

Jian Zhang

List of Publications by Year in descending order

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papers

16,187
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26630

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97
docs citations

97
times ranked

18044
citing authors

#	ARTICLE	IF	CITATIONS
1	Dendrite-Free Lithium Deposition via Self-Healing Electrostatic Shield Mechanism. <i>Journal of the American Chemical Society</i> , 2013, 135, 4450-4456.	13.7	1,736
2	Interface Engineering of MoS ₂ /Ni ₃ S ₂ Heterostructures for Highly Enhanced Electrochemical Overall Water Splitting Activity. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 6702-6707.	13.8	1,159
3	Efficient hydrogen production on MoNi ₄ electrocatalysts with fast water dissociation kinetics. <i>Nature Communications</i> , 2017, 8, 15437.	12.8	813
4	Vertically oriented cobalt selenide/NiFe layered-double-hydroxide nanosheets supported on exfoliated graphene foil: an efficient 3D electrode for overall water splitting. <i>Energy and Environmental Science</i> , 2016, 9, 478-483.	30.8	774
5	Accelerated Hydrogen Evolution Kinetics on NiFe Layered Double Hydroxide Electrocatalysts by Tailoring Water Dissociation Active Sites. <i>Advanced Materials</i> , 2018, 30, 1706279.	21.0	601
6	Molecular metal-Nx centres in porous carbon for electrocatalytic hydrogen evolution. <i>Nature Communications</i> , 2015, 6, 7992.	12.8	575
7	Ionic Liquids as Precursors for Nitrogen-Doped Graphitic Carbon. <i>Advanced Materials</i> , 2010, 22, 87-92.	21.0	574
8	Hollow N-Doped Carbon Spheres with Isolated Cobalt Single Atomic Sites: Superior Electrocatalysts for Oxygen Reduction. <i>Journal of the American Chemical Society</i> , 2017, 139, 17269-17272.	13.7	556
9	Support and Interface Effects in Water Splitting Electrocatalysts. <i>Advanced Materials</i> , 2019, 31, e1808167.	21.0	531
10	Large Area, Free Standing, Two Dimensional Supramolecular Polymer Single Layer Sheets for Highly Efficient Electrocatalytic Hydrogen Evolution. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 12058-12063.	13.8	514
11	Engineering water dissociation sites in MoS ₂ nanosheets for accelerated electrocatalytic hydrogen production. <i>Energy and Environmental Science</i> , 2016, 9, 2789-2793.	30.8	503
12	Interface Engineering of MoS ₂ /Ni ₃ S ₂ Heterostructures for Highly Enhanced Electrochemical Overall Water Splitting Activity. <i>Angewandte Chemie</i> , 2016, 128, 6814-6819.	2.0	403
13	Mechanically strong MXene/Kevlar nanofiber composite membranes as high-performance nanofluidic osmotic power generators. <i>Nature Communications</i> , 2019, 10, 2920.	12.8	373
14	Molybdenum Carbide-Embedded Nitrogen-Doped Porous Carbon Nanosheets as Electrocatalysts for Water Splitting in Alkaline Media. <i>ACS Nano</i> , 2017, 11, 3933-3942.	14.6	367
15	Zinc-Mediated Template Synthesis of Fe-N-C Electrocatalysts with Densely Accessible Fe-N _x Active Sites for Efficient Oxygen Reduction. <i>Advanced Materials</i> , 2020, 32, e1907399.	21.0	319
16	Synergistic electroreduction of carbon dioxide to carbon monoxide on bimetallic layered conjugated metal-organic frameworks. <i>Nature Communications</i> , 2020, 11, 1409.	12.8	317
17	A Phthalocyanine-Based Layered Two Dimensional Conjugated Metal-Organic Framework as a Highly Efficient Electrocatalyst for the Oxygen Reduction Reaction. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 10677-10682.	13.8	278
18	Vertically Aligned MoS ₂ Nanosheets Patterned on Electrochemically Exfoliated Graphene for High-Performance Lithium and Sodium Storage. <i>Advanced Energy Materials</i> , 2018, 8, 1702254.	19.5	274

