

A metal-organic framework-derived bifunctional oxy

Nature Energy

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DOI: [10.1038/nenergy.2015.6](https://doi.org/10.1038/nenergy.2015.6)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Recent Progress on MOF-Derived Nanomaterials as Advanced Electrocatalysts in Fuel Cells. <i>Catalysts</i> , 2016, 6, 116.	1.6	105
2	N-Doped graphene-supported Co@CoO core-shell nanoparticles as high-performance bifunctional electrocatalysts for overall water splitting. <i>Journal of Materials Chemistry A</i> , 2016, 4, 12046-12053.	5.2	91
3	Construction of Complex CoS Hollow Structures with Enhanced Electrochemical Properties for Hybrid Supercapacitors. <i>CheM</i> , 2016, 1, 102-113.	5.8	525
4	Pomegranate-inspired Design of Highly Active and Durable Bifunctional Electrocatalysts for Rechargeable Metal-Air Batteries. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 4977-4982.	7.2	258
5	Hierarchical Tubular Structures Composed of Co ₃ O ₄ Hollow Nanoparticles and Carbon Nanotubes for Lithium Storage. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 5990-5993.	7.2	413
6	Porous CNTs/Co Composite Derived from Zeolitic Imidazolate Framework: A Lightweight, Ultrathin, and Highly Efficient Electromagnetic Wave Absorber. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 34686-34698.	4.0	427
7	Sulfur doped reduced graphene oxides with enhanced catalytic activity for oxygen reduction via molten salt redox-sulfidation. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 32653-32657.	1.3	10
8	Coupled cobalt oxide/hollow carbon sphere as an efficient electrocatalyst for the oxygen reduction reaction. <i>RSC Advances</i> , 2016, 6, 34159-34164.	1.7	14
9	Electrocatalytic study of a 1,10-phenanthroline-cobalt(II) metal complex catalyst supported on reduced graphene oxide towards oxygen reduction reaction. <i>RSC Advances</i> , 2016, 6, 33302-33307.	1.7	25
10	Switching effective oxygen reduction and evolution performance by controlled graphitization of a cobalt-nitrogen-carbon framework system. <i>Energy and Environmental Science</i> , 2016, 9, 1661-1667.	15.6	281
11	Facile synthesis of a metal-organic framework-derived Mn ₂ O ₃ nanowire coated three-dimensional graphene network for high-performance free-standing supercapacitor electrodes. <i>Journal of Materials Chemistry A</i> , 2016, 4, 8283-8290.	5.2	167
12	A hollow spherical doped carbon catalyst derived from zeolitic imidazolate framework nanocrystals impregnated/covered with iron phthalocyanines. <i>Journal of Materials Chemistry A</i> , 2016, 4, 7859-7868.	5.2	37
13	Highly Efficient Oxygen Reduction Catalysts by Rational Synthesis of Nanoconfined Maghemite in a Nitrogen-Doped Graphene Framework. <i>ACS Catalysis</i> , 2016, 6, 3558-3568.	5.5	74
14	Co ₃ ZnCo nano heterojunctions encapsulated in N-doped graphene layers derived from PBAs as highly efficient bi-functional OER and ORR electrocatalysts. <i>Journal of Materials Chemistry A</i> , 2016, 4, 9204-9212.	5.2	154
15	Nanocage containing metal-organic framework constructed from a newly designed low symmetry tetra-pyrazole ligand. <i>Journal of Coordination Chemistry</i> , 2016, 69, 3242-3249.	0.8	1
16	Bifunctional CoP and CoN porous nanocatalysts derived from ZIF-67 in situ grown on nanowire photoelectrodes for efficient photoelectrochemical water splitting and CO ₂ reduction. <i>Journal of Materials Chemistry A</i> , 2016, 4, 15353-15360.	5.2	90
17	A monolithic metal-free electrocatalyst for oxygen evolution reaction and overall water splitting. <i>Energy and Environmental Science</i> , 2016, 9, 3411-3416.	15.6	197
18	Keratin-derived S/N co-doped graphene-like nanobubble and nanosheet hybrids for highly efficient oxygen reduction. <i>Journal of Materials Chemistry A</i> , 2016, 4, 15870-15879.	5.2	81

#	ARTICLE	IF	CITATIONS
19	Nanosized inorganic porous materials: fabrication, modification and application. Journal of Materials Chemistry A, 2016, 4, 16756-16770.	5.2	43
20	Nanostructured Bifunctional Redox Electrocatalysts. Small, 2016, 12, 5656-5675.	5.2	174
21	Core-shell carbon materials derived from metal-organic frameworks as an efficient oxygen bifunctional electrocatalyst. Nano Energy, 2016, 30, 368-378.	8.2	229
22	Transition metal (Fe, Co, Ni, and Mn) oxides for oxygen reduction and evolution bifunctional catalysts in alkaline media. Nano Today, 2016, 11, 601-625.	6.2	738
23	Electrocatalytically Active Graphene supported MMo Carbides (M Ni, Co) for Oxygen Reduction Reaction. Electrochimica Acta, 2016, 216, 246-252.	2.6	27
24	Facile synthesis and excellent electrochemical performance of reduced graphene oxide@Co ₃ O ₄ yolk-shell nanocages as a catalyst for oxygen evolution reaction. Journal of Materials Chemistry A, 2016, 4, 13534-13542.	5.2	130
25	ZIF-derived nitrogen-doped carbon/3D graphene frameworks for all-solid-state supercapacitors. RSC Advances, 2016, 6, 76575-76581.	1.7	15
26	Encapsulating Sn Nanoparticles in Amorphous Carbon Nanotubes for Enhanced Lithium Storage Properties. Advanced Energy Materials, 2016, 6, 1601177.	10.2	234
27	Porous cobalt phosphide/graphitic carbon polyhedral hybrid composites for efficient oxygen evolution reactions. Journal of Materials Chemistry A, 2016, 4, 13742-13745.	5.2	117
28	Interface-modulated approach toward multilevel metal oxide nanotubes for lithium-ion batteries and oxygen reduction reaction. Nano Research, 2016, 9, 2445-2457.	5.8	40
29	A dual-metal-organic-framework derived electrocatalyst for oxygen reduction. Energy and Environmental Science, 2016, 9, 3092-3096.	15.6	344
30	Multifunctional high-activity and robust electrocatalyst derived from metal-organic frameworks. Journal of Materials Chemistry A, 2016, 4, 17288-17298.	5.2	123
31	A Metal-Amino Acid Complex-Derived Bifunctional Oxygen Electrocatalyst for Rechargeable Zinc-Air Batteries. Small, 2016, 12, 5414-5421.	5.2	48
32	Yolk-Shell MnO@ZnMn ₂ O ₄ /N-C Nanorods Derived from MnO/ZIF-8 as Anode Materials for Lithium Ion Batteries. Small, 2016, 12, 5564-5571.	5.2	130
33	Formation of CoS ₂ Nanobubble Hollow Prisms for Highly Reversible Lithium Storage. Angewandte Chemie, 2016, 128, 13620-13624.	1.6	49
34	Formation of CoS ₂ Nanobubble Hollow Prisms for Highly Reversible Lithium Storage. Angewandte Chemie - International Edition, 2016, 55, 13422-13426.	7.2	346
35	CoSe ₂ nanoparticles embedded defective carbon nanotubes derived from MOFs as efficient electrocatalyst for hydrogen evolution reaction. Nano Energy, 2016, 28, 143-150.	8.2	278
36	Strongly Coupled FeNi Alloys/NiFe ₂ O ₄ @Carbonitride Layers-Assembled Microboxes for Enhanced Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2016, 8, 34396-34404.	4.0	130

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37	Integrated Co ₃ O ₄ /TiO ₂ Composite Hollow Polyhedrons Prepared via Cation-exchange Metal-Organic Framework for Superior Lithium-ion Batteries. <i>Electrochimica Acta</i> , 2016, 222, 1021-1028.	2.6	50
38	Tuning the Catalytic Activity of a Metal-Organic Framework Derived Copper and Nitrogen Co-Doped Carbon Composite for Oxygen Reduction Reaction. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 26769-26774.	4.0	63
39	Ternary Metal Phosphide with Triple-Layered Structure as a Low-Cost and Efficient Electrocatalyst for Bifunctional Water Splitting. <i>Advanced Functional Materials</i> , 2016, 26, 7644-7651.	7.8	389
40	Highly Ordered Mesoporous Bimetallic Phosphides as Efficient Oxygen Evolution Electrocatalysts. <i>ACS Energy Letters</i> , 2016, 1, 792-796.	8.8	139
41	High-performance bifunctional oxygen electrocatalyst derived from iron and nickel substituted perfluorosulfonic acid/polytetrafluoroethylene copolymer. <i>Nano Energy</i> , 2016, 30, 801-809.	8.2	46
42	Development of MOF-Derived Carbon-Based Nanomaterials for Efficient Catalysis. <i>ACS Catalysis</i> , 2016, 6, 5887-5903.	5.5	1,077
43	Formation of N-doped molybdenum carbide confined in hierarchical and hollow carbon nitride microspheres with enhanced sodium storage properties. <i>Journal of Materials Chemistry A</i> , 2016, 4, 13296-13306.	5.2	84
44	Egg-Derived Mesoporous Carbon Microspheres as Bifunctional Oxygen Evolution and Oxygen Reduction Electrocatalysts. <i>Advanced Energy Materials</i> , 2016, 6, 1600794.	10.2	177
45	Electrospun cobalt embedded porous nitrogen doped carbon nanofibers as an efficient catalyst for water splitting. <i>Journal of Materials Chemistry A</i> , 2016, 4, 12818-12824.	5.2	87
46	Emerging Multifunctional Metal-Organic Framework Materials. <i>Advanced Materials</i> , 2016, 28, 8819-8860.	11.1	1,227
47	An Efficient Electrocatalyst Derived from Bamboo Leaves for the Oxygen Reduction Reaction. <i>ChemElectroChem</i> , 2016, 3, 1466-1470.	1.7	14
48	A Lamellar Hybrid Assembled from Metal Disulfide Nanowall Arrays Anchored on a Carbon Layer: In Situ Hybridization and Improved Sodium Storage. <i>Advanced Materials</i> , 2016, 28, 7774-7782.	11.1	142
49	Non-precious Mn _{1.5} Co _{1.5} O ₄ -FeN _x /C nanocomposite as a synergistic catalyst for oxygen reduction in alkaline media. <i>RSC Advances</i> , 2016, 6, 69167-69176.	1.7	4
50	Porous Molybdenum Phosphide Nano-Octahedrons Derived from Confined Phosphorization in UIO ₆₆ for Efficient Hydrogen Evolution. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 12854-12858.	7.2	331
51	Porous Molybdenum Phosphide Nano-Octahedrons Derived from Confined Phosphorization in UIO ₆₆ for Efficient Hydrogen Evolution. <i>Angewandte Chemie</i> , 2016, 128, 13046-13050.	1.6	100
52	Electrospun Nitrogen-Doped Carbon Nanofibers Encapsulating Cobalt Nanoparticles as Efficient Oxygen Reduction Reaction Catalysts. <i>ChemElectroChem</i> , 2016, 3, 1437-1445.	1.7	35
53	Bimetallic Metal-Organic Frameworks for Controlled Catalytic Graphitization of Nanoporous Carbons. <i>Scientific Reports</i> , 2016, 6, 30295.	1.6	314
54	Platanus hispanica-inspired design of Co-carbon nanotube frameworks through chemical vapor deposition: a highly integrated hierarchical electrocatalyst for oxygen reduction reactions. <i>Chemical Communications</i> , 2016, 52, 12992-12995.	2.2	13

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55	Interwoven heterostructural Co ₃ O ₄ @carbon@FeOOH hollow polyhedrons with improved electrochemical performance. <i>Journal of Materials Chemistry A</i> , 2016, 4, 19011-19018.	5.2	24
56	Surface engineering of carbon fiber paper for efficient capacitive energy storage. <i>Journal of Materials Chemistry A</i> , 2016, 4, 18639-18645.	5.2	63
57	A General Approach to Preferential Formation of Active Fe ^N Sites in Fe ^N /C Electrocatalysts for Efficient Oxygen Reduction Reaction. <i>Journal of the American Chemical Society</i> , 2016, 138, 15046-15056.	6.6	663
58	N-doped graphene layers encapsulated NiFe alloy nanoparticles derived from MOFs with superior electrochemical performance for oxygen evolution reaction. <i>Scientific Reports</i> , 2016, 6, 34004.	1.6	104
59	Novel CoP Hollow Prisms as Bifunctional Electrocatalysts for Hydrogen Evolution Reaction in Acid media and Overall Water-splitting in Basic media. <i>Electrochimica Acta</i> , 2016, 220, 98-106.	2.6	64
60	CO ₂ Laser Direct Written MOF-Based Metal-Decorated and Heteroatom-Doped Porous Graphene for Flexible All-Solid-State Microsupercapacitor with Extremely High Cycling Stability. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 31841-31848.	4.0	72
61	Pomegranate-Inspired Design of Highly Active and Durable Bifunctional Electrocatalysts for Rechargeable Metal-Air Batteries. <i>Angewandte Chemie</i> , 2016, 128, 5061-5066.	1.6	20
62	Hierarchical Tubular Structures Composed of Co ₃ O ₄ Hollow Nanoparticles and Carbon Nanotubes for Lithium Storage. <i>Angewandte Chemie</i> , 2016, 128, 6094-6097.	1.6	58
63	Metal-Derived Mesoporous Structure of a Carbon Nanofiber Electrocatalyst for Improved Oxygen Evolution Reaction in Alkaline Water Electrolysis. <i>ChemElectroChem</i> , 2016, 3, 1720-1724.	1.7	11
64	Integrating cobalt phosphide and cobalt nitride-embedded nitrogen-rich nanocarbons: high-performance bifunctional electrocatalysts for oxygen reduction and evolution. <i>Journal of Materials Chemistry A</i> , 2016, 4, 10575-10584.	5.2	141
65	All-solid-state asymmetric supercapacitors based on ZnO quantum dots/carbon/CNT and porous N-doped carbon/CNT electrodes derived from a single ZIF-8/CNT template. <i>Journal of Materials Chemistry A</i> , 2016, 4, 10282-10293.	5.2	109
66	Crystalline phase-function relationship of in situ growth Ni _x S _y controlled by sulfuration degree for oxygen evolution reaction. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 13032-13038.	3.8	12
67	Enhanced oxygen evolution reaction of metallic nickel phosphide nanosheets by surface modification. <i>Inorganic Chemistry Frontiers</i> , 2016, 3, 1021-1027.	3.0	58
68	Ternary NiCoP nanosheet arrays: An excellent bifunctional catalyst for alkaline overall water splitting. <i>Nano Research</i> , 2016, 9, 2251-2259.	5.8	342
69	Microwave-assisted synthesis of sulfur-doped graphene supported PdW nanoparticles as a high performance electrocatalyst for the oxygen reduction reaction. <i>Electrochemistry Communications</i> , 2016, 69, 68-71.	2.3	18
70	An Alkaline-Stable, Metal Hydroxide Mimicking Metal-Organic Framework for Efficient Electrocatalytic Oxygen Evolution. <i>Journal of the American Chemical Society</i> , 2016, 138, 8336-8339.	6.6	453
71	Flexible Rechargeable Zinc-Air Batteries through Morphological Emulation of Human Hair Array. <i>Advanced Materials</i> , 2016, 28, 6421-6428.	11.1	183
72	Enriching Co nanoparticles inside carbon nanofibers via nanoscale assembly of metal-organic complexes for highly efficient hydrogen evolution. <i>Nano Energy</i> , 2016, 22, 79-86.	8.2	68

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73	Heteroatom doped graphdiyne as efficient metal-free electrocatalyst for oxygen reduction reaction in alkaline medium. <i>Journal of Materials Chemistry A</i> , 2016, 4, 4738-4744.	5.2	139
74	Optimization of cobalt/nitrogen embedded carbon nanotubes as an efficient bifunctional oxygen electrode for rechargeable zinc-air batteries. <i>Journal of Materials Chemistry A</i> , 2016, 4, 4864-4870.	5.2	72
75	Can metal-nitrogen-carbon catalysts satisfy oxygen electrochemistry?. <i>Journal of Materials Chemistry A</i> , 2016, 4, 4998-5001.	5.2	72
76	One-pot synthesis of boron-doped ordered mesoporous carbons as efficient electrocatalysts for the oxygen reduction reaction. <i>RSC Advances</i> , 2016, 6, 24728-24737.	1.7	26
77	Ionic liquid-assisted synthesis of dual-doped graphene as efficient electrocatalysts for oxygen reduction. <i>Carbon</i> , 2016, 102, 58-65.	5.4	50
78	NiSe ₂ pyramids deposited on N-doped graphene encapsulated Ni foam for high-performance water oxidation. <i>Journal of Materials Chemistry A</i> , 2017, 5, 3981-3986.	5.2	67
79	Nickel Nanoparticles Encapsulated in Few-Layer Nitrogen-Doped Graphene Derived from Metal-Organic Frameworks as Efficient Bifunctional Electrocatalysts for Overall Water Splitting. <i>Advanced Materials</i> , 2017, 29, 1605957.	11.1	507
80	General Synthesis of Multishell Mixed-Metal Oxyphosphide Particles with Enhanced Electrocatalytic Activity in the Oxygen Evolution Reaction. <i>Angewandte Chemie</i> , 2017, 129, 2426-2429.	1.6	37
81	General Synthesis of Multishell Mixed-Metal Oxyphosphide Particles with Enhanced Electrocatalytic Activity in the Oxygen Evolution Reaction. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 2386-2389.	7.2	257
82	Lamellar Metal Organic Framework-Derived Fe-N-C Non-Noble Electrocatalysts with Bimodal Porosity for Efficient Oxygen Reduction. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 5272-5278.	4.0	95
83	Modular and Stepwise Synthesis of a Hybrid Metal-Organic Framework for Efficient Electrocatalytic Oxygen Evolution. <i>Journal of the American Chemical Society</i> , 2017, 139, 1778-1781.	6.6	341
84	Embedding CoS ₂ nanoparticles in N-doped carbon nanotube hollow frameworks for enhanced lithium storage properties. <i>Nano Research</i> , 2017, 10, 4298-4304.	5.8	153
85	Self-Templated Synthesis of Co- and N-Doped Carbon Microtubes Composed of Hollow Nanospheres and Nanotubes for Efficient Oxygen Reduction Reaction. <i>Small</i> , 2017, 13, 1603437.	5.2	57
86	Preparation of NiCoP Hollow Quasi-Polyhedra and Their Electrocatalytic Properties for Hydrogen Evolution in Alkaline Solution. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 5982-5991.	4.0	217
87	An Efficient Bifunctional Electrocatalyst for a Zinc-Air Battery Derived from Fe/N/C and Bimetallic Metal-Organic Framework Composites. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 5213-5221.	4.0	113
88	Recent Progress in Metal-Organic Frameworks for Applications in Electrocatalytic and Photocatalytic Water Splitting. <i>Advanced Science</i> , 2017, 4, 1600371.	5.6	594
89	Oxidized carbon fiber supported vertical WS ₂ nanosheets arrays as efficient 3 D nanostructure electrocatalysts for hydrogen evolution reaction. <i>Applied Surface Science</i> , 2017, 402, 120-128.	3.1	68
90	Metal-Organic Frameworks for Energy Applications. <i>Chem</i> , 2017, 2, 52-80.	5.8	941

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91	Complex Hollow Nanostructures: Synthesis and Energy-Related Applications. <i>Advanced Materials</i> , 2017, 29, 1604563.	11.1	627
92	Atomically Dispersed Fe/N-Doped Hierarchical Carbon Architectures Derived from a Metal-Organic Framework Composite for Extremely Efficient Electrocatalysis. <i>ACS Energy Letters</i> , 2017, 2, 504-511.	8.8	279
93	Insight into the enhanced photoelectrocatalytic activity in reduced LaFeO ₃ films. <i>Chemical Communications</i> , 2017, 53, 2499-2502.	2.2	20
94	Cobalt nanoparticles encapsulated in carbon nanotube-grafted nitrogen and sulfur co-doped multichannel carbon fibers as efficient bifunctional oxygen electrocatalysts. <i>Journal of Materials Chemistry A</i> , 2017, 5, 4949-4961.	5.2	129
95	Coupling multiphase-Fe and hierarchical N-doped graphitic carbon as trifunctional electrocatalysts by supramolecular preorganization of precursors. <i>Chemical Communications</i> , 2017, 53, 2044-2047.	2.2	49
96	Electrodeposition-Solvothermal Access to Ternary Mixed Metal Ni-Co-Fe Sulfides for Highly Efficient Electrocatalytic Water Oxidation in Alkaline Media. <i>Electrochimica Acta</i> , 2017, 230, 151-159.	2.6	54
97	Nickel-cobalt oxides supported on Co/N decorated graphene as an excellent bifunctional oxygen catalyst. <i>Journal of Materials Chemistry A</i> , 2017, 5, 5594-5600.	5.2	119
98	From Ru nanoparticle-encapsulated metal-organic frameworks to highly catalytically active Cu/Ru nanoparticle-embedded porous carbon. <i>Journal of Materials Chemistry A</i> , 2017, 5, 4835-4841.	5.2	80
99	Coordination Polymers Derived General Synthesis of Multishelled Mixed Metal-Oxide Particles for Hybrid Supercapacitors. <i>Advanced Materials</i> , 2017, 29, 1605902.	11.1	345
100	Selective Electrochemical Detection of Dopamine on Polyoxometalate-Based Metal-Organic Framework and Its Composite with Reduced Graphene Oxide. <i>Advanced Materials Interfaces</i> , 2017, 4, 1601241.	1.9	51
101	A tailored double perovskite nanofiber catalyst enables ultrafast oxygen evolution. <i>Nature Communications</i> , 2017, 8, 14586.	5.8	327
102	Metal-Organic Framework Mediated Cobalt/Nitrogen-Doped Carbon Hybrids as Efficient and Chemoselective Catalysts for the Hydrogenation of Nitroarenes. <i>ChemCatChem</i> , 2017, 9, 1854-1862.	1.8	83
103	Design of 3-Dimensional Hierarchical Architectures of Carbon and Highly Active Transition Metals (Fe, Ti). <i>Advanced Materials</i> , 2017, 29, 1665-1675.	3.2	104
104	Hollow Nitrogen-Doped Carbon Spheres with Fe ₃ O ₄ Nanoparticles Encapsulated as a Highly Active Oxygen-Reduction Catalyst. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 10610-10617.	4.0	128
105	General synthesis of zeolitic imidazolate framework-derived planar-N-doped porous carbon nanosheets for efficient oxygen reduction. <i>Energy Storage Materials</i> , 2017, 7, 181-188.	9.5	31
106	Reactive template synthesis of nitrogen-doped graphene-like carbon nanosheets derived from hydroxypropyl methylcellulose and dicyandiamide as efficient oxygen reduction electrocatalysts. <i>Journal of Power Sources</i> , 2017, 345, 120-130.	4.0	30
107	Phosphorus and oxygen dual-doped graphene as superior anode material for room-temperature potassium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2017, 5, 7854-7861.	5.2	233
108	Isolated Single Iron Atoms Anchored on N-Doped Porous Carbon as an Efficient Electrocatalyst for the Oxygen Reduction Reaction. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 6937-6941.	7.2	1,542

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109	Isolated Single Iron Atoms Anchored on Nâ€Doped Porous Carbon as an Efficient Electrocatalyst for the Oxygen Reduction Reaction. <i>Angewandte Chemie</i> , 2017, 129, 7041-7045.	1.6	306
110	A MOF-derived self-template strategy toward cobalt phosphide electrodes with ultralong cycle life and high capacity. <i>Journal of Materials Chemistry A</i> , 2017, 5, 10321-10327.	5.2	98
111	Hybrid micro-/nano-structures derived from metalâ€organic frameworks: preparation and applications in energy storage and conversion. <i>Chemical Society Reviews</i> , 2017, 46, 2660-2677.	18.7	866
112	<i>In Situ</i> Expanding Pores of Dodecahedron-like Carbon Frameworks Derived from MOFs for Enhanced Capacitive Deionization. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 15068-15078.	4.0	134
113	Nitrogen and Fluorineâ€Codoped Carbon Nanowire Aerogels as Metalâ€Free Electrocatalysts for Oxygen Reduction Reaction. <i>Chemistry - A European Journal</i> , 2017, 23, 10460-10464.	1.7	52
114	Hierarchically porous nitrogen-doped carbon nanotubes derived from coreâ€shell ZnO@zeolitic imidazolate framework nanorods for highly efficient oxygen reduction reactions. <i>Journal of Materials Chemistry A</i> , 2017, 5, 12322-12329.	5.2	93
115	Molecular Design of Mesoporous NiCo ₂ O ₄ and NiCo ₂ S ₄ with Subâ€Micrometerâ€Polyhedron Architectures for Efficient Pseudocapacitive Energy Storage. <i>Advanced Functional Materials</i> , 2017, 27, 1701229.	7.8	230
116	Defect Chemistry of Nonpreciousâ€Metal Electrocatalysts for Oxygen Reactions. <i>Advanced Materials</i> , 2017, 29, 1606459.	11.1	1,260
117	Metalâ€Organic Frameworkâ€Derived Nonâ€Precious Metal Nanocatalysts for Oxygen Reduction Reaction. <i>Advanced Energy Materials</i> , 2017, 7, 1700363.	10.2	297
118	Directed synthesis of carbon nanotube arrays based on layered double hydroxides toward highly-efficient bifunctional oxygen electrocatalysis. <i>Nano Energy</i> , 2017, 37, 98-107.	8.2	129
119	Deciphering the Structural Relationships of Five Cd-Based Metalâ€Organic Frameworks. <i>Inorganic Chemistry</i> , 2017, 56, 6522-6531.	1.9	41
120	Modifying Commercial Carbon with Trace Amounts of ZIF to Prepare Derivatives with Superior ORR Activities. <i>Advanced Materials</i> , 2017, 29, 1701354.	11.1	94
121	Cu, Coâ€Embedded Nâ€Enriched Mesoporous Carbon for Efficient Oxygen Reduction and Hydrogen Evolution Reactions. <i>Advanced Energy Materials</i> , 2017, 7, 1700193.	10.2	487
122	Hollow Carbon Nanopolyhedra for Enhanced Electrocatalysis via Confined Hierarchical Porosity. <i>Small</i> , 2017, 13, 1700238.	5.2	71
123	One-Step Conversion from Coreâ€Shell Metalâ€Organic Framework Materials to Cobalt and Nitrogen Codoped Carbon Nanopolyhedra with Hierarchically Porous Structure for Highly Efficient Oxygen Reduction. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 16109-16116.	4.0	117
124	The marriage and integration of nanostructures with different dimensions for synergistic electrocatalysis. <i>Energy and Environmental Science</i> , 2017, 10, 321-330.	15.6	104
125	High oxygen reduction activity on a metalâ€organic framework derived carbon combined with high degree of graphitization and pyridinic-N dopants. <i>Journal of Materials Chemistry A</i> , 2017, 5, 789-795.	5.2	171
126	Electrospun ZIF-based hierarchical carbon fiber as an efficient electrocatalyst for the oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , 2017, 5, 1211-1220.	5.2	161

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127	Tuning Electronic Structures of Nonprecious Ternary Alloys Encapsulated in Graphene Layers for Optimizing Overall Water Splitting Activity. <i>ACS Catalysis</i> , 2017, 7, 469-479.	5.5	342
128	Functional Carbon Nanomesh Clusters. <i>Advanced Functional Materials</i> , 2017, 27, 1701514.	7.8	18
129	Metal-Organic Framework-Derived Hybrid Carbon Nanocages as a Bifunctional Electrocatalyst for Oxygen Reduction and Evolution. <i>Advanced Materials</i> , 2017, 29, 1700874.	11.1	678
130	A Bifunctional Hybrid Electrocatalyst for Oxygen Reduction and Evolution: Cobalt Oxide Nanoparticles Strongly Coupled to B,N-Decorated Graphene. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 7121-7125.	7.2	395
131	A Bifunctional Hybrid Electrocatalyst for Oxygen Reduction and Evolution: Cobalt Oxide Nanoparticles Strongly Coupled to B,N-Decorated Graphene. <i>Angewandte Chemie</i> , 2017, 129, 7227-7231.	1.6	59
132	Einzelatom-Elektrokatalysatoren. <i>Angewandte Chemie</i> , 2017, 129, 14132-14148.	1.6	99
133	Single-Atom Electrocatalysts. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 13944-13960.	7.2	1,040
134	Morphology and Structure Engineering in Nanofiber Reactor: Tubular Hierarchical Integrated Networks Composed of Dual Phase Octahedral CoMn_2O_4 /Carbon Nanofibers for Water Oxidation. <i>Small</i> , 2017, 13, 1700468.	5.2	66
135	Hierarchically mesoporous nickel-iron nitride as a cost-efficient and highly durable electrocatalyst for Zn-air battery. <i>Nano Energy</i> , 2017, 39, 77-85.	8.2	216
136	Direct synthesis of a carbon nanotube interpenetrated doped porous carbon alloy as a durable Pt-free electrocatalyst for the oxygen reduction reaction in an alkaline medium. <i>Sustainable Energy and Fuels</i> , 2017, 1, 1524-1532.	2.5	16
137	Two-Dimensional Cobalt/N-Doped Carbon Hybrid Structure Derived from Metal-Organic Frameworks as Efficient Electrocatalysts for Hydrogen Evolution. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 5646-5650.	3.2	50
138	Unraveling the Nature of Sites Active toward Hydrogen Peroxide Reduction in Fe-N-C Catalysts. <i>Angewandte Chemie</i> , 2017, 129, 8935-8938.	1.6	16
139	Coordination polymer derived cobalt embedded in nitrogen-doped carbon nanotubes for efficient electrocatalysis of oxygen evolution reaction. <i>Journal of Solid State Chemistry</i> , 2017, 253, 227-230.	1.4	24
140	Unprecedented Activity of Bifunctional Electrocatalyst for High Power Density Aqueous Zinc-Air Batteries. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 21216-21224.	4.0	64
141	Engineering hollow polyhedrons structured from carbon-coated CoSe_2 nanospheres bridged by CNTs with boosted sodium storage performance. <i>Journal of Materials Chemistry A</i> , 2017, 5, 13591-13600.	5.2	225
142	Design Strategies toward Advanced MOF-Derived Electrocatalysts for Energy Conversion Reactions. <i>Advanced Energy Materials</i> , 2017, 7, 1700518.	10.2	539
143	General Oriented Formation of Carbon Nanotubes from Metal-Organic Frameworks. <i>Journal of the American Chemical Society</i> , 2017, 139, 8212-8221.	6.6	777
144	In situ directional formation of Co@CoO_x -embedded 1D carbon nanotubes as an efficient oxygen electrocatalyst for ultra-high rate Zn-air batteries. <i>Journal of Materials Chemistry A</i> , 2017, 5, 13994-14002.	5.2	74

#	ARTICLE	IF	CITATIONS
145	Synthesis of nano-porous carbon and nitrogen doped carbon dots from an anionic MOF: a trace cobalt metal residue in carbon dots promotes electrocatalytic ORR activity. <i>Journal of Materials Chemistry A</i> , 2017, 5, 13573-13580.	5.2	96
146	Unraveling the Nature of Sites Active toward Hydrogen Peroxide Reduction in Fe-N-C Catalysts. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 8809-8812.	7.2	176
147	The removal efficiency and insight into the mechanism of para arsanilic acid adsorption on Fe-Mn framework. <i>Science of the Total Environment</i> , 2017, 601-602, 713-722.	3.9	32
148	Complex Cobalt Sulfide Nanobubble Cages with Enhanced Electrochemical Properties. <i>Small Methods</i> , 2017, 1, 1700158.	4.6	33
149	Two-Electron Oxygen Reduction on Carbon Materials Catalysts: Mechanisms and Active Sites. <i>Journal of Physical Chemistry C</i> , 2017, 121, 14524-14533.	1.5	89
150	Component Matters: Paving the Roadmap toward Enhanced Electrocatalytic Performance of Graphitic C ₃ N ₄ -Based Catalysts via Atomic Tuning. <i>ACS Nano</i> , 2017, 11, 6004-6014.	7.3	144
151	MO-Co@N-Doped Carbon (M = Zn or Co): Vital Roles of Inactive Zn and Highly Efficient Activity toward Oxygen Reduction/Evolution Reactions for Rechargeable Zn-Air Battery. <i>Advanced Functional Materials</i> , 2017, 27, 1700795.	7.8	224
152	Three-dimensional nanoarchitectures of Co nanoparticles inlaid on N-doped macroporous carbon as bifunctional electrocatalysts for glucose fuel cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 14763-14774.	5.2	41
153	3D interconnected hierarchically porous N-doped carbon with NH ₃ activation for efficient oxygen reduction reaction. <i>Applied Catalysis B: Environmental</i> , 2017, 210, 57-66.	10.8	131
154	Enhanced electrocatalytic activity of Co@N-doped carbon nanotubes by ultrasmall defect-rich TiO ₂ nanoparticles for hydrogen evolution reaction. <i>Nano Research</i> , 2017, 10, 2599-2609.	5.8	69
155	In situ electrochemically converting Fe ₂ O ₃ -Ni(OH) ₂ to NiFe ₂ O ₄ -NiOOH: a highly efficient electrocatalyst towards water oxidation. <i>Science China Materials</i> , 2017, 60, 324-334.	3.5	107
156	Fe, Co bimetal activated N-doped graphitic carbon layers as noble metal-free electrocatalysts for high-performance oxygen reduction reaction. <i>Journal of Alloys and Compounds</i> , 2017, 710, 57-65.	2.8	52
157	Designed formation of hollow particle-based nitrogen-doped carbon nanofibers for high-performance supercapacitors. <i>Energy and Environmental Science</i> , 2017, 10, 1777-1783.	15.6	782
158	MOF-Templated Assembly Approach for Fe ₃ C Nanoparticles Encapsulated in Bamboo-Like N-Doped CNTs: Highly Efficient Oxygen Reduction under Acidic and Basic Conditions. <i>Chemistry - A European Journal</i> , 2017, 23, 12125-12130.	1.7	64
159	Self-Assembly of Spinel Nanocrystals into Mesoporous Spheres as Bifunctionally Active Oxygen Reduction and Evolution Electrocatalysts. <i>ChemSusChem</i> , 2017, 10, 2258-2266.	3.6	24
160	Metal-polydopamine frameworks and their transformation to hollow metal/N-doped carbon particles. <i>Nanoscale</i> , 2017, 9, 5323-5328.	2.8	140
161	Graphene oxide/core-shell structured metal-organic framework nano-sandwiches and their derived cobalt/N-doped carbon nanosheets for oxygen reduction reactions. <i>Journal of Materials Chemistry A</i> , 2017, 5, 10182-10189.	5.2	163
162	Active sites engineering leads to exceptional ORR and OER bifunctionality in P,N Co-doped graphene frameworks. <i>Energy and Environmental Science</i> , 2017, 10, 1186-1195.	15.6	431

