oxidation. Advanced Energy Materials, 2020, 10, 2002464.	19.5	155
10	Optimizing Ion Pathway in Titanium Carbide MXene for Practical Highâ€Rate Supercapacitor. Advanced Energy Materials, 2021, 11, 2003025.	19.5	152
11	Metal Dichalcogenides Monolayers: Novel Catalysts for Electrochemical Hydrogen Production. Scientific Reports, 2014, 4, 5348.	3.3	151
12	Effects of H-, N-, and (H, N)-Doping on the Photocatalytic Activity of TiO₂. Journal of Physical Chemistry C, 2011, 115, 12224-12231.	3.1	144
13	3D heterostructured pure and N-Doped Ni3S2/VS2 nanosheets for high efficient overall water splitting. Electrochimica Acta, 2018, 269, 55-61.	5.2	132
14	Development of Electrocatalysts for Efficient Nitrogen Reduction Reaction under Ambient Condition. Advanced Functional Materials, 2021, 31, 2008983.	14.9	124
15	Engineering Pt and Fe dual-metal single atoms anchored on nitrogen-doped carbon with high activity and durability towards oxygen reduction reaction for zinc-air battery. Applied Catalysis B: Environmental, 2021, 286, 119891.	20.2	122
16	Ab Initio Study on a Novel Photocatalyst: Functionalized Graphitic Carbon Nitride Nanotube. ACS Catalysis, 2011, 1, 99-104.	11.2	118
17	Supercapacitor Electrodes from Tubes-in-Tube Carbon Nanostructures. Chemistry of Materials, 2007, 19, 6120-6125.	6.7	116
18	Electronic and Magnetic Properties of Vanadium Dichalcogenides Monolayers Tuned by Hydrogenation. Journal of Physical Chemistry C, 2014, 118, 13248-13253.	3.1	109

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19	Grapheneâ€Supported Atomically Dispersed Metals as Bifunctional Catalysts for Nextâ€Generation Batteries Based on Conversion Reactions. Advanced Materials, 2022, 34, e2105812.	21.0	106
20	Ultra-high electrochemical catalytic activity of MXenes. Scientific Reports, 2016, 6, 32531.	3.3	105
21	Amorphous NiWO4 nanoparticles boosting the alkaline hydrogen evolution performance of Ni3S2 electrocatalysts. Applied Catalysis B: Environmental, 2020, 274, 119120.	20.2	99
22	Biopolymer-chitosan based supramolecular hydrogels as solid state electrolytes for electrochemical energy storage. Chemical Communications, 2017, 53, 1615-1618.	4.1	91
23	Vanadium disulfide decorated graphitic carbon nitride for super-efficient solar-driven hydrogen evolution. Applied Catalysis B: Environmental, 2018, 237, 295-301.	20.2	89
24	Recycling spent LiNi _{1-x-y} Mn _x Co _y O ₂ cathodes to bifunctional NiMnCo catalysts for zinc-air batteries. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2202202119.	7.1	89
25	A first-principles study on the hydrogen evolution reaction of VS₂ nanoribbons. Physical Chemistry Chemical Physics, 2015, 17, 24820-24825.	2.8	88
26	Efficient coupling of a hierarchical V₂O₅@Ni₃S₂hybrid nanoarray for pseudocapacitors and hydrogen production. Journal of Materials Chemistry A, 2017, 5, 17954-17962.	10.3	88
27	Multiâ€Phase Heterostructure of CoNiP/Co_xP for Enhanced Hydrogen Evolution Under Alkaline and Seawater Conditions by Promoting H₂O Dissociation. Small, 2021, 17, e2007557.	10.0	83
28	High-Performance Sodium-Ion Batteries Based on Nitrogen-Doped Mesoporous Carbon Spheres with Ultrathin Nanosheets. ACS Applied Materials & Interfaces, 2019, 11, 2970-2977.	8.0	82
29	In-situ growth of nanoparticles-decorated double perovskite electrode materials for symmetrical solid oxide cells. Applied Catalysis B: Environmental, 2020, 270, 118842.	20.2	82
30	Two-dimensional materials as novel co-catalysts for efficient solar-driven hydrogen production. Journal of Materials Chemistry A, 2020, 8, 23202-23230.	10.3	81
31	Remarkable synergistic effect in cobalt-iron nitride/alloy nanosheets for robust electrochemical water splitting. Journal of Energy Chemistry, 2022, 65, 405-414.	12.9	81
32	WX_y/gâ€C₃N₄ (WX_y=W₂C,) Tj ETQq0 0 0 rgBT /Overlo Splitting. ChemSusChem, 2019, 12, 3355-3362.	6.8	78
33	Atomically Dispersed Heteronuclear Dualâ€Atom Catalysts: A New Rising Star in Atomic Catalysis. Small, 2022, 18, e2106091.	10.0	78
34	Regulating Polysulfide Redox Kinetics on a Selfâ€Healing Electrode for Highâ€Performance Flexible Lithiumâ€Sulfur Batteries. Advanced Functional Materials, 2022, 32, .	14.9	74
