Zonghua Pu

List of Publications by Year
in descending order

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79 papers	11,818 citations	30068 54 h-index	62593 80 g-index
80 all docs	80 docs citations	80 times ranked	10484 citing authors

#	Article	IF	Citations
1	NiSe Nanowire Film Supported on Nickel Foam: An Efficient and Stable 3D Bifunctional Electrode for Full Water Splitting. Angewandte Chemie - International Edition, 2015, 54, 9351-9355.	13.8	1,242
2	From 3D ZIF Nanocrystals to Coâ€“N_x/C Nanorod Array Electrocatalysts for ORR, OER, and Znâ€“Air Batteries. Advanced Functional Materials, 2018, 28, 1704638.	14.9	708
3	Multifunctional Moâ€“N/C@MoS₂ Electrocatalysts for HER, OER, ORR, and Znâ€“Air Batteries. Advanced Functional Materials, 2017, 27, 1702300.	14.9	658
4	RuP₂â€Based Catalysts with Platinumâ€like Activity and Higher Durability for the Hydrogen Evolution Reaction at All pHâ€…Values. Angewandte Chemie - International Edition, 2017, 56, 11559-11564.	13.8	564
5	A universal synthesis strategy for P-rich noble metal diphosphide-based electrocatalysts for the hydrogen evolution reaction. Energy and Environmental Science, 2019, 12, 952-957.	30.8	397
6	Transitionâ€Metal Phosphides: Activity Origin, Energyâ€Related Electrocatalysis Applications, and Synthetic Strategies. Advanced Functional Materials, 2020, 30, 2004009.	14.9	309
7	CoP Nanosheet Arrays Supported on a Ti Plate: An Efficient Cathode for Electrochemical Hydrogen Evolution. Chemistry of Materials, 2014, 26, 4326-4329.	6.7	285
8	Tungsten Phosphide Nanorod Arrays Directly Grown on Carbon Cloth: A Highly Efficient and Stable Hydrogen Evolution Cathode at All pH Values. ACS Applied Materials & Interfaces, 2014, 6, 21874-21879.	8.0	279
9	Ni₂P nanoparticle films supported on a Ti plate as an efficient hydrogen evolution cathode. Nanoscale, 2014, 6, 11031-11034.	5.6	277
10	Nitrogen-Doped carbon coupled FeNi3 intermetallic compound as advanced bifunctional electrocatalyst for OER, ORR and zn-air batteries. Applied Catalysis B: Environmental, 2020, 268, 118729.	20.2	265
11	Ru-doped 3D flower-like bimetallic phosphide with a climbing effect on overall water splitting. Applied Catalysis B: Environmental, 2020, 279, 119396.	20.2	251
12	Efficient Electrochemical Water Splitting Catalyzed by Electrodeposited Nickel Diselenide Nanoparticles Based Film. ACS Applied Materials & Interfaces, 2016, 8, 4718-4723.	8.0	239
13	CoP nanostructures with different morphologies: synthesis, characterization and a study of their electrocatalytic performance toward the hydrogen evolution reaction. Journal of Materials Chemistry A, 2014, 2, 14634.	10.3	227
14	Coupling NiSe2-Ni2P heterostructure nanowrinkles for highly efficient overall water splitting. Journal of Catalysis, 2019, 377, 600-608.	6.2	222
15	A universal synthesis strategy for single atom dispersed cobalt/metal clusters heterostructure boosting hydrogen evolution catalysis at all pH values. Nano Energy, 2019, 59, 472-480.	16.0	202
16	Phytic acid-derivative transition metal phosphides encapsulated in N,P-codoped carbon: an efficient and durable hydrogen evolution electrocatalyst in a wide pH range. Nanoscale, 2017, 9, 3555-3560.	5.6	201
17	Iron-Doped Nickel Phosphide Nanosheet Arrays: An Efficient Bifunctional Electrocatalyst for Water Splitting. ACS Applied Materials & Interfaces, 2017, 9, 26001-26007.	8.0	200
18	Flexible molybdenum phosphide nanosheet array electrodes for hydrogen evolution reaction in a wide pH range. Applied Catalysis B: Environmental, 2016, 196, 193-198.	20.2	189