#	ARTICLE	IF	CITATIONS
163	Sulfurizing-Induced Hollowing of Co ₉ S ₈ Microplates with Nanosheet Units for Highly Efficient Water Oxidation. ACS Applied Materials & Interfaces, 2017, 9, 11634-11641.	4.0	129
164	Controlled Growth of Monodisperse Ferrite Octahedral Nanocrystals for Biomass-Derived Catalytic Applications. ACS Catalysis, 2017, 7, 2948-2955.	5.5	40
165	Novel Iron/Cobalt-Containing Polypyrrole Hydrogel-Derived Trifunctional Electrocatalyst for Self-Powered Overall Water Splitting. Advanced Functional Materials, 2017, 27, 1606497.	7.8	320
166	Ultrastable hydrogen evolution electrocatalyst derived from phosphide postmodified metal-organic frameworks. Nano Energy, 2017, 35, 115-120.	8.2	69
167	Design and synthesis of porous channel-rich carbon nanofibers for self-standing oxygen reduction reaction and hydrogen evolution reaction bifunctional catalysts in alkaline medium. Journal of Materials Chemistry A, 2017, 5, 7507-7515.	5.2	69
168	N-Doped 3D Carbon Aerogel with Trace Fe as an Efficient Catalyst for the Oxygen Reduction Reaction. ChemElectroChem, 2017, 4, 514-520.	1.7	43
169	Highly Efficient Retention of Polysulfides in Sea Urchin-Like Carbon Nanotube/Nanopolyhedra Superstructures as Cathode Material for Ultralong-Life Lithium-Sulfur Batteries. Nano Letters, 2017, 17, 437-444.	4.5	223
170	Single crystalline pyrochlore nanoparticles with metallic conduction as efficient bi-functional oxygen electrocatalysts for Zn-air batteries. Energy and Environmental Science, 2017, 10, 129-136.	15.6	154
171	Multifunctional Carbon-Based Metal-Free Electrocatalysts for Simultaneous Oxygen Reduction, Oxygen Evolution, and Hydrogen Evolution. Advanced Materials, 2017, 29, 1604942.	11.1	606
172	Template-directed synthesis of nitrogen- and sulfur-codoped carbon nanowire aerogels with enhanced electrocatalytic performance for oxygen reduction. Nano Research, 2017, 10, 1888-1895.	5.8	34
173	Nanoarchitected Design of Porous Materials and Nanocomposites from Metal-Organic Frameworks. Advanced Materials, 2017, 29, 1604898.	11.1	732
174	Unusual formation of tetragonal microstructures from nitrogen-doped carbon nanocapsules with cobalt nanocores as a bi-functional oxygen electrocatalyst. Journal of Materials Chemistry A, 2017, 5, 2271-2279.	5.2	80
175	Electrocatalytic Cobalt Nanoparticles Interacting with Nitrogen-Doped Carbon Nanotube in Situ Generated from a Metal-Organic Framework for the Oxygen Reduction Reaction. ACS Applied Materials & Interfaces, 2017, 9, 2541-2549.	4.0	137
176	Bimetal-organic frameworks/polymer core-shell nanofibers derived heteroatom-doped carbon materials as electrocatalysts for oxygen reduction reaction. Carbon, 2017, 114, 250-260.	5.4	119
177	1D Co- and N-Doped Hierarchically Porous Carbon Nanotubes Derived from Bimetallic Metal Organic Framework for Efficient Oxygen and Triiodide Reduction Reactions. Advanced Energy Materials, 2017, 7, 1601979.	10.2	194
178	Texturing in situ: N,S-enriched hierarchically porous carbon as a highly active reversible oxygen electrocatalyst. Energy and Environmental Science, 2017, 10, 742-749.	15.6	451
179	Nitrogen, sulfur and phosphorus-codoped carbon with a tunable nanostructure as an efficient electrocatalyst for the oxygen reduction reaction. RSC Advances, 2017, 7, 5782-5789.	1.7	16
180	Rational Design of Self-Supported Ni ₃ S ₂ Nanosheets Array for Advanced Asymmetric Supercapacitor with a Superior Energy Density. ACS Applied Materials & Interfaces, 2017, 9, 496-504.	4.0	216

#	ARTICLE	IF	CITATIONS
181	Enhancing Oxygen Evolution Reaction at High Current Densities on Amorphous-Like Ni-Fe-S Ultrathin Nanosheets via Oxygen Incorporation and Electrochemical Tuning. <i>Advanced Science</i> , 2017, 4, 1600343.	5.6	121
182	Ultrafine Co-based Nanoparticle@Mesoporous Carbon Nanospheres toward High-Performance Supercapacitors. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 1746-1758.	4.0	69
183	Uniform Fe ₃ O ₄ /Nitrogen-Doped Mesoporous Carbon Spheres Derived from Ferric Citrate-Bonded Melamine Resin as an Efficient Synergistic Catalyst for Oxygen Reduction. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 335-344.	4.0	82
185	Creating coordinatively unsaturated metal sites in metal-organic-frameworks as efficient electrocatalysts for the oxygen evolution reaction: Insights into the active centers. <i>Nano Energy</i> , 2017, 41, 417-425.	8.2	386
186	A novel high-performance electrode architecture for supercapacitors: Fe ₂ O ₃ nanocube and carbon nanotube functionalized carbon. <i>Journal of Materials Chemistry A</i> , 2017, 5, 22648-22653.	5.2	11
187	Facile synthesis of Cu doped cobalt hydroxide (Cu-Co(OH) ₂) nano-sheets for efficient electrocatalytic oxygen evolution. <i>Journal of Materials Chemistry A</i> , 2017, 5, 22568-22575.	5.2	108
188	Simple coordination complex-derived Ni NP anchored N-doped porous carbons with high performance for reduction of nitroarenes. <i>CrystEngComm</i> , 2017, 19, 6612-6619.	1.3	17
189	Luminescent two-dimensional CdII coordination polymer for selective sensing Fe ³⁺ and 2,4,6-trinitrophenol with high sensitivity in water. <i>Inorganic Chemistry Communication</i> , 2017, 86, 262-266.	1.8	14
190	Hierarchical Porous Double-Shell Electrolyte with Tailored Lattice Alkalinity toward Bifunctional Oxygen Reactions for Metal-Air Batteries. <i>ACS Energy Letters</i> , 2017, 2, 2706-2712.	8.8	74
191	Porous Perovskite La _{0.6} Sr _{0.4} Co _{0.8} Mn _{0.2} O ₃ Nanofibers Loaded with RuO ₂ Nanosheets as an Efficient and Durable Bifunctional Catalyst for Rechargeable Li-O ₂ Batteries. <i>ACS Catalysis</i> , 2017, 7, 7737-7747.	5.5	102
192	Carbon-Based Electrocatalysts for Hydrogen and Oxygen Evolution Reactions. <i>ACS Catalysis</i> , 2017, 7, 7855-7865.	5.5	406
193	Encapsulated MnO in N-doping carbon nanofibers as efficient ORR electrocatalysts. <i>Science China Materials</i> , 2017, 60, 937-946.	3.5	27
194	MOF-Derived ZnO Nanoparticles Covered by N-Doped Carbon Layers and Hybridized on Carbon Nanotubes for Lithium-Ion Battery Anodes. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 37813-37822.	4.0	107
195	Porous Perovskite-Type Lanthanum Cobaltite as Electrocatalysts toward Oxygen Evolution Reaction. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 10910-10917.	3.2	75
196	Hollow Co ₃ O ₄ Nanosphere Embedded in Carbon Arrays for Stable and Flexible Solid-State Zn-Air Batteries. <i>Advanced Materials</i> , 2017, 29, 1704117.	11.1	407
197	Complex Nanostructures from Materials based on Metal-Organic Frameworks for Electrochemical Energy Storage and Conversion. <i>Advanced Materials</i> , 2017, 29, 1703614.	11.1	629
198	CuCoO ₂ /FeOOH Core-Shell Nanowires as an Efficient Bifunctional Oxygen Evolution and Reduction Catalyst. <i>ACS Energy Letters</i> , 2017, 2, 2498-2505.	8.8	109
199	Activating the Bifunctionality of a Perovskite Oxide toward Oxygen Reduction and Oxygen Evolution Reactions. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 35829-35836.	4.0	53

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200	Multifunctional Mo ^x /N/C@MoS ₂ Electro-catalysts for HER, OER, ORR, and Zn ²⁺ /Air Batteries. <i>Advanced Functional Materials</i> , 2017, 27, 1702300.	7.8	658
201	Heteroatom-Doped Carbon Nanotube and Graphene-Based Electro-catalysts for Oxygen Reduction Reaction. <i>Small</i> , 2017, 13, 1702002.	5.2	202
202	Indirect Four-Electron Oxygen Reduction Reaction on Carbon Materials Catalysts in Acidic Solutions. <i>ACS Catalysis</i> , 2017, 7, 7908-7916.	5.5	42
203	A study of defect-rich carbon spheres as a metal-free electro-catalyst for an efficient oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , 2017, 5, 24314-24320.	5.2	37
204	A platinum catalyst deposited on a zirconia support for the design of lithium ⁺ /oxygen batteries with enhanced cycling ability. <i>Chemical Communications</i> , 2017, 53, 11767-11770.	2.2	9
205	Spin-State Regulation of Perovskite Cobaltite to Realize Enhanced Oxygen Evolution Activity. <i>Chem</i> , 2017, 3, 812-821.	5.8	225
206	A Highly Efficient and Robust Cation Ordered Perovskite Oxide as a Bifunctional Catalyst for Rechargeable Zinc-Air Batteries. <i>ACS Nano</i> , 2017, 11, 11594-11601.	7.3	219
207	Nitrogen-doped oxidized carbon fiber as metal-free electrode towards highly efficient water oxidation. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 28287-28297.	3.8	13
208	A review of nanocarbons in energy electro-catalysis: Multifunctional substrates and highly active sites. <i>Journal of Energy Chemistry</i> , 2017, 26, 1077-1093.	7.1	287
209	Metal-Organic-Framework-Derived Yolk-Shell-Structured Cobalt-Based Bimetallic Oxide Polyhedron with High Activity for Electro-catalytic Oxygen Evolution. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 31777-31785.	4.0	58
210	Magnetically Aligned Co ^x /C/MWCNTs Composite Derived from MWCNT-Interconnected Zeolitic Imidazolate Frameworks for a Lightweight and Highly Efficient Electromagnetic Wave Absorber. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 30850-30861.	4.0	282
211	3D carbon nanoframe scaffold-immobilized Ni ₃ FeN nanoparticle electro-catalysts for rechargeable zinc-air batteries TM cathodes. <i>Nano Energy</i> , 2017, 40, 382-389.	8.2	153
212	High-Valence-State NiO/Co ₃ O ₄ Nanoparticles on Nitrogen-Doped Carbon for Oxygen Evolution at Low Overpotential. <i>ACS Energy Letters</i> , 2017, 2, 2177-2182.	8.8	200
213	In situ-generated Co@nitrogen-doped carbon nanotubes derived from MOFs for efficient hydrogen evolution under both alkaline and acidic conditions. <i>New Journal of Chemistry</i> , 2017, 41, 10966-10971.	1.4	31
214	Formation of Ni ^x /Fe Mixed Diselenide Nanocages as a Superior Oxygen Evolution Electro-catalyst. <i>Advanced Materials</i> , 2017, 29, 1703870.	11.1	428
215	Hollow FeNi-based hybrid polyhedron derived from unique sulfur-modulating coordinated transition bimetal complexes for efficient oxygen evolution reactions. <i>Journal of Materials Chemistry A</i> , 2017, 5, 21320-21327.	5.2	34
216	Enhanced electro-catalysis performance of amorphous electrolytic carbon from CO ₂ for oxygen reduction by surface modification in molten salt. <i>Electrochimica Acta</i> , 2017, 253, 248-256.	2.6	17
217	In Situ Derived Ni _x Fe _{1-x} OOH/Ni _x /Ni _x Fe _{1-x} OOH Nanotube Arrays from NiFe Alloys as Efficient Electro-catalysts for Oxygen Evolution. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 34954-34960.	4.0	61

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218	Atomic-Level Coupled Interfaces and Lattice Distortion on CuS/NiS ₂ Nanocrystals Boost Oxygen Catalysis for Flexible Zn-Air Batteries. <i>Advanced Functional Materials</i> , 2017, 27, 1703779.	7.8	200
219	Cobalt ion-coordinated self-assembly synthesis of nitrogen-doped ordered mesoporous carbon nanosheets for efficiently catalyzing oxygen reduction. <i>Nanoscale</i> , 2017, 9, 15534-15541.	2.8	48
220	A Freestanding Selenium Disulfide Cathode Based on Cobalt Disulfide-Decorated Multichannel Carbon Fibers with Enhanced Lithium Storage Performance. <i>Angewandte Chemie</i> , 2017, 129, 14295-14300.	1.6	21
221	A Freestanding Selenium Disulfide Cathode Based on Cobalt Disulfide-Decorated Multichannel Carbon Fibers with Enhanced Lithium Storage Performance. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 14107-14112.	7.2	113
222	Robust Catalysis on 2D Materials Encapsulating Metals: Concept, Application, and Perspective. <i>Advanced Materials</i> , 2017, 29, 1606967.	11.1	334
223	Three-Dimensional Hierarchical Architectures Derived from Surface-Mounted Metal-Organic Framework Membranes for Enhanced Electrocatalysis. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 13781-13785.	7.2	193
224	Metal-Organic-Framework-Based Materials as Platforms for Renewable Energy and Environmental Applications. <i>Joule</i> , 2017, 1, 77-107.	11.7	673
225	Self-Templated Fabrication of Co-MoO ₂ Nanocages for Enhanced Oxygen Evolution. <i>Advanced Functional Materials</i> , 2017, 27, 1702324.	7.8	224
226	NiFe Layered Double Hydroxide Nanoparticles on Co,N-Codoped Carbon Nanoframes as Efficient Bifunctional Catalysts for Rechargeable Zinc-Air Batteries. <i>Advanced Energy Materials</i> , 2017, 7, 1700467.	10.2	422
227	Formation of Single-Holed Cobalt/N-Doped Carbon Hollow Particles with Enhanced Electrocatalytic Activity toward Oxygen Reduction Reaction in Alkaline Media. <i>Advanced Science</i> , 2017, 4, 1700247.	5.6	194
228	Bifunctional MOF-Derived Carbon Photonic Crystal Architectures for Advanced Zn-Air and Li-S Batteries: Highly Exposed Graphitic Nitrogen Matters. <i>Advanced Functional Materials</i> , 2017, 27, 1701971.	7.8	156
229	Recent advances in air electrodes for Zn-air batteries: electrocatalysis and structural design. <i>Materials Horizons</i> , 2017, 4, 945-976.	6.4	263
230	Cost-Effective Alkaline Water Electrolysis Based on Nitrogen- and Phosphorus-Doped Self-Supportive Electrocatalysts. <i>Advanced Materials</i> , 2017, 29, 1702095.	11.1	175
231	Metal-Organic Framework-Derived FeCo-N-Doped Hollow Porous Carbon Nanocubes for Electrocatalysis in Acidic and Alkaline Media. <i>ChemSusChem</i> , 2017, 10, 3019-3024.	3.6	96
232	A facile synthetic strategy for iron, aniline-based non-precious metal catalysts for polymer electrolyte membrane fuel cells. <i>Scientific Reports</i> , 2017, 7, 5396.	1.6	30
233	Nitrogen-Doped Hierarchical Porous Carbon Architecture Incorporated with Cobalt Nanoparticles and Carbon Nanotubes as Efficient Electrocatalyst for Oxygen Reduction Reaction. <i>Advanced Materials Interfaces</i> , 2017, 4, 1700583.	1.9	21
234	K _{2.25} Ni _{0.55} Co _{0.37} Fe(CN) ₆ nanoparticle connected by cross-linked carbon nanotubes conductive skeletons for high-performance energy storage. <i>Chemical Engineering Journal</i> , 2017, 328, 834-843.	6.6	34
235	Design of Efficient Bifunctional Oxygen Reduction/Evolution Electrocatalyst: Recent Advances and Perspectives. <i>Advanced Energy Materials</i> , 2017, 7, 1700544.	10.2	593

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236	High-Performance Pyrochlore-Type Yttrium Ruthenate Electrocatalyst for Oxygen Evolution Reaction in Acidic Media. <i>Journal of the American Chemical Society</i> , 2017, 139, 12076-12083.	6.6	331
237	Electrocatalysts Derived from Metal-Organic Frameworks for Oxygen Reduction and Evolution Reactions in Aqueous Media. <i>Small</i> , 2017, 13, 1701143.	5.2	150
238	Engineering Thin MoS ₂ Nanosheets on TiN Nanorods: Advanced Electrochemical Capacitor Electrode and Hydrogen Evolution Electrocatalyst. <i>ACS Energy Letters</i> , 2017, 2, 1862-1868.	8.8	167
239	Hollow bimetallic cobalt-based selenide polyhedrons derived from metal-organic framework: an efficient bifunctional electrocatalyst for overall water splitting. <i>Journal of Materials Chemistry A</i> , 2017, 5, 17982-17989.	5.2	139
240	Ball-milling synthesis of Co ₂ P nanoparticles encapsulated in nitrogen doped hollow carbon rods as efficient electrocatalysts. <i>Journal of Materials Chemistry A</i> , 2017, 5, 17563-17569.	5.2	57
241	Metal-organic framework-induced construction of actiniae-like carbon nanotube assembly as advanced multifunctional electrocatalysts for overall water splitting and Zn-air batteries. <i>Nano Energy</i> , 2017, 39, 626-638.	8.2	263
242	In situ synthesis of ultrathin metal-organic framework nanosheets: a new method for 2D metal-based nanoporous carbon electrocatalysts. <i>Journal of Materials Chemistry A</i> , 2017, 5, 18610-18617.	5.2	162
243	Atomic-Scale Co _x Species in Metal-Organic Frameworks for Oxygen Evolution Reaction. <i>Advanced Functional Materials</i> , 2017, 27, 1702546.	7.8	327
244	Rational design of hollow N/Co-doped carbon spheres from bimetal-ZIFs for high-efficiency electrocatalysis. <i>Chemical Engineering Journal</i> , 2017, 330, 736-745.	6.6	97
245	Universal, In Situ Transformation of Bulky Compounds into Nanoscale Catalysts by High-Temperature Pulse. <i>Nano Letters</i> , 2017, 17, 5817-5822.	4.5	29
246	A graphitic edge plane rich meso-porous carbon anode for alkaline water electrolysis. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 21987-21995.	1.3	14
247	MOF derived Mesoporous Nitrogen doped Carbons with high Activity towards Oxygen Reduction. <i>Electrochimica Acta</i> , 2017, 251, 638-650.	2.6	42
248	Highly Selective Self-Powered Sensing Platform for <i>p</i> -Nitrophenol Detection Constructed with a Photocathode-Based Photocatalytic Fuel Cell. <i>Analytical Chemistry</i> , 2017, 89, 8599-8603.	3.2	50
249	Cobalt Nanoparticles Encapsulated in Porous Carbons Derived from Core-Shell ZIF67@ZIF8 as Efficient Electrocatalysts for Oxygen Evolution Reaction. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 28685-28694.	4.0	142
250	Amorphous Bimetallic Oxide-Graphene Hybrids as Bifunctional Oxygen Electrocatalysts for Rechargeable Zn-Air Batteries. <i>Advanced Materials</i> , 2017, 29, 1701410.	11.1	243
251	Hierarchical Porous Co ₉ S ₈ /Nitrogen-Doped Carbon@MoS ₂ Polyhedrons as pH Universal Electrocatalysts for Highly Efficient Hydrogen Evolution Reaction. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 28394-28405.	4.0	179
252	Co ₃ O ₄ -Carbon@Fe ₂ O ₃ -Co ₃ O ₃ Heterostructural Hollow Polyhedrons for the Oxygen Evolution Reaction. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 28642-28649.	4.0	71
253	Metal-organic frameworks and their derived materials for electrochemical energy storage and conversion: Promises and challenges. <i>Science Advances</i> , 2017, 3, eaap9252.	4.7	824

#	ARTICLE	IF	CITATIONS
254	Recent Progress in Oxygen Electrocatalysts for Zinc-Air Batteries. <i>Small Methods</i> , 2017, 1, 1700209.	4.6	183
255	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.	6.6	556
256	Selenium Encapsulated into Metal-Organic Frameworks Derived N-Doped Porous Carbon Polyhedrons as Cathode for Na-Se Batteries. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 41339-41346.	4.0	69
257	Interconnected Fe, S, N-Codoped Hollow and Porous Carbon Nanorods as Efficient Electrocatalysts for the Oxygen Reduction Reaction. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 40298-40306.	4.0	44
258	High Salt Removal Capacity of Metal-Organic Gel Derived Porous Carbon for Capacitive Deionization. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 11637-11644.	3.2	67
259	Sugar Blowing-Induced Porous Cobalt Phosphide/Nitrogen-Doped Carbon Nanostructures with Enhanced Electrochemical Oxidation Performance toward Water and Other Small Molecules. <i>Small</i> , 2017, 13, 1700796.	5.2	65
260	A Facile Activation Strategy for an MOF-Derived Metal-Free Oxygen Reduction Reaction Catalyst: Direct Access to Optimized Pore Structure and Nitrogen Species. <i>ACS Catalysis</i> , 2017, 7, 6082-6088.	5.5	188
261	Nonprecious Electrocatalysts for Li-Air and Zn-Air batteries: Fundamentals and recent advances. <i>IEEE Nanotechnology Magazine</i> , 2017, 11, 29-55.	0.9	16
262	Metal-organic-frameworks derived cobalt embedded in various carbon structures as bifunctional electrocatalysts for oxygen reduction and evolution reactions. <i>Scientific Reports</i> , 2017, 7, 5266.	1.6	68
263	Metal-organic framework derived hollow Co ₂ nanotube arrays: an efficient bifunctional electrocatalyst for overall water splitting. <i>Nanoscale Horizons</i> , 2017, 2, 342-348.	4.1	247
264	Fabrication of an MOF-derived heteroatom-doped Co/CoO/carbon hybrid with superior sodium storage performance for sodium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2017, 5, 15356-15366.	5.2	317
265	Nitrogen-doped graphitized carbon shell encapsulated NiFe nanoparticles: A highly durable oxygen evolution catalyst. <i>Nano Energy</i> , 2017, 39, 245-252.	8.2	143
266	Clew-like N-doped multiwalled carbon nanotube aggregates derived from metal-organic complexes for lithium-sulfur batteries. <i>Carbon</i> , 2017, 122, 635-642.	5.4	39
267	Bimetallic organic frameworks derived CuNi/carbon nanocomposites as efficient electrocatalysts for oxygen reduction reaction. <i>Science China Materials</i> , 2017, 60, 654-663.	3.5	110
268	Single-Atomic Ruthenium Catalytic Sites on Nitrogen-Doped Graphene for Oxygen Reduction Reaction in Acidic Medium. <i>ACS Nano</i> , 2017, 11, 6930-6941.	7.3	435
269	ZIF-derived porous ZnO-Co ₃ O ₄ hollow polyhedrons heterostructure with highly enhanced ethanol detection performance. <i>Sensors and Actuators B: Chemical</i> , 2017, 253, 523-532.	4.0	108
270	Advancements in rationally designed PGM-free fuel cell catalysts derived from metal-organic frameworks. <i>Materials Horizons</i> , 2017, 4, 20-37.	6.4	139
271	MOF-derived bi-metal embedded N-doped carbon polyhedral nanocages with enhanced lithium storage. <i>Journal of Materials Chemistry A</i> , 2017, 5, 266-274.	5.2	341

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272	Spray-drying of milk for oxygen evolution electrocatalyst and solar water splitting. <i>Journal of Colloid and Interface Science</i> , 2017, 487, 118-122.	5.0	8
273	Novel CoxSy/WS2 nanosheets supported on carbon cloth as efficient electrocatalyst for hydrogen evolution reaction. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 4165-4173.	3.8	78
274	Engineering metal organic framework derived 3D nanostructures for high performance hybrid supercapacitors. <i>Journal of Materials Chemistry A</i> , 2017, 5, 292-302.	5.2	118
275	3D cobalt-embedded nitrogen-doped graphene xerogel as an efficient electrocatalyst for oxygen reduction reaction in an alkaline medium. <i>Journal of Applied Electrochemistry</i> , 2017, 47, 13-23.	1.5	6
276	Substrate-Induced Synthesis of Nitrogen-Doped Holey Graphene Nanocapsules for Advanced Metal-Free Bifunctional Electrocatalysts. <i>Particle and Particle Systems Characterization</i> , 2017, 34, 1600207.	1.2	15
277	Biomass lysine-derived nitrogen-doped carbon hollow cubes via a NaCl crystal template: an efficient bifunctional electrocatalyst for oxygen reduction and evolution reactions. <i>Nanoscale</i> , 2017, 9, 1059-1067.	2.8	108
278	Luminescent ion pairs with tunable emission colors for light-emitting devices and electrochromic switches. <i>Chemical Science</i> , 2017, 8, 348-360.	3.7	45
279	Nitrogen-doped cobalt nanoparticles/nitrogen-doped plate-like ordered mesoporous carbons composites as noble-metal free electrocatalysts for oxygen reduction reaction. <i>Journal of Energy Chemistry</i> , 2017, 26, 63-71.	7.1	34
280	NiCoMnO4 nanoparticles on N-doped graphene: Highly efficient bifunctional electrocatalyst for oxygen reduction/evolution reactions. <i>Applied Catalysis B: Environmental</i> , 2017, 201, 241-252.	10.8	194
281	High oxygen reduction reaction activity of C-N/Ag hybrid composites for Zn-air battery. <i>Journal of Alloys and Compounds</i> , 2017, 694, 419-428.	2.8	31
282	Electrically Rechargeable Zinc-Air Batteries: Progress, Challenges, and Perspectives. <i>Advanced Materials</i> , 2017, 29, 1604685.	11.1	1,143
283	Surface Electrochemical Modification of a Nickel Substrate to Prepare a NiFe-based Electrode for Water Oxidation. <i>ChemSusChem</i> , 2017, 10, 394-400.	3.6	63
284	Macroscale cobalt-MOFs derived metallic Co nanoparticles embedded in N-doped porous carbon layers as efficient oxygen electrocatalysts. <i>Applied Surface Science</i> , 2017, 392, 402-409.	3.1	92
285	Nanocatalysts for Low Temperature Fuel Cells. <i>Energy Procedia</i> , 2017, 138, 14-19.	1.8	3
286	Yttrium Copper Titanate as a Highly Efficient Electrocatalyst for Oxygen Reduction Reaction in Fuel Cells, Synthesized via Ultrafast Automatic Flame Technique. <i>Scientific Reports</i> , 2017, 7, 9407.	1.6	6
287	Fe3O4@NiSx/rGO composites with amounts of heterointerfaces and enhanced electrocatalytic properties for oxygen evolution. <i>Applied Surface Science</i> , 2018, 442, 256-263.	3.1	51
288	Highly efficient and stable bifunctional electrocatalyst for water splitting on Fe-Co3O4/carbon nanotubes. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 5522-5529.	3.8	26
289	Mesoporous-silica induced doped carbon nanotube growth from metal-organic frameworks. <i>Nanoscale</i> , 2018, 10, 6147-6154.	2.8	96

#	ARTICLE	IF	CITATIONS
290	Imidazolate-mediated assembled structures of Co-LDH sheets for efficient electrocatalytic oxygen evolution. <i>Journal of Materials Chemistry A</i> , 2018, 6, 4636-4641.	5.2	50
291	Anchoring Iron-EDTA Complex on Graphene toward the Synthesis of Highly Efficient Fe-N Oxygen Reduction Electrocatalyst for Fuel Cells. <i>Chinese Journal of Chemistry</i> , 2018, 36, 287-292.	2.6	22
292	Single-Atom Au/NiFe Layered Double Hydroxide Electrocatalyst: Probing the Origin of Activity for Oxygen Evolution Reaction. <i>Journal of the American Chemical Society</i> , 2018, 140, 3876-3879.	6.6	817
293	Vertically co-oriented two dimensional metal-organic frameworks for packaging enhanced supercapacitive performance. <i>Communications Chemistry</i> , 2018, 1, .	2.0	73
294	Tuning the dimensions and structures of nitrogen-doped carbon nanomaterials derived from sacrificial g-C ₃ N ₄ /metal-organic frameworks for enhanced electrocatalytic oxygen reduction. <i>Journal of Materials Chemistry A</i> , 2018, 6, 5752-5761.	5.2	108
295	Metal-organic framework-derived porous materials for catalysis. <i>Coordination Chemistry Reviews</i> , 2018, 362, 1-23.	9.5	737
296	Nitrogen-doped carbon nanotubes decorated with cobalt nanoparticles derived from zeolitic imidazolate framework-67 for highly efficient oxygen reduction reaction electrocatalysis. <i>Carbon</i> , 2018, 132, 580-588.	5.4	68
297	The photo-, electro- and photoelectro-catalytic properties and application prospects of porous coordinate polymers. <i>Journal of Materials Chemistry A</i> , 2018, 6, 6130-6154.	5.2	66
298	Earthworm-like N, S-Doped carbon tube-encapsulated Co ₉ S ₈ nanocomposites derived from nanoscaled metal-organic frameworks for highly efficient bifunctional oxygen catalysis. <i>Journal of Materials Chemistry A</i> , 2018, 6, 5935-5943.	5.2	101
299	A highly active and durable iron/cobalt alloy catalyst encapsulated in N-doped graphitic carbon nanotubes for oxygen reduction reaction by a nanofibrous dicyandiamide template. <i>Journal of Materials Chemistry A</i> , 2018, 6, 5962-5970.	5.2	77
300	Trends in activity for the oxygen evolution reaction on transition metal (M = Fe, Co, Ni) phosphide pre-catalysts. <i>Chemical Science</i> , 2018, 9, 3470-3476.	3.7	443
301	Lithiation/Delithiation Synthesis of Few Layer Silicene Nanosheets for Rechargeable Li-O ₂ Batteries. <i>Advanced Materials</i> , 2018, 30, e1705523.	11.1	51
302	Core-shell polyhedrons of carbon nanotubes-grafted graphitic carbon@nitrogen doped carbon as efficient sulfur immobilizers for lithium-sulfur batteries. <i>Applied Surface Science</i> , 2018, 450, 364-371.	3.1	31
303	N-doped defective carbon with trace Co for efficient rechargeable liquid electrolyte/all-solid-state Zn-air batteries. <i>Science Bulletin</i> , 2018, 63, 548-555.	4.3	117
304	A uranyl phosphonate framework with a temperature-induced order-disorder transition and temperature-correlated photoluminescence. <i>CrystEngComm</i> , 2018, 20, 3153-3157.	1.3	14
305	Bottom-up Formation of Carbon-Based Structures with Multilevel Hierarchy from MOF-Guest Polyhedra. <i>Journal of the American Chemical Society</i> , 2018, 140, 6130-6136.	6.6	87
306	The Design of Water Oxidation Electrocatalysts from Nanoscale Metal-Organic Frameworks. <i>Chemistry - A European Journal</i> , 2018, 24, 15143-15155.	1.7	74
307	Anodic Hydrazine Oxidation Assists Energy-Efficient Hydrogen Evolution over a Bifunctional Cobalt Perselenide Nanosheet Electrode. <i>Angewandte Chemie</i> , 2018, 130, 7775-7779.	1.6	48