35	Engineering the Active Sites of Graphene Catalyst: From CO₂ Activation to Activate Li-CO₂ Batteries. ACS Nano, 2021, 15, 9841-9850.	14.6	71
36	Development of Perovskite Oxideâ€Based Electrocatalysts for Oxygen Evolution Reaction. Small, 2021, 17, e2101605.	10.0	71

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37	Two-Dimensional Layered Materials: High-Efficient Electrocatalysts for Hydrogen Evolution Reaction. ACS Applied Nano Materials, 2020, 3, 6270-6296.	5.0	70
38	Phase-Dependent Photocatalytic Ability of TiO₂: A First-Principles Study. Journal of Chemical Theory and Computation, 2009, 5, 3074-3078.	5.3	68
39	Cross-linking of polymer and ionic liquid as high-performance gel electrolyte for flexible solid-state supercapacitors. Electrochimica Acta, 2017, 244, 112-118.	5.2	68
40	Carbonized MoS₂: Super-Active Co-Catalyst for Highly Efficient Water Splitting on CdS. ACS Sustainable Chemistry and Engineering, 2019, 7, 4220-4229.	6.7	68
41	Highly improved electrocatalytic activity of NiSx: Effects of Cr-doping and phase transition. Applied Catalysis B: Environmental, 2020, 267, 118721.	20.2	68
42	Direct Z-scheme construction of g-C3N4 quantum dots / TiO2 nanoflakes for efficient photocatalysis. Chemical Engineering Journal, 2022, 430, 132861.	12.7	63
43	GaN/ZnO superlattice nanowires as photocatalyst for hydrogen generation: A first-principles study on electronic and magnetic properties. Nano Energy, 2012, 1, 488-493.	16.0	60
44	Synergistic effects of multiple functional ionic liquid-treated PEDOT:PSS and less-ion-defects S-acetylthiocholine chloride-passivated perovskite surface enabling stable and hysteresis-free inverted perovskite solar cells with conversion efficiency over 20%. Nano Energy, 2019, 63, 103866.	16.0	60
45	WS₂ Nanosheets with Highlyâ€Enhanced Electrochemical Activity by Facile Control of Sulfur Vacancies. ChemCatChem, 2019, 11, 2667-2675.	3.7	57
46	Fabrication and characterization of brookite-rich, visible light-active TiO2 films for water splitting. Applied Catalysis B: Environmental, 2009, 93, 90-95.	20.2	54
47	Hole-transporting layer based on a conjugated polyelectrolyte with organic cations enables efficient inverted perovskite solar cells. Nano Energy, 2019, 57, 248-255.	16.0	52
48	Toward an Understanding of the Reversible Li-CO₂ Batteries over Metalâ€“N₄-Functionalized Graphene Electrocatalysts. ACS Nano, 2022, 16, 1523-1532.	14.6	52
49	Stabilized Solid Electrolyte Interphase Induced by Ultrathin Boron Nitride Membranes for Safe Lithium Metal Batteries. Nano Letters, 2021, 21, 8447-8454.	9.1	51
50	Freestanding and Sandwich MXene-Based Cathode with Suppressed Lithium Polysulfides Shuttle for Flexible Lithiumâ€“Sulfur Batteries. Nano Letters, 2022, 22, 1207-1216.	9.1	49
51	Co3O4/Mn3O4 hybrid catalysts with heterointerfaces as bifunctional catalysts for Zn-air batteries. Journal of Energy Chemistry, 2022, 68, 679-687.	12.9	47
52	Ultrafine WC_{1â€“x} Nanocrystals: An Efficient Cocatalyst for the Significant Enhancement of Photocatalytic Hydrogen Evolution on g-C₃N₄. Journal of Physical Chemistry C, 2019, 123, 26136-26144.	3.1	33
53	Coordination of Ï€-Delocalization in g-C₃N₄ for Efficient Photocatalytic Hydrogen Evolution under Visible Light. ACS Applied Materials & Interfaces, 2021, 13, 20114-20124.	8.0	33
54	Combined Experimental and Theoretical Assessment of WX_y (X = C, N, S, P) for Hydrogen Evolution Reaction. ACS Applied Energy Materials, 2020, 3, 1082-1088.	5.1	32

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55	Design of novel pentagonal 2D transitional-metal sulphide monolayers for hydrogen evolution reaction. International Journal of Hydrogen Energy, 2020, 45, 16201-16209.	7.1	32
56	Effect of Doping on Hydrogen Evolution Reaction of Vanadium Disulfide Monolayer. Nanoscale Research Letters, 2015, 10, 480.	5.7	31
57	Laser writing of the restacked titanium carbide MXene for high performance supercapacitors. Energy Storage Materials, 2020, 32, 418-424.	18.0	31
58	Aligned Carbonâ€Based Electrodes for Fastâ€Charging Batteries: A Review. Small, 2021, 17, e2007676.	10.0	30
59	Redox inactive ion meliorated BaCo0.4Fe0.4Zr0.1Y0.1O3â^'Î´ perovskite oxides as efficient electrocatalysts for the oxygen evolution reaction. Journal of Materials Chemistry A, 2018, 6, 17288-17296.	10.3	28
