

Yuan Pan

List of Publications by Year in descending order

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101
papers

11,691
citations

36303

51
h-index

32842

100
g-index

102
all docs

102
docs citations

102
times ranked

10670
citing authors

#	ARTICLE	IF	CITATIONS
1	Core@Shell ZIF-8@ZIF-67-Derived CoP Nanoparticle-Embedded N-Doped Carbon Nanotube Hollow Polyhedron for Efficient Overall Water Splitting. <i>Journal of the American Chemical Society</i> , 2018, 140, 2610-2618.	13.7	1,556
2	Design of Single-Atom Co ₅ Catalytic Site: A Robust Electrocatalyst for CO ₂ Reduction with Nearly 100% CO Selectivity and Remarkable Stability. <i>Journal of the American Chemical Society</i> , 2018, 140, 4218-4221.	13.7	945
3	Copper atom-pair catalyst anchored on alloy nanowires for selective and efficient electrochemical reduction of CO ₂ . <i>Nature Chemistry</i> , 2019, 11, 222-228.	13.6	571
4	Monodispersed nickel phosphide nanocrystals with different phases: synthesis, characterization and electrocatalytic properties for hydrogen evolution. <i>Journal of Materials Chemistry A</i> , 2015, 3, 1656-1665.	10.3	549
5	A Bimetallic Zn/Fe Polyphthalocyanine-Derived Single-Atom Fe ₄ Catalytic Site: A Superior Trifunctional Catalyst for Overall Water Splitting and Zn-Air Batteries. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 8614-8618.	13.8	455
6	Electronic structure and d-band center control engineering over M-doped CoP (M = Ni, Mn, Fe) hollow polyhedron frames for boosting hydrogen production. <i>Nano Energy</i> , 2019, 56, 411-419.	16.0	421
7	Three-dimensional-networked Ni ₂ P/Ni ₃ S ₂ heteronanoflake arrays for highly enhanced electrochemical overall-water-splitting activity. <i>Nano Energy</i> , 2018, 51, 26-36.	16.0	378
8	Regulating the coordination structure of single-atom Fe-N _x C _y catalytic sites for benzene oxidation. <i>Nature Communications</i> , 2019, 10, 4290.	12.8	326
9	Construction of CoP/NiCoP Nanotadpoles Heterojunction Interface for Wide pH Hydrogen Evolution Electrocatalysis and Supercapacitor. <i>Advanced Energy Materials</i> , 2019, 9, 1901213.	19.5	275
10	Cobalt phosphide-based electrocatalysts: synthesis and phase catalytic activity comparison for hydrogen evolution. <i>Journal of Materials Chemistry A</i> , 2016, 4, 4745-4754.	10.3	266
11	Synergistically Interactive Pyridinic-N-MoP Sites: Identified Active Centers for Enhanced Hydrogen Evolution in Alkaline Solution. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 8982-8990.	13.8	263
12	Three-dimensional open nano-netcage electrocatalysts for efficient pH-universal overall water splitting. <i>Nature Communications</i> , 2019, 10, 4875.	12.8	253
13	Functionalization of Hollow Nanomaterials for Catalytic Applications: Nanoreactor Construction. <i>Advanced Materials</i> , 2019, 31, e1800426.	21.0	239
14	Structural Regulation with Atomic-Level Precision: From Single-Atomic Site to Diatomic and Atomic Interface Catalysis. <i>Matter</i> , 2020, 2, 78-110.	10.0	221
15	Carbon nanotubes decorated with nickel phosphide nanoparticles as efficient nanohybrid electrocatalysts for the hydrogen evolution reaction. <i>Journal of Materials Chemistry A</i> , 2015, 3, 13087-13094.	10.3	218
16	A General Strategy for Fabricating Isolated Single Metal Atomic Site Catalysts in Y Zeolite. <i>Journal of the American Chemical Society</i> , 2019, 141, 9305-9311.	13.7	191
17	An RC Plasma Device for Sterilization of Root Canal of Teeth. <i>IEEE Transactions on Plasma Science</i> , 2009, 37, 668-673.	1.3	179
18	Metal Doping Effect of the Co ₂ P/Nitrogen-Doped Carbon Nanotubes (M = Fe, Ni, Cu) Hydrogen Evolution Hybrid Catalysts. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 13890-13901.	8.0	172