#	ARTICLE	IF	CITATIONS
308	CoP Embedded in Hierarchical N-Doped Carbon Nanotube Frameworks as Efficient Catalysts for the Hydrogen Evolution Reaction. <i>ChemElectroChem</i> , 2018, 5, 1644-1651.	1.7	46
309	MnCo ₂ O ₄ Anchored on Nitrogen-Doped Carbon Nanomaterials as an Efficient Electrocatalyst for Oxygen Reduction. <i>ChemistrySelect</i> , 2018, 3, 4228-4236.	0.7	14
310	Urchin-like non-precious-metal bifunctional oxygen electrocatalysts: Boosting the catalytic activity via the In-situ growth of heteroatom (N, S)-doped carbon nanotube on mesoporous cobalt sulfide/carbon spheres. <i>Journal of Colloid and Interface Science</i> , 2018, 524, 465-474.	5.0	29
311	Exploring the Performance Improvement of the Oxygen Evolution Reaction in a Stable Bimetallic-Organic Framework System. <i>Angewandte Chemie</i> , 2018, 130, 9808-9812.	1.6	54
312	Exploring the Performance Improvement of the Oxygen Evolution Reaction in a Stable Bimetallic-Organic Framework System. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 9660-9664.	7.2	340
313	Bimetallic NiFe ₂ O ₄ synthesized via confined carburization in NiFe-MOFs for efficient oxygen evolution reaction. <i>Journal of Nanoparticle Research</i> , 2018, 20, 1.	0.8	19
314	Nitrogen, Fluorine, and Boron Ternary Doped Carbon Fibers as Cathode Electrocatalysts for Zinc-Air Batteries. <i>Small</i> , 2018, 14, e1800737.	5.2	159
315	Controllable Construction of Core-Shell Polymer@Zeolitic Imidazolate Frameworks Fiber Derived Heteroatom-Doped Carbon Nanofiber Network for Efficient Oxygen Electrocatalysis. <i>Small</i> , 2018, 14, e1704207.	5.2	99
316	Pyridinic-N-Dominated Doped Defective Graphene as a Superior Oxygen Electrocatalyst for Ultrahigh-Energy-Density Zn-Air Batteries. <i>ACS Energy Letters</i> , 2018, 3, 1183-1191.	8.8	456
317	An ethynyl-linked Fe/Co heterometallic phthalocyanine conjugated polymer for the oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , 2018, 6, 8349-8357.	5.2	71
318	Nitrogen-doped porous carbon: highly efficient trifunctional electrocatalyst for oxygen reversible catalysis and nitrogen reduction reaction. <i>Journal of Materials Chemistry A</i> , 2018, 6, 7762-7769.	5.2	131
319	A Universal Strategy for Intimately Coupled Carbon Nanosheets/MoM Nanocrystals (M = P, S, C, and O) Hierarchical Hollow Nanospheres for Hydrogen Evolution Catalysis and Sodium-Ion Storage. <i>Advanced Materials</i> , 2018, 30, e1706085.	11.1	147
320	Self-supported Ni ₃ S ₂ @MoS ₂ core/shell nanorod arrays via decoration with CoS as a highly active and efficient electrocatalyst for hydrogen evolution and oxygen evolution reactions. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 8794-8804.	3.8	53
321	CoNi/CNTs composite as effective and stable electrode for oxygen evaluation reaction in alkaline media. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 8623-8631.	3.8	17
322	Boosting ORR Catalytic Activity by Integrating Pyridine-Dopants, a High Degree of Graphitization, and Hierarchical Pores into a MOF-Derived N-Doped Carbon in a Tandem Synthesis. <i>Chemistry - an Asian Journal</i> , 2018, 13, 1318-1326.	1.7	24
323	Efficient Co-N/PC@CNT bifunctional electrocatalytic materials for oxygen reduction and oxygen evolution reactions based on metal-organic frameworks. <i>Nanoscale</i> , 2018, 10, 9077-9086.	2.8	109
324	Metal organic frameworks as catalysts for oxygen reduction. <i>Current Opinion in Electrochemistry</i> , 2018, 9, 179-188.	2.5	40
325	Metal-Organic Frameworks-Derived Co ₂ P@N-C@rGO with Dual Protection Layers for Improved Sodium Storage. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 14641-14648.	4.0	100

#	ARTICLE	IF	CITATIONS
326	Metal-Organic-Framework-Mediated Nitrogen-Doped Carbon for CO ₂ Electrochemical Reduction. ACS Applied Materials & Interfaces, 2018, 10, 14751-14758.	4.0	105
327	Metal-organic frameworks for highly efficient oxygen electrocatalysis. Chinese Journal of Catalysis, 2018, 39, 207-227.	6.9	36
328	Confined organometallic Au ₁ N single-site as an efficient bifunctional oxygen electrocatalyst. Nano Energy, 2018, 46, 110-116.	8.2	77
329	Synthesis of highly porous inorganic adsorbents derived from metal-organic frameworks and their application in efficient elimination of mercury(II). Journal of Colloid and Interface Science, 2018, 517, 61-71.	5.0	51
330	Metal organic framework for the fabrication of mutually interacted Pt CeO ₂ C ternary nanostructure: advanced electrocatalyst for oxygen reduction reaction. Electrochimica Acta, 2018, 266, 348-356.	2.6	36
331	Single-Site Active Iron-Based Bifunctional Oxygen Catalyst for a Compressible and Rechargeable Zinc-Air Battery. ACS Nano, 2018, 12, 1949-1958.	7.3	336
332	Metal-Organic Framework-Derived Co ₃ ZnC/Co Embedded in Nitrogen-Doped Carbon Nanotube-Grafted Carbon Polyhedra as a High-Performance Electrocatalyst for Water Splitting. ACS Applied Materials & Interfaces, 2018, 10, 6245-6252.	4.0	72
333	Encapsulation of Ni/Fe ₃ O ₄ heterostructures inside onion-like N-doped carbon nanorods enables synergistic electrocatalysis for water oxidation. Nanoscale, 2018, 10, 3997-4003.	2.8	75
334	Interpenetrating Triphase Cobalt-Based Nanocomposites as Efficient Bifunctional Oxygen Electrocatalysts for Long-Lasting Rechargeable Zn-Air Batteries. Advanced Energy Materials, 2018, 8, 1702900.	10.2	242
335	Recent Progress of Carbon-Based Materials in Oxygen Reduction Reaction Catalysis. ChemElectroChem, 2018, 5, 1764-1774.	1.7	66
336	Co-VN encapsulated in bamboo-like N-doped carbon nanotubes for ultrahigh-stability of oxygen reduction reaction. Nanoscale, 2018, 10, 4311-4319.	2.8	72
337	The synergistic effect of Ceria and Co in N-doped leaf-like carbon nanosheets derived from a 2D MOF and their enhanced performance in the oxygen reduction reaction. Chemical Communications, 2018, 54, 1623-1626.	2.2	98
338	Core-Shell ZIF-8@ZIF-67-Derived CoP Nanoparticle-Embedded N-Doped Carbon Nanotube Hollow Polyhedron for Efficient Overall Water Splitting. Journal of the American Chemical Society, 2018, 140, 2610-2618.	6.6	1,556
339	Novel MOF-Derived Co@N Bifunctional Catalysts for Highly Efficient Zn-Air Batteries and Water Splitting. Advanced Materials, 2018, 30, 1705431.	11.1	667
340	Metal-Organic Frameworks Mediated Synthesis of One-Dimensional Molybdenum-Based/Carbon Composites for Enhanced Lithium Storage. ACS Nano, 2018, 12, 1990-2000.	7.3	221
341	Metal-organic-framework-derived Co/nitrogen-doped porous carbon composite as an effective oxygen reduction electrocatalyst. Journal of Materials Science, 2018, 53, 6774-6784.	1.7	23
342	Tunable Bifunctional Activity of Mn ₃ Co ₃ O ₄ Nanocrystals Decorated on Carbon Nanotubes for Oxygen Electrocatalysis. ChemSusChem, 2018, 11, 1295-1304.	3.6	50
343	Few-layer graphitic shells networked by low temperature pyrolysis of zeolitic imidazolate frameworks. Materials Chemistry Frontiers, 2018, 2, 520-529.	3.2	9

#	ARTICLE	IF	CITATIONS
344	Metal-organic framework derived CoTe ₂ encapsulated in nitrogen-doped carbon nanotube frameworks: a high-efficiency bifunctional electrocatalyst for overall water splitting. Journal of Materials Chemistry A, 2018, 6, 3684-3691.	5.2	153
345	Advanced Architectures and Relatives of Air Electrodes in Zn-Air Batteries. Advanced Science, 2018, 5, 1700691.	5.6	645
346	Engineering an N-doped TiO ₂ @N-doped C butterfly-like nanostructure with long-lived photo-generated carriers for efficient photocatalytic selective amine oxidation. Journal of Materials Chemistry A, 2018, 6, 2091-2099.	5.2	67
347	Interface engineered <i>in situ</i> anchoring of Co ₉ S ₈ nanoparticles into a multiple doped carbon matrix: highly efficient zinc-air batteries. Nanoscale, 2018, 10, 2649-2657.	2.8	66
348	Graphene-Directed Formation of a Nitrogen-Doped Porous Carbon Sheet with High Catalytic Performance for the Oxygen Reduction Reaction. Journal of Physical Chemistry C, 2018, 122, 13508-13514.	1.5	16
349	Design and Synthesis of Cobalt-Based Electrocatalysts for Oxygen Reduction Reaction. Chemical Record, 2018, 18, 840-848.	2.9	11
350	Integration of FeOOH and Zeolitic Imidazolate Framework-Derived Nanoporous Carbon as an Efficient Electrocatalyst for Water Oxidation. Advanced Energy Materials, 2018, 8, 1702598.	10.2	79
351	Graphene Layers-Wrapped Fe/Fe ₅ C ₂ Nanoparticles Supported on N-doped Graphene Nanosheets for Highly Efficient Oxygen Reduction. Advanced Energy Materials, 2018, 8, 1702476.	10.2	205
352	Recent Progress in MOF-Derived, Heteroatom-Doped Porous Carbons as Highly Efficient Electrocatalysts for Oxygen Reduction Reaction in Fuel Cells. Advanced Functional Materials, 2018, 28, 1704537.	7.8	552
353	Controlled synthesis of porous nitrogen-doped carbon nanoshells for highly efficient oxygen reduction. Reaction Chemistry and Engineering, 2018, 3, 238-243.	1.9	4
354	N, P Co-doped Hierarchical Porous Graphene as a Metal-Free Bifunctional Air Cathode for Zn-Air Batteries. ChemElectroChem, 2018, 5, 1811-1816.	1.7	19
355	Metallic Intermediate Phase Inducing Morphological Transformation in Thermal Nitridation: Ni ₃ FeN-Based Three-Dimensional Hierarchical Electrocatalyst for Water Splitting. ACS Applied Materials & Interfaces, 2018, 10, 3699-3706.	4.0	96
356	N, P-dual doped carbon with trace Co and rich edge sites as highly efficient electrocatalyst for oxygen reduction reaction. Science China Materials, 2018, 61, 679-685.	3.5	54
357	High Rate Magnesium-Sulfur Battery with Improved Cyclability Based on Metal-Organic Framework Derivative Carbon Host. Advanced Materials, 2018, 30, 1704166.	11.1	131
358	Oriented Growth of ZIF-67 to Derive 2D Porous CoPO Nanosheets for Electrochemical/Photovoltage-Driven Overall Water Splitting. Advanced Functional Materials, 2018, 28, 1706120.	7.8	171
359	MOF-derived various morphologies of N-doped carbon composites for acetylene hydrochlorination. Journal of Materials Science, 2018, 53, 4913-4926.	1.7	47
360	Porous Iron-Cobalt Alloy/Nitrogen-Doped Carbon Cages Synthesized via Pyrolysis of Complex Metal-Organic Framework Hybrids for Oxygen Reduction. Advanced Functional Materials, 2018, 28, 1706738.	7.8	227
361	Nanoreactor of MOF-Derived Yolk-Shell Co@C-N: Precisely Controllable Structure and Enhanced Catalytic Activity. ACS Catalysis, 2018, 8, 1417-1426.	5.5	279

#	ARTICLE	IF	CITATIONS
362	A Stable Graphitic, Nanocarbon-Encapsulated, Cobalt-Rich Core-Shell Electrocatalyst as an Oxygen Electrode in a Water Electrolyzer. <i>Advanced Energy Materials</i> , 2018, 8, 1702838.	10.2	113
363	CoFe nanoalloy particles encapsulated in nitrogen-doped carbon layers as bifunctional oxygen catalyst derived from a Prussian blue analogue. <i>Journal of Alloys and Compounds</i> , 2018, 740, 743-753.	2.8	43
364	MOF-derived Fe ₂ O ₃ nanoparticle embedded in porous carbon as electrode materials for two enzyme-based biosensors. <i>Sensors and Actuators B: Chemical</i> , 2018, 260, 189-197.	4.0	69
365	Interweaved Nickel Phosphide Sponge as an Electrode for Flexible Supercapattery and Water Splitting Applications. <i>ACS Applied Energy Materials</i> , 2018, 1, 78-92.	2.5	62
366	MOF-Derived Hollow Co ₃ S ₄ Quasi-polyhedron/MWCNT Nanocomposites as Electrodes for Advanced Lithium Ion Batteries and Supercapacitors. <i>ACS Applied Energy Materials</i> , 2018, 1, 402-410.	2.5	69
367	Selective voltammetric determination of Cd(II) by using N,S-codoped porous carbon nanofibers. <i>Mikrochimica Acta</i> , 2018, 185, 282.	2.5	23
368	Promotion of the bifunctional electrocatalytic oxygen activity of manganese oxides with dual-affinity phosphate. <i>Electrochimica Acta</i> , 2018, 277, 143-150.	2.6	14
369	Ultrafine CoPS nanoparticles encapsulated in N, P, and S tri-doped porous carbon as an efficient bifunctional water splitting electrocatalyst in both acid and alkaline solutions. <i>Journal of Materials Chemistry A</i> , 2018, 6, 10433-10440.	5.2	72
370	Direct impregnation of SeS ₂ into a MOF-derived 3D nanoporous Co-N-C architecture towards superior rechargeable lithium batteries. <i>Journal of Materials Chemistry A</i> , 2018, 6, 10466-10473.	5.2	120
371	Anodic Hydrazine Oxidation Assists Energy-Efficient Hydrogen Evolution over a Bifunctional Cobalt Perselenide Nanosheet Electrode. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 7649-7653.	7.2	352
372	Tunable electronic coupling of cobalt sulfide/carbon composites for optimizing oxygen evolution reaction activity. <i>Journal of Materials Chemistry A</i> , 2018, 6, 10304-10312.	5.2	86
373	Bifunctional Electrocatalysts for Overall Water Splitting from an Iron/Nickel-Based Bimetallic Metal-Organic Framework/Dicyandiamide Composite. <i>Angewandte Chemie</i> , 2018, 130, 9059-9064.	1.6	81
374	Bifunctional Electrocatalysts for Overall Water Splitting from an Iron/Nickel-Based Bimetallic Metal-Organic Framework/Dicyandiamide Composite. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 8921-8926.	7.2	291
375	Metal-organic framework-derived Zn _{0.975} Co _{0.025} S/CoS ₂ embedded in N,S-codoped carbon nanotube/nanopolyhedra as an efficient electrocatalyst for overall water splitting. <i>Journal of Materials Chemistry A</i> , 2018, 6, 10441-10446.	5.2	69
376	Isolated Fe and Co dual active sites on nitrogen-doped carbon for a highly efficient oxygen reduction reaction. <i>Chemical Communications</i> , 2018, 54, 4274-4277.	2.2	166
377	Ultrafine Pt Nanoparticles and Amorphous Nickel Supported on 3D Mesoporous Carbon Derived from Cu-Metal-Organic Framework for Efficient Methanol Oxidation and Nitrophenol Reduction. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 12740-12749.	4.0	106
378	MOF-Based Transparent Passivation Layer Modified ZnO Nanorod Arrays for Enhanced Photo-Electrochemical Water Splitting. <i>Advanced Energy Materials</i> , 2018, 8, 1800101.	10.2	143
379	Cobalt and cobalt oxides N-codoped porous carbon derived from metal-organic framework as bifunctional catalyst for oxygen reduction and oxygen evolution reactions. <i>Journal of Colloid and Interface Science</i> , 2018, 521, 141-149.	5.0	81

#	ARTICLE	IF	CITATIONS
380	Metal-organic framework derived hollow materials for electrochemical energy storage. <i>Journal of Materials Chemistry A</i> , 2018, 6, 6754-6771.	5.2	233
381	MOF-derived nanohybrids for electrocatalysis and energy storage: current status and perspectives. <i>Chemical Communications</i> , 2018, 54, 5268-5288.	2.2	237
382	Ramie Biomass Derived Nitrogen-Doped Activated Carbon for Efficient Electrocatalytic Production of Hydrogen Peroxide. <i>Journal of the Electrochemical Society</i> , 2018, 165, E171-E176.	1.3	22
383	Three-Dimensional Networks of S-Doped Fe/N/C with Hierarchical Porosity for Efficient Oxygen Reduction in Polymer Electrolyte Membrane Fuel Cells. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 14602-14613.	4.0	50
384	Amorphous CoFeBO nanoparticles as highly active electrocatalysts for efficient water oxidation reaction. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 6138-6149.	3.8	46
385	Phenol-degrading sludge as a promising precursor for a capacitive carbon material: Disclosing key factors for the nanostructure and high capacitance. <i>Carbon</i> , 2018, 134, 53-61.	5.4	16
386	In-Situ Incorporation Strategy for Bimetallic FeCo-Doped Carbon as Highly Efficient Bifunctional Oxygen Electrocatalysts. <i>ChemElectroChem</i> , 2018, 5, 1401-1406.	1.7	33
387	Redox-Active Copper-Benzotriazole Stacked Multiwalled Carbon Nanotubes for the Oxygen Reduction Reaction. <i>ChemElectroChem</i> , 2018, 5, 1837-1847.	1.7	8
388	Pt Co@NCNTs cathode catalyst using ZIF-67 for proton exchange membrane fuel cell. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 3520-3526.	3.8	38
389	Metal-organic framework-derived, Zn-doped porous carbon polyhedra with enhanced activity as bifunctional catalysts for rechargeable zinc-air batteries. <i>Nano Research</i> , 2018, 11, 163-173.	5.8	105
390	Milk powder-derived bifunctional oxygen electrocatalysts for rechargeable Zn-air battery. <i>Energy Storage Materials</i> , 2018, 11, 134-143.	9.5	45
391	Synthesis of M (Fe ₃ C, Co, Ni)-porous carbon frameworks as high-efficient ORR catalysts. <i>Energy Storage Materials</i> , 2018, 11, 112-117.	9.5	71
392	ZnO/carbon framework derived from metal-organic frameworks as a stable host for lithium metal anodes. <i>Energy Storage Materials</i> , 2018, 11, 191-196.	9.5	122
393	Anchoring hollow MoO ₂ spheres on graphene for superior lithium storage. <i>Chemical Engineering Journal</i> , 2018, 334, 257-263.	6.6	54
394	Nitrogen-Doped Carbon Nanotubes Derived from Metal-Organic Frameworks for Potassium-Ion Battery Anodes. <i>ChemSusChem</i> , 2018, 11, 202-208.	3.6	214
395	In Situ Antisolvent Approach to Hydrangea-like HCo ₃ O ₄ @NC@CoNi-LDH Core@Shell Superstructures for Highly Efficient Water Electrolysis. <i>Chemistry - A European Journal</i> , 2018, 24, 400-408.	1.7	21
396	Hollowed structured PtNi bifunctional electrocatalyst with record low total overpotential for oxygen reduction and oxygen evolution reactions. <i>Applied Catalysis B: Environmental</i> , 2018, 222, 26-34.	10.8	115
397	Improving the Electrochemical Oxygen Reduction Activity of Manganese Oxide Nanosheets with Sulfurization-Induced Nanopores. <i>ChemCatChem</i> , 2018, 10, 422-429.	1.8	23

#	ARTICLE	IF	CITATIONS
398	Nanocarbon/oxide composite catalysts for bifunctional oxygen reduction and evolution in reversible alkaline fuel cells: A mini review. <i>Journal of Power Sources</i> , 2018, 375, 277-290.	4.0	127
399	MOF-derived N-doped carbon bubbles on carbon tube arrays for flexible high-rate supercapacitors. <i>Energy Storage Materials</i> , 2018, 10, 75-84.	9.5	150
400	Engineering beneficial structures and morphologies of M-N-C oxygen-reduction catalysts derived from different metal-containing precursors. <i>Ionics</i> , 2018, 24, 1733-1744.	1.2	5
401	Enhanced H ₂ O ₂ production by selective electrochemical reduction of O ₂ on fluorine-doped hierarchically porous carbon. <i>Journal of Catalysis</i> , 2018, 357, 118-126.	3.1	252
402	Carbon Necklace Incorporated Electroactive Reservoir Constructing Flexible Papers for Advanced Lithium-ion Batteries. <i>Small</i> , 2018, 14, 1702770.	5.2	70
403	Improved power and long term performance of microbial fuel cell with Fe-N-C catalyst in air-breathing cathode. <i>Energy</i> , 2018, 144, 1073-1079.	4.5	71
404	From 3D ZIF Nanocrystals to Co-N/C Nanorod Array Electrocatalysts for ORR, OER, and Zn-Air Batteries. <i>Advanced Functional Materials</i> , 2018, 28, 1704638.	7.8	708
405	Hierarchical Hollow Nanoprisms Based on Ultrathin Ni-Fe Layered Double Hydroxide Nanosheets with Enhanced Electrocatalytic Activity towards Oxygen Evolution. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 172-176.	7.2	507
406	Construction of a hierarchical 3D Co/N-carbon electrocatalyst for efficient oxygen reduction and overall water splitting. <i>Journal of Materials Chemistry A</i> , 2018, 6, 489-497.	5.2	111
407	Non-radical-dominated catalytic degradation of bisphenol A by ZIF-67 derived nitrogen-doped carbon nanotubes frameworks in the presence of peroxydisulfate. <i>Chemical Engineering Journal</i> , 2018, 336, 721-731.	6.6	343
408	Applications of Phosphorene and Black Phosphorus in Energy Conversion and Storage Devices. <i>Advanced Energy Materials</i> , 2018, 8, 1702093.	10.2	385
409	Engineering the Surface Structure of Binary/Ternary Ferrite Nanoparticles as High-Performance Electrocatalysts for the Oxygen Evolution Reaction. <i>ChemCatChem</i> , 2018, 10, 1075-1083.	1.8	19
410	Boosting Bifunctional Oxygen Electrocatalysis with 3D Graphene Aerogel-Supported Ni/MnO Particles. <i>Advanced Materials</i> , 2018, 30, 1704609.	11.1	547
411	Nanoporous Zn-doped Co ₃ O ₄ sheets with single-unit-cell-wide lateral surfaces for efficient oxygen evolution and water splitting. <i>Nano Energy</i> , 2018, 44, 371-377.	8.2	138
412	Conductive Porous Network of Metal-Organic Frameworks Derived Cobalt-Nitrogen-doped Carbon with the Assistance of Carbon Nanohorns as Electrocatalysts for Zinc-Air Batteries. <i>ChemCatChem</i> , 2018, 10, 1336-1343.	1.8	14
413	Well-Defined Cobalt Catalyst with N-Doped Carbon Layers Enwrapping: The Correlation between Surface Atomic Structure and Electrocatalytic Property. <i>Small</i> , 2018, 14, 1702074.	5.2	56
414	Bimetallic Metal-Organic Frameworks as Efficient Cathode Catalysts for Li ₂ Batteries. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 660-667.	4.0	112
415	Hierarchical Hollow Nanoprisms Based on Ultrathin Ni-Fe Layered Double Hydroxide Nanosheets with Enhanced Electrocatalytic Activity towards Oxygen Evolution. <i>Angewandte Chemie</i> , 2018, 130, 178-182.	1.6	72

#	ARTICLE	IF	CITATIONS
416	<i>In situ</i> encapsulation of core-shell-structured Co@Co ₃ O ₄ into nitrogen-doped carbon polyhedra as a bifunctional catalyst for rechargeable Zn-air batteries. Journal of Materials Chemistry A, 2018, 6, 1443-1453.	5.2	178
417	Bio-inspired synthesis of three-dimensional porous g-C ₃ N ₄ @carbon microflowers with enhanced oxygen evolution reactivity. Chemical Engineering Journal, 2018, 337, 312-321.	6.6	44
418	High-performance oxygen evolution catalyst using two-dimensional ultrathin metal-organic frameworks nanosheets. Nano Energy, 2018, 44, 345-352.	8.2	264
419	2D Dual-Metal Zeolitic Imidazolate Framework (ZIF)-Derived Bifunctional Air Electrodes with Ultrahigh Electrochemical Properties for Rechargeable Zinc-Air Batteries. Advanced Functional Materials, 2018, 28, 1705048.	7.8	361
420	Hollow Mesoporous Carbon Nanocubes: Rigid-Interface-Induced Outward Contraction of Metal-Organic Frameworks. Advanced Functional Materials, 2018, 28, 1705253.	7.8	100
421	Recent Progress on MOF-Derived Heteroatom-Doped Carbon-Based Electrocatalysts for Oxygen Reduction Reaction. Advanced Science, 2018, 5, 1700515.	5.6	306
422	Bimetallic Zeolitic Imidazolate Framework Derived Carbon Nanotubes Embedded with Co Nanoparticles for Efficient Bifunctional Oxygen Electrocatalyst. Advanced Energy Materials, 2018, 8, 1702048.	10.2	200
423	Nanomaterials derived from metal-organic frameworks. Nature Reviews Materials, 2018, 3, .	23.3	962
424	Engineering the coordination geometry of metal-organic complex electrocatalysts for highly enhanced oxygen evolution reaction. Journal of Materials Chemistry A, 2018, 6, 805-810.	5.2	69
425	Ultrafine and highly disordered Ni ₂ Fe ₁ nanofoams enabled highly efficient oxygen evolution reaction in alkaline electrolyte. Nano Energy, 2018, 44, 319-326.	8.2	118
426	Hierarchical Core-Shell Nickel Cobaltite Chestnut-Like Structures as Bifunctional Electrocatalyst for Rechargeable Metal-Air Batteries. ChemSusChem, 2018, 11, 406-414.	3.6	30
427	Co/CoP embedded in a hairy nitrogen-doped carbon polyhedron as an advanced tri-functional electrocatalyst. Materials Horizons, 2018, 5, 108-115.	6.4	184
428	Single cobalt sites in mesoporous N-doped carbon matrix for selective catalytic hydrogenation of nitroarenes. Journal of Catalysis, 2018, 357, 20-28.	3.1	208
429	Combining water reduction and liquid fuel oxidization by nickel hydroxide for flexible hydrogen production. Energy Storage Materials, 2018, 11, 260-266.	9.5	24
430	Oxygen Vacancies Confined in Nickel Molybdenum Oxide Porous Nanosheets for Promoted Electrocatalytic Urea Oxidation. ACS Catalysis, 2018, 8, 1-7.	5.5	372
431	Mechanisms of Two-Electron versus Four-Electron Reduction of Dioxygen Catalyzed by Earth-Abundant Metal Complexes. ChemCatChem, 2018, 10, 9-28.	1.8	82
432	Mesoporous Metal-Organic Frameworks: Synthetic Strategies and Emerging Applications. Small, 2018, 14, e1801454.	5.2	133
433	Ni(<i>scp</i>)-based coordination polymers for efficient electrocatalytic oxygen evolution reaction. RSC Advances, 2018, 8, 38562-38565.	1.7	18

#	ARTICLE	IF	CITATIONS
434	Apically Co-nanoparticles-wrapped nitrogen-doped carbon nanotubes from a single-source MOF for efficient oxygen reduction. <i>Journal of Materials Chemistry A</i> , 2018, 6, 24071-24077.	5.2	73
435	Phosphorized polyoxometalate-etched iron-hydroxide porous nanotubes for efficient electrocatalytic oxygen evolution. <i>Journal of Materials Chemistry A</i> , 2018, 6, 24479-24485.	5.2	39
436	Preparation of two-dimensional assembled Ni ²⁺ /Mn ²⁺ /C ternary composites for high-performance all-solid-state flexible supercapacitors. <i>Journal of Materials Chemistry A</i> , 2018, 6, 24086-24091.	5.2	89
437	Mixed phthalocyanine-porphyrin-based conjugated microporous polymers towards unveiling the activity origin of Fe ²⁺ /N ₄ catalysts for the oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , 2018, 6, 22851-22857.	5.2	59
438	Simple air calcination affords commercial carbon cloth with high areal specific capacitance for symmetrical supercapacitors. <i>Journal of Materials Chemistry A</i> , 2018, 6, 21078-21086.	5.2	74
439	Co ₂ P Nanoparticles Wrapped in Amorphous Porous Carbon as an Efficient and Stable Catalyst for Water Oxidation. <i>Frontiers in Chemistry</i> , 2018, 6, 580.	1.8	6
440	Metal-Organic Framework-Assisted Construction of TiO ₂ /Co ₃ O ₄ Highly Ordered Necklace-like Heterostructures for Enhanced Ethanol Vapor Sensing Performance. <i>Langmuir</i> , 2018, 34, 14577-14585.	1.6	42
441	Fe ₃ O ₄ /Fe ₃ C@Nitrogen-Doped Carbon for Enhancing Oxygen Reduction Reaction. <i>ChemNanoMat</i> , 2019, 5, 187-193.	1.5	15
442	Cerium promoted V-g-C ₃ N ₄ as highly efficient heterogeneous catalysts for the direct benzene hydroxylation. <i>Royal Society Open Science</i> , 2018, 5, 180371.	1.1	10
443	One-Dimensional Porous Hybrid Structure of Mo ₂ C-CoP Encapsulated in N-Doped Carbon Derived from MOF: An Efficient Electrocatalyst for Hydrogen Evolution Reaction over the Entire pH Range. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 42335-42347.	4.0	101
444	Pd Nanoparticles Anchored on N-rich Graphdiyne Surface for Enhanced Catalysis for Alkaline Electrolyte Oxygen Reduction. <i>International Journal of Electrochemical Science</i> , 2018, 13, 12226-12237.	0.5	8
445	Enhanced oxygen reduction with single-atomic-site iron catalysts for a zinc-air battery and hydrogen-air fuel cell. <i>Nature Communications</i> , 2018, 9, 5422.	5.8	696
446	Fabrication of Self-Entangled 3D Carbon Nanotube Networks from Metal-Organic Frameworks for Li-Ion Batteries. <i>ACS Applied Nano Materials</i> , 2018, 1, 7075-7082.	2.4	10
447	Facile synthesis of cobalt ferrite nanoparticles (CFO-NPs) as anode material with enhanced lithium storage capability. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2018, 236-237, 162-169.	1.7	12
448	MOF-Derived CoP Nanoparticles Embedded in Nitrogen-Doped Porous Carbon Polyhedrons for Nanomolar Sensing of p-Nitrophenol. <i>ACS Applied Nano Materials</i> , 2018, 1, 5843-5853.	2.4	62
449	Bimetallic Zeolitic Imidazolate Framework-derived Porous Carbon as Efficient Bifunctional Electrocatalysts for Zn-air Battery. <i>International Journal of Electrochemical Science</i> , 2018, 13, 5788-5797.	0.5	4
450	A Stable Bifunctional Catalyst for Rechargeable Zinc-Air Batteries: Iron-Cobalt Nanoparticles Embedded in a Nitrogen-Doped 3D Carbon Matrix. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 16166-16170.	7.2	365
451	Combined Electron and Structure Manipulation on Fe-Containing N-Doped Carbon Nanotubes To Boost Bifunctional Oxygen Electrocatalysis. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 35888-35895.	4.0	77

#	ARTICLE	IF	CITATIONS
452	<i>In situ</i> derived Fe/N/S-codoped carbon nanotubes from ZIF-8 crystals as efficient electrocatalysts for the oxygen reduction reaction and zinc-air batteries. <i>Journal of Materials Chemistry A</i> , 2018, 6, 20093-20099.	5.2	133
453	Metal-Organic Frameworks Encapsulating Active Nanoparticles as Emerging Composites for Catalysis: Recent Progress and Perspectives. <i>Advanced Materials</i> , 2018, 30, e1800702.	11.1	362
454	Selenium phosphorus co-doped cobalt oxide nanosheets anchored on Co foil: A self-supported and stable bifunctional electrode for efficient electrochemical water splitting. <i>Electrochimica Acta</i> , 2018, 292, 247-255.	2.6	17
455	A mixed-ion strategy to construct CNT-decorated Co/N-doped hollow carbon for enhanced oxygen reduction. <i>Chemical Communications</i> , 2018, 54, 11570-11573.	2.2	33
456	One-step construction of porous mixed spinel-type MnCo ₂ O ₄ /NCNT as an efficient bi-functional oxygen electrocatalyst. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 19451-19459.	3.8	11
457	Electrochemical Energy Conversion and Storage with Zeolitic Imidazolate Framework Derived Materials: A Perspective. <i>ChemElectroChem</i> , 2018, 5, 3571-3588.	1.7	46
458	Encapsulation of N-decorated metal sub-nanoclusters/single atoms into a metal-organic framework for highly efficient catalysis. <i>Chemical Science</i> , 2018, 9, 8962-8968.	3.7	27
459	Bimetallic Hofmann-Type Metal-Organic Framework Nanoparticles for Efficient Electrocatalysis of Oxygen Evolution Reaction. <i>ACS Applied Energy Materials</i> , 0, , .	2.5	22
460	A Stable Bifunctional Catalyst for Rechargeable Zinc-Air Batteries: Iron-Cobalt Nanoparticles Embedded in a Nitrogen-Doped 3D Carbon Matrix. <i>Angewandte Chemie</i> , 2018, 130, 16398-16402.	1.6	64
461	Cobalt-doped MnO ₂ ultrathin nanosheets with abundant oxygen vacancies supported on functionalized carbon nanofibers for efficient oxygen evolution. <i>Nano Energy</i> , 2018, 54, 129-137.	8.2	182
462	2D Metal Organic Framework-Graphitic Carbon Nanocomposites as Precursors for High-Performance O ₂ -Evolution Electrocatalysts. <i>Advanced Energy Materials</i> , 2018, 8, 1802404.	10.2	43
463	Individual High-Quality N-Doped Carbon Nanotubes Embedded with Nonprecious Metal Nanoparticles toward Electrochemical Reaction. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 39757-39767.	4.0	33
464	Efficient Electrocatalytic Proton Reduction with Carbon Nanotube-Supported Metal-Organic Frameworks. <i>Journal of the American Chemical Society</i> , 2018, 140, 15591-15595.	6.6	129
465	Metal-organic framework-derived cobalt and nitrogen co-doped porous carbon with four-coordinated Co-N ₄ for efficient acetylene hydrochlorination. <i>Applied Organometallic Chemistry</i> , 2018, 32, e4570.	1.7	9
466	Synergistic stabilizing lithium sulfur battery via nano-coating polypyrrole on cobalt sulfide nanobox. <i>Journal of Power Sources</i> , 2018, 405, 51-60.	4.0	45
467	Simultaneous Modulation of Composition and Oxygen Vacancies on Hierarchical ZnCo ₂ O ₄ /Co ₃ O ₄ /NCNT Mesoporous Dodecahedron for Enhanced Oxygen Evolution Reaction. <i>Chemistry - A European Journal</i> , 2018, 24, 18689-18695.	1.7	14
468	Hollow Bimetallic Zinc Cobalt Phosphosulfides for Efficient Overall Water Splitting. <i>Chemistry - A European Journal</i> , 2019, 25, 621-626.	1.7	29
469	CoSe ₂ Nanoparticles Encapsulated by N-Doped Carbon Framework Intertwined with Carbon Nanotubes: High-Performance Dual-Role Anode Materials for Both Li- and Na-Ion Batteries. <i>Advanced Science</i> , 2018, 5, 1800763.	5.6	215

