Jia-Cheng Wang

List of Publications by Year
in descending order

117 papers	8,925 citations	53794 45 h-index	42399 92 g-index
117 all docs	117 docs citations	117 times ranked	10603 citing authors

#	Article	IF	Citations
1	One stone two birds: Vanadium doping as dual roles in self-reduced Pt clusters and accelerated water splitting. Journal of Energy Chemistry, 2022, 66, 493-501.	12.9	35
2	Oxygen vacancy-expedited ion diffusivity in transition-metal oxides for high-performance lithium-ion batteries. Science China Materials, 2022, 65, 1421-1430.	6.3	32
3	Design Strategies for Single-Atom Iron Electrocatalysts toward Efficient Oxygen Reduction. Journal of Physical Chemistry Letters, 2022, 13, 168-174.	4.6	22
4	Boosting the transport kinetics of free-standing SnS₂@Carbon nanofibers by electronic structure modulation for advanced lithium storage. Journal of Materials Chemistry A, 2022, 10, 9468-9481.	10.3	9
5	A stretchable hardness sensor for systemic sclerosis diagnosis. Nano Energy, 2022, 98, 107242.	16.0	13
6	A nitridation route to construct high-activity interfaces toward alkaline hydrogen evolution. Journal of Materials Chemistry A, 2022, 10, 11205-11212.	10.3	9
7	Surface Engineering of Cr-Doped Cobalt Molybdate toward High-Performance Hydrogen Evolution. ACS Applied Materials & Interfaces, 2022, 14, 18607-18615.	8.0	12
8	Reconstruction-induced NiCu-based catalysts towards paired electrochemical refining. Energy and Environmental Science, 2022, 15, 3004-3014.	30.8	51
9	Coordination environment tuning of nickel sites by oxyanions to optimize methanol electro-oxidation activity. Nature Communications, 2022, 13, .	12.8	78
10	Caged-Cation-Induced Lattice Distortion in Bronze TiO₂for Cohering Nanoparticulate Hydrogen Evolution Electrocatalysts. ACS Nano, 2022, 16, 9920-9928.	14.6	17
11	A multicolorâ€emitted phosphor for temperature sensing and multimode dynamic antiâ€counterfeiting. Journal of the American Ceramic Society, 2022, 105, 6241-6251.	3.8	5
12	Spin engineering of single-site metal catalysts. Innovation(China), 2022, 3, 100268.	9.1	6
13	A Glassâ€Ceramic with Accelerated Surface Reconstruction toward the Efficient Oxygen Evolution Reaction. Angewandte Chemie - International Edition, 2021, 60, 3773-3780.	13.8	164
14	Partialâ€Singleâ€Atom, Partialâ€Nanoparticle Composites Enhance Water Dissociation for Hydrogen Evolution. Advanced Science, 2021, 8, 2001881.	11.2	85
15	A Glassâ€Ceramic with Accelerated Surface Reconstruction toward the Efficient Oxygen Evolution Reaction. Angewandte Chemie, 2021, 133, 3817-3824.	2.0	28
16	A phosphate semiconductor-induced built-in electric field boosts electron enrichment for electrocatalytic hydrogen evolution in alkaline conditions. Journal of Materials Chemistry A, 2021, 9, 13109-13114.	10.3	23
17	RuCo alloy trifunctional electrocatalysts with ratio-dependent activity for Znâ€“air batteries and self-powered water splitting. Chemical Communications, 2021, 57, 1498-1501.	4.1	25
18	Incomplete amorphous phosphorization on the surface of crystalline cobalt molybdate to accelerate hydrogen evolution. Journal of Materials Chemistry A, 2021, 9, 21859-21866.	10.3	16

#	Article	IF	Citations
19	Spider Web-like Flexible Tactile Sensor for Pressure-Strain Simultaneous Detection. ACS Applied Materials & Interfaces, 2021, 13, 10428-10436.	8.0	37