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19	Nickel phosphide nanoparticles-nitrogen-doped graphene hybrid as an efficient catalyst for enhanced hydrogen evolution activity. <i>Journal of Power Sources</i> , 2015, 297, 45-52.	7.8	155
20	Cobalt nickel phosphide nanoparticles decorated carbon nanotubes as advanced hybrid catalysts for hydrogen evolution. <i>Journal of Materials Chemistry A</i> , 2016, 4, 14675-14686.	10.3	146
21	Constructing FeN ₄ /graphitic nitrogen atomic interface for high-efficiency electrochemical CO ₂ reduction over a broad potential window. <i>CheM</i> , 2021, 7, 1297-1307.	11.7	133
22	Nanostructured nickel phosphide supported on carbon nanospheres: Synthesis and application as an efficient electrocatalyst for hydrogen evolution. <i>Journal of Power Sources</i> , 2015, 285, 169-177.	7.8	131
23	Construction of multi-dimensional core/shell Ni/NiCoP nano-heterojunction for efficient electrocatalytic water splitting. <i>Applied Catalysis B: Environmental</i> , 2019, 259, 118039.	20.2	124
24	A novel CoP/MoS ₂ -CNTs hybrid catalyst with Pt-like activity for hydrogen evolution. <i>Catalysis Science and Technology</i> , 2016, 6, 1611-1615.	4.1	121
25	Fe ₁ N ₄ @O ₁ site with axial Fe-O coordination for highly selective CO ₂ reduction over a wide potential range. <i>Energy and Environmental Science</i> , 2021, 14, 3430-3437.	30.8	119
26	Porphyrin-like Fe-N ₄ sites with sulfur adjustment on hierarchical porous carbon for different rate-determining steps in oxygen reduction reaction. <i>Nano Research</i> , 2018, 11, 6260-6269.	10.4	118
27	Atomically dispersed Ni-Ru-P interface sites for high-efficiency pH-universal electrocatalysis of hydrogen evolution. <i>Nano Energy</i> , 2021, 80, 105467.	16.0	114
28	Flexible carbon nanofiber film with diatomic Fe-Co sites for efficient oxygen reduction and evolution reactions in wearable zinc-air batteries. <i>Nano Energy</i> , 2021, 87, 106147.	16.0	103
29	Mo doping induced metallic CoSe for enhanced electrocatalytic hydrogen evolution. <i>Applied Catalysis B: Environmental</i> , 2020, 268, 118467.	20.2	93
30	Construction of N, P Co-doped Carbon Frames Anchored with Fe Single Atoms and Fe ₂ P Nanoparticles as a Robust Coupling Catalyst for Electrocatalytic Oxygen Reduction. <i>Advanced Materials</i> , 2022, 34, .	21.0	93
31	High-precision regulation synthesis of Fe-doped Co ₂ P nanorod bundles as efficient electrocatalysts for hydrogen evolution in all-pH range and seawater. <i>Journal of Energy Chemistry</i> , 2021, 55, 92-101.	12.9	89
32	In-situ grown of Ni ₂ P nanoparticles on 2D black phosphorus as a novel hybrid catalyst for hydrogen evolution. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 7951-7956.	7.1	88
33	Tube wall delamination engineering induces photogenerated carrier separation to achieve photocatalytic performance improvement of tubular g-C ₃ N ₄ . <i>Journal of Hazardous Materials</i> , 2022, 424, 127177.	12.4	85
34	Fe-Doped Mn ₃ O ₄ Spinel Nanoparticles with Highly Exposed Fe _{oct} @Mn _{tet} Sites for Efficient Selective Catalytic Reduction (SCR) of NO with Ammonia at Low Temperatures. <i>ACS Catalysis</i> , 2020, 10, 6803-6809.	11.2	82
35	Electrocatalyst engineering and structure-activity relationship in hydrogen evolution reaction: From nanostructures to single atoms. <i>Science China Materials</i> , 2020, 63, 921-948.	6.3	76
36	Design of basal plane active MoS ₂ through one-step nitrogen and phosphorus co-doping as an efficient pH-universal electrocatalyst for hydrogen evolution. <i>Nano Energy</i> , 2019, 58, 862-869.	16.0	74