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19	NiS2 nanosheets array grown on carbon cloth as an efficient 3D hydrogen evolution cathode. Electrochimica Acta, 2015, 153, 508-514.	5.2	185
20	General Strategy for the Synthesis of Transition-Metal Phosphide/N-Doped Carbon Frameworks for Hydrogen and Oxygen Evolution. ACS Applied Materials & Interfaces, 2017, 9, 16187-16193.	8.0	175
21	Ultralow Ru Loading Transition Metal Phosphides as Highâ€Efficient Bifunctional Electrocatalyst for a Solarâ€toâ€Hydrogen Generation System. Advanced Energy Materials, 2020, 10, 2000814.	19.5	174
22	Ni3S2 nanosheets array supported on Ni foam: A novel efficient three-dimensional hydrogen-evolving electrocatalyst in both neutral and basic solutions. International Journal of Hydrogen Energy, 2015, 40, 4727-4732.	7.1	167
23	Single-Atom Catalysts for Electrochemical Hydrogen Evolution Reaction: Recent Advances and Future Perspectives. Nano-Micro Letters, 2020, 12, 21.	27.0	159
24	Inâ€…Situ Growth of NiSe Nanowire Film on Nickel Foam as an Electrode for Highâ€Performance Supercapacitors. ChemElectroChem, 2015, 2, 1903-1907.	3.4	157
25	Semimetallic MoP₂: an active and stable hydrogen evolution electrocatalyst over the whole pH range. Nanoscale, 2016, 8, 8500-8504.	5.6	155
26	3D macroporous MoS2 thin film: in situ hydrothermal preparation and application as a highly active hydrogen evolution electrocatalyst at all pH values. Electrochimica Acta, 2015, 168, 133-138.	5.2	147
27	Mo₂C quantum dot embedded chitosan-derived nitrogen-doped carbon for efficient hydrogen evolution in a broad pH range. Chemical Communications, 2016, 52, 12753-12756.	4.1	138
28	Co₂P quantum dot embedded N, P dual-doped carbon self-supported electrodes with flexible and binder-free properties for efficient hydrogen evolution reactions. Nanoscale, 2018, 10, 2902-2907.	5.6	136
29	Surface reconstruction engineering of cobalt phosphides by Ru inducement to form hollow Ru-RuPx-CoxP pre-electrocatalysts with accelerated oxygen evolution reaction. Nano Energy, 2018, 53, 270-276.	16.0	135
30	Nano-single crystal coalesced PtCu nanospheres as robust bifunctional catalyst for hydrogen evolution and oxygen reduction reactions. Journal of Catalysis, 2019, 375, 164-170.	6.2	133
31	Iron oxide and phosphide encapsulated within N,P-doped microporous carbon nanofibers as advanced tri-functional electrocatalyst toward oxygen reduction/evolution and hydrogen evolution reactions and zinc-air batteries. Journal of Power Sources, 2019, 413, 367-375.	7.8	118
32	Tungsten nitride nanorods array grown on carbon cloth as an efficient hydrogen evolution cathode at all pH values. Electrochimica Acta, 2015, 154, 345-351.	5.2	116
33	Ultrasmall tungsten phosphide nanoparticles embedded in nitrogen-doped carbon as a highly active and stable hydrogen-evolution electrocatalyst. Journal of Materials Chemistry A, 2016, 4, 15327-15332.	10.3	116
34	Ionothermal Route to Phase-Pure RuB₂ Catalysts for Efficient Oxygen Evolution and Water Splitting in Acidic Media. ACS Energy Letters, 2020, 5, 2909-2915.	17.4	116
35	Synergistic Coupling of Ni Nanoparticles with Ni₃C Nanosheets for Highly Efficient Overall Water Splitting. Small, 2020, 16, e2001642.	10.0	97
36	The role of iron nitrides in the Feâ€“Nâ€“C catalysis system towards the oxygen reduction reaction. Nanoscale, 2017, 9, 7641-7649.	5.6	96