60	In-situ and selectively laser reduced graphene oxide sheets as excellent conductive additive for high rate capability LiFePO4 lithium ion batteries. Journal of Power Sources, 2019, 412, 677-682.	7.8	27
61	3D Vâ€"Ni3S2@CoFe-LDH core-shell electrocatalysts for efficient water oxidation. International Journal of Hydrogen Energy, 2021, 46, 39636-39644.	7.1	26
62	N and V Coincorporated Ni Nanosheets for Enhanced Hydrogen Evolution Reaction. ACS Sustainable Chemistry and Engineering, 2018, 6, 16525-16531.	6.7	25
63	Mo incorporated Ni nanosheet as high-efficiency co-catalyst for enhancing the photocatalytic hydrogen production of g-C3N4. International Journal of Hydrogen Energy, 2020, 45, 18912-18921.	7.1	25
64	Enhancement of Visibleâ€Light Photocatalytic Hydrogen Production by CeCO₃OH in gâ€C₃N₄/CeO₂ System. ChemCatChem, 2019, 11, 1069-1075.	3.7	24
65	MXenes: Novel electrocatalysts for hydrogen production and nitrogen reduction. Catalysis Today, 2021, 370, 2-13.	4.4	22
66	Photocatalysis over MXene-based hybrids: Synthesis, surface chemistry, and interfacial charge kinetics. APL Materials, 2021, 9, .	5.1	20
67	Surface reconstruction on silver nanoparticles decorated trimetallic hydroxide nanosheets to generate highly active oxygen-deficient (oxy)hydroxide layer for high-efficient water oxidation. Chemical Engineering Journal, 2021, 425, 131662.	12.7	19
68	Temperature Dependence on Density, Viscosity, and Electrical Conductivity of Ionic Liquid 1-Ethyl-3-Methylimidazolium Fluoride. Applied Sciences (Switzerland), 2018, 8, 356.	2.5	17
69	Cobalt/titanium nitride@N-doped carbon hybrids for enhanced electrocatalytic hydrogen evolution and supercapacitance. New Journal of Chemistry, 2019, 43, 14518-14526.	2.8	17
70	Co3Mo3N nanosheets arrays on nickel foam as highly efficient bifunctional electrocatalysts for overall urea electrolysis. International Journal of Hydrogen Energy, 2022, 47, 11447-11455.	7.1	17
71	Networkâ€Like Ni_{1â^'x}Mo_x Nanosheets: Multiâ€Functional Electrodes for Overall Water Splitting and Supercapacitor. ChemElectroChem, 2019, 6, 1338-1343.	3.4	16
72	Co₂N_{0.67}/MoO₂ Heterostructure as High-Efficiency Electrocatalysts for the Hydrogen Evolution Reaction. ACS Applied Energy Materials, 2022, 5, 440-448.	5.1	15

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73	A laser synthesis of vanadium oxide bonded graphene for high-rate supercapacitors. Journal of Energy Chemistry, 2020, 49, 174-178.	12.9	12
74	In situ surface reconstruction on LaCoO3â˜Î´ leads to enhanced hydrogen evolution reaction. Journal of Alloys and Compounds, 2022, 891, 161754.	5.5	11
75	A novel Mn/Co dual nanoparticle decorated hierarchical carbon structure derived from a biopolymer hydrogel as a highly efficient electro-catalyst for the oxygen reduction reaction. Chemical Communications, 2019, 55, 13900-13903.	4.1	10
76	Quaternary-metal phosphide as electrocatalyst for efficient hydrogen evolution reaction in alkaline solution. International Journal of Hydrogen Energy, 2021, 46, 18878-18886.	7.1	10
77	Evaluation of A-Site Ba2+-Deficient Ba1â˜xCo0.4Fe0.4Zr0.1Y0.1O3â˜Î´ Oxides as Electrocatalysts for Efficient Hydrogen Evolution Reaction. Scanning, 2018, 2018, 1-10.	1.5	9
78	Synchrotron Xâ€ray Spectroscopic Investigations of Inâ€Situâ€Formed Alloy Anodes for Magnesium Batteries. Advanced Materials, 2022, 34, e2108688.	21.0	9
79	Twoâ€Dimensional Dirac Nodal Line Carbon Nitride to Anchor Singleâ€Atom Catalyst for Oxygen Reduction Reaction. ChemSusChem, 2022, 15, e202102537.	6.8	9
80	Insightful view on the active sites of Ni/NixP for hydrogen evolution reaction. Applied Materials Today, 2022, 26, 101343.	4.3	8
81	Electrodeposition of Aluminum from AlCl3-1-Ethyl-3-Methylimidazolium Fluoride. International Journal of Electrochemical Science, 2019, 14, 9482-9489.	1.3	7
82	Advances in oxide semiconductors for surface enhanced Raman scattering. Applied Materials Today, 2022, 29, 101563.	4.3	6
83	Toward enhanced oxygen evolution on NaBH4 treated Ba0.5Sr0.5Co0.8Fe0.2O3â˜Î´ nanofilm: Insights into the facilitated surface reconstruction. Materials Today Energy, 2022, 27, 101046.	4.7	5