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37	Dual Role of Pyridinic-N Doping in Carbon-Coated Ni Nanoparticles for Highly Efficient Electrochemical CO ₂ Reduction to CO over a Wide Potential Range. ACS Catalysis, 2022, 12, 1364-1374.	11.2	73
38	Advances in preparation, mechanism and applications of graphene quantum dots/semiconductor composite photocatalysts: A review. Journal of Hazardous Materials, 2022, 424, 127721.	12.4	72
39	Toward Bifunctional Overall Water Splitting Electrocatalyst: General Preparation of Transition Metal Phosphide Nanoparticles Decorated N-Doped Porous Carbon Spheres. ACS Applied Materials & Interfaces, 2018, 10, 44201-44208.	8.0	71
40	Interface Engineering of Partially Phosphidated Co@Co ²⁺ P@NPCNTs for Highly Enhanced Electrochemical Overall Water Splitting. Small, 2020, 16, e2002124.	10.0	71
41	Multiple modulations of pyrite nickel sulfides via metal heteroatom doping engineering for boosting alkaline and neutral hydrogen evolution. Journal of Materials Chemistry A, 2019, 7, 25628-25640.	10.3	69
42	CoP nanorods decorated biomass derived N, P co-doped carbon flakes as an efficient hybrid catalyst for electrochemical hydrogen evolution. Electrochimica Acta, 2017, 232, 561-569.	5.2	68
43	Highly efficient CoMoS heterostructure derived from vertically anchored Co ₅ Mo ₁₀ polyoxometalate for electrocatalytic overall water splitting. Chemical Engineering Journal, 2020, 394, 124849.	12.7	67
44	Defect engineering technique for the fabrication of LaCoO ₃ perovskite catalyst via urea treatment for total oxidation of propane. Applied Catalysis B: Environmental, 2022, 304, 121005.	20.2	63
45	Layered double hydroxide based materials applied in persulfate based advanced oxidation processes: Property, mechanism, application and perspectives. Journal of Hazardous Materials, 2022, 424, 127612.	12.4	62
46	Nanostructured nickel sulfides: phase evolution, characterization and electrocatalytic properties for the hydrogen evolution reaction. RSC Advances, 2015, 5, 104740-104749.	3.6	61
47	Neutral-pH overall water splitting catalyzed efficiently by a hollow and porous structured ternary nickel sulfoselenide electrocatalyst. Journal of Materials Chemistry A, 2019, 7, 16793-16802.	10.3	60
48	Atomically dispersed Ni on Mo ₂ C embedded in N, P co-doped carbon derived from polyoxometalate supramolecule for high-efficiency hydrogen evolution electrocatalysis. Applied Catalysis B: Environmental, 2021, 296, 120336.	20.2	58
49	Effect of Nano- to Millisecond Pulse on Dielectric Barrier Discharges. IEEE Transactions on Plasma Science, 2009, 37, 647-652.	1.3	57
50	Graphene oxide co-doped with nitrogen and sulfur and decorated with cobalt phosphide nanorods: An efficient hybrid catalyst for electrochemical hydrogen evolution. Electrochimica Acta, 2016, 222, 246-256.	5.2	57
51	Study on the NO ₂ production pathways and the role of NO ₂ in fast selective catalytic reduction DeNO _x at low-temperature over MnO _x /TiO ₂ catalyst. Chemical Engineering Journal, 2020, 379, 122288.	12.7	53
52	Targeted bottom-up synthesis of 1T-phase MoS ₂ arrays with high electrocatalytic hydrogen evolution activity by simultaneous structure and morphology engineering. Nano Research, 2018, 11, 4368-4379.	10.4	52
53	A Bimetallic Zn/Fe Polyphthalocyanine-Derived Single-Atom Fe ₄ Catalytic Site: A Superior Trifunctional Catalyst for Overall Water Splitting and Zn-Air Batteries. Angewandte Chemie, 2018, 130, 8750-8754.	2.0	51
54	Phase- and morphology-controlled synthesis of cobalt sulfide nanocrystals and comparison of their catalytic activities for hydrogen evolution. Applied Surface Science, 2015, 357, 1133-1140.	6.1	50