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19	A Polymer Encapsulation Strategy to Synthesize Porous Nitrogen-Doped Carbon Nanosphere-Supported Metal Isolated Single-Atomic-Site Catalysts. <i>Advanced Materials</i> , 2018, 30, e1706508.	21.0	266
20	Immobilizing Molecular Metal Dithiolene-Diamine Complexes on 2D Metal-Organic Frameworks for Electrocatalytic H ₂ Production. <i>Chemistry - A European Journal</i> , 2017, 23, 2255-2260.	3.3	208
21	Hierarchical MoS ₂ Hollow Architectures with Abundant Mo Vacancies for Efficient Sodium Storage. <i>ACS Nano</i> , 2019, 13, 5533-5540.	14.6	187
22	Ordered Porous Nitrogen-Doped Carbon Matrix with Atomically Dispersed Cobalt Sites as an Efficient Catalyst for Dehydrogenation and Transfer Hydrogenation of N-Heterocycles. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 11262-11266.	13.8	165
23	Dual-Template Synthesis of 2D Mesoporous Polypyrrole Nanosheets with Controlled Pore Size. <i>Advanced Materials</i> , 2016, 28, 8365-8370.	21.0	163
24	Robustness of topological order and formation of quantum well states in topological insulators exposed to ambient environment. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 3694-3698.	7.1	158
25	Construction of Two-Dimensional MoS ₂ /CdS p-n Nanohybrids for Highly Efficient Photocatalytic Hydrogen Evolution. <i>Chemistry - A European Journal</i> , 2014, 20, 10632-10635.	3.3	156
26	Cobalt Boron Imidazolate Framework Derived Cobalt Nanoparticles Encapsulated in B/N Codoped Nanocarbon as Efficient Bifunctional Electrocatalysts for Overall Water Splitting. <i>Advanced Functional Materials</i> , 2018, 28, 1801136.	14.9	155
27	Fully Conjugated Phthalocyanine Copper Metal-Organic Frameworks for Sodium-Iodine Batteries with Long-Time Cycling Durability. <i>Advanced Materials</i> , 2020, 32, e1905361.	21.0	143
28	A Smart Flexible Zinc Battery with Cooling Recovery Ability. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 7871-7875.	13.8	141
29	Iridium nanoparticles anchored on 3D graphite foam as a bifunctional electrocatalyst for excellent overall water splitting in acidic solution. <i>Nano Energy</i> , 2017, 40, 27-33.	16.0	139
30	Ruthenium/nitrogen-doped carbon as an electrocatalyst for efficient hydrogen evolution in alkaline solution. <i>Journal of Materials Chemistry A</i> , 2017, 5, 25314-25318.	10.3	136
31	Carbon-Rich Nanomaterials: Fascinating Hydrogen and Oxygen Electrocatalysts. <i>Advanced Materials</i> , 2018, 30, e1800528.	21.0	135
32	Hierarchical Transition-Metal Dichalcogenide Nanosheets for Enhanced Electrocatalytic Hydrogen Evolution. <i>Advanced Materials</i> , 2015, 27, 7426-7431.	21.0	123
33	Surface step decoration of isolated atom as electron pumping: Atomic-level insights into visible-light hydrogen evolution. <i>Nano Energy</i> , 2018, 45, 109-117.	16.0	118
34	Recent Advances on Transition Metal Dichalcogenides for Electrochemical Energy Conversion. <i>Advanced Materials</i> , 2021, 33, e2008376.	21.0	114
35	Assembling Polyoxo-Titanium Clusters and CdS Nanoparticles to a Porous Matrix for Efficient and Tunable H ₂ Evolution Activities with Visible Light. <i>Advanced Materials</i> , 2017, 29, 1603369.	21.0	113
36	Carbon-Tailored Semimetal MoP as an Efficient Hydrogen Evolution Electrocatalyst in Both Alkaline and Acid Media. <i>Advanced Energy Materials</i> , 2018, 8, 1801258.	19.5	111