20	Intrinsic Electron Localization of Metastable MoS₂ Boosts Electrocatalytic Nitrogen Reduction to Ammonia. Advanced Materials, 2021, 33, e2007509.	21.0	96
21	Crystallinity Effect of NiFe LDH on the Growth of Pt Nanoparticles and Hydrogen Evolution Performance. Journal of Physical Chemistry Letters, 2021, 12, 7221-7228.	4.6	16
22	Suppressing Dissolution of Ptâ€Based Electrocatalysts through the Electronic Metalâ€“Support Interaction. Advanced Energy Materials, 2021, 11, 2101050.	19.5	50
23	Hollow MXene Sphere-Based Flexible E-Skin for Multiplex Tactile Detection. ACS Applied Materials & Interfaces, 2021, 13, 45924-45934.	8.0	34
24	Advance on flexible pressure sensors based on metal and carbonaceous nanomaterial. Nano Energy, 2021, 87, 106181.	16.0	86
25	Optimized electron occupancy of solid-solution transition metals for suppressing the oxygen evolution of Li₂MnO₃. Journal of Materials Chemistry A, 2021, 9, 9337-9346.	10.3	7
26	Oxygen Coordination on Feâ€“Nâ€“C to Boost Oxygen Reduction Catalysis. Journal of Physical Chemistry Letters, 2021, 12, 517-524.	4.6	20
27	Hollow MoS₂/Co nanopillars with boosted Li-ion diffusion rate and long-term cycling stability. Chemical Communications, 2021, 57, 11521-11524.	4.1	5
28	Stable Rooted Solid Electrolyte Interphase for Lithium-Ion Batteries. Journal of Physical Chemistry Letters, 2021, 12, 10521-10531.	4.6	6
29	Edge-sited Fe-N4 atomic species improve oxygen reduction activity via boosting O2 dissociation. Applied Catalysis B: Environmental, 2020, 265, 118593.	20.2	63
30	Conversion inorganic interlayer of a LiF/graphene composite in all-solid-state lithium batteries. Chemical Communications, 2020, 56, 1725-1728.	4.1	14
31	Zirconium nitride catalysts surpass platinum for oxygen reduction. Nature Materials, 2020, 19, 282-286.	27.5	293
32	S, N dual-doped porous carbon materials derived from biomass for Na ion storage and O2 electroreduction. Microporous and Mesoporous Materials, 2020, 294, 109930.	4.4	14
33	A skin-like sensor for intelligent Braille recognition. Nano Energy, 2020, 68, 104346.	16.0	87
34	Engineering Hierarchical CoO Nanospheres Wrapped by Graphene via Controllable Sulfur Doping for Superior Li Ion Storage. Small, 2020, 16, e2003643.	10.0	36
35	Highly Localized Câ€“N2 Sites for Efficient Oxygen Reduction. ACS Catalysis, 2020, 10, 9366-9375.	11.2	21
36	Interface Engineering with Ultralow Ruthenium Loading for Efficient Water Splitting. ACS Applied Materials & Interfaces, 2020, 12, 36177-36185.	8.0	35

#	Article	IF	Citations
37	Surface decoration accelerates the hydrogen evolution kinetics of a perovskite oxide in alkaline solution. Energy and Environmental Science, 2020, 13, 4249-4257.	30.8	33
38	Nickelâ€“Iron Nitrideâ€“Nickel Sulfide Composites for Oxygen Evolution Electrocatalysis. ACS Applied Materials & Interfaces, 2020, 12, 41464-41470.	8.0	44
39	Dual-doping of ruthenium and nickel into Co₃O₄for improving the oxygen evolution activity. Materials Chemistry Frontiers, 2020, 4, 1390-1396.	5.9	26
40	Fe₃C cluster-promoted single-atom Fe, N doped carbon for oxygen-reduction reaction. Physical Chemistry Chemical Physics, 2020, 22, 7218-7223.	2.8	17
41	Multidimensional graphene structures and beyond: Unique properties, syntheses and applications. Progress in Materials Science, 2020, 113, 100665.	32.8	61