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55	Carbon nanotube-based materials for persulfate activation to degrade organic contaminants: Properties, mechanisms and modification insights. <i>Journal of Hazardous Materials</i> , 2022, 431, 128536.	12.4	48
56	Synergistically Interactive Pyridinicâ€“MoP Sites: Identified Active Centers for Enhanced Hydrogen Evolution in Alkaline Solution. <i>Angewandte Chemie</i> , 2020, 132, 9067-9075.	2.0	45
57	Partial positively charged Pt in Pt/MgAl ₂ O ₄ for enhanced dehydrogenation activity. <i>Applied Catalysis B: Environmental</i> , 2021, 288, 119996.	20.2	44
58	Structure of a novel Benzyl Quinolinium Chloride derivative and its effective corrosion inhibition in 15wt.% hydrochloric acid. <i>Corrosion Science</i> , 2015, 99, 281-294.	6.6	43
59	Design of assembled composite of Mn ₃ O ₄ @Graphitic carbon porous nano-dandelions: A catalyst for Lowâ€“temperature selective catalytic reduction of NO _x with remarkable SO ₂ resistance. <i>Applied Catalysis B: Environmental</i> , 2020, 269, 118731.	20.2	41
60	In-Situ doping-induced crystal form transition of amorphous Pdâ€“P catalyst for robust electrocatalytic hydrodechlorination. <i>Applied Catalysis B: Environmental</i> , 2021, 284, 119713.	20.2	41
61	Porous Coâ€“Mo phosphide nanotubes: an efficient electrocatalyst for hydrogen evolution. <i>Journal of Materials Science</i> , 2017, 52, 10406-10417.	3.7	39
62	The encapsulation of POM clusters into MIL-101(Cr) at molecular level: LaW ₁₀₀ 36@MIL-101(Cr), an efficient catalyst for oxidative desulfurization. <i>Microporous and Mesoporous Materials</i> , 2021, 311, 110694.	4.4	38
63	Nickel phosphide nanoparticles decorated nitrogen and phosphorus co-doped porous carbon as efficient hybrid catalyst for hydrogen evolution. <i>Applied Surface Science</i> , 2017, 422, 828-837.	6.1	37
64	Size-controlled synthesis of monodisperse nickel nanoparticles and investigation of their magnetic and catalytic properties. <i>Applied Surface Science</i> , 2014, 316, 276-285.	6.1	36
65	Melamine-assisted pyrolytic synthesis of bifunctional cobalt-based coreâ€“shell electrocatalysts for rechargeable zincâ€“air batteries. <i>Journal of Energy Chemistry</i> , 2021, 53, 364-371.	12.9	36
66	A novel nickel-based honeycomb electrode with microtapered holes and abundant multivacancies for highly efficient overall water splitting. <i>Applied Catalysis B: Environmental</i> , 2020, 276, 119141.	20.2	35
67	Synergetic Function of the Single-Atom Ru ^{N<sub>4</sub>} Site and Ru Nanoparticles for Hydrogen Production in a Wide pH Range and Seawater Electrolysis. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 15250-15258.	8.0	35
68	Research progress of precise structural regulation of single atom catalyst for accelerating electrocatalytic oxygen reduction reaction. <i>Journal of Energy Chemistry</i> , 2022, 72, 56-72.	12.9	33
69	In-situ doping-induced lattice strain of NiCoP/S nanocrystals for robust wide pH hydrogen evolution electrocatalysis and supercapacitor. <i>Journal of Energy Chemistry</i> , 2022, 70, 27-35.	12.9	32
70	In-situ construction of N-doped carbon nanosnakes encapsulated FeCoSe nanoparticles as efficient bifunctional electrocatalyst for overall water splitting. <i>Journal of Energy Chemistry</i> , 2022, 68, 699-708.	12.9	31
71	Construction of Bi ₂ WO ₆ /CoAl-LDHs S-scheme heterojunction with efficient photo-Fenton-like catalytic performance: Experimental and theoretical studies. <i>Chemosphere</i> , 2022, 291, 133001.	8.2	30
72	Doping Ruthenium into Metal Matrix for Promoted pHâ€“Universal Hydrogen Evolution. <i>Advanced Science</i> , 2022, 9, e2200010.	11.2	29