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470	Hierarchical Porous Prism Arrays Composed of Hybrid Ni ²⁺ /NiO ²⁺ Carbon as Highly Efficient Electrocatalysts for Overall Water Splitting. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 38906-38914.	4.0	56
471	Hierarchical Core-shell SnO ₂ /Ag/Co(OH) ₂ Spheres Comprising Wrinkled Nanosheets for Highly Efficient Oxygen Evolution Reaction. <i>International Journal of Electrochemical Science</i> , 2018, 13, 5860-5871.	0.5	2
472	Restructured Fe ²⁺ /Mn Alloys Encapsulated by N-doped Carbon Nanotube Catalysts Derived from Bimetallic MOF for Enhanced Oxygen Reduction Reaction. <i>ChemCatChem</i> , 2018, 10, 5475-5486.	1.8	39
473	Atomically dispersed manganese catalysts for oxygen reduction in proton-exchange membrane fuel cells. <i>Nature Catalysis</i> , 2018, 1, 935-945.	16.1	1,075
474	Ultra-high surface area graphitic Fe-N-C nanospheres with single-atom iron sites as highly efficient non-precious metal bifunctional catalysts towards oxygen redox reactions. <i>Journal of Catalysis</i> , 2018, 368, 279-290.	3.1	105
475	A Self-Templating Redox-Mediated Synthesis of Hollow Phosphated Manganese Oxide Nanospheres as Noble-Metal-like Oxygen Electrocatalysts. <i>Chemistry of Materials</i> , 2018, 30, 8270-8279.	3.2	31
476	Synthesis of PdV/C nanoparticles using phase transfer method for oxygen reduction in alkaline electrolytes. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 20712-20720.	3.8	4
477	Two-Dimensional NiSe ₂ /N-Rich Carbon Nanocomposites Derived from Ni-Hexamine Frameworks for Superb Na-Ion Storage. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 34193-34201.	4.0	110
478	MOF Derived Catalysts for Oxygen Reduction Reaction in Proton Exchange Membrane Fuel Cell. <i>Key Engineering Materials</i> , 0, 778, 275-282.	0.4	3
479	Ni nanoparticle-decorated-MnO ₂ nanodendrites as highly selective and efficient catalysts for CO ₂ electroreduction. <i>Journal of Materials Chemistry A</i> , 2018, 6, 19438-19444.	5.2	27
480	Metal-organic frameworks and their derivatives as bifunctional electrocatalysts. <i>Coordination Chemistry Reviews</i> , 2018, 376, 430-448.	9.5	175
481	A Tailored Bifunctional Electrocatalyst: Boosting Oxygen Reduction/Evolution Catalysis via Electron Transfer Between N-doped Graphene and Perovskite Oxides. <i>Small</i> , 2018, 14, e1802767.	5.2	85
482	Grafting Cobalt Diselenide on Defective Graphene for Enhanced Oxygen Evolution Reaction. <i>IScience</i> , 2018, 7, 145-153.	1.9	39
483	Electrosynthesis of Well-Defined Metal-Organic Framework Films and the Carbon Nanotube Network Derived from Them toward Electrocatalytic Applications. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 34494-34501.	4.0	42
484	Noble metal-free Co@N-doped carbon nanotubes as efficient counter electrode in dye-sensitized solar cells. <i>Solar Energy</i> , 2018, 174, 225-230.	2.9	20
485	Seed-mediated atomic-scale reconstruction of silver manganate nanoplates for oxygen reduction towards high-energy aluminum-air flow batteries. <i>Nature Communications</i> , 2018, 9, 3715.	5.8	77
486	Preparation of Co-N carbon nanosheet oxygen electrode catalyst by controlled crystallization of cobalt salt precursors for all-solid-state Al-air battery. <i>RSC Advances</i> , 2018, 8, 22193-22198.	1.7	11
487	Coherent nanoscale cobalt/cobalt oxide heterostructures embedded in porous carbon for the oxygen reduction reaction. <i>RSC Advances</i> , 2018, 8, 28625-28631.	1.7	32

#	ARTICLE	IF	CITATIONS
488	Bioinspired Architectures and Heteroatom Doping To Construct Metal-Oxide-Based Anode for High-Performance Lithium-Ion Batteries. <i>Chemistry - A European Journal</i> , 2018, 24, 16902-16909.	1.7	20
489	Synergistic Effects of Active Sites' Nature and Hydrophilicity on the Oxygen Reduction Reaction Activity of Pt-Free Catalysts. <i>Nanomaterials</i> , 2018, 8, 643.	1.9	11
490	Mass Production of Large-Sized, Nonlayered 2D Nanosheets: Their Directed Synthesis by a Rapid Gel-Blowing Strategy, and Applications in Li/Na Storage and Catalysis. <i>Advanced Materials</i> , 2018, 30, e1803569.	11.1	74
491	Investigation of the durability of Fe/N-doped mesoporous carbon nanostructure as a non-precious metal catalyst for oxygen reduction reaction in acid medium. <i>Carbon</i> , 2018, 140, 189-200.	5.4	24
492	Recent Advances in Materials and Design of Electrochemically Rechargeable Zinc-Air Batteries. <i>Small</i> , 2018, 14, e1801929.	5.2	192
493	Cobalt nanoparticle-encapsulated carbon nanowire arrays: Enabling the fast redox reaction kinetics of lithium-sulfur batteries. <i>Carbon</i> , 2018, 140, 385-393.	5.4	31
494	Solid solution nitride/carbon nanotube hybrids enhance electrocatalysis of oxygen in zinc-air batteries. <i>Energy Storage Materials</i> , 2018, 15, 380-387.	9.5	32
495	Facile synthesis of bimodal porous graphitic carbon nitride nanosheets as efficient photocatalysts for hydrogen evolution. <i>Nano Energy</i> , 2018, 50, 376-382.	8.2	58
496	Simultaneous water recovery and hydrogen production by bifunctional electrocatalyst of nitrogen-doped carbon nanotubes protected cobalt nanoparticles. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 12110-12118.	3.8	17
497	Metal organic framework nanofibers derived Co ₃ O ₄ -doped carbon-nitrogen nanosheet arrays for high efficiency electrocatalytic oxygen evolution. <i>Carbon</i> , 2018, 137, 433-441.	5.4	56
498	SiO ₂ -protected shell mediated templating synthesis of Fe-N-doped carbon nanofibers and their enhanced oxygen reduction reaction performance. <i>Energy and Environmental Science</i> , 2018, 11, 2208-2215.	15.6	196
499	Comparison of new metal organic framework-based catalysts for oxygen reduction reaction. <i>Data in Brief</i> , 2018, 19, 281-287.	0.5	19
500	Bifunctional MOF-derived Co-N-doped carbon electrocatalysts for high-performance zinc-air batteries and MFCs. <i>Energy</i> , 2018, 156, 95-102.	4.5	91
501	Oxygen Reduction Reaction from Water Electrolysis Intensified by Pressure and O ₂ Oxidation Desulfurization. <i>Journal of the Electrochemical Society</i> , 2018, 165, E139-E147.	1.3	7
502	Cost-effective synthesis of three-dimensional nitrogen-doped nanostructured carbons with hierarchical architectures from the biomass of sea-tangle for the amperometric determination of ascorbic acid. <i>Analytica Chimica Acta</i> , 2018, 1029, 15-23.	2.6	33
503	Co@Pd core-shell nanoparticles embedded in nitrogen-doped porous carbon as dual functional electrocatalysts for both oxygen reduction and hydrogen evolution reactions. <i>Journal of Colloid and Interface Science</i> , 2018, 528, 18-26.	5.0	48
504	Rational design of cobalt and nitrogen co-doped carbon hollow frameworks for efficient photocatalytic degradation of gaseous toluene. <i>Journal of Colloid and Interface Science</i> , 2018, 528, 45-52.	5.0	49
505	Co NP/NC hollow nanoparticles derived from yolk-shell structured ZIFs@polydopamine as bifunctional electrocatalysts for water oxidation and oxygen reduction reactions. <i>Journal of Energy Chemistry</i> , 2018, 27, 1261-1267.	7.1	43

#	ARTICLE	IF	CITATIONS
506	Fabrication of hollow nanorod electrodes based on RuO ₂ //Fe ₂ O ₃ for an asymmetric supercapacitor. Dalton Transactions, 2018, 47, 7747-7753.	1.6	25
507	Hierarchical Metal-Organic Framework-Assembled Membrane Filter for Efficient Removal of Particulate Matter. ACS Applied Materials & Interfaces, 2018, 10, 19957-19963.	4.0	74
508	Building block nanoparticles engineering induces multi-element perovskite hollow nanofibers structure evolution to trigger enhanced oxygen evolution. Electrochimica Acta, 2018, 279, 301-310.	2.6	14
509	Amorphous MOF Introduced N-Doped Graphene: An Efficient and Versatile Electrocatalyst for Zinc-Air Battery and Water Splitting. ACS Applied Energy Materials, 2018, 1, 2440-2445.	2.5	64
510	Tuning Electronic Push/Pull of Ni-Based Hydroxides To Enhance Hydrogen and Oxygen Evolution Reactions for Water Splitting. ACS Catalysis, 2018, 8, 5621-5629.	5.5	146
511	Chitosan/phytic acid hydrogel as a platform for facile synthesis of heteroatom-doped porous carbon frameworks for electrocatalytic oxygen reduction. Carbon, 2018, 137, 68-77.	5.4	40
512	Dicyandiamide and iron-tannin framework derived nitrogen-doped carbon nanosheets with encapsulated iron carbide nanoparticles as advanced pH-universal oxygen reduction catalysts. Journal of Colloid and Interface Science, 2018, 530, 196-201.	5.0	32
513	Synthesis of highly-active Fe-N-C catalysts for PEMFC with carbide-derived carbons. Journal of Materials Chemistry A, 2018, 6, 14663-14674.	5.2	94
514	Dual-metal zeolitic imidazolate frameworks and their derived nanoporous carbons for multiple environmental and electrochemical applications. Chemical Engineering Journal, 2018, 351, 641-649.	6.6	49
515	Encapsulation of metal precursor within ZIFs for bimetallic N-doped carbon electrocatalyst with enhanced oxygen reduction. International Journal of Hydrogen Energy, 2018, 43, 14701-14709.	3.8	26
516	In Situ Growth of NiFe Alloy Nanoparticles Embedded into N-Doped Bamboo-like Carbon Nanotubes as a Bifunctional Electrocatalyst for Zn-Air Batteries. ACS Applied Materials & Interfaces, 2018, 10, 26178-26187.	4.0	94
517	Recent progress in single-atom electrocatalysts: concept, synthesis, and applications in clean energy conversion. Journal of Materials Chemistry A, 2018, 6, 14025-14042.	5.2	224
518	3D nitrogen-doped graphene aerogels as efficient electrocatalyst for the oxygen reduction reaction. Carbon, 2018, 139, 137-144.	5.4	75
519	Electronic structure engineering to boost oxygen reduction activity by controlling the coordination of the central metal. Energy and Environmental Science, 2018, 11, 2348-2352.	15.6	336
520	Gold Nanoparticles Incorporated in a Zinc-Based Metal-Organic Framework as Multifunctional Catalyst for the Oxygen Reduction and Hydrogen Evolution Reactions. ChemElectroChem, 2018, 5, 2612-2619.	1.7	25
521	Engineering an effective noble-metal-free photocatalyst for hydrogen evolution: hollow hexagonal porous micro-rods assembled from In ₂ O ₃ @carbon core-shell nanoparticles. Journal of Materials Chemistry A, 2018, 6, 15747-15754.	5.2	75
522	The Development of Yolk-Shell Structured Pd&ZnO@Carbon Submicroreactors with High Selectivity and Stability. Advanced Functional Materials, 2018, 28, 1801737.	7.8	78
523	Porous Ag-ZnO microspheres as efficient photocatalyst for methane and ethylene oxidation: Insight into the role of Ag particles. Applied Surface Science, 2018, 456, 493-500.	3.1	74

#	ARTICLE	IF	CITATIONS
524	Cobalt Disulfide Nanoparticles Embedded in Porous Carbonaceous Micro-Polyhedrons Interlinked by Carbon Nanotubes for Superior Lithium and Sodium Storage. <i>ACS Nano</i> , 2018, 12, 7220-7231.	7.3	234
525	Boosting fuel cell catalysis by surface doping of W on Pd nanocubes. <i>Chinese Journal of Catalysis</i> , 2018, 39, 1202-1209.	6.9	16
526	Derivatives of coordination compounds for rechargeable batteries. <i>Journal of Materials Chemistry A</i> , 2018, 6, 13999-14024.	5.2	58
527	Application of Nanomaterials Prepared by Thermolysis of Metal Chelates. <i>Springer Series on Polymer and Composite Materials</i> , 2018, , 459-541.	0.5	1
528	Systematic design of superaerophobic nanotube-array electrode comprised of transition-metal sulfides for overall water splitting. <i>Nature Communications</i> , 2018, 9, 2452.	5.8	431
529	MOF Templated Nitrogen Doped Carbon Stabilized Pt-Co Bimetallic Nanoparticles: Low Pt Content and Robust Activity toward Electrocatalytic Oxygen Reduction Reaction. <i>ACS Applied Nano Materials</i> , 2018, 1, 3331-3338.	2.4	53
530	Well-aligned metal-organic framework array-derived CoS ₂ nanosheets toward robust electrochemical water splitting. <i>Materials Chemistry Frontiers</i> , 2018, 2, 1732-1738.	3.2	41
531	Facile synthesis of N,O-codoped hard carbon on the kilogram scale for fast capacitive sodium storage. <i>Journal of Materials Chemistry A</i> , 2018, 6, 16465-16474.	5.2	50
532	CoSe/Co nanoparticles wrapped by in situ grown N-doped graphitic carbon nanosheets as anode material for advanced lithium ion batteries. <i>Journal of Power Sources</i> , 2018, 399, 223-230.	4.0	70
533	Boosting Electrocatalytic Hydrogen-Evolving Activity of Co/CoO Heterostructured Nanosheets via Coupling Photogenerated Carriers with Phototherapy. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 11206-11210.	3.2	22
534	Rational design of CNTs with encapsulated Co nanospheres as superior acid- and base-resistant microwave absorbers. <i>Dalton Transactions</i> , 2018, 47, 11554-11562.	1.6	17
535	Electronic Structure Evolution in Tricomponent Metal Phosphides with Reduced Activation Energy for Efficient Electrocatalytic Oxygen Evolution. <i>Small</i> , 2018, 14, e1801756.	5.2	69
536	High-Performance Membrane Capacitive Deionization Based on Metal-Organic Framework-Derived Hierarchical Carbon Structures. <i>ACS Omega</i> , 2018, 3, 8506-8513.	1.6	42
537	Nonprecious Nanoalloys Embedded in N-Enriched Mesoporous Carbons Derived from a Dual-MOF as Highly Active Catalyst towards Oxygen Reduction Reaction. <i>ChemistrySelect</i> , 2018, 3, 7913-7920.	0.7	11
538	The Design and Synthesis of Hollow Micro/Nanostructures: Present and Future Trends. <i>Advanced Materials</i> , 2018, 30, e1800939.	11.1	301
539	Recent Advances toward the Rational Design of Efficient Bifunctional Air Electrodes for Rechargeable Zn-Air Batteries. <i>Small</i> , 2018, 14, e1703843.	5.2	163
540	Emerging investigator series: dispersed transition metals on a nitrogen-doped carbon nanoframework for environmental hydrogen peroxide detection. <i>Environmental Science: Nano</i> , 2018, 5, 1834-1843.	2.2	27
541	Hierarchical micro/mesoporous nitrogen-doped carbons derived from hypercrosslinked polymers for highly efficient oxygen reduction reaction. <i>Carbon</i> , 2018, 138, 348-356.	5.4	27

#	ARTICLE	IF	CITATIONS
542	Metal/covalent-organic frameworks-based electrocatalysts for water splitting. <i>Journal of Materials Chemistry A</i> , 2018, 6, 15905-15926.	5.2	258
543	High oxygen reduction reaction performance nitrogen-doped biochar cathode: A strategy for comprehensive utilizing nitrogen and carbon in water hyacinth. <i>Bioresource Technology</i> , 2018, 267, 524-531.	4.8	82
544	Metal Organic Framework Derived Materials: Progress and Prospects for the Energy Conversion and Storage. <i>Advanced Materials</i> , 2018, 30, e1705146.	11.1	376
545	Self-assembled three-dimensional carbon networks with accessorial Lewis base sites and variational electron characteristics as efficient oxygen reduction reaction catalysts for alkaline metal-air batteries. <i>Chinese Journal of Catalysis</i> , 2018, 39, 1210-1218.	6.9	8
546	Boosting Oxygen Reduction Catalysis with N-doped Carbon Coated Co ₉ S ₈ Microtubes. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 25415-25421.	4.0	89
547	FeP Nanocrystals Embedded in N-Doped Carbon Nanosheets for Efficient Electrocatalytic Hydrogen Generation over a Broad pH Range. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 11587-11594.	3.2	56
548	Multi-Level Architecture Optimization of MOF-Templated Co-Based Nanoparticles Embedded in Hollow N-Doped Carbon Polyhedra for Efficient OER and ORR. <i>ACS Catalysis</i> , 2018, 8, 7879-7888.	5.5	394
549	Metallic and superhydrophilic nickel cobalt diselenide nanosheets electrodeposited on carbon cloth as a bifunctional electrocatalyst. <i>Journal of Materials Chemistry A</i> , 2018, 6, 17353-17360.	5.2	100
550	Metal-organic framework derived cobalt phosphosulfide with ultrahigh microwave absorption properties. <i>Nanotechnology</i> , 2018, 29, 405703.	1.3	30
551	Well-elaborated, mechanochemically synthesized Fe-TPP ₃ ZIF precursors (Fe-TPP = tetraphenylporphine) Tj ETQq1 1 0.784314 rgBT /O batteries. <i>Nano Energy</i> , 2018, 52, 29-37.	8.2	108
552	Iron Vacancies Induced Bifunctionality in Ultrathin Feroxyhyte Nanosheets for Overall Water Splitting. <i>Advanced Materials</i> , 2018, 30, e1803144.	11.1	225
553	Recent Development of Zeolitic Imidazolate Frameworks (ZIFs) Derived Porous Carbon Based Materials as Electrocatalysts. <i>Advanced Energy Materials</i> , 2018, 8, 1801257.	10.2	242
554	Boosting Lithium Storage Properties of MOF Derivatives through a Wet-Spinning Assembled Fiber Strategy. <i>Chemistry - A European Journal</i> , 2018, 24, 13792-13799.	1.7	68
555	N, P, S co-doped hollow carbon polyhedra derived from MOF-based core-shell nanocomposites for capacitive deionization. <i>Journal of Materials Chemistry A</i> , 2018, 6, 15245-15252.	5.2	260
556	Simultaneous growth of carbon nanotubes on inner/outer surfaces of porous polyhedra: Advanced sulfur hosts for lithium-sulfur batteries. <i>Nano Research</i> , 2018, 11, 6155-6166.	5.8	33
557	<i>In situ</i> synthesis of metal embedded nitrogen doped carbon nanotubes as an electrocatalyst for the oxygen reduction reaction with high activity and stability. <i>RSC Advances</i> , 2018, 8, 25051-25056.	1.7	7
558	<i>In situ</i> formation of Ni ₃ Se ₄ nanorod arrays as versatile electrocatalysts for electrochemical oxidation reactions in hybrid water electrolysis. <i>Journal of Materials Chemistry A</i> , 2018, 6, 15653-15658.	5.2	84
559	Hierarchical 3D macrosheets composed of interconnected <i>in situ</i> cobalt catalyzed nitrogen doped carbon nanotubes as superior bifunctional oxygen electrocatalysts for rechargeable Zn-air batteries. <i>Journal of Materials Chemistry A</i> , 2018, 6, 15523-15529.	5.2	68

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560	Ultrafast microwave-assisted synthesis of nitrogen-doped carbons as electrocatalysts for oxygen reduction reaction. <i>Nanotechnology</i> , 2018, 29, 305708.	1.3	8
561	From Metal-Organic Frameworks to Single-Atom Fe Implanted N-Doped Porous Carbons: Efficient Oxygen Reduction in Both Alkaline and Acidic Media. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 8525-8529.	7.2	669
562	Copper Silver Thin Films with Metastable Miscibility for Oxygen Reduction Electrocatalysis in Alkaline Electrolytes. <i>ACS Applied Energy Materials</i> , 2018, 1, 1990-1999.	2.5	40
563	From Metal-Organic Frameworks to Single-Atom Fe Implanted N-Doped Porous Carbons: Efficient Oxygen Reduction in Both Alkaline and Acidic Media. <i>Angewandte Chemie</i> , 2018, 130, 8661-8665.	1.6	104
564	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</i> , 2018, 130, 8750-8754.	1.6	51
565	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.	7.2	455
566	Co@C Nanoparticle Embedded Hierarchically Porous N-Doped Hollow Carbon for Efficient Oxygen Reduction. <i>Chemistry - A European Journal</i> , 2018, 24, 10178-10185.	1.7	40
567	A modular strategy for decorating isolated cobalt atoms into multichannel carbon matrix for electrocatalytic oxygen reduction. <i>Energy and Environmental Science</i> , 2018, 11, 1980-1984.	15.6	225
568	Highly porous defective carbons derived from seaweed biomass as efficient electrocatalysts for oxygen reduction in both alkaline and acidic media. <i>Carbon</i> , 2018, 137, 93-103.	5.4	64
569	ZIF ₈ /ZIF ₆₇ -Derived Co _x -Embedded 1D Porous Carbon Nanofibers with Graphitic Carbon-Encased Co Nanoparticles as an Efficient Bifunctional Electrocatalyst. <i>Small</i> , 2018, 14, e1800423.	5.2	232
570	Formation of a Tubular Assembly by Ultrathin Ti _{0.8} Co _{0.2} N Nanosheets as Efficient Oxygen Reduction Electrocatalysts for Hydrogen/Metal-Air Fuel Cells. <i>ACS Catalysis</i> , 2018, 8, 8970-8975.	5.5	147
571	General Dimension-Controlled Synthesis of Hollow Carbon Embedded with Metal Single Atoms or Core-Shell Nanoparticles for Energy Storage Applications. <i>Advanced Energy Materials</i> , 2018, 8, 1801101.	10.2	66
572	A novel rechargeable hybrid Na-seawater flow battery using bifunctional electrocatalytic carbon sponge as cathode current collector. <i>Journal of Power Sources</i> , 2018, 400, 478-484.	4.0	21
573	Electrochemical performance of bifunctional Co/graphitic carbon catalysts prepared from metal-organic frameworks for oxygen reduction and evolution reactions in alkaline solution. <i>Journal of Applied Electrochemistry</i> , 2018, 48, 1231-1241.	1.5	14
574	Hierarchically Porous M-N-C (M = Co and Fe) Single-Atom Electrocatalysts with Robust MN _x Active Moieties Enable Enhanced ORR Performance. <i>Advanced Energy Materials</i> , 2018, 8, 1801956.	10.2	540
575	Hypophosphorous acid cross-linked layer-by-layer assembly of green polyelectrolytes on polyester-cotton blend fabrics for durable flame-retardant treatment. <i>Carbohydrate Polymers</i> , 2018, 201, 1-8.	5.1	69
576	Iron-decorated nitrogen-rich carbons as efficient oxygen reduction electrocatalysts for Zn-air batteries. <i>Nanoscale</i> , 2018, 10, 16996-17001.	2.8	25
577	Fe/N Codoped Carbon Nanocages with Single-Atom Feature as Efficient Oxygen Reduction Reaction Electrocatalyst. <i>ACS Applied Energy Materials</i> , 2018, 1, 4982-4990.	2.5	38

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578	Metal-organic framework derived leaf-like CoSNC nanocomposites for supercapacitor electrodes. <i>Nanoscale</i> , 2018, 10, 17958-17964.	2.8	23
579	Hollow Multivoid Nanocuboids Derived from Ternary Ni-Co-Fe Prussian Blue Analog for Dual-Electrocatalysis of Oxygen and Hydrogen Evolution Reactions. <i>Advanced Functional Materials</i> , 2018, 28, 1802129.	7.8	242
580	Identifying the Key Role of Pyridinic-N-Co Bonding in Synergistic Electrocatalysis for Reversible ORR/OER. <i>Advanced Materials</i> , 2018, 30, e1800005.	11.1	394
581	Bifunctionally active and durable hierarchically porous transition metal-based hybrid electrocatalyst for rechargeable metal-air batteries. <i>Applied Catalysis B: Environmental</i> , 2018, 239, 677-687.	10.8	64
582	Self-Assembled Nanostructured CuCo ₂ O ₄ for Electrochemical Energy Storage and the Oxygen Evolution Reaction via Morphology Engineering. <i>Small</i> , 2018, 14, e1800742.	5.2	100
583	MOF-derived metal/carbon materials as oxygen evolution reaction catalysts. <i>Inorganic Chemistry Communication</i> , 2018, 94, 57-74.	1.8	52
584	Carbon nanotube encapsulated in nitrogen and phosphorus co-doped carbon as a bifunctional electrocatalyst for oxygen reduction and evolution reactions. <i>Carbon</i> , 2018, 139, 156-163.	5.4	97
585	Ultrathin, highly branched carbon nanotube cluster with outstanding oxygen electrocatalytic performance. <i>Electrochimica Acta</i> , 2018, 282, 224-232.	2.6	30
586	A hierarchical nickel-carbon structure templated by metal-organic frameworks for efficient overall water splitting. <i>Energy and Environmental Science</i> , 2018, 11, 2363-2371.	15.6	240
587	Formation of Ni-rich Hierarchically Porous Carbon via Direct Growth ZIF ₈ on C ₃ N ₄ Nanosheet with Enhancing Electrochemical Performance. <i>ChemistrySelect</i> , 2018, 3, 6440-6449.	0.7	15
588	Metal-organic framework derived nanoporous carbons with highly selective adsorption and separation of xenon. <i>Journal of Materials Chemistry A</i> , 2018, 6, 13696-13704.	5.2	49
589	Metal-Organic Frameworks for Energy. <i>Advanced Energy Materials</i> , 2019, 9, 1801307.	10.2	160
590	Functionalization of Hollow Nanomaterials for Catalytic Applications: Nanoreactor Construction. <i>Advanced Materials</i> , 2019, 31, e1800426.	11.1	239
591	Recent Approaches to Design Electrocatalysts Based on Metal-Organic Frameworks and Their Derivatives. <i>Chemistry - an Asian Journal</i> , 2019, 14, 3474-3501.	1.7	34
592	Metal organic framework-derived hollow cactus-like carbon sheets for oxygen reduction. <i>Journal of Materials Chemistry A</i> , 2019, 7, 20162-20168.	5.2	25
593	Confinement Catalysis with 2D Materials for Energy Conversion. <i>Advanced Materials</i> , 2019, 31, e1901996.	11.1	257
594	Engineering Migration Pathway for Effective Separation of Photogenerated Carriers on Multicomponent Heterojunctions Coated with Nitrogen-Doped Carbon. <i>Chemistry - A European Journal</i> , 2019, 25, 14133-14139.	1.7	15
595	Enhancing by nano-engineering: Hierarchical architectures as oxygen reduction/ evolution reactions for zinc-air batteries. <i>Journal of Power Sources</i> , 2019, 438, 226919.	4.0	44

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596	Electrodeposition of Ni@Co@Fe mixed sulfide ultrathin nanosheets on Ni nanocones: a low-cost, durable and high performance catalyst for electrochemical water splitting. <i>Nanoscale</i> , 2019, 11, 16621-16634.	2.8	97
597	Facile Preparation of Carbon Shells-Coated O-Doped Molybdenum Carbide Nanoparticles as High Selective Electrocatalysts for Nitrogen Reduction Reaction under Ambient Conditions. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 31869-31877.	4.0	78
598	N-enriched porous carbon encapsulated bimetallic phosphides with hierarchical structure derived from controlled electrodepositing multilayer ZIFs for electrochemical overall water splitting. <i>Applied Catalysis B: Environmental</i> , 2019, 259, 118053.	10.8	72
599	Novel one-step synthesis of core@shell iron@nickel alloy nanoparticles coated by carbon layers for efficient oxygen evolution reaction electrocatalysis. <i>Journal of Power Sources</i> , 2019, 438, 226988.	4.0	40
600	Efficient Transfer Hydrogenation of Nitro Compounds to Amines Enabled by Mesoporous N-Stabilized Co-Zn/C. <i>Frontiers in Chemistry</i> , 2019, 7, 590.	1.8	18
601	A KCl-assisted pyrolysis strategy to fabricate nitrogen-doped carbon nanotube hollow polyhedra for efficient bifunctional oxygen electrocatalysts. <i>Journal of Materials Chemistry A</i> , 2019, 7, 20310-20316.	5.2	49
602	Synthesis of NiCo Alloy Nanoparticle-Decorated B,N-Doped Carbon Nanosheet Networks via a Self-Template Strategy for Bifunctional Oxygen-Involving Reactions. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 14394-14399.	3.2	21
603	Designed Formation of Hybrid Nanobox Composed of Carbon Sheathed CoSe ₂ Anchored on Nitrogen-Doped Carbon Skeleton as Ultrastable Anode for Sodium-Ion Batteries. <i>Small</i> , 2019, 15, e1902881.	5.2	79
604	Hierarchically Porous Co@N/C Cathode Catalyst Layers for Anion Exchange Membrane Fuel Cells. <i>ChemSusChem</i> , 2019, 12, 4165-4169.	3.6	34
605	Spatially-controlled porous nanoflake arrays derived from MOFs: An efficiently long-life oxygen electrode. <i>Nano Research</i> , 2019, 12, 2528-2534.	5.8	16
606	ZIF-67-derived CoO (tetrahedral Co ²⁺)@nitrogen-doped porous carbon protected by oxygen vacancies-enriched SnO ₂ as highly active catalyst for oxygen reduction and Pt co-catalyst for methanol oxidation. <i>Applied Catalysis B: Environmental</i> , 2019, 259, 118043.	10.8	114
607	A novel Cu-nanowire@Quasi-MOF via mild pyrolysis of a bimetal-MOF for the selective oxidation of benzyl alcohol in air. <i>Materials Chemistry Frontiers</i> , 2019, 3, 2363-2373.	3.2	42
608	Impact of Niobium in the Metal-Organic Framework-Mediated Synthesis of Co-Based Catalysts for Synthesis Gas Conversion. <i>Catalysis Letters</i> , 2019, 149, 3279-3286.	1.4	16
609	Ruthenium and cobalt bimetal encapsulated in nitrogen-doped carbon material derived of ZIF-67 as enhanced hydrogen evolution electrocatalyst. <i>Applied Surface Science</i> , 2019, 494, 101-110.	3.1	53
610	Nitrogen-rich carbon-onion-constructed nanosheets: an ultrafast and ultrastable dual anode material for sodium and potassium storage. <i>Journal of Materials Chemistry A</i> , 2019, 7, 18499-18509.	5.2	64
611	ZIF derived PtNiCo/NC cathode catalyst for proton exchange membrane fuel cell. <i>Applied Catalysis B: Environmental</i> , 2019, 258, 117947.	10.8	81
612	Nitrogen/sulfur dual-doped porous carbon nanofibers with Co ₉ S ₈ nanoparticles encapsulated by graphitic shells: A highly active stable free-standing air electrode for rechargeable non-aqueous Li-O ₂ batteries and primary alkaline Al-air batteries. <i>Chemical Engineering Journal</i> , 2019, 378, 122247.	6.6	51
613	Atomically dispersed metal catalysts for the oxygen reduction reaction: synthesis, characterization, reaction mechanisms and electrochemical energy applications. <i>Energy and Environmental Science</i> , 2019, 12, 2890-2923.	15.6	317