42	Mesoporous Ternary Nitrides of Earth-Abundant Metals as Oxygen Evolution Electrocatalyst. Nano-Micro Letters, 2020, 12, 79.	27.0	63
43	Ultrahigh-Sensitive Finlike Double-Sided E-Skin for Force Direction Detection. ACS Applied Materials & Interfaces, 2020, 12, 14136-14144.	8.0	44
44	Multifunctional hosts of Zinc sulfide coated carbon nanotubes for lithium sulfur batteries. SN Applied Sciences, 2020, 2, 1.	2.9	3
45	In situ growth of free-standing perovskite hydroxide electrocatalysts for efficient overall water splitting. Journal of Materials Chemistry A, 2020, 8, 5919-5926.	10.3	21
46	Three-Dimensional Mesoporous Phosphideâ€“Spinel Oxide Heterojunctions with Dual Function as Catalysts for Overall Water Splitting. ACS Applied Energy Materials, 2020, 3, 1684-1693.	5.1	43
47	A porous framework infiltrating Liâ€“O₂ battery: a low-resistance and high-safety system. Sustainable Energy and Fuels, 2020, 4, 1600-1606.	4.9	10
48	Hierarchical N-Doped Porous Carbons for Znâ€“Air Batteries and Supercapacitors. Nano-Micro Letters, 2020, 12, 20.	27.0	73
49	Nitrogen-doped carbon spheres decorated with CoSx nanoparticles as multifunctional electrocatalysts for rechargeable zn-air battery and overall water splitting. Materials Research Bulletin, 2020, 125, 110770.	5.2	17
50	Nanoheterostructures of Partially Oxidized RuNi Alloy as Bifunctional Electrocatalysts for Overall Water Splitting. ChemSusChem, 2020, 13, 2739-2744.	6.8	23
51	Ruthenium Triazine Composite: A Good Match for Increasing Hydrogen Evolution Activity through Contact Electrification. Advanced Energy Materials, 2020, 10, 2000067.	19.5	52
52	Geometric Structure and Electronic Polarization Synergistically Boost Hydrogen Evolution Kinetics in Alkaline Medium. Journal of Physical Chemistry Letters, 2020, 11, 3436-3442.	4.6	18
53	A review of oxygen reduction mechanisms for metal-free carbon-based electrocatalysts. Npj Computational Materials, 2019, 5, .	8.7	480
54	Mechanochemical synthesis of multi-site electrocatalysts as bifunctional zincâ€“air battery electrodes. Journal of Materials Chemistry A, 2019, 7, 19355-19363.	10.3	53

#	Article	IF	Citations
55	Ordered Mesoporous Cobaltâ€“Nickel Nitride Prepared by Nanocasting for Oxygen Evolution Reaction Electrocatalysis. Advanced Materials Interfaces, 2019, 6, 1900960.	3.7	57
56	Halosilane triggers anodic silanization and cathodic redox for stable and efficient lithiumâ€“O₂ batteries. Journal of Materials Chemistry A, 2019, 7, 18237-18243.	10.3	15
57	Oxygen Reduction Reactions of Fe-N-C Catalysts: Current Status and the Way Forward. Electrochemical Energy Reviews, 2019, 2, 252-276.	25.5	119
58	Co2N nanoparticles embedded N-doped mesoporous carbon as efficient electrocatalysts for oxygen reduction reaction. Applied Surface Science, 2019, 473, 555-563.	6.1	23
59	Increased activity of nitrogen-doped graphene-like carbon sheets modified by iron doping for oxygen reduction. Journal of Colloid and Interface Science, 2019, 536, 42-52.	9.4	32
60	Correlating electrocatalytic oxygen reduction activity with d-band centers of metallic nanoparticles. Energy Storage Materials, 2018, 13, 189-198.	18.0	40
61	A Thermally Decomposable Template Route to Synthesize Nitrogen-Doped Wrinkled Carbon Nanosheets as Highly Efficient and Stable Electrocatalysts for the Oxygen Reduction Reaction. ACS Sustainable Chemistry and Engineering, 2018, 6, 1951-1960.	6.7	19