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37	Selective oxidation of sacrificial ethanol over TiO ₂ -based photocatalysts during water splitting. <i>Energy and Environmental Science</i> , 2011, 4, 3384.	30.8	107
38	Tunable Synthesis of Hollow Metal@Nitrogen@Carbon Capsules for Efficient Oxygen Reduction Catalysis in Proton Exchange Membrane Fuel Cells. <i>ACS Nano</i> , 2019, 13, 8087-8098.	14.6	106
39	Promoted oxygen reduction kinetics on nitrogen-doped hierarchically porous carbon by engineering proton-feeding centers. <i>Energy and Environmental Science</i> , 2020, 13, 2849-2855.	30.8	101
40	A High-Voltage, Dendrite-Free, and Durable Zn@Graphite Battery. <i>Advanced Materials</i> , 2020, 32, e1905681.	21.0	96
41	Titania Nanosheet-Mediated Construction of a Two-Dimensional Titania/Cadmium Sulfide Heterostructure for High Hydrogen Evolution Activity. <i>Advanced Materials</i> , 2014, 26, 734-738.	21.0	95
42	Topochemical Synthesis of Two-Dimensional Transition-Metal Phosphides Using Phosphorene Templates. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 465-470.	13.8	94
43	Graphene encapsulated hollow TiO ₂ nanospheres: efficient synthesis and enhanced photocatalytic activity. <i>Journal of Materials Chemistry A</i> , 2013, 1, 3752.	10.3	92
44	Chemical Approaches to Carbon-Based Metal-Free Catalysts. <i>Advanced Materials</i> , 2019, 31, e1804863.	21.0	90
45	Selective electrocatalytic semihydrogenation of acetylene impurities for the production of polymer-grade ethylene. <i>Nature Catalysis</i> , 2021, 4, 557-564.	34.4	90
46	Two-Dimensional Mesoscale-Ordered Conducting Polymers. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 12516-12521.	13.8	89
47	Cation-Modulated HER and OER Activities of Hierarchical VOOH Hollow Architectures for High-Efficiency and Stable Overall Water Splitting. <i>Small</i> , 2019, 15, e1904688.	10.0	85
48	Highly accessible and dense surface single metal FeN ₄ active sites for promoting the oxygen reduction reaction. <i>Energy and Environmental Science</i> , 2022, 15, 2619-2628.	30.8	82
49	Thermoswitchable on-chip microsupercapacitors: one potential self-protection solution for electronic devices. <i>Energy and Environmental Science</i> , 2018, 11, 1717-1722.	30.8	79
50	Confined growth of porous nitrogen-doped cobalt oxide nanoarrays as bifunctional oxygen electrocatalysts for rechargeable zinc-air batteries. <i>Energy Storage Materials</i> , 2020, 26, 157-164.	18.0	79
51	Transforming Damage into Benefit: Corrosion Engineering Enabled Electrocatalysts for Water Splitting. <i>Advanced Functional Materials</i> , 2021, 31, 2009032.	14.9	70
52	Cobalt-Based Metal-Organic Framework Nanoarrays as Bifunctional Oxygen Electrocatalysts for Rechargeable Zn-Air Batteries. <i>Chemistry - A European Journal</i> , 2018, 24, 18413-18418.	3.3	60
53	Controllable Synthesis of Two-Dimensional Molybdenum Disulfide (MoS ₂) for Energy-Storage Applications. <i>ChemSusChem</i> , 2020, 13, 1379-1391.	6.8	60
54	Facile Protocol for Alkaline Electrolyte Purification and Its Influence on a Ni-Co Oxide Catalyst for the Oxygen Evolution Reaction. <i>ACS Catalysis</i> , 2019, 9, 8165-8170.	11.2	59