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37	Double Metal Diphosphide Pair Nanocages Coupled with P-Doped Carbon for Accelerated Oxygen and Hydrogen Evolution Kinetics. ACS Applied Materials & Interfaces, 2020, 12, 727-733.	8.0	93
38	Activating rhodium phosphide-based catalysts for the pH-universal hydrogen evolution reaction. Nanoscale, 2018, 10, 12407-12412.	5.6	89
39	RuP₂â€Based Catalysts with Platinumâ€like Activity and Higher Durability for the Hydrogen Evolution Reaction at All pHâ€...Values. Angewandte Chemie, 2017, 129, 11717-11722.	2.0	86
40	Interfacial engineering of Co nanoparticles/Co2C nanowires boosts overall water splitting kinetics. Applied Catalysis B: Environmental, 2021, 296, 120334.	20.2	85
41	Graphene film-confined molybdenum sulfide nanoparticles: Facile one-step electrodeposition preparation and application as a highly active hydrogen evolution reaction electrocatalyst. Journal of Power Sources, 2014, 263, 181-185.	7.8	83
42	Ultrastable nitrogen-doped carbon encapsulating molybdenum phosphide nanoparticles as highly efficient electrocatalyst for hydrogen generation. Nanoscale, 2016, 8, 17256-17261.	5.6	83
43	Ultrafine Molybdenum Carbide Nanocrystals Confined in Carbon Foams via a Colloidâ€Confinement Route for Efficient Hydrogen Production. Small Methods, 2018, 2, 1700396.	8.6	83
44	Nitrogen-doped carbon nanotube supported iron phosphide nanocomposites for highly active electrocatalysis of the hydrogen evolution reaction. Electrochimica Acta, 2014, 149, 324-329.	5.2	79
45	Efficient water splitting catalyzed by flexible NiP₂ nanosheet array electrodes under both neutral and alkaline solutions. New Journal of Chemistry, 2017, 41, 2154-2159.	2.8	77
46	Molybdenum Carbide-Derived Chlorine-Doped Ordered Mesoporous Carbon with Few-Layered Graphene Walls for Energy Storage Applications. ACS Applied Materials & Interfaces, 2017, 9, 3702-3712.	8.0	75
47	Integrated design and construction of WP/W nanorod array electrodes toward efficient hydrogen evolution reaction. Chemical Engineering Journal, 2017, 327, 705-712.	12.7	72
48	Boron-rich environment boosting ruthenium boride on B, N doped carbon outperforms platinum for hydrogen evolution reaction in a universal pH range. Nano Energy, 2020, 75, 104881.	16.0	71
49	One-step electrodeposition fabrication of graphene film-confined WS2 nanoparticles with enhanced electrochemical catalytic activity for hydrogen evolution. Electrochimica Acta, 2014, 134, 8-12.	5.2	67
50	N-doped carbon nanotubes from functional tubular polypyrrole: A highly efficient electrocatalyst for oxygen reduction reaction. Electrochemistry Communications, 2013, 36, 57-61.	4.7	65
51	Constructing carbon-cohered high-index (222) faceted tantalum carbide nanocrystals as a robust hydrogen evolution catalyst. Nano Energy, 2017, 36, 374-380.	16.0	58
52	MOF-assisted synthesis of octahedral carbon-supported PtCu nanoalloy catalysts for an efficient hydrogen evolution reaction. Journal of Materials Chemistry A, 2020, 8, 19348-19356.	10.3	58
53	Significantly Improved Water Oxidation of CoP Catalysts by Electrochemical Activation. ACS Sustainable Chemistry and Engineering, 2020, 8, 17851-17859.	6.7	55
54	Swapping Catalytic Active Sites from Cationic Ni to Anionic S in Nickel Sulfide Enables More Efficient Alkaline Hydrogen Generation. Advanced Energy Materials, 2022, 12, .	19.5	55