62	KOH activation of biomass-derived nitrogen-doped carbons forÂsupercapacitor and electrocatalytic oxygen reduction. Electrochimica Acta, 2018, 261, 49-57.	5.2	345
63	Post iron-doping of activated nitrogen-doped carbon spheres as a high-activity oxygen reduction electrocatalyst. Energy Storage Materials, 2018, 13, 142-150.	18.0	42
64	Facile Synthesis of N-Doped Graphene-Like Carbon Nanoflakes as Efficient and Stable Electrocatalysts for the Oxygen Reduction Reaction. Nano-Micro Letters, 2018, 10, 29.	27.0	85
65	Auto-optimizing Hydrogen Evolution Catalytic Activity of ReS₂ through Intrinsic Charge Engineering. ACS Nano, 2018, 12, 4486-4493.	14.6	111
66	Efficient N-doping of hollow core-mesoporous shelled carbon spheres via hydrothermal treatment in ammonia solution for the electrocatalytic oxygen reduction reaction. Microporous and Mesoporous Materials, 2018, 261, 88-97.	4.4	62
67	Creation of Triple Hierarchical Micro-Meso-Macroporous N-doped Carbon Shells with Hollow Cores Toward the Electrocatalytic Oxygen Reduction Reaction. Nano-Micro Letters, 2018, 10, 3.	27.0	99
68	MIL-100-Fe derived N-doped Fe/Fe3C@C electrocatalysts for efficient oxygen reduction reaction. Applied Surface Science, 2018, 434, 1266-1273.	6.1	59
69	Holey Sheets of Interconnected Carbon-Coated Nickel Nitride Nanoparticles as Highly Active and Durable Oxygen Evolution Electrocatalysts. ACS Applied Energy Materials, 2018, 1, 6774-6780.	5.1	28
70	Iron-nitrogen dual-doped three-dimensional mesoporous carbons for high-activity electrocatalytic oxygen reduction. Applied Materials Today, 2018, 13, 174-181.	4.3	14
71	Graphene-wrapped nitrogen-doped hollow carbon spheres for high-activity oxygen electroreduction. Materials Chemistry Frontiers, 2018, 2, 1489-1497.	5.9	19
72	Three-dimensional interconnected nitrogen-doped mesoporous carbons as active electrode materials for application in electrocatalytic oxygen reduction and supercapacitors. Journal of Colloid and Interface Science, 2018, 527, 230-240.	9.4	56

#	Article	IF	Citations
73	Novel Route to Feâ€Based Cathode as an Efficient Bifunctional Catalysts for Rechargeable Znâ€“Air Battery. Advanced Energy Materials, 2018, 8, 1800955.	19.5	146
74	Nitrogen-Doped Hollow Carbon Spheres with Embedded Co Nanoparticles as Active Non-Noble-Metal Electrocatalysts for the Oxygen Reduction Reaction. Journal of Carbon Research, 2018, 4, 11.	2.7	1
75	In situ formation of iron-cobalt sulfides embedded in N,S-doped mesoporous carbon as efficient electrocatalysts for oxygen reduction reaction. Microporous and Mesoporous Materials, 2018, 270, 1-9.	4.4	43
76	Reactive template synthesis of nitrogen-doped graphene-like carbon nanosheets derived from hydroxypropyl methylcellulose and dicyandiamide as efficient oxygen reduction electrocatalysts. Journal of Power Sources, 2017, 345, 120-130.	7.8	30
77	Achieving excellent activity and stability for oxygen reduction electrocatalysis by hollow mesoporous ironâ€“nitrogen-doped graphitic carbon spheres. Journal of Materials Chemistry A, 2017, 5, 12243-12251.	10.3	48
78	Nitrogen-doped hollow mesoporous carbon spheres as a highly active and stable metal-free electrocatalyst for oxygen reduction. Carbon, 2017, 114, 177-186.	10.3	122
