Zonghua Pu

List of Publications by Year in Descending Order

80 papers	8,688 citations	49 h-index	80 g-index
80 ext. papers	10,429 ext. citations	11 avg, IF	6.63 L-index

#	Paper	IF	Citations
80	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	13	1
79	Anion-modulated Molybdenum Oxide Enclosed Ruthenium Nano-capsules with Almost the Same Water Splitting Capability in Acidic and Alkaline Media. *Nano Energy*, **2022**, 107445	17.1	2
78	Molybdenum Carbide-PtCu Nanoalloy Heterostructures on MOF-Derived Carbon toward Efficient Hydrogen Evolution. *Small*, **2021**, 17, e2104241	11	6
77	Anion Modulation of Pt-Group Metals and Electrocatalysis Applications. *Chemistry - A European Journal*, **2021**, 27, 12257-12271	4.8	7
76	Regenerative fuel cells: Recent progress, challenges, perspectives and their applications for space energy system. *Applied Energy*, **2021**, 283, 116376	10.7	14
75	Electrocatalytic Oxygen Evolution Reaction in Acidic Conditions: Recent Progress and Perspectives. *ChemSusChem*, **2021**, 14, 4636-4657	8.3	5
74	Nanostructured Metal Borides for Energy-Related Electrocatalysis: Recent Progress, Challenges, and Perspectives.. *Small Methods*, **2021**, 5, e2100699	12.8	10
73	Interfacial engineering of Co nanoparticles/Co2C nanowires boosts overall water splitting kinetics. *Applied Catalysis B: Environmental*, **2021**, 296, 120334	21.8	22
72	Anion-Modulated Platinum for High-Performance Multifunctional Electrocatalysis toward HER, HOR, and ORR. *IScience*, **2020**, 23, 101793	6.1	20
71	Ultralow Ru Loading Transition Metal Phosphides as High-Efficient Bifunctional Electrocatalyst for a Solar-to-Hydrogen Generation System. *Advanced Energy Materials*, **2020**, 10, 2000814	21.8	88
70	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	7.3	20
69	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	21.8	141
68	Versatile Route To Fabricate Precious-Metal Phosphide Electrocatalyst for Acid-Stable Hydrogen Oxidation and Evolution Reactions. *ACS Applied Materials & Interfaces*, **2020**, 12, 11737-11744	9.5	24
67	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	11.3	20
66	Single-Atom Catalysts for Electrochemical Hydrogen Evolution Reaction: Recent Advances and Future Perspectives. *Nano-Micro Letters*, **2020**, 12, 21	19.5	83
65	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	17.1	43
64	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	9.5	65

63	Ru-doped 3D flower-like bimetallic phosphide with a climbing effect on overall water splitting. *Applied Catalysis B: Environmental*, **2020**, 279, 119396	21.8	127
62	Synergistic Coupling of Ni Nanoparticles with Ni C Nanosheets for Highly Efficient Overall Water Splitting. *Small*, **2020**, 16, e2001642	11	55
61	Ionothermal Route to Phase-Pure RuB2 Catalysts for Efficient Oxygen Evolution and Water Splitting in Acidic Media. *ACS Energy Letters*, **2020**, 5, 2909-2915	20.1	56
60	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	13	27
59	Transition-Metal Phosphides: Activity Origin, Energy-Related Electrocatalysis Applications, and Synthetic Strategies. *Advanced Functional Materials*, **2020**, 30, 2004009	15.6	122
58	Significantly Improved Water Oxidation of CoP Catalysts by Electrochemical Activation. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 17851-17859	8.3	30
57	UIO-66-NH-derived mesoporous carbon used as a high-performance anode for the potassium-ion battery.. *RSC Advances*, **2020**, 11, 1039-1049	3.7	4
56	Coupling NiSe2-Ni2P heterostructure nanowrinkles for highly efficient overall water splitting. *Journal of Catalysis*, **2019**, 377, 600-608	7.3	123
55	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	35.4	265
54	Nano-single crystal coalesced PtCu nanospheres as robust bifunctional catalyst for hydrogen evolution and oxygen reduction reactions. *Journal of Catalysis*, **2019**, 375, 164-170	7.3	91
53	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	17.1	138
52	Phosphorization engineering ameliorated the electrocatalytic activity for overall water splitting on NiS nanosheets. *Dalton Transactions*, **2019**, 48, 13466-13471	4.3	21
51	Shrunken hollow Mo-N/Mo-C nanosphere structure for efficient hydrogen evolution in a broad pH range. *Electrochimica Acta*, **2019**, 298, 799-805	6.7	25
50	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	8.9	81
49	CoP 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	7.7	110
48	Ultrafine Molybdenum Carbide Nanocrystals Confined in Carbon Foams via a Colloid-Confinement Route for Efficient Hydrogen Production. *Small Methods*, **2018**, 2, 1700396	12.8	69
47	Distorted niobium-self-doped graphene in-situ grown from 2D niobium carbide for catalyzing oxygen reduction. *Carbon*, **2018**, 139, 1144-1151	10.4	12
46	From 3D ZIF Nanocrystals to Co$_x$N/C Nanorod Array Electrocatalysts for ORR, OER, and Zn-Air Batteries. *Advanced Functional Materials*, **2018**, 28, 1704638	15.6	541