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614	Synthesis of CoSe ₂ nanoparticles embedded in N-doped carbon with conformal TiO ₂ shell for sodium-ion batteries. <i>Chemical Engineering Journal</i> , 2019, 378, 122206.	6.6	69
615	Bi-Microporous Metal-Organic Frameworks with Cubane [M ₄ (OH) ₄] (M=Ni, Tj ETQq1 1 0.784314 rgB) <i>Chemie - International Edition</i> , 2019, 58, 12185-12189.	7.2	350
616	Realization of Oxygen Reduction and Evolution Electrocatalysis by In Situ Stabilization of Co Nanoparticles in a Redox-Active Donor-Acceptor Porous Organic Polymer. <i>ChemElectroChem</i> , 2019, 6, 3756-3763.	1.7	19
617	Silicon and Iron as Resource-Efficient Anode Materials for Ambient-Temperature Metal-Air Batteries: A Review. <i>Materials</i> , 2019, 12, 2134.	1.3	46
618	Bimetal-Organic Framework Derived High-Valence State Cu-Doped Co ₃ O ₄ Porous Nanosheet Arrays for Efficient Oxygen Evolution and Water Splitting. <i>ChemCatChem</i> , 2019, 11, 4420-4426.	1.8	37
619	Multishell Hollow Metal/Nitrogen/Carbon Dodecahedrons with Precisely Controlled Architectures and Synergistically Enhanced Catalytic Properties. <i>ACS Nano</i> , 2019, 13, 7800-7810.	7.3	143
620	NiCo ₂ O ₄ nanoarray on CNT sponge: a bifunctional oxygen electrode material for rechargeable Zn-air batteries. <i>Nanoscale Advances</i> , 2019, 1, 3243-3251.	2.2	16
621	Metal-Organic Frameworks-Derived Mesoporous Si/SiO _x @NC Nanospheres as a Long-Lifespan Anode Material for Lithium-Ion Batteries. <i>Chemistry - A European Journal</i> , 2019, 25, 11991-11997.	1.7	48
622	N,P co-doped hollow carbon nanofiber membranes with superior mass transfer property for trifunctional metal-free electrocatalysis. <i>Nano Energy</i> , 2019, 64, 103879.	8.2	110
623	Bi-Microporous Metal-Organic Frameworks with Cubane [M ₄ (OH) ₄] (M=Ni, Tj ETQq1 1 0.784314 rgB) <i>Chemie</i> , 2019, 131, 12313-12317.	1.6	47
624	Metal-organic framework derived N-doped CNT@ porous carbon for high-performance sodium- and potassium-ion storage. <i>Electrochimica Acta</i> , 2019, 319, 541-551.	2.6	63
625	Mn-Doped Co-N-C Dodecahedron as a Bifunctional Electrocatalyst for Highly Efficient Zn-Air Batteries. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 14180-14188.	3.2	78
626	Preconcentration/extraction of trace bisphenols in milks using a novel effervescent reaction-assisted dispersive solid-phase extraction based on magnetic nickel-based N-doped graphene tubes. <i>Microchemical Journal</i> , 2019, 150, 104109.	2.3	25
627	Ru-Coated metal-organic framework-derived Co-based particles embedded in porous N-doped carbon nanocubes as a catalytic cathode for a Li-O ₂ battery. <i>Chemical Communications</i> , 2019, 55, 10092-10095.	2.2	15
628	Three-dimensional interconnected core-shell networks with Ni(Fe)OOH and M-N-C active species together as high-efficiency oxygen catalysts for rechargeable Zn-air batteries. <i>Journal of Materials Chemistry A</i> , 2019, 7, 19045-19059.	5.2	70
629	Interfacing Manganese Oxide and Cobalt in Porous Graphitic Carbon Polyhedrons Boosts Oxygen Electrocatalysis for Zn-Air Batteries. <i>Advanced Materials</i> , 2019, 31, e1902339.	11.1	363
630	Ultrastable nitrogen-doped carbon nanotube encapsulated cobalt nanoparticles for magnetic solid-phase extraction of okadaic acid from aquatic samples. <i>Journal of Chromatography A</i> , 2019, 1608, 460404.	1.8	27
631	Adenine Derivative Host with Interlaced 2D Structure and Dual Lithiophilic-Sulfiphilic Sites to Enable High-Loading Li-S Batteries. <i>ACS Nano</i> , 2019, 13, 9520-9532.	7.3	137

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632	Ultra-thin Co ²⁺ /Fe Layered Double Hydroxide Hollow Nanocubes for Efficient Electrocatalytic Water Oxidation. <i>ChemPhysChem</i> , 2019, 20, 2964-2967.	1.0	25
633	Metal-organic framework-derived materials for electrochemical energy applications. <i>EnergyChem</i> , 2019, 1, 100001.	10.1	438
634	MoO ₂ nanobelts modified with an MOF-derived carbon layer for high performance lithium-ion battery anodes. <i>Journal of Alloys and Compounds</i> , 2019, 803, 664-670.	2.8	27
635	Biogenic precursor to size-controlled synthesis of Fe ₂ P nanoparticles in heteroatom-doped graphene-like carbons and their electrocatalytic reduction of oxygen. <i>Journal of Power Sources</i> , 2019, 435, 226770.	4.0	17
636	Three-dimensional open nano-netcage electrocatalysts for efficient pH-universal overall water splitting. <i>Nature Communications</i> , 2019, 10, 4875.	5.8	253
637	Understanding the Phase-Induced Electrocatalytic Oxygen Evolution Reaction Activity on FeOOH Nanostructures. <i>ACS Catalysis</i> , 2019, 9, 10705-10711.	5.5	233
638	Single Fe atoms anchored by short-range ordered nanographene boost oxygen reduction reaction in acidic media. <i>Nano Energy</i> , 2019, 66, 104164.	8.2	68
639	Low-temperature synthesis of sp ² carbon nanomaterials. <i>Science Bulletin</i> , 2019, 64, 1817-1829.	4.3	18
640	Design of 2D Nanocrystalline Fe ₂ Ni ₂ N Coated onto Graphene Nanohybrid Sheets for Efficient Electrocatalytic Oxygen Evolution. <i>ACS Applied Energy Materials</i> , 2019, 2, 8502-8510.	2.5	25
641	Liberating N@CNTs Confined Highly Dispersed Co _x N _y Sites for Selective Hydrogenation of Quinolines. <i>Advanced Materials</i> , 2019, 31, e1906051.	11.1	56
642	Electroluminescent Materials and Devices Based on Metal Complexes. <i>Chemistry - an Asian Journal</i> , 2019, 14, 3791-3802.	1.7	18
643	Exploring the Influence of Halogen Coordination Effect of Stable Bimetallic MOFs on Oxygen Evolution Reaction. <i>Chemistry - A European Journal</i> , 2019, 25, 15830-15836.	1.7	27
644	Thermal treated three-dimensional N-doped graphene as efficient metal free-catalyst for oxygen reduction reaction. <i>Journal of Electroanalytical Chemistry</i> , 2019, 853, 113536.	1.9	21
645	Single Nanoparticle Activities in Ensemble: A Study on Pd Cluster Nanoportals for Electrochemical Oxygen Evolution Reaction. <i>Journal of Physical Chemistry C</i> , 2019, 123, 26124-26135.	1.5	13
646	Nanostructured Carbon Based Heterogeneous Electrocatalysts for Oxygen Evolution Reaction in Alkaline Media. <i>ChemCatChem</i> , 2019, 11, 5855-5874.	1.8	70
647	Metal-organic frameworks: a promising platform for constructing non-noble electrocatalysts for the oxygen-reduction reaction. <i>Journal of Materials Chemistry A</i> , 2019, 7, 1964-1988.	5.2	165
648	Retrofitting metal-organic frameworks. <i>Nature Communications</i> , 2019, 10, 4921.	5.8	30
649	Mixed-Metal-Cluster Strategy for Boosting Electrocatalytic Oxygen Evolution Reaction of Robust Metal-Organic Frameworks. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 45080-45086.	4.0	35

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650	Hollow Spherical (Co, Zn)/N, S-Doped Carbons: Efficient Catalysts for Oxygen Reduction in Both Alkaline and Acidic Media. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 18912-18925.	3.2	32
651	Missing-linker metal-organic frameworks for oxygen evolution reaction. <i>Nature Communications</i> , 2019, 10, 5048.	5.8	422
652	A New Three-dimensional Metal-organic Framework based on Dinuclear Rare Earth Cluster and Olsalazine. <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 2019, 645, 1267-1270.	0.6	8
653	The Synthesis of N-(Pyridin-2-yl)-Benzamides from Aminopyridine and Trans-Beta-Nitrostyrene by Fe ₂ Ni-BDC Bimetallic Metal-organic Frameworks. <i>Processes</i> , 2019, 7, 789.	1.3	8
654	Fine-Tuning the Coordinatively Unsaturated Metal Sites of Metal-organic Frameworks by Plasma Engraving for Enhanced Electrocatalytic Activity. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 44300-44307.	4.0	53
655	Enhanced Electromagnetic Wave Absorption by Porous Composites of Co-Containing Zeolitic-Imidazolate Framework. <i>Russian Journal of Physical Chemistry A</i> , 2019, 93, 2256-2262.	0.1	0
656	From All-Triazine C ₃ N ₃ Framework to Nitrogen-Doped Carbon Nanotubes: Efficient and Durable Trifunctional Electrocatalysts. <i>ACS Applied Nano Materials</i> , 2019, 2, 7969-7977.	2.4	49
657	3D Hierarchical CNT-Based Host with High Sulfur Loading for Lithium-Sulfur Batteries. <i>ChemElectroChem</i> , 2019, 6, 5698-5704.	1.7	6
658	Proliferating Oxygen Reduction Reaction by High Volume of Mesopores in Regular Nickel-Nitrogen Codoped Carbon Nanocubes. <i>Advanced Materials Interfaces</i> , 2019, 6, 1901186.	1.9	7
659	Atomic- and Molecular-Level Design of Functional Metal-organic Frameworks (MOFs) and Derivatives for Energy and Environmental Applications. <i>Advanced Science</i> , 2019, 6, 1901129.	5.6	121
660	Palladium Nanoparticles Supported on B-Doped Carbon Nanocage as Electrocatalyst toward Ethanol Oxidation Reaction. <i>ChemElectroChem</i> , 2019, 6, 5211-5219.	1.7	5
661	Cu,N-Codoped Carbon Nanodisks with Biomimic Stomata-Like Interconnected Hierarchical Porous Topology as Efficient Electrocatalyst for Oxygen Reduction Reaction. <i>Small</i> , 2019, 15, e1902410.	5.2	66
662	Shaddock peel derived nitrogen and phosphorus dual-doped hierarchical porous carbons as high-performance catalysts for oxygen reduction reaction. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 26982-26991.	3.8	19
663	Lattice Strain Formation through Spin-Coupled Shells of MoS ₂ on Mo ₂ C for Bifunctional Oxygen Reduction and Oxygen Evolution Reaction Electrocatalysts. <i>Advanced Materials Interfaces</i> , 2019, 6, 1900948.	1.9	50
664	Metal-organic framework nanosheets: a class of glamorous low-dimensional materials with distinct structural and chemical natures. <i>Science China Chemistry</i> , 2019, 62, 1561-1575.	4.2	31
665	Markedly Enhanced Oxygen Reduction Activity of Single-Atom Fe Catalysts via Integration with Fe Nanoclusters. <i>ACS Nano</i> , 2019, 13, 11853-11862.	7.3	340
666	Investigation of the Nanocrystal CoS ₂ Embedded in 3D Honeycomb-like Graphitic Carbon with a Synergistic Effect for High-Performance Lithium Sulfur Batteries. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 33987-33999.	4.0	77
667	Nickel nitride-black phosphorus heterostructure nanosheets for boosting the electrocatalytic activity towards the oxygen evolution reaction. <i>Journal of Materials Chemistry A</i> , 2019, 7, 22063-22069.	5.2	54

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668	Carbon shell encapsulated cobalt phosphide nanoparticles embedded in carbon nanotubes supported on carbon nanofibers: A promising anode for potassium ion battery. <i>Journal of Colloid and Interface Science</i> , 2019, 556, 432-440.	5.0	60
669	Mass production of nitrogen and oxygen codoped carbon nanotubes by a delicately-designed Pechini method for supercapacitors and electrocatalysis. <i>Nanoscale</i> , 2019, 11, 17425-17435.	2.8	15
670	N-doped carbon sheets loaded with well-dispersed Ni ₃ Fe nanoparticles as bifunctional oxygen electrode for rechargeable Zn-air battery. <i>Journal of Electroanalytical Chemistry</i> , 2019, 851, 113418.	1.9	11
671	2D nanoplate assembled nitrogen doped hollow carbon sphere decorated with Fe ₃ O ₄ as an efficient electrocatalyst for oxygen reduction reaction and Zn-air batteries. <i>Nano Research</i> , 2019, 12, 2774-2780.	5.8	64
672	Trifunctional Fishbone-like PtCo/Ir Enables High-Performance Zinc-Air Batteries to Drive the Water-Splitting Catalysis. <i>Chemistry of Materials</i> , 2019, 31, 8136-8144.	3.2	55
673	Development and Applications of MOFs Derivative One-Dimensional Nanofibers via Electrospinning: A Mini-Review. <i>Nanomaterials</i> , 2019, 9, 1306.	1.9	38
674	Construction of Electrocatalytic and Heat-Resistant Self-Supporting Electrodes for High-Performance Lithium-Sulfur Batteries. <i>Nano-Micro Letters</i> , 2019, 11, 78.	14.4	40
675	Ultrafine Co@nitrogen-doped carbon core-shell nanostructures anchored on carbon nanotubes for highly efficient oxygen reduction. <i>Applied Surface Science</i> , 2019, 494, 691-699.	3.1	24
676	Well-dispersed Co-Co ₃ O ₄ hybrid nanoparticles on N-doped carbon nanosheets as a bifunctional electrocatalyst for oxygen evolution and reduction reactions. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 24184-24196.	3.8	30
677	In-situ growth of NCNT and encapsulation of Co ₉ S ₈ /Co as a sustainable multifunctional electrocatalyst. <i>Journal of Colloid and Interface Science</i> , 2019, 557, 291-300.	5.0	10
678	Defect Engineering of Palladium-Tin Nanowires Enables Efficient Electrocatalysts for Fuel Cell Reactions. <i>Nano Letters</i> , 2019, 19, 6894-6903.	4.5	79
679	Granular molybdenum dioxide precipitated on N-doped carbon nanorods with multistage architecture for ultralong-life sodium-ion batteries. <i>Electrochimica Acta</i> , 2019, 325, 134903.	2.6	19
680	Zeolitic-imidazolate-framework-derived Co@Co ₃ O ₄ embedded into iron, nitrogen, sulfur Co-doped reduced graphene oxide as efficient electrocatalysts for overall water splitting and zinc-air batteries. <i>Electrochimica Acta</i> , 2019, 323, 134821.	2.6	33
681	Physical shortcut accelerating electron transport of rechargeable zinc-air battery. <i>Materials Today Energy</i> , 2019, 14, 100340.	2.5	12
682	Facile Fabrication of Nitrogen, Phosphorus and Silicon Co-Doped Porous Carbon as an Efficient Oxygen Reduction Catalyst for Primary Zn-Air Battery. <i>Nano</i> , 2019, 14, 1950108.	0.5	5
683	Fe(CN) ₅ @PIL-derived N-doped porous carbon with FeC _x N _y active sites as a robust electrocatalyst for the oxygen reduction reaction. <i>Catalysis Science and Technology</i> , 2019, 9, 97-105.	2.1	10
684	Boosting the ORR performance of modified carbon black via C=O bonds. <i>Chemical Science</i> , 2019, 10, 2118-2123.	3.7	26
685	Metal-organic frameworks-based catalysts for electrochemical oxygen evolution. <i>Materials Horizons</i> , 2019, 6, 684-702.	6.4	149

#	ARTICLE	IF	CITATIONS
686	Cu _x S nanoparticle@carbon nanorod composites prepared from metal-organic frameworks as efficient electrode catalysts for quantum dot sensitized solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 2210-2218.	5.2	15
687	Metal-organic framework-derived indium-copper bimetallic oxide catalysts for selective aqueous electroreduction of CO ₂ . <i>Green Chemistry</i> , 2019, 21, 503-508.	4.6	66
688	One-step construction of core/shell nanoarrays with a holey shell and exposed interfaces for overall water splitting. <i>Journal of Materials Chemistry A</i> , 2019, 7, 1196-1205.	5.2	42
689	Solid-state synthesis of MoS ₂ nanorod from molybdenum-organic framework for efficient hydrogen evolution reaction. <i>Science China Materials</i> , 2019, 62, 965-972.	3.5	37
690	An efficient carbon-based ORR catalyst from low-temperature etching of ZIF-67 with ultra-small cobalt nanoparticles and high yield. <i>Journal of Materials Chemistry A</i> , 2019, 7, 3544-3551.	5.2	112
691	Cobalt- and nitrogen-codoped porous carbon catalyst made from core-shell type hybrid metal-organic framework (ZIF-L@ZIF-67) and its efficient oxygen reduction reaction (ORR) activity. <i>Applied Catalysis B: Environmental</i> , 2019, 246, 322-329.	10.8	227
692	Nitrogen-Doped Carbon Nanotube Confined Co-N Sites for Selective Hydrogenation of Biomass-Derived Compounds. <i>Advanced Materials</i> , 2019, 31, e1808341.	11.1	138
693	Metal organic framework derived nickel phosphide/graphitic carbon hybrid for electrochemical hydrogen generation reaction. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2019, 96, 634-638.	2.7	27
694	Unveiling dual-linkage 3D hexaminobenzene metal-organic frameworks towards long-lasting advanced reversible Zn-air batteries. <i>Energy and Environmental Science</i> , 2019, 12, 727-738.	15.6	300
695	Hollow capsules of doped carbon incorporating metal@metal sulfide and metal@metal oxide core-shell nanoparticles derived from metal-organic framework composites for efficient oxygen electrocatalysis. <i>Journal of Materials Chemistry A</i> , 2019, 7, 3624-3631.	5.2	53
696	Single Transition Metal Atom-Doped Graphene Supported on a Nickel Substrate: Enhanced Oxygen Reduction Reactions Modulated by Electron Coupling. <i>Journal of Physical Chemistry C</i> , 2019, 123, 3703-3710.	1.5	27
697	Formation of CoTe ₂ embedded in nitrogen-doped carbon nanotubes-grafted polyhedrons with boosted electrocatalytic properties in dye-sensitized solar cells. <i>Applied Surface Science</i> , 2019, 476, 769-777.	3.1	27
698	Polydopamine-assisted construction of cobalt phosphide encapsulated in N-doped carbon porous polyhedrons for enhanced overall water splitting. <i>Carbon</i> , 2019, 145, 694-700.	5.4	82
699	Heterogeneous NiSe ₂ /Ni Ultrafine Nanoparticles Embedded into an N,S-Codoped Carbon Framework for pH-Universal Hydrogen Evolution Reaction. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 4119-4127.	3.2	29
700	Plasma-modified C-doped Co ₃ O ₄ nanosheets for the oxygen evolution reaction designed by Butler-Volmer and first-principle calculations. <i>Journal of Materials Chemistry A</i> , 2019, 7, 4581-4595.	5.2	24
701	Facile in situ fabrication of Co nanoparticles embedded in 3D N-enriched mesoporous carbon foam electrocatalyst with enhanced activity and stability toward oxygen reduction reaction. <i>Journal of Materials Science</i> , 2019, 54, 5412-5423.	1.7	47
702	Catalytic synthesis and simultaneous co-doping of hierarchically porous carbon with in-situ coated graphene from biomass tar as efficient catalyst for ORR. <i>Electrochemistry Communications</i> , 2019, 100, 52-59.	2.3	23
703	Insights Into the Effect of Nickel Doping on ZIF-Derived Oxygen Reduction Catalysts for Zinc-Air Batteries. <i>ChemElectroChem</i> , 2019, 6, 1213-1224.	1.7	11

#	ARTICLE	IF	CITATIONS
704	Janus Electrocatalysts Containing MOF-Derived Carbon Networks and NiFe-LDH Nanoplates for Rechargeable Zinc-Air Batteries. <i>ACS Applied Energy Materials</i> , 2019, 2, 1784-1792.	2.5	54
705	Cobalt oxide doped with titanium dioxide and embedded with carbon nanotubes and graphene-like nanosheets for efficient trifunctional electrocatalyst of hydrogen evolution, oxygen reduction, and oxygen evolution reaction. <i>Journal of Power Sources</i> , 2019, 414, 333-344.	4.0	51
706	Highly active atomically dispersed CoN ₄ fuel cell cathode catalysts derived from surfactant-assisted MOFs: carbon-shell confinement strategy. <i>Energy and Environmental Science</i> , 2019, 12, 250-260.	15.6	691
707	Regulation of carbon content in MOF-derived hierarchical-porous NiO@C films for high-performance electrochromism. <i>Materials Horizons</i> , 2019, 6, 571-579.	6.4	90
708	Synergistic interaction of perovskite oxides and N-doped graphene in versatile electrocatalyst. <i>Journal of Materials Chemistry A</i> , 2019, 7, 2048-2054.	5.2	104
709	MOF derived CoO-NCNTs two-dimensional networks for durable lithium and sodium storage. <i>Journal of Materials Chemistry A</i> , 2019, 7, 4126-4133.	5.2	64
710	A phenolic resin-assisted strategy for MOF-derived hierarchical Co/N-doped carbon rhombic dodecahedra for electrocatalysis. <i>Journal of Materials Chemistry A</i> , 2019, 7, 5173-5178.	5.2	51
711	Cobalt nanoparticle-embedded nitrogen-doped carbon/carbon nanotube frameworks derived from a metal-organic framework for tri-functional ORR, OER and HER electrocatalysis. <i>Journal of Materials Chemistry A</i> , 2019, 7, 3664-3672.	5.2	243
712	Low-Dimensional Metal-Organic Frameworks and their Diverse Functional Roles in Catalysis. <i>ChemCatChem</i> , 2019, 11, 3138-3165.	1.8	22
713	The combination of metal-organic frameworks and polydopamine nanotubes aiming for efficient one-dimensional oxygen reduction electrocatalyst. <i>Journal of Colloid and Interface Science</i> , 2019, 552, 351-358.	5.0	28
714	Amorphous quaternary alloy phosphide hierarchical nanoarrays with pagoda-like structure grown on Ni foam as pH-universal electrocatalyst for hydrogen evolution reaction. <i>Applied Surface Science</i> , 2019, 489, 519-527.	3.1	32
715	Recent Advances in Carbon-Based Bifunctional Oxygen Catalysts for Zinc-Air Batteries. <i>Batteries and Supercaps</i> , 2019, 2, 743-765.	2.4	119
716	Metal-Organic-Framework-Derived Co-Fe Bimetallic Oxygen Reduction Electrocatalysts for Alkaline Fuel Cells. <i>Journal of the American Chemical Society</i> , 2019, 141, 10744-10750.	6.6	176
717	Supercritical Deposition Coupled with Ammonia Treatment: A New Route to Co-Promoted N-Doped Carbon Aerogels with High Oxygen Reduction Reaction Activity. <i>Energy Technology</i> , 2019, 7, 1900450.	1.8	9
718	Synthesis and electromagnetic wave absorption performance of NiCo ₂ O ₄ nanomaterials with different nanostructures. <i>CrystEngComm</i> , 2019, 21, 4568-4577.	1.3	33
719	Amorphous (Fe)Ni-MOF-derived hollow (bi)metal/oxide@N-graphene polyhedron as effectively bifunctional catalysts in overall alkaline water splitting. <i>Electrochimica Acta</i> , 2019, 318, 430-439.	2.6	55
720	Polydopamine coated prussian blue analogue derived hollow carbon nanoboxes with FeP encapsulated for hydrogen evolution. <i>Carbon</i> , 2019, 152, 16-23.	5.4	37
721	Controllable preparation of ZIF-67 derived catalyst for CO ₂ methanation. <i>Molecular Catalysis</i> , 2019, 474, 110421.	1.0	17

#	ARTICLE	IF	CITATIONS
722	A universal strategy for carbon-based ORR-active electrocatalyst: One porogen, two pore-creating mechanisms, three pore types. <i>Nano Energy</i> , 2019, 62, 628-637.	8.2	91
723	Protecting Single Atom Catalysts with Graphene/Carbon-Nitride "Chainmail". <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 3129-3133.	2.1	33
724	Highly stable nitrogen-doped carbon nanotubes derived from carbon dots and metal-organic frameworks toward excellent efficient electrocatalyst for oxygen reduction reaction. <i>Nano Energy</i> , 2019, 63, 103788.	8.2	74
725	Metallic cobalt nanoparticles embedded in sulfur and nitrogen co-doped rambutan-like nanocarbons for the oxygen reduction reaction under both acidic and alkaline conditions. <i>Journal of Materials Chemistry A</i> , 2019, 7, 14291-14301.	5.2	37
726	Surface-engineered cobalt oxide nanowires as multifunctional electrocatalysts for efficient Zn-Air batteries-driven overall water splitting. <i>Energy Storage Materials</i> , 2019, 23, 1-7.	9.5	48
727	Next-Generation Multifunctional Carbon-Metal Nanohybrids for Energy and Environmental Applications. <i>Environmental Science & Technology</i> , 2019, 53, 7265-7287.	4.6	109
728	Double-shelled hollow rods assembled from nitrogen/sulfur-codoped carbon coated indium oxide nanoparticles as excellent photocatalysts. <i>Nature Communications</i> , 2019, 10, 2270.	5.8	105
729	Electrospun Carbon Nanofiber Sprinkled with Co ₃ O ₄ as an Efficient Electrocatalyst for Oxygen Reduction Reaction in Alkaline Medium. <i>ChemistrySelect</i> , 2019, 4, 5160-5167.	0.7	7
730	CO ₂ Conversion into N-Doped Carbon Nanomesh Sheets. <i>ACS Applied Nano Materials</i> , 2019, 2, 2991-2998.	2.4	10
731	ZIF-Derived Carbon Nanoarchitecture as a Bifunctional pH-Universal Electrocatalyst for Energy-Efficient Hydrogen Evolution. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 10044-10051.	3.2	51
732	Metal multiple-sulfides with nitrogen doped carbon layer for high performance lithium-sulfur batteries. <i>Journal of Alloys and Compounds</i> , 2019, 798, 531-539.	2.8	7
733	Grown Carbon Nanotubes on Electrospun Carbon Nanofibers as a 3D Carbon Nanomaterial for High Energy Storage Performance. <i>ChemistrySelect</i> , 2019, 4, 5437-5458.	0.7	15
734	"Ship in a Bottle" Design of Highly Efficient Bifunctional Electrocatalysts for Long-Lasting Rechargeable Zn-Air Batteries. <i>ACS Nano</i> , 2019, 13, 7062-7072.	7.3	120
735	Facile Synthesis of In Situ Graphitic-N Doped Porous Carbon Derived from Ginkgo Leaf for Fast Capacitive Deionization. <i>Journal of the Electrochemical Society</i> , 2019, 166, E240-E247.	1.3	31
736	Metal-organic frameworks and their derivatives for metal-air batteries. <i>Energy Storage Materials</i> , 2019, 23, 757-771.	9.5	100
737	Chlorinated Graphene via the Photodecomposition of Metal Chlorides. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 11024-11034.	3.2	6
738	Densely Populated Isolated Single Co _{1/2} N Site for Efficient Oxygen Electrocatalysis. <i>Advanced Energy Materials</i> , 2019, 9, 1900149.	10.2	262
739	Recent progress in theoretical and computational investigations of structural stability and activity of single-atom electrocatalysts. <i>Progress in Natural Science: Materials International</i> , 2019, 29, 256-264.	1.8	27

#	ARTICLE	IF	CITATIONS
740	FeCo/FeCoNi/N-doped carbon nanotubes grafted polyhedron-derived hybrid fibers as bifunctional oxygen electrocatalysts for durable rechargeable zinc-air battery. Applied Catalysis B: Environmental, 2019, 254, 26-36.	10.8	183
741	Metal-Organic Frameworks as Electro-Catalysts for Oxygen Reduction Reaction in Electrochemical Technologies. Journal of Electronic Materials, 2019, 48, 4127-4137.	1.0	19
742	Nitrogen/Cobalt Co-doped Mesoporous Carbon Microspheres Derived from Amorphous Metal-Organic Frameworks as a Catalyst for the Oxygen Reduction Reaction in Both Alkaline and Acidic Electrolytes. ChemElectroChem, 2019, 6, 2546-2552.	1.7	15
743	MOF-templated cobalt nanoparticles embedded in nitrogen-doped porous carbon: a bifunctional electrocatalyst for overall water splitting. Nanoscale Advances, 2019, 1, 2293-2302.	2.2	26
744	3D derived N-doped carbon matrix from 2D ZIF-L as an enhanced stable catalyst for chemical fixation. Microporous and Mesoporous Materials, 2019, 285, 80-88.	2.2	45
745	Densely integrated Co, N-Codoped Graphene@Carbon nanotube porous hybrids for high-performance lithium-sulfur batteries. Carbon, 2019, 149, 750-759.	5.4	43
746	Cu and Co nanoparticle-Co-decorated N-doped graphene nanosheets: a high efficiency bifunctional electrocatalyst for rechargeable Zn-air batteries. Journal of Materials Chemistry A, 2019, 7, 12851-12858.	5.2	50
747	A Single-Crystal Open-Capsule Metal-Organic Framework. Journal of the American Chemical Society, 2019, 141, 7906-7916.	6.6	179
748	S, N co-doped rod-like porous carbon derived from S, N organic ligand assembled Ni-MOF as an efficient electrocatalyst for oxygen reduction reaction. Journal of Solid State Chemistry, 2019, 275, 167-173.	1.4	24
749	Unraveling the high-activity nature of Fe-N-C electrocatalysts for the oxygen reduction reaction: the extraordinary synergy between Fe ₄ N and Fe ₄ N. Journal of Materials Chemistry A, 2019, 7, 11792-11801.	5.2	84
750	Integration of Semiconductor Oxide and a Microporous (3,10)-Connected Co ₆ -Based Metal-Organic Framework for Enhanced Oxygen Evolution Reaction. Inorganic Chemistry, 2019, 58, 5837-5843.	1.9	61
751	MOF-derived NiO/Ni architecture encapsulated into N-doped carbon nanotubes for advanced asymmetric supercapacitors. Inorganic Chemistry Frontiers, 2019, 6, 1553-1560.	3.0	52
752	Trimetallic Metal-Organic Framework Derived Carbon-Based Nanoflower Electrocatalysts for Efficient Overall Water Splitting. Advanced Materials Interfaces, 2019, 6, 1900290.	1.9	72
753	Hierarchical composite of N-doped carbon sphere and holey graphene hydrogel for high-performance capacitive deionization. Desalination, 2019, 464, 18-24.	4.0	75
754	Co ₃ O ₄ @Cu-Based Conductive Metal-Organic Framework Core-Shell Nanowire Electrocatalysts Enable Efficient Low-Overall-Potential Water Splitting. Chemistry - A European Journal, 2019, 25, 6575-6583.	1.7	64
755	NiCo ₂ O ₄ spinel embedded with carbon nanotubes derived from bimetallic NiCo metal-organic framework for the ultrasensitive detection of human immune deficiency virus-1 gene. Biosensors and Bioelectronics, 2019, 133, 55-63.	5.3	68
756	Geometric Occupancy and Oxidation State Requirements of Cations in Cobalt Oxides for Oxygen Reduction Reaction. ACS Applied Materials & Interfaces, 2019, 11, 12525-12534.	4.0	43
757	Synergistic Regulation of Polysulfides Conversion and Deposition by MOF-Derived Hierarchically Ordered Carbonaceous Composite for High-Energy Lithium-Sulfur Batteries. Advanced Functional Materials, 2019, 29, 1900875.	7.8	104

#	ARTICLE	IF	CITATIONS
758	Metallic Ni ₃ N Quantum Dots as a Synergistic Promoter for NiO Nanosheet toward Efficient Oxygen Reduction Electrocatalysis. <i>Journal of Physical Chemistry C</i> , 2019, 123, 8633-8639.	1.5	19
759	Unprecedented High Oxygen Evolution Activity of Electrocatalysts Derived from Surface-Mounted Metal-Organic Frameworks. <i>Journal of the American Chemical Society</i> , 2019, 141, 5926-5933.	6.6	125
760	Electrocatalytic and Enhanced Photocatalytic Applications of Sodium Niobate Nanoparticles Developed by Citrate Precursor Route. <i>Scientific Reports</i> , 2019, 9, 4488.	1.6	75
761	Transition metal coordinated framework porphyrin for electrocatalytic oxygen reduction. <i>Chinese Chemical Letters</i> , 2019, 30, 911-914.	4.8	54
762	NiFe Alloy Nanoparticles with hcp Crystal Structure Stimulate Superior Oxygen Evolution Reaction Electrocatalytic Activity. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 6099-6103.	7.2	267
763	Importance of Electrocatalyst Morphology for the Oxygen Reduction Reaction. <i>ChemElectroChem</i> , 2019, 6, 2600-2614.	1.7	45
764	MOF-derived 3D Fe-N-S co-doped carbon matrix/nanotube nanocomposites with advanced oxygen reduction activity and stability in both acidic and alkaline media. <i>Applied Catalysis B: Environmental</i> , 2019, 250, 143-149.	10.8	176
765	NiFe Alloy Nanoparticles with hcp Crystal Structure Stimulate Superior Oxygen Evolution Reaction Electrocatalytic Activity. <i>Angewandte Chemie</i> , 2019, 131, 6160-6164.	1.6	14
766	MOF nanoleaves as new sacrificial templates for the fabrication of nanoporous Co _x /C electrocatalysts for oxygen reduction. <i>Nanoscale Horizons</i> , 2019, 4, 1006-1013.	4.1	124
767	Fe-N-C electrocatalyst with dense active sites and efficient mass transport for high-performance proton exchange membrane fuel cells. <i>Nature Catalysis</i> , 2019, 2, 259-268.	16.1	958
768	Fabricating Single-Atom Catalysts from Chelating Metal in Open Frameworks. <i>Advanced Materials</i> , 2019, 31, e1808193.	11.1	153
769	Microspherical nitrogen-doped carbon nanotube assembly derived from Pickering droplets. <i>Carbon</i> , 2019, 148, 124-133.	5.4	12
770	Citrate-Stabilized Gold Nanoparticles as High-Performance Electrocatalysts: The Role of Size in the Electroreduction of Oxygen. <i>Journal of Physical Chemistry C</i> , 2019, 123, 9807-9812.	1.5	40
771	Chemical and structural origin of lattice oxygen oxidation in Co-Zn oxyhydroxide oxygen evolution electrocatalysts. <i>Nature Energy</i> , 2019, 4, 329-338.	19.8	977
772	Hybrid implanted hybrid hollow nanocube electrocatalyst facilitates efficient hydrogen evolution activity. <i>Journal of Materials Chemistry A</i> , 2019, 7, 11150-11159.	5.2	48
773	Bimetallic Metal-Organic Framework-Derived Nanosheet-Assembled Nanoflower Electrocatalysts for Efficient Oxygen Evolution Reaction. <i>Chemistry - an Asian Journal</i> , 2019, 14, 1590-1594.	1.7	27
774	Recent Progress in Defective Carbon-Based Oxygen Electrode Materials for Rechargeable Zinc-Air Batteries. <i>Batteries and Supercaps</i> , 2019, 2, 509-523.	2.4	41
775	Versatile Strategy for Tuning ORR Activity of a Single Fe-N ₄ Site by Controlling Electron-Withdrawing/Donating Properties of a Carbon Plane. <i>Journal of the American Chemical Society</i> , 2019, 141, 6254-6262.	6.6	509