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55	Tunable <scp>Ruâ€Ru₂P</scp> heterostructures with charge redistribution for efficient <scp>pHâ€universal</scp> hydrogen evolution. InformaÄ•nÃ-MateriÃ¡ly, 2022, 4, .	17.3	53
56	Scalable cellulose-sponsored functionalized carbon nanorods induced by cobalt for efficient overall water splitting. Carbon, 2018, 137, 274-281.	10.3	50
57	Regenerative fuel cells: Recent progress, challenges, perspectives and their applications for space energy system. Applied Energy, 2021, 283, 116376.	10.1	50
58	General Synthesis of Transitionâ€Metalâ€Based Carbonâ€Group Intermetallic Catalysts for Efficient Electrocatalytic Hydrogen Evolution in Wide pH Range. Advanced Energy Materials, 2022, 12, .	19.5	50
59	Nanostructured Metal Borides for Energyâ€Related Electrocatalysis: Recent Progress, Challenges, and Perspectives. Small Methods, 2021, 5, e2100699.	8.6	47
60	Anion-Modulated Platinum for High-Performance Multifunctional Electrocatalysis toward HER, HOR, and ORR. IScience, 2020, 23, 101793.	4.1	45
61	Efficient strategy for significantly decreasing overpotentials of hydrogen generation via oxidizing small molecules at flexible bifunctional CoSe electrodes. Journal of Power Sources, 2018, 401, 238-244.	7.8	44
62	Fabrication of Ni(OH)2 coated ZnO array for high-rate pseudocapacitive energy storage. Electrochimica Acta, 2013, 109, 252-255.	5.2	43
63	Anion-modulated molybdenum oxide enclosed ruthenium nano-capsules with almost the same water splitting capability in acidic and alkaline media. Nano Energy, 2022, 100, 107445.	16.0	42
64	Robust MOF-253-derived N-doped carbon confinement of Pt single nanocrystal electrocatalysts for oxygen evolution reaction. Chinese Journal of Catalysis, 2020, 41, 839-846.	14.0	41
65	Molybdenum Carbideâ€PtCu Nanoalloy Heterostructures on MOFâ€Derived Carbon toward Efficient Hydrogen Evolution. Small, 2021, 17, e2104241.	10.0	40
66	Shrunken hollow Mo-N/Mo-C nanosphere structure for efficient hydrogen evolution in a broad pH range. Electrochimica Acta, 2019, 298, 799-805.	5.2	38
67	Versatile Route To Fabricate Precious-Metal Phosphide Electrocatalyst for Acid-Stable Hydrogen Oxidation and Evolution Reactions. ACS Applied Materials & Interfaces, 2020, 12, 11737-11744.	8.0	37
68	H₂O₂â€Assisted Synthesis of Porous Nâ€Doped Graphene/Molybdenum Nitride Composites with Boosted Oxygen Reduction Reaction. Advanced Materials Interfaces, 2017, 4, 1601227.	3.7	35
69	Phosphorization engineering ameliorated the electrocatalytic activity for overall water splitting on Ni₃S₂ nanosheets. Dalton Transactions, 2019, 48, 13466-13471.	3.3	32
70	Mapping Hydrogen Evolution Activity Trends of Intermetallic Pt-Group Silicides. ACS Catalysis, 2022, 12, 2623-2631.	11.2	32
71	Phosphorous-doped carbon coordinated iridium diphosphide bifunctional catalyst with ultralow iridium amount for efficient all-pH-value hydrogen evolution and oxygen reduction reactions. Journal of Catalysis, 2020, 383, 244-253.	6.2	30
72	Anion Modulation of Ptâ€Group Metals and Electrocatalysis Applications. Chemistry - A European Journal, 2021, 27, 12257-12271.	3.3	30

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73	3D flexible hydrogen evolution electrodes with Se-promoted molybdenum sulfide nanosheet arrays. RSC Advances, 2016, 6, 11077-11080.	3.6	28
74	Electrocatalytic Oxygen Evolution Reaction in Acidic Conditions: Recent Progress and Perspectives. ChemSusChem, 2021, 14, 4636-4657.	6.8	28
75	Duetting electronic structure modulation of Ru atoms in RuSe₂@NC enables more moderate H* adsorption and water dissociation for hydrogen evolution reaction. Journal of Materials Chemistry A, 2022, 10, 7637-7644.	10.3	22
76	Ni nanoparticles-graphene hybrid film: one-step electrodeposition preparation and application as highly efficient oxygen evolution reaction electrocatalyst. Journal of Applied Electrochemistry, 2014, 44, 1165-1170.	2.9	20
77	Distorted niobium-self-doped graphene in-situ grown from 2D niobium carbide for catalyzing oxygen reduction. Carbon, 2018, 139, 1144-1151.	10.3	19
78	Inâ€…Situ Fabrication of Tungsten Diphosphide Nanoparticles on Tungsten foil: A Hydrogenâ€Evolution Cathode for a Wide pH Range. Energy Technology, 2016, 4, 1030-1034.	3.8	11
79	UIO-66-NH₂-derived mesoporous carbon used as a high-performance anode for the potassium-ion battery. RSC Advances, 2021, 11, 1039-1049.	3.6	10