45	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	8.9	34
44	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	17.1	102
43	Scalable cellulose-sponsored functionalized carbon nanorods induced by cobalt for efficient overall water splitting. *Carbon*, **2018**, 137, 274-281	10.4	38
42	Activating rhodium phosphide-based catalysts for the pH-universal hydrogen evolution reaction. *Nanoscale*, **2018**, 10, 12407-12412	7.7	68
41	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	9.5	63
40	Efficient water splitting catalyzed by flexible NiP2 nanosheet array electrodes under both neutral and alkaline solutions. *New Journal of Chemistry*, **2017**, 41, 2154-2159	3.6	58
39	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	7.7	158
38	H2O2-Assisted Synthesis of Porous N-Doped Graphene/Molybdenum Nitride Composites with Boosted Oxygen Reduction Reaction. *Advanced Materials Interfaces*, **2017**, 4, 1601227	4.6	24
37	The role of iron nitrides in the Fe-N-C catalysis system towards the oxygen reduction reaction. *Nanoscale*, **2017**, 9, 7641-7649	7.7	73
36	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	9.5	135
35	Constructing carbon-cohered high-index (222) faceted tantalum carbide nanocrystals as a robust hydrogen evolution catalyst. *Nano Energy*, **2017**, 36, 374-380	17.1	47
34	Multifunctional MoN/C@MoS2 Electrocatalysts for HER, OER, ORR, and Zn-Air Batteries. *Advanced Functional Materials*, **2017**, 27, 1702300	15.6	519
33	Iron-Doped Nickel Phosphide Nanosheet Arrays: An Efficient Bifunctional Electrocatalyst for Water Splitting. *ACS Applied Materials & Interfaces*, **2017**, 9, 26001-26007	9.5	158
32	RuP2-Based Catalysts with Platinum-like Activity and Higher Durability for the Hydrogen Evolution Reaction at All pH Values. *Angewandte Chemie*, **2017**, 129, 11717-11722	3.6	78
31	RuP -Based Catalysts with Platinum-like Activity and Higher Durability for the Hydrogen Evolution Reaction at All pH Values. *Angewandte Chemie - International Edition*, **2017**, 56, 11559-11564	16.4	429
30	Integrated design and construction of WP/W nanorod array electrodes toward efficient hydrogen evolution reaction. *Chemical Engineering Journal*, **2017**, 327, 705-712	14.7	64
29	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	13	96
28	Ultrastable nitrogen-doped carbon encapsulating molybdenum phosphide nanoparticles as highly efficient electrocatalyst for hydrogen generation. *Nanoscale*, **2016**, 8, 17256-17261	7.7	62