#	ARTICLE	IF	CITATIONS
776	Controlling the dispersion of Co ₃ O ₄ nanoparticles inside mesoporous nanorattle catalysts. <i>Catalysis Communications</i> , 2019, 125, 6-9.	1.6	4
777	3D self-branched zinc-cobalt Oxide@N-doped carbon hollow nanowall arrays for high-performance asymmetric supercapacitors and oxygen electrocatalysis. <i>Energy Storage Materials</i> , 2019, 23, 653-663.	9.5	104
778	Metallic Mo ₂ C anchored pyrrolic-N induced N-CNTs/NiS ₂ for efficient overall water electrolysis. <i>Journal of Power Sources</i> , 2019, 420, 108-117.	4.0	71
779	Edge-Exposed Molybdenum Disulfide with N-Doped Carbon Hybridization: A Hierarchical Hollow Electrocatalyst for Carbon Dioxide Reduction. <i>Advanced Energy Materials</i> , 2019, 9, 1900072.	10.2	62
780	Synthesis of MOF-derived nanostructures and their applications as anodes in lithium and sodium ion batteries. <i>Coordination Chemistry Reviews</i> , 2019, 388, 172-201.	9.5	192
781	A trinuclear cobalt-based coordination polymer as an efficient oxygen evolution electrocatalyst at neutral pH. <i>Journal of Colloid and Interface Science</i> , 2019, 545, 269-275.	5.0	22
782	The construction of self-supported thorny leaf-like nickel-cobalt bimetal phosphides as efficient bifunctional electrocatalysts for urea electrolysis. <i>Journal of Materials Chemistry A</i> , 2019, 7, 9078-9085.	5.2	151
783	Hierarchical tri-functional electrocatalysts derived from bimetallic-imidazolate framework for overall water splitting and rechargeable zinc-air batteries. <i>Journal of Materials Chemistry A</i> , 2019, 7, 8641-8652.	5.2	41
784	Transition Metal (Fe, Co and Ni) Carbide-Nitride (M ₂ C ₃ N) Nanocatalysts: Structure and Electrocatalytic Applications. <i>ChemCatChem</i> , 2019, 11, 2780-2792.	1.8	46
785	Carbon-Based Nanostructures Vertically Arrayed on Layered Lanthanum Oxycarbonate as Highly Efficient Catalysts for Oxygen Reduction Reactions. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 16452-16460.	4.0	11
786	Energy-saving hydrogen production coupling urea oxidation over a bifunctional nickel-molybdenum nanotube array. <i>Nano Energy</i> , 2019, 60, 894-902.	8.2	250
787	Mass-loading independent electrocatalyst with high performance for oxygen reduction reaction and Zn-air battery based on Co-N-codoped carbon nanotube assembled microspheres. <i>Chemical Engineering Journal</i> , 2019, 373, 734-743.	6.6	40
788	Iron-Salen Complex and Co ²⁺ Ion-Derived Cobalt-Iron Hydroxide/Carbon Nanohybrid as an Efficient Oxygen Evolution Electrocatalyst. <i>Advanced Science</i> , 2019, 6, 1900117.	5.6	29
789	Bifunctional Oxygen Electrocatalysis of N, S-Codoped Porous Carbon with Interspersed Hollow CoO Nanoparticles for Rechargeable Zn-Air Batteries. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 16720-16728.	4.0	99
790	Electrocatalysis of the first electron transfer in hydrogen evolution reaction with an atomically precise Cull-organic framework catalyst. <i>Electrochimica Acta</i> , 2019, 308, 285-294.	2.6	30
791	Two-electron oxygen reduction on NiFe alloy enclosed carbonic nanolayers derived from NiFe-metal-organic frameworks. <i>Journal of Electroanalytical Chemistry</i> , 2019, 840, 449-455.	1.9	6
792	Nitrogen-coordinated single iron atom catalysts derived from metal organic frameworks for oxygen reduction reaction. <i>Nano Energy</i> , 2019, 61, 60-68.	8.2	192
793	Solvent-Free Synthesis of ZIFs: A Route toward the Elusive Fe(II) Analogue of ZIF-8. <i>Journal of the American Chemical Society</i> , 2019, 141, 7173-7180.	6.6	76

#	ARTICLE	IF	CITATIONS
794	Controlled phase evolution from Cu _{0.33} Co _{0.67} S ₂ to Cu ₃ Co ₆ S ₈ hexagonal nanosheets as oxygen evolution reaction catalysts. RSC Advances, 2019, 9, 9729-9736.	1.7	11
795	Pt-CeO ₂ /TiN NTs derived from metal organic frameworks as high-performance electrocatalyst for methanol electrooxidation. International Journal of Hydrogen Energy, 2019, 44, 10646-10652.	3.8	18
796	Leaf-shaped bimetallic sulfides@N-doped porous carbon as advanced lithium-ion battery anode. Journal of Alloys and Compounds, 2019, 792, 8-15.	2.8	15
797	Palladium nanoparticles supported by metal-organic frameworks derived FeNi ₃ C _x nanorods as efficient oxygen reversible catalysts for rechargeable Zn-Air batteries. Electrochimica Acta, 2019, 307, 403-413.	2.6	21
798	Noble-metal-free electrocatalyst based on a mixed CoNi metal-organic framework for oxygen evolution reaction. Journal of Alloys and Compounds, 2019, 792, 69-76.	2.8	30
799	In-situ embedding zeolitic imidazolate framework derived Co-N-C bifunctional catalysts in carbon nanotube networks for flexible Zn-air batteries. Journal of Energy Chemistry, 2019, 38, 170-176.	7.1	55
800	Millisecond synthesis of CoS nanoparticles for highly efficient overall water splitting. Nano Research, 2019, 12, 2259-2267.	5.8	85
801	Hollow Functional Materials Derived from Metal-Organic Frameworks: Synthetic Strategies, Conversion Mechanisms, and Electrochemical Applications. Advanced Materials, 2019, 31, e1804903.	11.1	370
802	Atomically Transition Metals on Self-Supported Porous Carbon Flake Arrays as Binder-Free Air Cathode for Wearable Zinc-Air Batteries. Advanced Materials, 2019, 31, e1808267.	11.1	380
803	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.	8.2	202
804	Carbon-Free Cathode Materials for Li ⁺ O ₂ Batteries. Batteries and Supercaps, 2019, 2, 428-439.	2.4	21
805	Spherical Murray-Type Assembly of Co-N-C Nanoparticles as a High-Performance Trifunctional Electrocatalyst. ACS Applied Materials & Interfaces, 2019, 11, 9925-9933.	4.0	49
806	The Quasi-Pt Allotrope Catalyst: Hollow PtCo@single-Atom Pt ₁ on Nitrogen-Doped Carbon toward Superior Oxygen Reduction. Advanced Functional Materials, 2019, 29, 1807340.	7.8	97
807	Strong-coupled CoO _x nanoparticles/Bi ₂ WO ₆ nanosheets hybrid as electrocatalyst for water oxidation under alkaline conditions. Materials Research Bulletin, 2019, 113, 152-160.	2.7	18
808	Electrophoretically Sheathed Carbon Fiber Microelectrodes with Metal/Nitrogen/Carbon Electrocatalyst for Electrochemical Monitoring of Oxygen in Vivo. ACS Applied Bio Materials, 2019, 2, 1376-1383.	2.3	7
809	Tuning the electron density distribution of the Co-N-C catalysts through guest molecules and heteroatom doping to boost oxygen reduction activity. Journal of Power Sources, 2019, 418, 50-60.	4.0	34
810	In-built fabrication of MOF assimilated B/N co-doped 3D porous carbon nanofiber network as a binder-free electrode for supercapacitors. Electrochimica Acta, 2019, 301, 209-219.	2.6	96
811	Co-Fe Alloy/N-Doped Carbon Hollow Spheres Derived from Dual Metal-Organic Frameworks for Enhanced Electrocatalytic Oxygen Reduction. Small, 2019, 15, e1805324.	5.2	172

#	ARTICLE	IF	CITATIONS
812	Fabrication of Superior Single-Atom Catalysts toward Diverse Electrochemical Reactions. <i>Small Methods</i> , 2019, 3, 1800497.	4.6	99
813	Recent advances in the synthesis and applications of anisotropic carbon and silica-based nanoparticles. <i>Nano Research</i> , 2019, 12, 1267-1278.	5.8	30
814	Recent advances in precious metal-free bifunctional catalysts for electrochemical conversion systems. <i>Journal of Materials Chemistry A</i> , 2019, 7, 8006-8029.	5.2	221
815	Stereoselectively Assembled Metal-Organic Framework (MOF) Host for Catalytic Synthesis of Carbon Hybrids for Alkaline-Metal-Ion Batteries. <i>Angewandte Chemie</i> , 2019, 131, 5361-5365.	1.6	27
816	MOF-derived nitrogen-doped nanoporous carbon for electroreduction of CO ₂ to CO: the calcining temperature effect and the mechanism. <i>Nanoscale</i> , 2019, 11, 4911-4917.	2.8	73
817	Stereoselectively Assembled Metal-Organic Framework (MOF) Host for Catalytic Synthesis of Carbon Hybrids for Alkaline-Metal-Ion Batteries. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 5307-5311.	7.2	79
818	Synergistic Effects of Mo ₂ C@Co _x Fe _y Core-Shell Nanoparticles in Electrocatalytic Overall Water Splitting Reaction. <i>Energy Technology</i> , 2019, 7, 1801121.	1.8	7
819	Electrospun zeolitic imidazolate framework-derived nitrogen-doped carbon nanofibers with high performance for lithium-sulfur batteries. <i>International Journal of Energy Research</i> , 2019, 43, 1892-1902.	2.2	92
820	One Pot Synthesis of FeCo/N-Doped 3D Porous Carbon Nanosheets as Bifunctional Electrocatalyst for the Oxygen Reduction and Evolution Reactions. <i>ChemElectroChem</i> , 2019, 6, 1824-1830.	1.7	33
821	A hierarchical cobalt/carbon nanotube hybrid nanocomplex-based ratiometric fluorescent nanosensor for ultrasensitive detection of hydrogen peroxide and glucose in human serum. <i>Analytical and Bioanalytical Chemistry</i> , 2019, 411, 1517-1524.	1.9	20
822	ZIF-derived Co nanoparticle/N-doped CNTs composites embedded in N-doped carbon substrate as efficient electrocatalyst for hydrogen and oxygen evolution. <i>Journal of Materials Science: Materials in Electronics</i> , 2019, 30, 21388-21397.	1.1	12
823	Facile fabrication of cobalt-doped SnO ₂ for gaseous ethanol detection and the catalytic mechanism of cobalt. <i>CrystEngComm</i> , 2019, 21, 7528-7534.	1.3	17
824	Metal-organic Framework-driven Porous Cobalt Disulfide Nanoparticles Fabricated by Gaseous Sulfurization as Bifunctional Electrocatalysts for Overall Water Splitting. <i>Scientific Reports</i> , 2019, 9, 19539.	1.6	23
825	Iron carbonate hydroxide templated binary metal-organic frameworks for highly efficient electrochemical water oxidation. <i>Chemical Communications</i> , 2019, 55, 14773-14776.	2.2	41
826	An <i>in situ</i> coupling strategy for the preparation of heterometal-doped carbon frameworks as efficient bifunctional ORR/OER electrocatalysts. <i>New Journal of Chemistry</i> , 2019, 43, 17963-17973.	1.4	21
827	ZIF-67-derived Co ₃ O ₄ @carbon protected by oxygen-buffering CeO ₂ as an efficient catalyst for boosting oxygen reduction/evolution reactions. <i>Journal of Materials Chemistry A</i> , 2019, 7, 25853-25864.	5.2	155
828	PEDOT-Cellulose Gas Diffusion Electrodes for Disposable Fuel Cells. <i>Advanced Sustainable Systems</i> , 2019, 3, 1900097.	2.7	3
829	Solvent-Free Synthesis of Zeolitic Imidazolate Frameworks and the Catalytic Properties of Their Carbon Materials. <i>Chemistry - A European Journal</i> , 2019, 25, 16358-16365.	1.7	23

#	ARTICLE	IF	CITATIONS
830	Constructing Conductive Bridge Arrays between Ti ₃ C ₂ T _x MXene Nanosheets for High-Performance Lithium-Ion Batteries and Highly Efficient Hydrogen Evolution. <i>Inorganic Chemistry</i> , 2019, 58, 16524-16536.	1.9	39
831	Engineering MoS ₂ Nanosheets Anchored on Metal Organic Frameworks Derived Carbon Polyhedra for Superior Lithium and Potassium Storage. <i>Frontiers in Energy Research</i> , 2019, 7, .	1.2	18
832	Cobalt Metal-Organic Framework Based on Two Dinuclear Secondary Building Units for Electrocatalytic Oxygen Evolution. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 46658-46665.	4.0	40
833	Tuning the Coordination Environment in Single-Atom Catalysts to Achieve Highly Efficient Oxygen Reduction Reactions. <i>Journal of the American Chemical Society</i> , 2019, 141, 20118-20126.	6.6	683
834	Recent Innovation of Metal-Organic Frameworks for Carbon Dioxide Photocatalytic Reduction. <i>Polymers</i> , 2019, 11, 2090.	2.0	46
835	Nitrogen-Doped Carbon-Coated CuO ₂ O ₃ Heterojunction for Remarkable Photocatalytic Hydrogen Evolution. <i>Advanced Energy Materials</i> , 2019, 9, 1902839.	10.2	145
836	Atomic interface effect of a single atom copper catalyst for enhanced oxygen reduction reactions. <i>Energy and Environmental Science</i> , 2019, 12, 3508-3514.	15.6	278
837	3D interconnected nitrogen-self-doped carbon aerogels as efficient oxygen reduction electrocatalysts derived from biomass gelatin. <i>RSC Advances</i> , 2019, 9, 40301-40308.	1.7	27
838	Atomic Co/Ni dual sites and Co/Ni alloy nanoparticles in N-doped porous Janus-like carbon frameworks for bifunctional oxygen electrocatalysis. <i>Applied Catalysis B: Environmental</i> , 2019, 240, 112-121.	10.8	334
839	A metal-organic framework-derived bifunctional catalyst for hybrid sodium-air batteries. <i>Applied Catalysis B: Environmental</i> , 2019, 241, 407-414.	10.8	92
840	Doped porous carbon nanostructures with N Co O catalytic active sites for efficient electrocatalytic oxygen reduction reaction. <i>Applied Surface Science</i> , 2019, 463, 386-394.	3.1	16
841	Molybdenum and tungsten chalcogenides for lithium/sodium-ion batteries: Beyond MoS ₂ . <i>Journal of Energy Chemistry</i> , 2019, 33, 100-124.	7.1	174
842	Useful™ template synthesis of N-doped acicular hollow porous carbon/carbon-nanotubes for enhanced capture and selectivity of CO ₂ . <i>Chemical Engineering Journal</i> , 2019, 361, 278-285.	6.6	42
843	Robust and efficient catalyst derived from bimetallic Zn/Co zeolitic imidazolate frameworks for CO ₂ conversion. <i>Journal of Catalysis</i> , 2019, 370, 38-45.	3.1	67
844	Co ₂ N nanoparticles embedded N-doped mesoporous carbon as efficient electrocatalysts for oxygen reduction reaction. <i>Applied Surface Science</i> , 2019, 473, 555-563.	3.1	23
845	Metal-organic frameworks derived reverse-encapsulation Co-NC@Mo ₂ C complex for efficient overall water splitting. <i>Nano Energy</i> , 2019, 57, 746-752.	8.2	316
846	An Isolated Zinc-Cobalt Atomic Pair for Highly Active and Durable Oxygen Reduction. <i>Angewandte Chemie</i> , 2019, 131, 2648-2652.	1.6	116
847	An Isolated Zinc-Cobalt Atomic Pair for Highly Active and Durable Oxygen Reduction. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 2622-2626.	7.2	494

#	ARTICLE	IF	CITATIONS
848	Bimetal/Metal Oxide Encapsulated in Graphitic Nitrogen Doped Mesoporous Carbon Networks for Enhanced Oxygen Electrocatalysis. <i>ChemElectroChem</i> , 2019, 6, 1485-1491.	1.7	22
849	Designed synthesis of cobalt nanoparticles embedded carbon nanocages as bifunctional electrocatalysts for oxygen evolution and reduction. <i>Carbon</i> , 2019, 144, 492-499.	5.4	31
850	Pt nanoparticles embedded metal-organic framework nanosheets: A synergistic strategy towards bifunctional oxygen electrocatalysis. <i>Applied Catalysis B: Environmental</i> , 2019, 245, 389-398.	10.8	66
851	Multiwall carbon nanotube encapsulated Co grown on vertically oriented graphene modified carbon cloth as bifunctional electrocatalysts for solid-state Zn-air battery. <i>Carbon</i> , 2019, 144, 370-381.	5.4	99
852	N-doped carbon shell coated CoP nanocrystals encapsulated in porous N-doped carbon substrate as efficient electrocatalyst of water splitting. <i>Carbon</i> , 2019, 144, 464-471.	5.4	119
853	Porous N-Doped Carbon-Encapsulated CoNi Alloy Nanoparticles Derived from MOFs as Efficient Bifunctional Oxygen Electrocatalysts. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 1957-1968.	4.0	118
854	Ni@C composites derived from Ni-based metal organic frameworks with a lightweight, ultrathin, broadband and highly efficient microwave absorbing properties. <i>Applied Physics Express</i> , 2019, 12, 011001.	1.1	27
855	Hollow Co_3O_4 @ Co_3O_4 @ SiO_2 Multi-Shell Nanoreactors for Highly Efficient CO Oxidation. <i>ChemCatChem</i> , 2019, 11, 772-779.	1.8	19
856	Synthesis of P-doped and NiCo-hybridized Graphene-Based Fibers for Flexible Asymmetrical Solid-State Micro-Energy Storage Device. <i>Small</i> , 2019, 15, e1803469.	5.2	39
857	Self-templated Prussian blue analogue for efficient and robust electrochemical water oxidation. <i>Journal of Catalysis</i> , 2019, 369, 168-174.	3.1	30
858	In-situ growth carbon nanotubes deriving from a new metal-organic framework for high-performance all-solid-state supercapacitors. <i>Materials Letters</i> , 2019, 236, 739-742.	1.3	21
859	Facile synthesis of MOF-Derived Co@CoNx/bamboo-like carbon tubes for efficient electrocatalytic water oxidation. <i>Electrochimica Acta</i> , 2019, 296, 372-378.	2.6	38
860	Metal-Organic Frameworks (MOFs) and MOF-Derived Materials for Energy Storage and Conversion. <i>Electrochemical Energy Reviews</i> , 2019, 2, 29-104.	13.1	274
861	Biomass-Derived Multilayer-Graphene-Encapsulated Cobalt Nanoparticles as Efficient Electrocatalyst for Versatile Renewable Energy Applications. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 1137-1145.	3.2	31
862	Carbon-Based Metal-Free Catalysts for Key Reactions Involved in Energy Conversion and Storage. <i>Advanced Materials</i> , 2019, 31, e1801526.	11.1	273
863	Effect of genipin crosslinked layer-by-layer self-assembled coating on the thermal stability, flammability and wash durability of cotton fabric. <i>Carbohydrate Polymers</i> , 2019, 206, 396-402.	5.1	43
864	Efficient and stable nanoporous functional composited electrocatalyst derived from Zn/Co-bimetallic zeolitic imidazolate frameworks for oxygen reduction reaction in alkaline media. <i>Electrochimica Acta</i> , 2019, 299, 610-617.	2.6	20
865	Synthesis of Nano-engineered Catalysts Consisting of Co_3O_4 Nanoparticles Confined in Porous SiO_2 . <i>Topics in Catalysis</i> , 2019, 62, 621-627.	1.3	2

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866	Heterostructures Composed of N-Doped Carbon Nanotubes Encapsulating Cobalt and Mo_2C Nanoparticles as Bifunctional Electrodes for Water Splitting. <i>Angewandte Chemie</i> , 2019, 131, 4977-4982.	1.6	69
867	Heterostructures Composed of N-Doped Carbon Nanotubes Encapsulating Cobalt and Mo_2C Nanoparticles as Bifunctional Electrodes for Water Splitting. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 4923-4928.	7.2	650
868	Transition-Metal Single Atoms Anchored on Graphdiyne as High-Efficiency Electrocatalysts for Water Splitting and Oxygen Reduction. <i>Small Methods</i> , 2019, 3, 1800419.	4.6	192
869	Bimetallic Nickel Cobalt Sulfide as Efficient Electrocatalyst for Zn-Air Battery and Water Splitting. <i>Nano-Micro Letters</i> , 2019, 11, 2.	14.4	179
870	Supercritical CO ₂ -Assisted synthesis of NiFe ₂ O ₄ /vertically-aligned carbon nanotube arrays hybrid as a bifunctional electrocatalyst for efficient overall water splitting. <i>Carbon</i> , 2019, 145, 201-208.	5.4	70
871	Hollow Co-Co ₃ O ₄ @CNTs derived from ZIF-67 for lithium ion batteries. <i>Journal of Alloys and Compounds</i> , 2019, 784, 439-446.	2.8	64
872	Laser-Induced Graphene Hybrid Catalysts for Rechargeable Zn-Air Batteries. <i>ACS Applied Energy Materials</i> , 2019, 2, 1460-1468.	2.5	55
873	Lattice-strained metal-organic-framework arrays for bifunctional oxygen electrocatalysis. <i>Nature Energy</i> , 2019, 4, 115-122.	19.8	680
874	Boron-doped carbon microspheres as the catalyst for rechargeable Al-air batteries. <i>Fullerenes Nanotubes and Carbon Nanostructures</i> , 2019, 27, 299-304.	1.0	9
875	Co,N-doped mesoporous carbons cobalt derived from coordination polymer as supercapacitors. <i>Electrochimica Acta</i> , 2019, 299, 987-998.	2.6	24
876	Carbon-based derivatives from metal-organic frameworks as cathode hosts for Li-S batteries. <i>Journal of Energy Chemistry</i> , 2019, 38, 94-113.	7.1	104
877	Capacitance controlled, hierarchical porous 3D ultra-thin carbon networks reinforced prussian blue for high performance Na-ion battery cathode. <i>Nano Energy</i> , 2019, 58, 192-201.	8.2	100
878	Recent Advances in Metal-Organic Framework Derivatives as Oxygen Catalysts for Zinc-Air Batteries. <i>Batteries and Supercaps</i> , 2019, 2, 272-289.	2.4	121
879	Defect Engineering Strategies for Nitrogen Reduction Reactions under Ambient Conditions. <i>Small Methods</i> , 2019, 3, 1800331.	4.6	199
880	A three-dimensional silicon/nitrogen-doped graphitized carbon composite as high-performance anode material for lithium ion batteries. <i>Journal of Alloys and Compounds</i> , 2019, 777, 190-197.	2.8	51
881	A Zn(II)-based pillar-layered metal-organic framework: Synthesis, structure, and CO ₂ selective adsorption. <i>Polyhedron</i> , 2019, 158, 283-289.	1.0	10
882	CNT-assembled dodecahedra core@nickel hydroxide nanosheet shell enabled sulfur cathode for high-performance lithium-sulfur batteries. <i>Nano Energy</i> , 2019, 55, 82-92.	8.2	185
883	MOF-derived carbonaceous materials enriched with nitrogen: Preparation and applications in adsorption and catalysis. <i>Materials Today</i> , 2019, 25, 88-111.	8.3	180

#	ARTICLE	IF	CITATIONS
884	Cobalt ferrite on honeycomb-like algae-derived nitrogen-doped carbon for electrocatalytic oxygen reduction and ultra-cycle-stable lithium storage. <i>Electrochimica Acta</i> , 2019, 295, 461-471.	2.6	23
885	Hierarchical catalytic electrodes of cobalt-embedded carbon nanotube/carbon flakes arrays for flexible solid-state zinc-air batteries. <i>Carbon</i> , 2019, 142, 379-387.	5.4	111
886	An Oxygenâ€Vacancyâ€Rich Semiconductorâ€Supported Bifunctional Catalyst for Efficient and Stable Zincâ€Air Batteries. <i>Advanced Materials</i> , 2019, 31, e1806761.	11.1	133
887	Hollow Metalâ€Organicâ€Framework Micro/Nanostructures and their Derivatives: Emerging Multifunctional Materials. <i>Advanced Materials</i> , 2019, 31, e1803291.	11.1	210
888	Carbon particles co-doped with N, B and Fe from metal-organic supramolecular polymers for boosted oxygen reduction performance. <i>Journal of Power Sources</i> , 2019, 412, 623-630.	4.0	25
889	The Vital Balance of Graphitization and Defect Engineering for Efficient Bifunctional Oxygen Electrocatalyst Based on Nâ€doping Carbon/CNT Frameworks. <i>ChemCatChem</i> , 2019, 11, 861-867.	1.8	34
890	In situ Raman spectroscopic evidence for oxygen reduction reaction intermediates at platinum single-crystal surfaces. <i>Nature Energy</i> , 2019, 4, 60-67.	19.8	478
891	Metallopolymers for advanced sustainable applications. <i>Chemical Society Reviews</i> , 2019, 48, 558-636.	18.7	139
892	Rapid Synthesis of Zeolitic Imidazole Frameworks in Laserâ€Induced Graphene Microreactors. <i>ChemSusChem</i> , 2019, 12, 473-479.	3.6	17
893	Synthesis and catalytic applications of metalâ€organic frameworks: a review on recent literature. <i>International Nano Letters</i> , 2019, 9, 17-29.	2.3	131
894	Tailor-made metal-nitrogen-carbon bifunctional electrocatalysts for rechargeable Zn-air batteries via controllable MOF units. <i>Energy Storage Materials</i> , 2019, 17, 46-61.	9.5	70
895	Tunable oxidation state of Co in CoOx@N-doped graphene derived from PANI/Co3O4 and the enhanced oxygen reduction catalysis. <i>Applied Surface Science</i> , 2019, 465, 665-671.	3.1	12
896	Enhanced electromagnetic wave absorption of nanoporous Fe3O4 @â€Carbon composites derived from metal-organic frameworks. <i>Carbon</i> , 2019, 142, 20-31.	5.4	352
897	A New Defectâ€Rich CoGa Layered Double Hydroxide as Efficient and Stable Oxygen Evolution Electrocatalyst. <i>Small Methods</i> , 2019, 3, 1800286.	4.6	41
898	Rational Design of Transition Metalâ€Based Materials for Highly Efficient Electrocatalysis. <i>Small Methods</i> , 2019, 3, 1800211.	4.6	250
899	In-situ growth of graphene decorated Ni3S2 pyramids on Ni foam for high-performance overall water splitting. <i>Applied Surface Science</i> , 2019, 465, 772-779.	3.1	39
900	Design of Hollow Nanostructures for Energy Storage, Conversion and Production. <i>Advanced Materials</i> , 2019, 31, e1801993.	11.1	313
901	Hierarchical bimetal embedded in carbon nanoflower electrocatalysts derived from metal-organic frameworks for efficient oxygen evolution reaction. <i>Journal of Alloys and Compounds</i> , 2020, 813, 152192.	2.8	27

#	ARTICLE	IF	CITATIONS
902	MOF derived Co ₃ O ₄ /N-doped carbon nanotubes hybrids as efficient catalysts for sensitive detection of H ₂ O ₂ and glucose. Chinese Chemical Letters, 2020, 31, 774-778.	4.8	77
903	Cobalt sulfides nanoparticles encapsulated in N, S co-doped carbon substrate for highly efficient oxygen reduction. Journal of Alloys and Compounds, 2020, 815, 152457.	2.8	25
904	Metal-organic framework derived carbon materials for electrocatalytic oxygen reactions: Recent progress and future perspectives. Carbon, 2020, 156, 77-92.	5.4	149
905	Engineering a light-weight, thin and dual-functional interlayer as a polysulfides sieve capable of synergistic adsorption for high-performance lithium-sulfur batteries. Chemical Engineering Journal, 2020, 383, 123163.	6.6	33
906	Metal-organic framework-derived nitrogen-doped carbon nanotube cages as efficient adsorbents for solid-phase microextraction of polychlorinated biphenyls. Analytica Chimica Acta, 2020, 1095, 99-108.	2.6	46
907	Fabrication of multilayer porous structured TiO ₂ @ZrTiO ₄ @SiO ₂ heterostructure towards enhanced photo-degradation activities. Ceramics International, 2020, 46, 476-486.	2.3	11
908	New Strategies for Novel MOF-Derived Carbon Materials Based on Nanoarchitectures. Chem, 2020, 6, 19-40.	5.8	511
909	Metal-Organic Frameworks Based Electrocatalysts for the Oxygen Reduction Reaction. Angewandte Chemie, 2020, 132, 4662-4678.	1.6	114
910	Metal-Organic Frameworks Based Electrocatalysts for the Oxygen Reduction Reaction. Angewandte Chemie - International Edition, 2020, 59, 4634-4650.	7.2	457
911	Sub-5 nm octahedral platinum-copper nanostructures anchored on nitrogen-doped porous carbon nanofibers for remarkable electrocatalytic hydrogen evolution. Journal of Colloid and Interface Science, 2020, 560, 161-168.	5.0	27
912	Unpaired 3d Electrons on Atomically Dispersed Cobalt Centres in Coordination Polymers Regulate both Oxygen Reduction Reaction (ORR) Activity and Selectivity for Use in Zinc-Air Batteries. Angewandte Chemie - International Edition, 2020, 59, 286-294.	7.2	200
913	Structure-induced hollow Co ₃ O ₄ nanoparticles with rich oxygen vacancies for efficient CO oxidation. Science China Materials, 2020, 63, 267-275.	3.5	18
914	In situ synthesis of sustainable highly efficient single iron atoms anchored on nitrogen doped carbon derived from renewable biomass. Carbon, 2020, 157, 614-621.	5.4	64
915	String of pyrolyzed ZIF-67 particles on carbon fibers for high-performance electrocatalysis. Energy Storage Materials, 2020, 25, 137-144.	9.5	102
916	In-situ synthesis strategy for CoM (M = Fe, Ni, Cu) bimetallic nanoparticles decorated N-doped 1D carbon nanotubes/3D porous carbon for electrocatalytic oxygen evolution reaction. Journal of Alloys and Compounds, 2020, 815, 152470.	2.8	43
917	Facile synthesis of magnetic carbon nanotubes derived from ZIF-67 and application to magnetic solid-phase extraction of profens from human serum. Talanta, 2020, 207, 120284.	2.9	34
918	Metal-organic framework-derived nanocomposites for electrocatalytic hydrogen evolution reaction. Progress in Materials Science, 2020, 108, 100618.	16.0	220
919	Hierarchical N-doped carbon nanocages/carbon textiles as a flexible O ₂ electrode for Li-O ₂ batteries. Journal of Energy Chemistry, 2020, 46, 94-98.	7.1	8