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55	Dirac Nodal Arc Semimetal PtSn ₄ : An Ideal Platform for Understanding Surface Properties and Catalysis for Hydrogen Evolution. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 13107-13112.	13.8	59
56	Vanadium-cobalt oxyhydroxide shows ultralow overpotential for the oxygen evolution reaction. <i>Journal of Materials Chemistry A</i> , 2019, 7, 21911-21917.	10.3	59
57	A Phthalocyanine-Based Layered Two-Dimensional Conjugated Metal-Organic Framework as a Highly Efficient Electrocatalyst for the Oxygen Reduction Reaction. <i>Angewandte Chemie</i> , 2019, 131, 10787-10792.	2.0	58
58	A Dual-Stimuli-Responsive Sodium-Bromine Battery with Ultrahigh Energy Density. <i>Advanced Materials</i> , 2018, 30, e1800028.	21.0	56
59	Interface Designing over WS ₂ /W ₂ C for Enhanced Hydrogen Evolution Catalysis. <i>ACS Applied Energy Materials</i> , 2018, 1, 3377-3384.	5.1	54
60	Poly(1,4-Diethynylbenzene) Gradient Homojunction with Enhanced Charge Carrier Separation for Photoelectrochemical Water Reduction. <i>Advanced Materials</i> , 2019, 31, e1900961.	21.0	53
61	Monoclinic Scheelite Bismuth Vanadate Derived Bismuthene Nanosheets with Rapid Kinetics for Electrochemically Reducing Carbon Dioxide to Formate. <i>Advanced Functional Materials</i> , 2021, 31, 2006704.	14.9	52
62	Polarity-Switchable Symmetric Graphite Batteries with High Energy and High Power Densities. <i>Advanced Materials</i> , 2018, 30, e1802949.	21.0	51
63	Single-Walled Carbon Nanotubes Wrapped CoFe ₂ O ₄ Nanorods with Enriched Oxygen Vacancies for Efficient Overall Water Splitting. <i>ACS Applied Energy Materials</i> , 2019, 2, 1026-1032.	5.1	47
64	High-performance, long lifetime chloride ion battery using a NiFe-Cl layered double hydroxide cathode. <i>Journal of Materials Chemistry A</i> , 2020, 8, 12548-12555.	10.3	47
65	Recent advances on metal alkoxide-based electrocatalysts for water splitting. <i>Journal of Materials Chemistry A</i> , 2020, 8, 10130-10149.	10.3	43
66	Molecular Engineering of Conjugated Acetylenic Polymers for Efficient Cocatalyst-free Photoelectrochemical Water Reduction. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 10368-10374.	13.8	42
67	Conjugated Acetylenic Polymers Grafted Cuprous Oxide as an Efficient Z-scheme Heterojunction for Photoelectrochemical Water Reduction. <i>Advanced Materials</i> , 2020, 32, e2002486.	21.0	34
68	2D organic single crystals: Synthesis, novel physics, high-performance optoelectronic devices and integration. <i>Materials Today</i> , 2021, 50, 442-475.	14.2	32
69	Soft-template Construction of 3D Macroporous Polypyrrole Scaffolds. <i>Small</i> , 2017, 13, 1604099.	10.0	31
70	A Nonaqueous Na-ion Hybrid Micro-Supercapacitor with Wide Potential Window and Ultrahigh Areal Energy Density. <i>Batteries and Supercaps</i> , 2019, 2, 918-923.	4.7	30
71	Efficient electrocatalytic acetylene semihydrogenation by electron-rich metal sites in N-heterocyclic carbene metal complexes. <i>Nature Communications</i> , 2021, 12, 6574.	12.8	30
72	Synthesis and electrocatalytic performance of nitrogen-doped macroporous carbons. <i>Journal of Materials Chemistry A</i> , 2013, 1, 9469.	10.3	29