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73	Ordered mesoporous Cu-ZnO-Al ₂ O ₃ adsorbents for reactive adsorption desulfurization with enhanced sulfur saturation capacity. Chinese Journal of Catalysis, 2018, 39, 1543-1551.	14.0	28
74	Triazine COF-supported single-atom catalyst (Pd ₁ /trzn-COF) for CO oxidation. Science China Materials, 2021, 64, 1939-1951.	6.3	28
75	Atomically Dispersed CoN ₃ C ₁ TeN ₁ C ₃ Diatomic Sites Anchored in N-Doped Carbon as Efficient Bifunctional Catalyst for Synergistic Electrocatalytic Hydrogen Evolution and Oxygen Reduction. Small, 2022, 18, .	10.0	28
76	Reaction environment self-modification on low-coordination Ni ²⁺ octahedra atomic interface for superior electrocatalytic overall water splitting. Nano Research, 2020, 13, 3068-3074.	10.4	27
77	Construction of Pd/Ni ₂ P-Ni foam nanosheet array electrode by in-situ phosphatization-electrodeposition strategy for synergistic electrocatalytic hydrodechlorination. Chemical Engineering Journal, 2022, 435, 134932.	12.7	25
78	In Situ Construction of Nickel Phosphosulfide (Ni ₅ P ₄ S) Active Species on 3D Ni Foam through Chemical Vapor Deposition for Electrochemical Hydrogen Evolution. ChemElectroChem, 2017, 4, 1108-1116.	3.4	24
79	An efficient method for the synthesis of nickel phosphide nanocrystals via thermal decomposition of single-source precursors. RSC Advances, 2015, 5, 11952-11959.	3.6	23
80	Assembly of sphere-structured MnO ₂ for total oxidation of propane: Structure-activity relationship and reaction mechanism determination. Separation and Purification Technology, 2022, 284, 120269.	7.9	23
81	A supramolecular-confinement pyrolysis route to ultrasmall rhodium phosphide nanoparticles as a robust electrocatalyst for hydrogen evolution in the entire pH range and seawater electrolysis. Journal of Materials Chemistry A, 2020, 8, 25768-25779.	10.3	22
82	Construction of N-doped carbon frames anchored with Co single atoms and Co nanoparticles as robust electrocatalyst for hydrogen evolution in the entire pH range. Journal of Energy Chemistry, 2022, 67, 147-156.	12.9	22
83	Atomically-dispersed NiN ₄ Cl active sites with axial NiCl coordination for accelerating electrocatalytic hydrogen evolution. Journal of Materials Chemistry A, 2022, 10, 6007-6015.	10.3	22
84	Electronic structure engineering of bimetallic Pd-Au alloy nanocatalysts for improving electrocatalytic hydrodechlorination performance. Separation and Purification Technology, 2022, 289, 120731.	7.9	21
85	Simple synthesis of a vacancy-rich NiO 2D/3D dendritic self-supported electrode for efficient overall water splitting. Nanoscale, 2019, 11, 22734-22742.	5.6	20
86	The facile synthesis of core-shell PtCu nanoparticles with superior electrocatalytic activity and stability in the hydrogen evolution reaction. RSC Advances, 2021, 11, 26326-26335.	3.6	20
87	Structural regulation of single-atomic site catalysts for enhanced electrocatalytic CO ₂ reduction. Nano Research, 2022, 15, 4925-4941.	10.4	20
88	Size-dependent magnetic and electrocatalytic properties of nickel phosphide nanoparticles. Applied Surface Science, 2016, 366, 439-447.	6.1	19
89	Hydrogenation of 1,3-butadiene over Au and Pt/SiO ₂ -N catalysts at low temperature. Catalysis Communications, 2015, 67, 72-77.	3.3	18
90	6-Phosphogluconolactonase Promotes Hepatocellular Carcinogenesis by Activating Pentose Phosphate Pathway. Frontiers in Cell and Developmental Biology, 2021, 9, 753196.	3.7	15