#	ARTICLE	IF	CITATIONS
920	Atypical Hybrid Metal-Organic Frameworks (MOFs): A Combinative Process for MOF Growth, Etching, and Structure Transformation. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 1327-1333.	7.2	118
921	FeNi alloys encapsulated in N-doped CNTs-tangled porous carbon fibers as highly efficient and durable bifunctional oxygen electrocatalyst for rechargeable zinc-air battery. <i>Applied Catalysis B: Environmental</i> , 2020, 263, 118344.	10.8	217
922	Cobalt-Encapsulated Nitrogen-Doped Carbon Nanotube Arrays for Flexible Zinc-Air Batteries. <i>Small Methods</i> , 2020, 4, 1900571.	4.6	91
923	Cubic imidazolate frameworks-derived CoFe alloy nanoparticles-embedded N-doped graphitic carbon for discharging reaction of Zn-air battery. <i>Science China Materials</i> , 2020, 63, 327-338.	3.5	51
924	2D Nitrogen-Doped Carbon Nanotubes/Graphene Hybrid as Bifunctional Oxygen Electrocatalyst for Long-Life Rechargeable Zn-Air Batteries. <i>Advanced Functional Materials</i> , 2020, 30, 1906081.	7.8	190
925	Iron-nitrogen doped carbon with exclusive presence of Fe _x N active sites as an efficient ORR electrocatalyst for Zn-air battery. <i>Applied Catalysis B: Environmental</i> , 2020, 268, 118405.	10.8	80
926	Binary Pd/amorphous-SrRuO ₃ hybrid film for high stability and fast activity recovery ethanol oxidation electrocatalysis. <i>Nano Energy</i> , 2020, 67, 104247.	8.2	55
927	Atypical Hybrid Metal-Organic Frameworks (MOFs): A Combinative Process for MOF Growth, Etching, and Structure Transformation. <i>Angewandte Chemie</i> , 2020, 132, 1343-1349.	1.6	32
928	Pyrolysis derived helically nitrogen-doped carbon nanotubes with uniform cobalt for high performance oxygen reduction. <i>Applied Surface Science</i> , 2020, 504, 144380.	3.1	26
929	MXene and MXene-based composites: synthesis, properties and environment-related applications. <i>Nanoscale Horizons</i> , 2020, 5, 235-258.	4.1	588
930	Direct one-step synthesis of CoFe _x @Co@C hybrids derived from a metal organic framework for a lightweight and high-performance microwave absorber. <i>Nanotechnology</i> , 2020, 31, 095703.	1.3	4
931	Cobalt Nanoparticles and Atomic Sites in Nitrogen-Doped Carbon Frameworks for Highly Sensitive Sensing of Hydrogen Peroxide. <i>Small</i> , 2020, 16, e1902860.	5.2	38
932	Unpaired 3d Electrons on Atomically Dispersed Cobalt Centres in Coordination Polymers Regulate both Oxygen Reduction Reaction (ORR) Activity and Selectivity for Use in Zinc-Air Batteries. <i>Angewandte Chemie</i> , 2020, 132, 292-300.	1.6	21
933	MoS ₂ modified TiN nanotube arrays for advanced supercapacitors electrode. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2020, 118, 113951.	1.3	9
934	Atomically dispersed ruthenium sites on whisker-like secondary microstructure of porous carbon host toward highly efficient hydrogen evolution. <i>Journal of Materials Chemistry A</i> , 2020, 8, 3203-3210.	5.2	20
935	Rational design of 2D hierarchically laminated Fe ₃ O ₄ @nanoporous carbon@rGO nanocomposites with strong magnetic coupling for excellent electromagnetic absorption applications. <i>Journal of Materials Chemistry C</i> , 2020, 8, 2123-2134.	2.7	183
936	Two-dimensional materials and metal-organic frameworks for the CO ₂ reduction reaction. <i>Materials Today Advances</i> , 2020, 5, 100038.	2.5	48
937	Synthesis of CoCu-LDH nanosheets derived from zeolitic imidazole framework-67 (ZIF-67) as an efficient adsorbent for azo dye from waste water. <i>Microporous and Mesoporous Materials</i> , 2020, 297, 110010.	2.2	67

#	ARTICLE	IF	CITATIONS
938	Rapid and energy-efficient microwave pyrolysis for high-yield production of highly-active bifunctional electrocatalysts for water splitting. <i>Energy and Environmental Science</i> , 2020, 13, 545-553.	15.6	169
939	Sub-nanometer Pt cluster decoration enhances the oxygen reduction reaction performances of NiO _x supported Pd nano-islands. <i>Sustainable Energy and Fuels</i> , 2020, 4, 809-823.	2.5	19
940	Bimetallic metal-organic framework-derived MoFe-PC microspheres for electrocatalytic ammonia synthesis under ambient conditions. <i>Journal of Materials Chemistry A</i> , 2020, 8, 2099-2104.	5.2	55
941	Recent advances on oxygen reduction electrocatalysis: Correlating the characteristic properties of metal organic frameworks and the derived nanomaterials. <i>Applied Catalysis B: Environmental</i> , 2020, 268, 118570.	10.8	147
942	Facile fabrication of ZIF-derived graphene-based 2D Zn/Co oxide hybrid for high-performance supercapacitors. <i>Journal of Energy Storage</i> , 2020, 27, 101165.	3.9	44
943	Self-catalytic approach to construct graphitized carbon shell for metal oxide: In-situ triggering mechanism and high-performance lithium-ion batteries applications. <i>Journal of Power Sources</i> , 2020, 450, 227631.	4.0	14
944	Nanocellulose-assisted synthesis of ultrafine Co nanoparticles-loaded bimodal micro-mesoporous N-rich carbon as bifunctional oxygen electrode for Zn-air batteries. <i>Journal of Power Sources</i> , 2020, 450, 227640.	4.0	42
945	Self-Template Synthesis of Atomically Dispersed Fe/N-Codoped Nanocarbon as Efficient Bifunctional Alkaline Oxygen Electrocatalyst. <i>ACS Applied Energy Materials</i> , 2020, 3, 625-634.	2.5	19
946	Three-Dimensional N-Doped Carbon Nanotube Frameworks on Ni Foam Derived from a Metal-Organic Framework as a Bifunctional Electrocatalyst for Overall Water Splitting. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 3592-3602.	4.0	88
947	Hollow and Yolk-Shell Co-N-C@SiO ₂ Nanoreactors: Controllable Synthesis with High Selectivity and Activity for Nitroarene Hydrogenation. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 3624-3630.	4.0	43
948	Bimodal Heterogeneous Functionality in Redox-Active Conjugated Microporous Polymer toward Electrocatalytic Oxygen Reduction and Photocatalytic Hydrogen Evolution. <i>Chemistry - A European Journal</i> , 2020, 26, 3810-3817.	1.7	11
949	A new biomass derived rod-like porous carbon from tea-waste as inexpensive and sustainable energy material for advanced supercapacitor application. <i>Electrochimica Acta</i> , 2020, 335, 135588.	2.6	160
950	Fabrication of FeO@CuCo ₂ S ₄ multifunctional electrode for ultrahigh-capacity supercapacitors and efficient oxygen evolution reaction. <i>International Journal of Energy Research</i> , 2020, 44, 1798-1811.	2.2	45
951	Highly efficient water splitting driven by zinc-air batteries with a single catalyst incorporating rich active species. <i>Applied Catalysis B: Environmental</i> , 2020, 263, 118139.	10.8	38
952	Encapsulating metal organic framework into hollow mesoporous carbon sphere as efficient oxygen bifunctional electrocatalyst. <i>National Science Review</i> , 2020, 7, 609-619.	4.6	95
953	Emerged carbon nanomaterials from metal-organic precursors for electrochemical catalysis in energy conversion. , 2020, , 393-423.		8
954	Recent Advances in Photoelectrochemical Sensing: From Engineered Photoactive Materials to Sensing Devices and Detection Modes. <i>Analytical Chemistry</i> , 2020, 92, 363-377.	3.2	614
955	Rational design of hollow nanosphere ³ -Fe ₂ O ₃ /MWCNTs composites with enhanced electromagnetic wave absorption. <i>Journal of Alloys and Compounds</i> , 2020, 822, 153570.	2.8	53

#	ARTICLE	IF	CITATIONS
956	Metal-organic frameworks: preparation and applications in highly efficient heterogeneous photocatalysis. <i>Sustainable Energy and Fuels</i> , 2020, 4, 504-521.	2.5	71
957	Co ₉ S ₈ integrated into nitrogen/sulfur dual-doped carbon nanofibers as an efficient oxygen bifunctional electrocatalyst for Zn-air batteries. <i>Sustainable Energy and Fuels</i> , 2020, 4, 1093-1098.	2.5	15
958	Temperature-regulated reversible transformation of spinel-to-oxyhydroxide active species for electrocatalytic water oxidation. <i>Journal of Materials Chemistry A</i> , 2020, 8, 1631-1635.	5.2	33
959	Highly dispersed Co nanoparticles decorated on a N-doped defective carbon nano-framework for a hybrid Na-air battery. <i>Dalton Transactions</i> , 2020, 49, 1811-1821.	1.6	43
960	One-step construction of multi-doped nanoporous carbon-based nanoarchitecture as an advanced bifunctional oxygen electrode for Zn-Air batteries. <i>Applied Catalysis B: Environmental</i> , 2020, 265, 118594.	10.8	45
961	Recent advances of two-dimensional transition metal nitrides for energy storage and conversion applications. <i>FlatChem</i> , 2020, 19, 100149.	2.8	54
962	N configuration control of N-doped carbon for stabilizing Cu nanoparticles: The synergistic effects on oxy-carbonylation of methanol. <i>Carbon</i> , 2020, 158, 836-845.	5.4	12
963	A Co-Doped Nanorod-like RuO ₂ Electrocatalyst with Abundant Oxygen Vacancies for Acidic Water Oxidation. <i>IScience</i> , 2020, 23, 100756.	1.9	125
964	Fused Hybrid Linkers for Metal-Organic Framework-Derived Bifunctional Oxygen Electrocatalysts. <i>ACS Applied Energy Materials</i> , 2020, 3, 152-157.	2.5	19
965	Hierarchical trimetallic layered double hydroxide nanosheets derived from 2D metal-organic frameworks for enhanced oxygen evolution reaction. <i>Applied Catalysis B: Environmental</i> , 2020, 264, 118532.	10.8	62
966	Metal-organic frameworks derived porous carbon, metal oxides and metal sulfides-based compounds for supercapacitors application. <i>Energy Storage Materials</i> , 2020, 26, 1-22.	9.5	208
967	Uniform Bi-Sb Alloy Nanoparticles Synthesized from MOFs by Laser Metallurgy for Sodium-Ion Batteries. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 335-342.	3.2	43
968	Thermal pyrolysis of Si@ZIF-67 into Si@N-doped CNTs towards highly stable lithium storage. <i>Science Bulletin</i> , 2020, 65, 452-459.	4.3	46
969	Highly Efficient Porous Carbon Electrocatalyst with Controllable N-Species Content for Selective CO ₂ Reduction. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 3244-3251.	7.2	167
970	Atomically Dispersed Mo Supported on Metallic Co ₉ S ₈ Nanoflakes as an Advanced Noble-Metal-Free Bifunctional Water Splitting Catalyst Working in Universal pH Conditions. <i>Advanced Energy Materials</i> , 2020, 10, 1903137.	10.2	162
971	Highly Efficient Porous Carbon Electrocatalyst with Controllable N-Species Content for Selective CO ₂ Reduction. <i>Angewandte Chemie</i> , 2020, 132, 3270-3277.	1.6	20
972	3D interconnected boron- and nitrogen-codoped carbon nanosheets decorated with manganese oxides for high-performance capacitive deionization. <i>Carbon</i> , 2020, 158, 184-192.	5.4	74
973	In-situ growth of ZnS/FeS heterojunctions on biomass-derived porous carbon for efficient oxygen reduction reaction. <i>Journal of Energy Chemistry</i> , 2020, 47, 79-85.	7.1	32

#	ARTICLE	IF	CITATIONS
975	Laser Fragmentation-Induced Defect-Rich Cobalt Oxide Nanoparticles for Electrochemical Oxygen Evolution Reaction. <i>ChemSusChem</i> , 2020, 13, 520-528.	3.6	55
976	Microporous Solids En Route to Heterogeneous Electrocatalysis: The Oxygen Reduction Reaction. <i>Energy Technology</i> , 2020, 8, 1900964.	1.8	3
977	Nitrogen-coordinated metallic cobalt disulfide self-encapsulated in graphitic carbon for electrochemical water oxidation. <i>Applied Catalysis B: Environmental</i> , 2020, 268, 118449.	10.8	44
978	Nitrogen-doped porous carbon tubes composites derived from metal-organic framework for highly efficient capacitive deionization. <i>Electrochimica Acta</i> , 2020, 331, 135420.	2.6	33
979	Cobalt-gluconate-derived high-density cobalt sulfides nanocrystals encapsulated within nitrogen and sulfur dual-doped micro/mesoporous carbon spheres for efficient electrocatalysis of oxygen reduction. <i>Journal of Colloid and Interface Science</i> , 2020, 561, 829-837.	5.0	31
980	Core-shell-structured MOF-derived 2D hierarchical nanocatalysts with enhanced Fenton-like activities. <i>Journal of Materials Chemistry A</i> , 2020, 8, 3168-3179.	5.2	88
981	A MOF derived Co-NC@CNT composite with a 3D interconnected conductive carbon network as a highly efficient cathode catalyst for Li-O ₂ batteries. <i>Sustainable Energy and Fuels</i> , 2020, 4, 6105-6111.	2.5	13
982	A Freestanding 3D Heterostructure Film Stitched by MOF-Derived Carbon Nanotube Microsphere Superstructure and Reduced Graphene Oxide Sheets: A Superior Multifunctional Electrode for Overall Water Splitting and Zn-Air Batteries. <i>Advanced Materials</i> , 2020, 32, e2003313.	11.1	216
983	Noble-Metal-Free Doped Carbon Nanomaterial Electrocatalysts. <i>Chemistry - A European Journal</i> , 2020, 26, 15397-15415.	1.7	28
984	Advanced transition metal/nitrogen/carbon-based electrocatalysts for fuel cell applications. <i>Science China Chemistry</i> , 2020, 63, 1517-1542.	4.2	56
985	Fe-Co Alloyed Nanoparticles Catalyzing Efficient Hydrogenation of Cinnamaldehyde to Cinnamyl Alcohol in Water. <i>Angewandte Chemie</i> , 2020, 132, 23727-23732.	1.6	1
986	Co-Construction of Sulfur Vacancies and Heterojunctions in Tungsten Disulfide to Induce Fast Electronic/Ionic Diffusion Kinetics for Sodium-Ion Batteries. <i>Advanced Materials</i> , 2020, 32, e2005802.	11.1	244
987	Nitrogen-modified metal-organic framework-based carbon: An effective non-precious electrocatalyst for oxygen reduction reaction. <i>Catalysis Communications</i> , 2020, 146, 106135.	1.6	12
988	In Situ Confined Co ₅ Ge ₃ Alloy Nanoparticles in Nitrogen-Doped Carbon Nanotubes for Boosting Lithium Storage. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 46247-46253.	4.0	11
989	Metal-Organic Powder Thermochemical Solid-Vapor Architectonics toward Gradient Hybrid Monolith with Combined Structure-Function Features. <i>Matter</i> , 2020, 3, 879-891.	5.0	22
990	Construction of noble-metal alloys of cobalt confined N-doped carbon polyhedra toward efficient water splitting. <i>Green Chemistry</i> , 2020, 22, 7884-7895.	4.6	56
991	Novel in-situ P-doped metal-organic frameworks derived cobalt and heteroatoms co-doped carbon matrix as high-efficient electrocatalysts. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 32972-32983.	3.8	14
992	Double-shelled hollow bimetallic phosphide nanospheres anchored on nitrogen-doped graphene for boosting water electrolysis. <i>Journal of Materials Chemistry A</i> , 2020, 8, 22222-22229.	5.2	51

#	ARTICLE	IF	CITATIONS
993	Supercapacitors in the Light of Solid Waste and Energy Management: A Review. <i>Advanced Sustainable Systems</i> , 2020, 4, 2000182.	2.7	27
994	Combing strong metal support interaction and N doping to improve the durability of 3D carbon nanosheets supported Pt catalyst. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 33521-33531.	3.8	5
995	3D Hydrangea Macrophylla-like Nickel-Vanadium Metal-Organic Frameworks Formed by Self-Assembly of Ultrathin 2D Nanosheets for Overall Water Splitting. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 48495-48510.	4.0	57
996	Heterogeneous Interface Induced the Formation of Hierarchically Hollow Carbon Microcubes against Electromagnetic Pollution. <i>Small</i> , 2020, 16, e2003407.	5.2	156
997	ZIF-67 derived nitrogen doped CNTs decorated with sulfur and Ni(OH) ₂ as potential electrode material for high-performance supercapacitors. <i>Electrochimica Acta</i> , 2020, 364, 137147.	2.6	48
998	Rational Design of Hierarchical Structural CoSe@NPC/CoSe@CNT Nanocomposites Derived from Metal-Organic Frameworks as a Robust Pt-free Electrocatalyst for Dye-Sensitized Solar Cells. <i>ACS Omega</i> , 2020, 5, 26253-26261.	1.6	12
999	Co/Mo ₂ C composites for efficient hydrogen and oxygen evolution reaction. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 21221-21231.	3.8	43
1000	sp ² /sp ³ Hybridized Carbon as an Anode with Extra Li-Ion Storage Capacity: Construction and Origin. <i>ACS Central Science</i> , 2020, 6, 1451-1459.	5.3	22
1001	Design of compressible and elastic N-doped porous carbon nanofiber aerogels as binder-free supercapacitor electrodes. <i>Journal of Materials Chemistry A</i> , 2020, 8, 17257-17265.	5.2	61
1002	MOF-Derived Ni _{1-x} Co _x @Carbon with Tunable Nano-Microstructure as Lightweight and Highly Efficient Electromagnetic Wave Absorber. <i>Nano-Micro Letters</i> , 2020, 12, 150.	14.4	222
1003	Bimetallic organic framework-derived rich pyridinic N-doped carbon nanotubes as oxygen catalysts for rechargeable Zn-air batteries. <i>Journal of Power Sources</i> , 2020, 472, 228470.	4.0	31
1004	Nitrogen-Incorporated Cobalt Sulfide/Graphene Hybrid Catalysts for Overall Water Splitting. <i>ChemSusChem</i> , 2020, 13, 5112-5118.	3.6	48
1005	The feasibility of typical metal-organic framework derived Fe, Co, N co-doped carbon as a robust electrocatalyst for oxygen reduction reaction in microbial fuel cell. <i>Electrochimica Acta</i> , 2020, 355, 136775.	2.6	30
1006	In Situ Growth of Co ₄ N Nanoparticles-Embedded Nitrogen-Doped Carbon Nanotubes on Metal-Organic Framework-Derived Carbon Composite as Highly Efficient Electrocatalyst for Oxygen Reduction and Evolution Reactions. <i>Energy Technology</i> , 2020, 8, 2000409.	1.8	14
1007	A MOFs plus ZIFs-Strategy toward Ultrafine Co Nanodots Confined into Superficial N-Doped Carbon Nanowires for Efficient Oxygen Reduction. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 54545-54552.	4.0	21
1008	Boosting oxygen evolution reaction on graphene through engineering electronic structure. <i>Carbon</i> , 2020, 170, 414-420.	5.4	26
1009	Multi-stimuli Responsive Composite for heavy metal detection Based on Mesoporous Silica and Polyelectrolyte Brush. <i>International Journal of Electrochemical Science</i> , 2020, , 740-757.	0.5	4
1010	Low-cost valence-rich copper-iron-sulfur-oxygen porous nanocluster that drives an exceptional energy-saving carbohydrazide oxidization reaction in alkali and near-neutral electrolytes. <i>Journal of Materials Chemistry A</i> , 2020, 8, 24419-24427.	5.2	4

#	ARTICLE	IF	CITATIONS
1011	Engineering of carbon nanotube-grafted carbon nanosheets encapsulating cobalt nanoparticles for efficient electrocatalytic oxygen evolution. <i>Journal of Materials Chemistry A</i> , 2020, 8, 25268-25274.	5.2	20
1012	Cobalt-Molybdenum Bimetal Phosphides Encapsulated in Carbon as Efficient and Durable Electrocatalyst for Hydrogen Evolution. <i>ChemistrySelect</i> , 2020, 5, 14312-14319.	0.7	12
1013	Deep-Breathing Honeycomb-like Co-Nx-C Nanopolyhedron Bifunctional Oxygen Electrocatalysts for Rechargeable Zn-Air Batteries. <i>IScience</i> , 2020, 23, 101404.	1.9	38
1014	A Porphyrinic Zirconium Metal-Organic Framework for Oxygen Reduction Reaction: Tailoring the Spacing between Active-Sites through Chain-Based Inorganic Building Units. <i>Journal of the American Chemical Society</i> , 2020, 142, 15386-15395.	6.6	139
1015	High-Density Planar-like Fe ₂ N ₆ Structure Catalyzes Efficient Oxygen Reduction. <i>Matter</i> , 2020, 3, 509-521.	5.0	184
1016	Thermally reduced mesoporous manganese MOF @reduced graphene oxide nanocomposite as bifunctional electrocatalyst for oxygen reduction and evolution. <i>RSC Advances</i> , 2020, 10, 27728-27742.	1.7	27
1017	Highly efficient Co ₃ O ₄ /Co@NCs bifunctional oxygen electrocatalysts for long life rechargeable Zn-air batteries. <i>Nano Energy</i> , 2020, 77, 105200.	8.2	71
1018	MOF-Derived CuPt/NC Electrocatalyst for Oxygen Reduction Reaction. <i>Catalysts</i> , 2020, 10, 799.	1.6	24
1019	Metal organic framework derived trifunctional NiCoP electrode for continuous solar-driven energy-saving hydrogen generation. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 27000-27011.	3.8	5
1020	MOFs-derived metal oxides inlaid in carbon nanofibers as anode materials for high-performance lithium-ion batteries. <i>Applied Surface Science</i> , 2020, 531, 147290.	3.1	37
1021	Co ²⁺ -Based Coordination Polymers by Water-Induced Gelling Triggered Efficient Oxygen Evolution Reaction. <i>Advanced Functional Materials</i> , 2020, 30, 2000593.	7.8	31
1022	Dual-metal NiCo nanoparticles in B-doped carbon layers as efficient and durable electrocatalyst for oxygen evolution reaction. <i>Applied Surface Science</i> , 2020, 532, 147381.	3.1	28
1023	Trimetallic Nanoparticles Encapsulated into Bamboo-Like N-Doped Carbon Nanotubes as a Robust Catalyst for Efficient Oxygen Evolution Electrocatalysis. <i>ChemNanoMat</i> , 2020, 6, 1496-1501.	1.5	8
1024	Thiourea-Zeolitic imidazolate Framework-67 assembly derived Co-CoO nanoparticles encapsulated in N, S Codoped open carbon shell as bifunctional oxygen electrocatalyst for rechargeable flexible solid Zn-Air batteries. <i>Journal of Power Sources</i> , 2020, 473, 228570.	4.0	45
1025	A review of recent work on using metal-organic frameworks to grow carbon nanotubes. <i>Chemical Communications</i> , 2020, 56, 10809-10823.	2.2	135
1026	N-doped carbon nanotubes formed in a wide range of temperature and ramping rate for fast sodium storage. <i>Journal of Energy Chemistry</i> , 2020, 49, 136-146.	7.1	27
1027	Recent advances and perspectives of 2D silicon: Synthesis and application for energy storage and conversion. <i>Energy Storage Materials</i> , 2020, 32, 115-150.	9.5	74
1028	Ruthenium(0) nanoparticles stabilized by metal-organic framework as an efficient electrocatalyst for borohydride oxidation reaction. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 27056-27066.	3.8	5

#	ARTICLE	IF	CITATIONS
1029	2-Methylimidazole as a nitrogen source assisted synthesis of a nano-rod-shaped Fe/FeN@N-C catalyst with plentiful FeN active sites and enhanced ORR activity. <i>Applied Surface Science</i> , 2020, 533, 147481.	3.1	54
1030	Advanced Electrocatalysts with Single-Metal-Atom Active Sites. <i>Chemical Reviews</i> , 2020, 120, 12217-12314.	23.0	563
1031	Non-precious-metal catalysts for alkaline water electrolysis: <i>operando</i> characterizations, theoretical calculations, and recent advances. <i>Chemical Society Reviews</i> , 2020, 49, 9154-9196.	18.7	448
1032	Insights into the electronic origin of enhancing the catalytic activity of Co ₃ O ₄ for oxygen evolution by single atom ruthenium. <i>Nano Today</i> , 2020, 34, 100955.	6.2	29
1033	Electronic Metal-Support Interaction of Single-Atom Catalysts and Applications in Electrocatalysis. <i>Advanced Materials</i> , 2020, 32, e2003300.	11.1	459
1034	Cobalt Metal-Organic Framework Based on Layered Double Nanosheets for Enhanced Electrocatalytic Water Oxidation in Neutral Media. <i>Journal of the American Chemical Society</i> , 2020, 142, 19198-19208.	6.6	64
1035	Heteroatomic Interface Engineering of MOF-Derived Metal-Embedded P- and N-Codoped Zn Node Porous Polyhedral Carbon with Enhanced Sodium-Ion Storage. <i>ACS Applied Energy Materials</i> , 2020, 3, 8892-8902.	2.5	20
1036	Nanoribbon Superstructures of Graphene Nanocages for Efficient Electrocatalytic Hydrogen Evolution. <i>Nano Letters</i> , 2020, 20, 7342-7349.	4.5	30
1037	Highly Phosphatized Magnetic Catalyst with Electron Transfer Induced by Quaternary Synergy for Efficient Dehydrogenation of Ammonia Borane. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 43854-43863.	4.0	26
1038	Enhanced electrocatalytic nitrogen reduction activity by incorporation of a carbon layer on SnS microflowers. <i>Journal of Materials Chemistry A</i> , 2020, 8, 20677-20686.	5.2	18
1039	Metal-organic framework-derived hierarchical ultrathin CoP nanosheets for overall water splitting. <i>Journal of Materials Chemistry A</i> , 2020, 8, 19254-19261.	5.2	111
1040	Mesoporous Nanoarchitectures for Electrochemical Energy Conversion and Storage. <i>Advanced Materials</i> , 2020, 32, e2004654.	11.1	109
1041	Engineering hierarchical MOFs-derived Fe-N-C nanostructure with improved oxygen reduction activity for zinc-air battery: the role of iron oxide. <i>Materials Today Energy</i> , 2020, 18, 100500.	2.5	31
1042	Constructing Conductive Channels between Platinum Nanoparticles and Graphitic Carbon Nitride by Gamma Irradiation for an Enhanced Oxygen Reduction Reaction. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 46095-46106.	4.0	24
1043	Accelerating Biodiesel Catalytic Production by Confined Activation of Methanol over High-Concentration Ionic Liquid-Grafted UiO-66 Solid Superacids. <i>ACS Catalysis</i> , 2020, 10, 11848-11856.	5.5	32
1044	Synergistic Bimetallic Metallic Organic Framework-Derived Pt-Co Oxygen Reduction Electrocatalysts. <i>ACS Nano</i> , 2020, 14, 13069-13080.	7.3	82
1045	Rational Design of Cobalt-Platinum Alloy Decorated Cobalt Nanoparticles for One-Pot Synthesis of Imines from Nitroarenes and Aldehydes. <i>ChemCatChem</i> , 2020, 12, 5948-5958.	1.8	10
1046	Fe-Co Alloyed Nanoparticles Catalyzing Efficient Hydrogenation of Cinnamaldehyde to Cinnamyl Alcohol in Water. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 23521-23526.	7.2	91

#	ARTICLE	IF	CITATIONS
1047	Highly Active Wood-Derived Nitrogen-Doped Carbon Catalyst for the Oxygen Reduction Reaction. ACS Omega, 2020, 5, 23578-23587.	1.6	35
1048	Atomic Filtration by Graphene Oxide Membranes to Access Atomically Dispersed Single Atom Catalysts. ACS Catalysis, 2020, 10, 10468-10475.	5.5	36
1049	Conjugated Covalent Organic Frameworks as Platinum Nanoparticle Supports for Catalyzing the Oxygen Reduction Reaction. Chemistry of Materials, 2020, 32, 9747-9752.	3.2	68
1050	Metalloporphyrin-immobilization MOFs derived metal-nitrogen-carbon catalysts for effective electrochemical oxygen reduction. Journal of Solid State Chemistry, 2020, 292, 121671.	1.4	5
1051	Recent Advances in the Development of Single-Atom Catalysts for Oxygen Electrocatalysis and Zinc-Air Batteries. Advanced Energy Materials, 2020, 10, 2003018.	10.2	181
1052	Ultrafine Ir Nanowires with Microporous Channels and Superior Electrocatalytic Activity for Oxygen Evolution Reaction. ChemCatChem, 2020, 12, 3060-3067.	1.8	19
1053	Metal-organic framework-derived sulfur and nitrogen dual-doped bimetallic carbon nanotubes as electrocatalysts for oxygen evolution reaction. Journal of Solid State Chemistry, 2020, 288, 121421.	1.4	12
1054	Stabilized Co ³⁺ /Co ⁴⁺ Redox Pair in In Situ Produced CoSe ₂ -Derived Cobalt Oxides for Alkaline Zn Batteries with 10 000-Cycle Lifespan and 1.9 V Voltage Plateau. Advanced Energy Materials, 2020, 10, 2000892.	10.2	114
1055	Synthesis of Co-based Prussian Blue Analogues/Dual-Doped Hollow Carbon Microsphere Hybrids as High-Performance Bifunctional Electrocatalysts for Oxygen Evolution and Overall Water Splitting. ACS Sustainable Chemistry and Engineering, 2020, 8, 8318-8326.	3.2	45
1056	Engineering a metal-organic framework derived Mn ₄ C _x S _y atomic interface for highly efficient oxygen reduction reaction. Chemical Science, 2020, 11, 5994-5999.	3.7	113
1057	Elucidation of Active Sites on S, N Codoped Carbon Cubes Embedding Co-Fe Carbides toward Reversible Oxygen Conversion in High-Performance Zinc-Air Batteries. Small, 2020, 16, e1907368.	5.2	66
1058	Synthesis of double perovskite La ₂ MnNiO ₆ nanoparticles as highly efficient oxygen evolution electro-catalysts. Ceramics International, 2020, 46, 20038-20044.	2.3	12
1059	Metal organic frameworks for biomass conversion. Chemical Society Reviews, 2020, 49, 3638-3687.	18.7	176
1060	Co/N C active sites-rich three-dimensional porous carbon nanofibers network derived from bacterial cellulose and bimetal-ZIFs as efficient multifunctional electrocatalyst for rechargeable Zn-air batteries. Journal of Energy Chemistry, 2020, 51, 323-332.	7.1	35
1061	Recent advances in Co-based electrocatalysts for the oxygen reduction reaction. Sustainable Energy and Fuels, 2020, 4, 3848-3870.	2.5	38
1062	Fabrication of Fe ₃ C caged in N doped carbon nanotube as a desirable ORR electrocatalyst by a facile method. Journal of Electroanalytical Chemistry, 2020, 871, 114316.	1.9	10
1063	Electrochemical Sensor Based on Three-Dimensional Nitrogen-Doped Nanostructured Porous Carbon from Edible Ulva lactuca L with a Potentially Wide Application. International Journal of Electrochemical Science, 2020, 15, 1347-1362.	0.5	3
1064	A Zeolitic-Imidazole Frameworks-Derived Interconnected Macroporous Carbon Matrix for Efficient Oxygen Electrocatalysis in Rechargeable Zinc-Air Batteries. Advanced Materials, 2020, 32, e2002170.	11.1	240

#	ARTICLE	IF	CITATIONS
1065	Partially Pyrolyzed Binary Metal-Organic Framework Nanosheets for Efficient Electrochemical Hydrogen Peroxide Synthesis. <i>Angewandte Chemie</i> , 2020, 132, 14479-14483.	1.6	17
1066	Metal-organic polydopamine framework-derived (Co)/N-doped carbon hollow nanocubes as efficient oxygen electrocatalysts. <i>Sustainable Energy and Fuels</i> , 2020, 4, 3370-3377.	2.5	13
1067	Commercial Prussian blue: A highly efficient host for sodium storage. <i>Journal of Electroanalytical Chemistry</i> , 2020, 870, 114263.	1.9	2
1068	Integration of CoFe Alloys and Fe ₃ C Nanoparticles into N-Doped Carbon Nanosheets as Dual Catalytic Active Sites To Promote the Oxygen Electrocatalysis of Zn-Air Batteries. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 9009-9016.	3.2	30
1069	Sulfurated Metal-Organic Framework-Derived Nanocomposites for Efficient Bifunctional Oxygen Electrocatalysis and Rechargeable Zn-Air Battery. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 9226-9234.	3.2	79
1070	Metal-Organic Framework-derived synthesis of MoO ₂ -Cu@NC nanocomposites for enhanced lithium storage properties. <i>International Journal of Electrochemical Science</i> , 2020, , 4242-4251.	0.5	3
1071	Boron-doped rutile TiO ₂ / anatase TiO ₂ / ZrTiO ₄ ternary heterojunction photocatalyst with optimized phase interface and band structure. <i>Ceramics International</i> , 2020, 46, 20943-20953.	2.3	22
1072	Partially Pyrolyzed Binary Metal-Organic Framework Nanosheets for Efficient Electrochemical Hydrogen Peroxide Synthesis. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 14373-14377.	7.2	127
1073	NiFe-coordinated zeolitic imidazolate framework derived trifunctional electrocatalyst for overall water-splitting and zinc-air batteries. <i>Journal of Colloid and Interface Science</i> , 2020, 579, 1-11.	5.0	39
1074	Peroxydisulfate activation of magnetic Co nanoparticles relative to an N-doped porous carbon under confinement: Boosting stability and performance. <i>Separation and Purification Technology</i> , 2020, 250, 117237.	3.9	103
1075	Highly durable carbon supported Fe ₃ N nanocrystals feature as efficient bifunctional oxygen electrocatalyst. <i>International Journal of Energy Research</i> , 2020, 44, 8413-8426.	2.2	15
1076	Engineering unsymmetrically coordinated Cu-SiN ₃ single atom sites with enhanced oxygen reduction activity. <i>Nature Communications</i> , 2020, 11, 3049.	5.8	537
1077	Oxygen Electrocatalysis with Mesoporous Co-N-C Catalysts: Towards Understanding the Active Site and Development of Rechargeable Zn-Air Batteries. <i>ChemElectroChem</i> , 2020, 7, 2877-2887.	1.7	12
1078	Cost-effective ion-tuning of Birnessite structures for efficient ORR electrocatalysts. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 16266-16276.	3.8	7
1079	Experimental Realization of One-Dimensional Metal-Inorganic Chain: Gold-Phosphorus Chain. , 2020, 2, 873-879.		9
1080	Ionothermal carbonization of biomass to construct sp ² /sp ³ carbon interface in N-doped biochar as efficient oxygen reduction electrocatalysts. <i>Chemical Engineering Journal</i> , 2020, 400, 125969.	6.6	65
1081	Nitrogen-, phosphorus-doped carbon-carbon nanotube CoP dodecahedra by controlling zinc content for high-performance electrocatalytic oxygen evolution. <i>Rare Metals</i> , 2020, 39, 680-687.	3.6	55
1082	Co-embedded N-doped hierarchical carbon arrays with boosting electrocatalytic activity for in situ electrochemical detection of H ₂ O ₂ . <i>Sensors and Actuators B: Chemical</i> , 2020, 318, 128242.	4.0	31