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73	Dirac Nodal Arc Semimetal PtSn ₄ : An Ideal Platform for Understanding Surface Properties and Catalysis for Hydrogen Evolution. <i>Angewandte Chemie</i> , 2019, 131, 13241-13246.	2.0	28
74	Molecular Engineering of Conjugated Acetylenic Polymers for Efficient Cocatalyst-free Photoelectrochemical Water Reduction. <i>Angewandte Chemie</i> , 2019, 131, 10476-10482.	2.0	27
75	Ordered Porous Nitrogen-Doped Carbon Matrix with Atomically Dispersed Cobalt Sites as an Efficient Catalyst for Dehydrogenation and Transfer Hydrogenation of N-Heterocycles. <i>Angewandte Chemie</i> , 2018, 130, 11432-11436.	2.0	24
76	Emulsion-Guided Controllable Construction of Anisotropic Particles: Droplet Size Determines Particle Structure. <i>Advanced Materials</i> , 2021, 33, e2102930.	21.0	24
77	Graphdiyne Electrocatalyst. <i>Joule</i> , 2018, 2, 1396-1398.	24.0	23
78	Construction of a Mo _x C/Ni Network Electrode with Low Overpotential for Hydrogen Generation. <i>ChemCatChem</i> , 2014, 6, 2059-2064.	3.7	20
79	HZIF-based hybrids for electrochemical energy applications. <i>Nanoscale</i> , 2019, 11, 15763-15769.	5.6	18
80	Single-Crystalline Mo-Nanowire-Mediated Directional Growth of High-Index-Faceted MoNi Electrocatalyst for Ultralong-Term Alkaline Hydrogen Evolution. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 36259-36267.	8.0	18
81	One-pot synthesis of holey MoS ₂ nanostructures as efficient electrocatalysts for hydrogen evolution. <i>Applied Surface Science</i> , 2017, 396, 1719-1725.	6.1	17
82	Free-standing, flexible γ -Ni(OH) ₂ /electrochemically-exfoliated graphene film electrode for efficient oxygen evolution. <i>Applied Surface Science</i> , 2018, 433, 88-93.	6.1	17
83	Functional Aqueous Zinc-Acetylene Batteries for Electricity Generation and Electrochemical Acetylene Reduction to Ethylene. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	17
84	Toward Activity Origin of Electrocatalytic Hydrogen Evolution Reaction on Carbon-Rich Crystalline Coordination Polymers. <i>Small</i> , 2017, 13, 1700783.	10.0	16
85	Cooperative Dehydrogenation Coupling of Isopropanol and Hydrogenation Coupling of Acetone Over a Sodium Tantalate Photocatalyst. <i>ChemCatChem</i> , 2014, 6, 1673-1678.	3.7	14
86	Multi-scale X-ray tomography and machine learning algorithms to study MoNi ₄ electrocatalysts anchored on MoO ₂ cuboids aligned on Ni foam. <i>BMC Materials</i> , 2020, 2, .	6.8	14
87	Epitaxial growth of prussian blue analogue derived NiFeP thin film for efficient electrocatalytic hydrogen evolution reaction. <i>Journal of Solid State Chemistry</i> , 2021, 293, 121779.	2.9	14
88	Regulated iron corrosion towards fabricating large-area self-supporting electrodes for efficient oxygen evolution reaction. <i>Journal of Materials Chemistry A</i> , 0, , .	10.3	14
89	γ -Adsorption promoted electrocatalytic acetylene semihydrogenation on single-atom Ni dispersed N-doped carbon. <i>Journal of Materials Chemistry A</i> , 2022, 10, 6122-6128.	10.3	14
90	In-situ formed N doped bamboo-like carbon nanotube decorated with Fe-Ni-Cr nanoparticles as efficient electrocatalysts for overall water-splitting. <i>Materials Chemistry and Physics</i> , 2020, 241, 122375.	4.0	13

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91	Polypyrrole assisted synthesis of nanosized iridium oxide for oxygen evolution reaction in acidic medium. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 33491-33499.	7.1	11
92	Hollow Concave Zinc-Doped Co ₃ O ₄ Nanosheets/Carbon Composites as Ultrahigh Capacity Anode Materials for Lithium-Ion Batteries. <i>ChemElectroChem</i> , 2021, 8, 172-178.	3.4	9
93	Regulating Water Reduction Kinetics on MoP Electrocatalysts Through Se Doping for Accelerated Alkaline Hydrogen Production. <i>Frontiers in Chemistry</i> , 2021, 9, 737495.	3.6	6
94	Functional Aqueous Zinc-Acetylene Batteries for Electricity Generation and Electrochemical Acetylene Reduction to Ethylene. <i>Angewandte Chemie</i> , 2022, 134, .	2.0	4