79	Synthesis of Nitrogen-Doped Porous Carbon Spheres with Improved Porosity toward the Electrocatalytic Oxygen Reduction. ACS Sustainable Chemistry and Engineering, 2017, 5, 11105-11116.	6.7	61
80	Efficient electrocatalysis of hydrogen evolution by ultralow-Pt-loading bamboo-like nitrogen-doped carbon nanotubes. Materials Today Energy, 2017, 6, 173-180.	4.7	18
81	Ultrafine WC nanoparticles anchored on co-encased, N-doped carbon nanotubes for efficient hydrogen evolution. Energy Storage Materials, 2017, 6, 104-111.	18.0	48
82	Direct Observation of Fe-N4 Species as Active Sites for the Electrocatalytic Oxygen Reduction. Nano Advances, 2017, 2, 45-46.	0.4	7
83	In situ formation of nitrogen-doped carbon nanoparticles on hollow carbon spheres as efficient oxygen reduction electrocatalysts. Nanoscale, 2016, 8, 18134-18142.	5.6	52
84	The direct growth of highly dispersed CoO nanoparticles on mesoporous carbon as a high-performance electrocatalyst for the oxygen reduction reaction. RSC Advances, 2016, 6, 70763-70769.	3.6	12
85	Self-Assembly of Nitrogen-doped Graphene-Wrapped Carbon Nanoparticles as an Efficient Electrocatalyst for Oxygen Reduction Reaction. Electrochimica Acta, 2016, 216, 347-354.	5.2	19
86	Phosphorus/sulfur Co-doped porous carbon with enhanced specific capacitance for supercapacitor and improved catalytic activity for oxygen reduction reaction. Journal of Power Sources, 2016, 314, 39-48.	7.8	141
87	Ionic liquid-assisted synthesis of dual-doped graphene as efficient electrocatalysts for oxygen reduction. Carbon, 2016, 102, 58-65.	10.3	50
88	Carbon dioxide activated carbon nanofibers with hierarchical micro-/mesoporosity towards electrocatalytic oxygen reduction. Journal of Materials Chemistry A, 2016, 4, 5553-5560.	10.3	35
89	Novel synthesis of N-doped graphene as an efficient electrocatalyst towards oxygen reduction. Nano Research, 2016, 9, 808-819.	10.4	81
90	Highly Porous Nitrogen-Doped Carbon Nanofibers as Efficient Metal-Free Catalysts toward the Electrocatalytic Oxygen Reduction Reaction. Nano Advances, 2016, , 79-89.	0.4	29

#	Article	IF	Citations
91	An In Situ Sourceâ€Templateâ€Interface Reaction Route to 3D Nitrogenâ€Doped Hierarchical Porous Carbon as Oxygen Reduction Electrocatalyst. Advanced Materials Interfaces, 2015, 2, 1500199.	3.7	39
92	Ultrafine Molybdenum Carbide Nanoparticles Composited with Carbon as a Highly Active Hydrogenâ€Evolution Electrocatalyst. Angewandte Chemie - International Edition, 2015, 54, 14723-14727.	13.8	396
93	A facile nanocasting strategy to nitrogen-doped porous carbon monolith by treatment with ammonia for efficient oxygen reduction. Journal of Materials Chemistry A, 2015, 3, 12836-12844.	10.3	44
94	N-doped hierarchically macro/mesoporous carbon with excellent electrocatalytic activity and durability for oxygen reduction reaction. Carbon, 2015, 86, 108-117.	10.3	145
95	In situ growth of spinel CoFe₂O₄ nanoparticles on rod-like ordered mesoporous carbon for bifunctional electrocatalysis of both oxygen reduction and oxygen evolution. Journal of Materials Chemistry A, 2015, 3, 15598-15606.	10.3	86
96	Fungi-derived hierarchically porous carbons for high-performance supercapacitors. RSC Advances, 2015, 5, 4396-4403.	3.6	38
97	Chemically activated fungi-based porous carbons for hydrogen storage. Carbon, 2014, 75, 372-380.	10.3	106