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91	Single-atomic Mn sites coupled with Fe ₃ C nanoparticles encapsulated in carbon matrixes derived from bimetallic Mn/Fe polyphthalocyanine conjugated polymer networks for accelerating electrocatalytic oxygen reduction. <i>Nano Research</i> , 2022, 15, 7976-7985.	10.4	13
92	Density functional theory study of thiophene desulfurization and conversion of desulfurization products on the Ni(111) surface and Ni ₅₅ cluster: implication for the mechanism of reactive adsorption desulfurization over Ni/ZnO catalysts. <i>Catalysis Science and Technology</i> , 2021, 11, 1615-1625.	4.1	12
93	High-precision synthesis of $\hat{\pm}$ -MnO ₂ nanowires with controllable crystal facets for propane oxidation. <i>CrystEngComm</i> , 2021, 23, 7602-7614.	2.6	12
94	Ultrafine Co-MoS ₂ monolayer catalyst derived from oil-soluble single-molecule polyoxometalates for slurry phase hydrocracking. <i>Fuel</i> , 2022, 315, 123134.	6.4	11
95	A Mannich base 1-phenyl-3-(1-pyrrolidinyl)-1-propanone: synthesis and performance study on corrosion inhibition for N80 steel in 15% hydrochloric acid. <i>Anti-Corrosion Methods and Materials</i> , 2016, 63, 153-159.	1.5	8
96	A novel POMos-based hybrid with penta-coordinated Mo in trigonal bipyramid: structure and an efficient precursor for hydrodesulfurization catalyst. <i>RSC Advances</i> , 2014, 4, 27787-27790.	3.6	5
97	Achieving ultra-dispersed 1T-Co-MoS ₂ @HMCS <i>via</i> space-confined engineering for highly efficient hydrogen evolution in the universal pH range. <i>Inorganic Chemistry Frontiers</i> , 2022, 9, 2617-2627.	6.0	5
98	Research on the Postarc Sheath Growth Process Considering the Plasma Motion and Distribution. <i>IEEE Transactions on Plasma Science</i> , 2020, 48, 4289-4297.	1.3	4
99	A doping-adsorption-pyrolysis strategy for constructing atomically dispersed cobalt sites anchored on a N-doped carbon framework as an efficient bifunctional electrocatalyst for hydrogen evolution and oxygen reduction. <i>RSC Advances</i> , 2022, 12, 20578-20582.	3.6	4
100	Modified polyoxometalate: a novel monocapped bi-supporting and reduced $\hat{\pm}$ -Keggin structure {PMo ₁₂ O ₄₀ [Cu(2,2'-bpy)]}[Cu(2,2'-bpy)(en)(H ₂ O)] ₂ . <i>Acta Crystallographica Section C, Structural Chemistry</i> , 2019, 75, 1344-1352.	0.3	2
101	Codoping of phosphorus and nickel enhance electrocatalytic dechlorination performance of Pd-based catalyst. <i>IOP Conference Series: Earth and Environmental Science</i> , 2021, 791, 012162.	0.3	0