27	In Situ Fabrication of Tungsten Diphosphide Nanoparticles on Tungsten foil: A Hydrogen-Evolution Cathode for a Wide pH Range. *Energy Technology*, **2016**, 4, 1030-1034	3.5	8
26	Efficient Electrochemical Water Splitting Catalyzed by Electrodeposited Nickel Diselenide Nanoparticles Based Film. *ACS Applied Materials & Interfaces*, **2016**, 8, 4718-23	9.5	207
25	3D flexible hydrogen evolution electrodes with Se-promoted molybdenum sulfide nanosheet arrays. *RSC Advances*, **2016**, 6, 11077-11080	3.7	24
24	Semimetallic MoP2: an active and stable hydrogen evolution electrocatalyst over the whole pH range. *Nanoscale*, **2016**, 8, 8500-4	7.7	123
23	Flexible molybdenum phosphide nanosheet array electrodes for hydrogen evolution reaction in a wide pH range. *Applied Catalysis B: Environmental*, **2016**, 196, 193-198	21.8	164
22	MoC quantum dot embedded chitosan-derived nitrogen-doped carbon for efficient hydrogen evolution in a broad pH range. *Chemical Communications*, **2016**, 52, 12753-12756	5.8	112
21	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	6.7	140
20	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	6.7	128
19	NiS2 nanosheets array grown on carbon cloth as an efficient 3D hydrogen evolution cathode. *Electrochimica Acta*, **2015**, 153, 508-514	6.7	161
18	NiSe Nanowire Film Supported on Nickel Foam: An Efficient and Stable 3D Bifunctional Electrode for Full Water Splitting. *Angewandte Chemie - International Edition*, **2015**, 54, 9351-5	16.4	1100
17	In Situ Growth of NiSe Nanowire Film on Nickel Foam as an Electrode for High-Performance Supercapacitors. *ChemElectroChem*, **2015**, 2, 1903-1907	4.3	132
16	NiSe Nanowire Film Supported on Nickel Foam: An Efficient and Stable 3D Bifunctional Electrode for Full Water Splitting. *Angewandte Chemie*, **2015**, 127, 9483-9487	3.6	304
15	Tungsten nitride nanorods array grown on carbon cloth as an efficient hydrogen evolution cathode at all pH values. *Electrochimica Acta*, **2015**, 154, 345-351	6.7	98
14	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	13	205
13	CoP Nanosheet Arrays Supported on a Ti Plate: An Efficient Cathode for Electrochemical Hydrogen Evolution. *Chemistry of Materials*, **2014**, 26, 4326-4329	9.6	255
12	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	2.6	18
11	Ni2P nanoparticle films supported on a Ti plate as an efficient hydrogen evolution cathode. *Nanoscale*, **2014**, 6, 11031-4	7.7	255
10	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	8.9	76

9	One-step electrodeposition fabrication of graphene film-confined WS2 nanoparticles with enhanced electrochemical catalytic activity for hydrogen evolution. *Electrochimica Acta*, **2014**, 134, 8-12	6.7	61
8	Nitrogen-doped carbon nanotube supported iron phosphide nanocomposites for highly active electrocatalysis of the hydrogen evolution reaction. *Electrochimica Acta*, **2014**, 149, 324-329	6.7	73
7	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, 21874-9	9.5	243
6	N-doped carbon nanotubes from functional tubular polypyrrole: A highly efficient electrocatalyst for oxygen reduction reaction. *Electrochemistry Communications*, **2013**, 36, 57-61	5.1	62
5	Fabrication of Ni(OH)2 coated ZnO array for high-rate pseudocapacitive energy storage. *Electrochimica Acta*, **2013**, 109, 252-255	6.7	40
4	Tunable Ru-Ru 2 P heterostructures with charge redistribution for efficient pH-universal hydrogen evolution. *Informa□□Materi□y*,	23.1	7
3	Swapping Catalytic Active Sites from Cationic Ni to Anionic S in Nickel Sulfide Enables More Efficient Alkaline Hydrogen Generation. *Advanced Energy Materials*,2103359	21.8	8
2	Mapping Hydrogen Evolution Activity Trends of Intermetallic Pt-Group Silicides. *ACS Catalysis*,2623-2631	13.1	7
1	General Synthesis of Transition-Metal-Based Carbon-Group Intermetallic Catalysts for Efficient Electrocatalytic Hydrogen Evolution in Wide pH Range. *Advanced Energy Materials*,2200293	21.8	3