98	An efficient one-step condensation and activation strategy to synthesize porous carbons with optimal micropore sizes for highly selective CO₂ adsorption. Nanoscale, 2014, 6, 4148-4156.	5.6	80
99	Highly porous nitrogen-doped polyimine-based carbons with adjustable microstructures for CO2 capture. Journal of Materials Chemistry A, 2013, 1, 10951.	10.3	189
100	Imine-Linked Polymer-Derived Nitrogen-Doped Microporous Carbons with Excellent CO₂ Capture Properties. ACS Applied Materials & Interfaces, 2013, 5, 3160-3167.	8.0	158
101	Influence of spatial configurations on electromagnetic interference shielding of ordered mesoporous carbon/ordered mesoporous silica/silica composites. Scientific Reports, 2013, 3, 3252.	3.3	40
102	A covalent route for efficient surface modification of ordered mesoporous carbon as high performance microwave absorbers. Nanoscale, 2013, 5, 12502.	5.6	129
103	Synthesis and electromagnetic interference shielding effectiveness of ordered mesoporous carbon filled poly(methyl methacrylate) composite films. RSC Advances, 2013, 3, 23715.	3.6	24
104	Fungi-based porous carbons for CO2 adsorption and separation. Journal of Materials Chemistry, 2012, 22, 13911.	6.7	204
105	Synthesis, characterization, and hydrogen storage capacities of hierarchical porous carbide derived carbon monolith. Journal of Materials Chemistry, 2012, 22, 23893.	6.7	50
106	KOH activation of carbon-based materials for energy storage. Journal of Materials Chemistry, 2012, 22, 23710.	6.7	2,127
107	Hexagonally ordered mesoporous phosphates oxynitrides. Microporous and Mesoporous Materials, 2008, 107, 233-239.	4.4	8
108	Synthesis, characterization, and baseâ€“catalytic performance of ordered mesoporous aluminophosphate oxynitride materials. Journal of Materials Research, 2007, 22, 3330-3337.	2.6	10

#	Article	IF	Citations
109	An Ordered Mesoporous Aluminosilicate Oxynitride Template to Prepare N-Incorporated Ordered Mesoporous Carbon. Journal of Physical Chemistry C, 2007, 111, 7266-7272.	3.1	52
110	Poly(3,4-ethylenedioxythiophene)/Mesoporous Carbon Composite. Journal of Physical Chemistry C, 2007, 111, 18073-18077.	3.1	31
111	An experimental study of the mechanisms of freeze/thaw and wind erosion of ancient adobe buildings in northwest China. Bulletin of Engineering Geology and the Environment, 2007, 66, 153-159.	3.5	25
112	Mesoporous silicon oxynitride thin films. Chemical Communications, 2006, , 900.	4.1	25
113	Synthesis and characterization of ordered mesoporous SiOxNythin films with different nitrogen contents. Nanotechnology, 2006, 17, 2828-2834.	2.6	12
114	Structural change and characterization in nitrogen-incorporated SBA15 oxynitride mesoporous materials via different thermal history. Microporous and Mesoporous Materials, 2005, 83, 225-232.	4.4	67
115	Nitrogen Loss and Structural Change of Nitrogen-incorporated SBA-15 Mesoporous Materials Under Different Treatment Conditions. Journal of Materials Research, 2005, 20, 2296-2301.	2.6	22
116	The impact of solar radiation upon rock weathering at low temperature: a laboratory study. Permafrost and Periglacial Processes, 2003, 14, 61-67.	3.4	13
117	Mechanism of frost heave by film water migration under temperature gradient. Science Bulletin, 1997, 42, 1290-1294.	1.7	6