#	ARTICLE	IF	CITATIONS
1083	In situ encapsulated and well dispersed Co ₃ O ₄ nanoparticles as efficient and stable electrocatalysts for high-performance CO ₂ reduction. Journal of Materials Chemistry A, 2020, 8, 15675-15680.	5.2	24
1084	Oxidation State and Oxygen-Vacancy-Induced Work Function Controls Bifunctional Oxygen Electrocatalytic Activity. ACS Catalysis, 2020, 10, 7734-7746.	5.5	76
1085	A metal and nitrogen doped carbon composite with both oxygen reduction and evolution active sites for rechargeable zinc-air batteries. Journal of Materials Chemistry A, 2020, 8, 15752-15759.	5.2	28
1086	Rational Design of Hierarchically Structured CoS ₂ @NCNTs from Metal-Organic Frameworks for Efficient Lithium/Sodium Storage Performance. ACS Applied Energy Materials, 2020, 3, 6205-6214.	2.5	43
1087	FeNi alloy nanoparticles embedded in electrospun nitrogen-doped carbon fibers for efficient oxygen evolution reaction. Journal of Colloid and Interface Science, 2020, 578, 805-813.	5.0	33
1088	Graphene-Templated Cobalt Nanoparticle Embedded Nitrogen-Doped Carbon Nanotubes for Efficient Visible-Light Photocatalysis. Crystal Growth and Design, 2020, 20, 4627-4639.	1.4	30
1089	Rational construction of hierarchical accordion-like Ni@porous carbon nanocomposites derived from metal-organic frameworks with enhanced microwave absorption. Carbon, 2020, 167, 364-377.	5.4	166
1090	Engineering Isolated Mn-N ₂ C ₂ Atomic Interface Sites for Efficient Bifunctional Oxygen Reduction and Evolution Reaction. Nano Letters, 2020, 20, 5443-5450.	4.5	249
1091	Heterogeneous assembly of Pt-clusters on hierarchically structured CoO _x @SnPd ₂ @SnO ₂ quaternary nanocatalysts manifesting oxygen reduction reaction performance. New Journal of Chemistry, 2020, 44, 9712-9724.	1.4	16
1092	Atomic Layer Deposition-Assisted Fabrication of Co-Nanoparticle/N-Doped Carbon Nanotube Hybrids as Efficient Electrocatalysts for the Oxygen Evolution Reaction. Small, 2020, 16, e2002427.	5.2	51
1093	Seawater Desalination Using MOF-Incorporated Cu-Based Alginate Beads without Energy Consumption. ACS Applied Materials & Interfaces, 2020, 12, 16319-16326.	4.0	48
1094	Core-shell-structured Co@Co ₄ N nanoparticles encapsulated into MnO-modified porous N-doping carbon nanocubes as bifunctional catalysts for rechargeable Zn-air batteries. Journal of Energy Chemistry, 2020, 50, 52-62.	7.1	49
1095	Facile Route to Achieve Co@Mo ₂ C Encapsulated by N-Doped Carbon as Efficient Electrocatalyst for Overall Water Splitting in Alkaline Media. Journal of the Electrochemical Society, 2020, 167, 044520.	1.3	10
1096	Recent Advances in Metal-Organic Frameworks and Their Derived Materials for Electrocatalytic Water Splitting. ChemElectroChem, 2020, 7, 1805-1824.	1.7	47
1097	Metal-organic coordination polymer-derived carbon nanotubes: Preparation and application in detecting small molecules. Polyhedron, 2020, 182, 114504.	1.0	6
1098	Metal-organic framework-derived Fe/Cu-substituted Co nanoparticles embedded in CNTs-grafted carbon polyhedron for Zn-air batteries. , 2020, 2, 283-293.		95
1099	Bifunctional electrocatalysts for Zn-air batteries: recent developments and future perspectives. Journal of Materials Chemistry A, 2020, 8, 6144-6182.	5.2	207
1100	CoS ₂ @N-doped carbon core-shell nanorod array grown on Ni foam for enhanced electrocatalytic water oxidation. Journal of Materials Chemistry A, 2020, 8, 6795-6803.	5.2	75

#	ARTICLE	IF	CITATIONS
1101	Invigorating the Catalytic Activity of Cobalt Selenide via Structural Phase Transition Engineering for Lithium–Oxygen Batteries. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 5018-5027.	3.2	16
1102	Co nanoparticles combined with nitrogen-doped graphitic carbon anchored on carbon fibers as a self-standing air electrode for flexible zinc–air batteries. <i>Journal of Materials Chemistry A</i> , 2020, 8, 7184-7191.	5.2	28
1103	Graphene-Metal-Metastructure Monolith via Laser Shock-Induced Thermochemical Stitching of MOF Crystals. <i>Matter</i> , 2020, 2, 1535-1549.	5.0	49
1104	Catalysts confined inside CNTs derived from 2D metal–organic frameworks for electrolysis. <i>Nanoscale</i> , 2020, 12, 8969-8974.	2.8	25
1105	A yolk–shell structured metal–organic framework with encapsulated iron-porphyrin and its derived bimetallic nitrogen-doped porous carbon for an efficient oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , 2020, 8, 9536-9544.	5.2	95
1106	MoS ₂ Nanoplates Embedded in Co–N-Doped Carbon Nanocages as Efficient Catalyst for HER and OER. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 5724-5733.	3.2	61
1107	Engineering Local and Global Structures of Single Co Atoms for a Superior Oxygen Reduction Reaction. <i>ACS Catalysis</i> , 2020, 10, 5862-5870.	5.5	126
1108	Nature-inspired electrocatalysts and devices for energy conversion. <i>Chemical Society Reviews</i> , 2020, 49, 3107-3141.	18.7	84
1109	Engineering pristine 2D metal–organic framework nanosheets for electrocatalysis. <i>Journal of Materials Chemistry A</i> , 2020, 8, 8143-8170.	5.2	180
1110	Ternary FeCoNi alloy nanoparticles embedded in N-doped carbon nanotubes for efficient oxygen evolution reaction electrocatalysis. <i>Electrochimica Acta</i> , 2020, 339, 135886.	2.6	98
1111	Controlled engineering of nickel carbide induced N-enriched carbon nanotubes for hydrogen and oxygen evolution reactions in wide pH range. <i>Electrochimica Acta</i> , 2020, 341, 136032.	2.6	45
1112	NiCo–N-doped carbon nanotubes based cathode catalyst for alkaline membrane fuel cell. <i>Renewable Energy</i> , 2020, 154, 508-516.	4.3	69
1113	Defect Engineering for Fuel–Cell Electrocatalysts. <i>Advanced Materials</i> , 2020, 32, e1907879.	11.1	338
1114	Pt–Ir–Pd Trimetallic Nanocages as a Dual Catalyst for Efficient Oxygen Reduction and Evolution Reactions in Acidic Media. <i>Advanced Energy Materials</i> , 2020, 10, 1904114.	10.2	100
1115	A review on fundamentals for designing oxygen evolution electrocatalysts. <i>Chemical Society Reviews</i> , 2020, 49, 2196-2214.	18.7	1,466
1116	Construction and Application of Interfacial Inorganic Nanostructures. <i>Chinese Journal of Chemistry</i> , 2020, 38, 772-786.	2.6	13
1117	Co@N-doped carbon nanomaterial derived by simple pyrolysis of mixed-ligand MOF as an active and stable oxygen evolution electrocatalyst. <i>Applied Surface Science</i> , 2020, 529, 147081.	3.1	36
1118	Luminescent europium(III)-organic framework for visual and on-site detection of hydrogen peroxide via a tablet computer. <i>Mikrochimica Acta</i> , 2020, 187, 416.	2.5	12

#	ARTICLE	IF	CITATIONS
1119	NiMn-Based Bimetal-Organic Framework Nanosheets Supported on Multi-Channel Carbon Fibers for Efficient Oxygen Electrocatalysis. <i>Angewandte Chemie</i> , 2020, 132, 18391-18396.	1.6	24
1120	Nitrogen-doped carbon nanoflowers with in situ generated Fe ₃ C embedded carbon nanotubes for efficient oxygen reduction electrocatalysts. <i>Applied Surface Science</i> , 2020, 529, 147174.	3.1	27
1121	Metal Atom-Doped Co ₃ O ₄ Hierarchical Nanoplates for Electrocatalytic Oxygen Evolution. <i>Advanced Materials</i> , 2020, 32, e2002235.	11.1	332
1122	Mass Transfer in a Co/N/C Catalyst Layer for the Anion Exchange Membrane Fuel Cell. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 32842-32850.	4.0	26
1123	Preparation of hierarchical hollow structures assembled from porous NiCo ₂ O ₄ nanosheets for diesel soot elimination. <i>EcoMat</i> , 2020, 2, e12041.	6.8	2
1124	Single Ni Atoms and Clusters Embedded in N-Doped Carbon Tubes on Fibers-Matrix with Bifunctional Activity for Water Splitting at High Current Densities. <i>Small</i> , 2020, 16, e2002511.	5.2	38
1125	NiMn-Based Bimetal-Organic Framework Nanosheets Supported on Multi-Channel Carbon Fibers for Efficient Oxygen Electrocatalysis. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 18234-18239.	7.2	232
1126	Templated synthesis of cobalt subnanoclusters dispersed N/C nanocages from COFs for highly-efficient oxygen reduction reaction. <i>Chemical Engineering Journal</i> , 2020, 401, 126149.	6.6	40
1127	Recent progress on metal-organic frameworks and their derived materials for electrocatalytic water splitting. <i>Journal of Materials Chemistry A</i> , 2020, 8, 14326-14355.	5.2	81
1128	Nitrogen and Oxygen Co-doped Hierarchical Porous Carbon: Electrode Materials for High-Energy Density and Flexible Solid-State Supercapacitors. <i>ChemElectroChem</i> , 2020, 7, 3065-3073.	1.7	3
1129	Porous carbons embedded with nitrogen-coordinated cobalt as an exceptional electrochemical catalyst for high-performance Zn-air batteries. <i>New Journal of Chemistry</i> , 2020, 44, 12850-12856.	1.4	8
1130	Catalysis using metal-organic framework-derived nanocarbons: Recent trends. <i>Journal of Materials Research</i> , 2020, 35, 2190-2207.	1.2	12
1131	Recent advances in black phosphorus/carbon hybrid composites: from improved stability to applications. <i>Journal of Materials Chemistry A</i> , 2020, 8, 4647-4676.	5.2	39
1132	Engineering of the Heterointerface of Porous Carbon Nanofiber-Supported Nickel and Manganese Oxide Nanoparticle for Highly Efficient Bifunctional Oxygen Catalysis. <i>Advanced Functional Materials</i> , 2020, 30, 1910568.	7.8	92
1133	Fabrications of metal organic frameworks derived hierarchical porous carbon on carbon nanotubes as efficient bioanode catalysts of NAD ⁺ -dependent alcohol dehydrogenase. <i>Electrochimica Acta</i> , 2020, 340, 135958.	2.6	11
1134	Hollow nanosheet array of phosphorus-anion-decorated cobalt disulfide as an efficient electrocatalyst for overall water splitting. <i>Chemical Engineering Journal</i> , 2020, 390, 124556.	6.6	84
1135	Oxygen defect-rich double-layer hierarchical porous Co ₃ O ₄ arrays as high-efficient oxygen evolution catalyst for overall water splitting. <i>Journal of Energy Chemistry</i> , 2020, 47, 299-306.	7.1	53
1136	Carbon-nanotube-grafted and nano-Co ₃ O ₄ -doped porous carbon derived from metal-organic framework as an excellent bifunctional catalyst for zinc-air battery. <i>Journal of Power Sources</i> , 2020, 452, 227841.	4.0	43

#	ARTICLE	IF	CITATIONS
1137	Hierarchical Microcables Constructed by CoP@C ₆₀ Carbon Framework Intertwined with Carbon Nanotubes for Efficient Lithium Storage. <i>Advanced Energy Materials</i> , 2020, 10, 1902913.	10.2	112
1138	In-situ construction of cobalt oxide/ nitrogen-doped porous carbon compounds as efficient bifunctional catalysts for oxygen electrode reactions. <i>Journal of Alloys and Compounds</i> , 2020, 827, 154308.	2.8	15
1139	Nanoparticle-Decorated Ultrathin La ₂ O ₃ Nanosheets as an Efficient Electrocatalysis for Oxygen Evolution Reactions. <i>Nano-Micro Letters</i> , 2020, 12, 49.	14.4	51
1140	N-doped carbon nanotube frameworks modified electrode for the selective sensing of hydroquinone and catechol. <i>Journal of Electroanalytical Chemistry</i> , 2020, 861, 113968.	1.9	23
1141	Strong Electronic Coupling between Ultrafine Iridium-Ruthenium Nanoclusters and Conductive, Acid-Stable Tellurium Nanoparticle Support for Efficient and Durable Oxygen Evolution in Acidic and Neutral Media. <i>ACS Catalysis</i> , 2020, 10, 3571-3579.	5.5	122
1142	Supramolecular assisted one-pot synthesis of donut-shaped CoP@PNC hybrid nanostructures as multifunctional electrocatalysts for rechargeable Zn-air batteries and self-powered hydrogen production. <i>Energy Storage Materials</i> , 2020, 28, 27-36.	9.5	74
1143	Design and modulation principles of molybdenum carbide-based materials for green hydrogen evolution. <i>Journal of Energy Chemistry</i> , 2020, 48, 398-423.	7.1	39
1144	Built-In Catalysis in Confined Nanoreactors for High-Loading Li-S Batteries. <i>ACS Nano</i> , 2020, 14, 3365-3377.	7.3	147
1145	One-Pot-Synthesized CoFe-Glycerate Hollow Spheres with Rich Oxyhydroxides for Efficient Oxygen Evolution Reaction. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 5464-5477.	3.2	31
1146	Densely colonized isolated Cu-N single sites for efficient bifunctional electrocatalysts and rechargeable advanced Zn-air batteries. <i>Applied Catalysis B: Environmental</i> , 2020, 268, 118746.	10.8	110
1147	MOF-derived electrocatalysts for oxygen reduction, oxygen evolution and hydrogen evolution reactions. <i>Chemical Society Reviews</i> , 2020, 49, 1414-1448.	18.7	1,128
1148	A Photoactivated Cu-CeO ₂ Catalyst with Cu-O Active Species Designed through MOF Crystal Engineering. <i>Angewandte Chemie</i> , 2020, 132, 8280-8286.	1.6	8
1149	A Reusable CNT-Supported Single-Atom Iron Catalyst for the Highly Efficient Synthesis of C-N Bonds. <i>Chemistry - A European Journal</i> , 2020, 26, 4592-4598.	1.7	16
1150	Novel bi-functional electrocatalysts based on the electrochemical synthesized bimetallic metal organic frameworks: Towards high energy advanced reversible zinc-air batteries. <i>Journal of Power Sources</i> , 2020, 451, 227768.	4.0	68
1151	Template-guided synthesis of Co nanoparticles embedded in hollow nitrogen doped carbon tubes as a highly efficient catalyst for rechargeable Zn-air batteries. <i>Nano Energy</i> , 2020, 71, 104592.	8.2	157
1152	Electroless Plating of NiFeP Alloy on the Surface of Silicon Photoanode for Efficient Photoelectrochemical Water Oxidation. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 11479-11488.	4.0	28
1153	Bifunctional Catalysts for Reversible Oxygen Evolution Reaction and Oxygen Reduction Reaction. <i>Chemistry - A European Journal</i> , 2020, 26, 3906-3929.	1.7	90
1154	Nitrogen-doped microporous carbon material decorated with metal nanoparticles derived from solid Zn/Co zeolitic imidazolate framework with high selectivity for CO ₂ separation. <i>Fuel</i> , 2020, 265, 116972.	3.4	25

#	ARTICLE	IF	CITATIONS
1155	Advanced Electrocatalysts for the Oxygen Reduction Reaction in Energy Conversion Technologies. <i>Joule</i> , 2020, 4, 45-68.	11.7	596
1156	Assembly of cerium-based coordination polymer into variant polycrystalline 2D \leftrightarrow 3D CeO ₂ \cdot x nanostructures. <i>Journal of Materials Chemistry A</i> , 2020, 8, 4753-4763.	5.2	20
1157	Covalent Organic Frameworks: Design, Synthesis, and Functions. <i>Chemical Reviews</i> , 2020, 120, 8814-8933.	23.0	1,968
1158	Tailoring N-Coordination Environment by Ligand Competitive Thermolysis Strategy for Efficient Oxygen Reduction. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 7270-7276.	4.0	6
1159	Three-dimensional CoNi alloy nanoparticle and carbon nanotube decorated N-doped carbon nanosheet arrays for use as bifunctional electrocatalysts in wearable and flexible Zn-air batteries. <i>Nanotechnology</i> , 2020, 31, 185703.	1.3	14
1160	Dramatically enhanced electromagnetic wave absorption of hierarchical CNT/Co/C fiber derived from cotton and metal-organic-framework. <i>Carbon</i> , 2020, 161, 517-527.	5.4	170
1161	A highly effective bifunctional catalyst of cobalt selenide nanoparticles embedded nitrogen-doped bamboo-like carbon nanotubes toward hydrogen and oxygen evolution reactions based on metal-organic framework. <i>Journal of Colloid and Interface Science</i> , 2020, 566, 296-303.	5.0	52
1162	Liquid-to-gas transition derived cobalt-based nitrogen-doped carbon nanosheets with hierarchically porous for oxygen reduction reaction. <i>Applied Surface Science</i> , 2020, 509, 145365.	3.1	9
1163	Five naphthalene-amide-bridged Ni(ii) complexes: electrochemistry, bifunctional fluorescence responses, removal of contaminants and optimization by CVD. <i>CrystEngComm</i> , 2020, 22, 1330-1339.	1.3	9
1164	Preparation of porous Co ₃ O ₄ and its response to ethanol with low energy consumption. <i>RSC Advances</i> , 2020, 10, 2191-2197.	1.7	18
1165	Template-free synthesis of platinum hollow-opened structures in deep-eutectic solvents and their enhanced performance for methanol electrooxidation. <i>Electrochimica Acta</i> , 2020, 337, 135742.	2.6	21
1166	Rational Microstructure Design on Metal-Organic Framework Composites for Better Electrochemical Performances: Design Principle, Synthetic Strategy, and Promotion Mechanism. <i>Small Methods</i> , 2020, 4, 1900756.	4.6	45
1167	Design and facile one-pot synthesis of uniform PdAg cubic nanocages as efficient electrocatalyst for the oxygen reduction reaction. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 6437-6446.	3.8	13
1168	ZIF-Derived Co ₉ Ni ₈ S ₈ Nanoparticles Immobilized on N-Doped Carbons as Efficient Catalysts for High-Performance Zinc-Air Batteries. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 5847-5856.	4.0	52
1169	Uniform Virus-Like Co-N-Cs Electrocatalyst Derived from Prussian Blue Analog for Stretchable Fiber-Shaped Zn-Air Batteries. <i>Advanced Functional Materials</i> , 2020, 30, 1908945.	7.8	81
1170	Enhanced capacitive deionization of saline water using N-doped rod-like porous carbon derived from dual-ligand metal-organic frameworks. <i>Environmental Science: Nano</i> , 2020, 7, 926-937.	2.2	63
1171	Cobalt/zinc dual-sites coordinated with nitrogen in nanofibers enabling efficient and durable oxygen reduction reaction in acidic fuel cells. <i>Journal of Materials Chemistry A</i> , 2020, 8, 3686-3691.	5.2	76
1172	A Photoactivated Cu-CeO ₂ Catalyst with Cu ⁺ /Ce Active Species Designed through MOF Crystal Engineering. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 8203-8209.	7.2	26

#	ARTICLE	IF	CITATIONS
1173	3D flower-like ZnFe-ZIF derived hierarchical Fe, N-Codoped carbon architecture for enhanced oxygen reduction in both alkaline and acidic media, and zinc-air battery performance. Carbon, 2020, 161, 502-509.	5.4	66
1174	Applications of metal-organic framework-derived materials in fuel cells and metal-air batteries. Coordination Chemistry Reviews, 2020, 409, 213214.	9.5	182
1175	Core-shell motif construction: Highly graphitic nitrogen-doped porous carbon electrocatalysts using MOF-derived carbon@COF heterostructures as sacrificial templates. Chemical Engineering Journal, 2020, 396, 125154.	6.6	223
1176	Simple D_2O CoP Integration in a Metal-Organic Framework-Derived Bifunctional Electrocatalyst for Efficient Overall Water Splitting. ChemSusChem, 2020, 13, 3495-3503.	3.6	18
1177	Quest for magnesium-sulfur batteries: Current challenges in electrolytes and cathode materials developments. Coordination Chemistry Reviews, 2020, 415, 213312.	9.5	43
1178	Designed synthesis of three-dimensional callistemon-like networks structural multifunctional electrocatalyst: Graphitic-carbon-encapsulated Co nanoparticles/N-doped carbon nanotubes@carbon nanofibers for Zn-air batteries application. Composites Part B: Engineering, 2020, 193, 108058.	5.9	37
1179	Controllable fabrication of graphitic nanocarbon encapsulating Fe/Ni hybrids for efficient splitting of water. Journal of Alloys and Compounds, 2020, 829, 154421.	2.8	2
1180	High-performance asymmetric supercapacitors realized by copper cobalt sulfide crumpled nanoflower and N, F co-doped hierarchical nanoporous carbon polyhedron. Journal of Power Sources, 2020, 456, 228023.	4.0	58
1181	Co-Ni Nanoalloy-Organic Framework Electrocatalysts with Ultrahigh Electron Transfer Kinetics for Efficient Oxygen Reduction. ACS Sustainable Chemistry and Engineering, 2020, 8, 6898-6904.	3.2	16
1182	Controlling the morphology of metal-organic frameworks and porous carbon materials: metal oxides as primary architecture-directing agents. Chemical Society Reviews, 2020, 49, 3348-3422.	18.7	190
1183	A Honeycomb-Like Bulk Superstructure of Carbon Nanosheets for Electrocatalysis and Energy Storage. Angewandte Chemie - International Edition, 2020, 59, 19627-19632.	7.2	100
1184	Recent Advances in Non-Noble Bifunctional Oxygen Electrocatalysts toward Large-Scale Production. Advanced Functional Materials, 2020, 30, 2000503.	7.8	226
1185	A Honeycomb-Like Bulk Superstructure of Carbon Nanosheets for Electrocatalysis and Energy Storage. Angewandte Chemie, 2020, 132, 19795-19800.	1.6	7
1186	Highly Stabilized Silicon Nanoparticles for Lithium Storage <i>via</i> Hierarchical Carbon Architecture. ACS Applied Energy Materials, 2020, 3, 4777-4786.	2.5	15
1187	Hierarchical Carbon Microtube@Nanotube Core-Shell Structure for High-Performance Oxygen Electrocatalysis and Zn-Air Battery. Nano-Micro Letters, 2020, 12, 97.	14.4	57
1188	Recent progress in self-supported two-dimensional transition metal oxides and (oxy)hydroxides as oxygen evolution reaction catalysts. Sustainable Energy and Fuels, 2020, 4, 2625-2637.	2.5	28
1189	Network Structural CNTs Penetrate Porous Carbon Support for Phase-Change Materials with Enhanced Electro-Thermal Performance. Advanced Electronic Materials, 2020, 6, 1901428.	2.6	26
1190	Transition Metals (Co or Ni) Encapsulated in Carbon Nanotubes Derived from Zeolite Imidazolate Frameworks (ZIFs) as Bifunctional Catalysts for the Oxygen Reduction and Evolution Reactions. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 1900969.	0.8	19

#	ARTICLE	IF	CITATIONS
1191	Metallic Ni ₃ Mo ₃ N Porous Microrods with Abundant Catalytic Sites as Efficient Electrocatalyst for Large Current Density and Superstability of Hydrogen Evolution Reaction and Water Splitting. <i>Applied Catalysis B: Environmental</i> , 2020, 272, 118956.	10.8	138
1192	Fe ₃ C/Fe, N-codoped porous carbon from petroleum vacuum residual for highly efficient oxygen reduction. <i>Journal of Electroanalytical Chemistry</i> , 2020, 866, 114170.	1.9	8
1193	Lattice Strain Induced by Linker Scission in Metal-Organic Framework Nanosheets for Oxygen Evolution Reaction. <i>ACS Catalysis</i> , 2020, 10, 5691-5697.	5.5	120
1194	Thin metal organic layer derived Co/Co ₉ S ₈ /N,S co-doped carbon nanosheets synthesized by the space confinement effect of montmorillonite for oxygen electrocatalysis. <i>New Journal of Chemistry</i> , 2020, 44, 9522-9529.	1.4	5
1195	Prussian blue- and Prussian blue analogue-derived materials: progress and prospects for electrochemical energy conversion. <i>Materials Today Energy</i> , 2020, 16, 100404.	2.5	68
1196	MOF-derived Fe,Co@N-C bifunctional oxygen electrocatalysts for Zn-air batteries. <i>Journal of Materials Chemistry A</i> , 2020, 8, 9355-9363.	5.2	151
1197	A new strategy to access Co/N co-doped carbon nanotubes as oxygen reduction reaction catalysts. <i>Chinese Chemical Letters</i> , 2021, 32, 535-538.	4.8	17
1198	Surface/interface engineering of high-efficiency noble metal-free electrocatalysts for energy-related electrochemical reactions. <i>Journal of Energy Chemistry</i> , 2021, 54, 89-104.	7.1	65
1199	Two-dimensional (2D) electrode materials for supercapacitors. <i>Materials Today: Proceedings</i> , 2021, 41, 498-505.	0.9	55
1200	Encapsulated Metal Nanoparticles for Catalysis. <i>Chemical Reviews</i> , 2021, 121, 834-881.	23.0	426
1201	One-dimensional metal-organic nanowires-derived catalyst of carbon nanobamboos with encapsulated cobalt nanoparticles for oxygen reduction. <i>Journal of Catalysis</i> , 2021, 394, 366-375.	3.1	19
1202	MOF-derived Co ₃ O ₄ -C@FeOOH as an efficient catalyst for catalytic ozonation of norfloxacin. <i>Journal of Hazardous Materials</i> , 2021, 403, 123697.	6.5	119
1203	Formation of mesoporous Co/CoS/Metal-N-C@S, N-codoped hairy carbon polyhedrons as an efficient trifunctional electrocatalyst for Zn-air batteries and water splitting. <i>Chemical Engineering Journal</i> , 2021, 403, 126385.	6.6	174
1204	Selective Mesitylene Oxidative Coupling Reaction by Metastructured Electrocatalyst Comprised of Carbonaceous Scaffold Coated with Pd Derived from Zeolitic Imidazole Framework. <i>Catalysis Letters</i> , 2021, 151, 685-697.	1.4	0
1205	Multifunctional LaF ₃ doped pomegranate-like porous carbon nanofibers with high-speed transfer channel and strong polar interface for high stability lithium sulfur battery. <i>Chemical Engineering Journal</i> , 2021, 403, 126449.	6.6	42
1206	Iron porphyrin-derived ordered carbonaceous frameworks. <i>Catalysis Today</i> , 2021, 364, 164-171.	2.2	12
1207	Continuous nitrogen-doped carbon nanotube matrix for boosting oxygen electrocatalysis in rechargeable Zn-air batteries. <i>Journal of Energy Chemistry</i> , 2021, 55, 183-189.	7.1	125
1208	Carbon-based electrocatalysts for sustainable energy applications. <i>Progress in Materials Science</i> , 2021, 116, 100717.	16.0	216

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1209	Water Adsorption and Dissociation Promoted by Co*/N-C*-Biactive Sites of Metallic Co/N-Doped Carbon Hybrids for Efficient Hydrogen Evolution. <i>Applied Catalysis B: Environmental</i> , 2021, 282, 119463.	10.8	77
1210	PEDOT functionalized ZIF-67 derived Co-N-S triple-doped porous carbon for high-efficiency oxygen reduction. <i>Applied Surface Science</i> , 2021, 535, 147659.	3.1	29
1211	Nitrogen-Coordinated Cobalt Embedded in a Hollow Carbon Polyhedron for Superior Catalytic Oxidation of Organic Contaminants with Peroxymonosulfate. <i>ACS ES&T Engineering</i> , 2021, 1, 76-85.	3.7	48
1212	Modulation of Single Atomic Co and Fe Sites on Hollow Carbon Nanospheres as Oxygen Electrodes for Rechargeable Zn-Air Batteries. <i>Small Methods</i> , 2021, 5, e2000751.	4.6	178
1213	CoP-embedded nitrogen and phosphorus co-doped mesoporous carbon nanotube for efficient hydrogen evolution. <i>Applied Surface Science</i> , 2021, 537, 147834.	3.1	17
1214	The mechanism and surface engineering of carbon encapsulate defects-rich molybdenum phosphide for the hydrogen evolution reaction in alkaline media. <i>Journal of Alloys and Compounds</i> , 2021, 850, 156737.	2.8	16
1215	Stable confinement of Fe/Fe ₃ C in Fe, N-codoped carbon nanotube towards robust zinc-air batteries. <i>Chinese Chemical Letters</i> , 2021, 32, 1121-1126.	4.8	45
1216	N-doped CoP nanoparticles embedded in electrospun N-doped porous carbon nanofiber as high-efficiency oxygen evolution electrocatalysts. <i>Journal of Alloys and Compounds</i> , 2021, 854, 156830.	2.8	17
1217	Ionic liquid-assisted synthesis of nickel cobalt phosphide embedded in N, P codoped-carbon with hollow and folded structures for efficient hydrogen evolution reaction and supercapacitor. <i>Applied Catalysis B: Environmental</i> , 2021, 283, 119635.	10.8	109
1218	Pyridinic nitrogen enriched porous carbon derived from bimetal organic frameworks for high capacity zinc ion hybrid capacitors with remarkable rate capability. <i>Journal of Energy Chemistry</i> , 2021, 56, 404-411.	7.1	60
1219	Cobalt and nitrogen-doped carbon with enlarged pore size derived from ZIF-67 by a NaCl-assisted pyrolysis strategy towards oxygen reduction reaction. <i>Ionics</i> , 2021, 27, 289-303.	1.2	19
1220	Bimetallic oxide nanoparticles confined in ZIF-67 derived carbon for highly selective oxidation of saturated C-H bond in alkyl arenes. <i>Applied Organometallic Chemistry</i> , 2021, 35, .	1.7	8
1221	Metal-organic frameworks derived novel nanostructured electrocatalysts for oxygen evolution reaction. , 2021, 3, 66-100.		93
1222	Covalent organic framework-based materials for energy applications. <i>Energy and Environmental Science</i> , 2021, 14, 688-728.	15.6	209
1223	Structural regulation of N-doped carbon nanocages as high-performance bifunctional electrocatalysts for rechargeable Zn-air batteries. <i>Carbon</i> , 2021, 173, 715-723.	5.4	20
1224	Hierarchically 3D bifunctional catalysts assembled with 1D MoC core/branched N-doped CNT arrays for zinc-air batteries. <i>Electrochimica Acta</i> , 2021, 367, 137522.	2.6	7
1225	Double metal-organic frameworks derived Fe-Co-Ni phosphides nanosheets as high-performance electrocatalyst for alkaline electrochemical water splitting. <i>Electrochimica Acta</i> , 2021, 367, 137536.	2.6	26
1226	Recent advances in photocatalytic multivariate metal organic frameworks-based nanostructures toward renewable energy and the removal of environmental pollutants. <i>Materials Today Energy</i> , 2021, 19, 100589.	2.5	75

#	ARTICLE	IF	CITATIONS
1227	Environmentally friendly Zn-air rechargeable battery with heavy metal free charcoal based air cathode. <i>Electrochimica Acta</i> , 2021, 368, 137592.	2.6	6
1228	Unsaturated Zn-N-O active sites derived from hydroxyl in graphene oxide and zinc atoms in core shell ZIF-8@ZIF-67 nanocomposites enhanced CO ₂ adsorption capacity. <i>Microporous and Mesoporous Materials</i> , 2021, 312, 110786.	2.2	21
1229	A win-win strategy of β -cyclodextrin and ion-doped polypyrrole composite nanomaterials for asymmetric capacitive deionization. <i>Separation and Purification Technology</i> , 2021, 259, 118175.	3.9	19
1230	The assembling principle and strategies of high-density atomically dispersed catalysts. <i>Chemical Engineering Journal</i> , 2021, 417, 127917.	6.6	13
1231	Metal-organic framework-derived porous carbon templates for catalysis. , 2021, , 73-121.		0
1232	High-yield production of non-layered 2D carbon complexes: Thickness manipulation and carbon nanotube branches for enhanced lithium storage properties. <i>Journal of Energy Chemistry</i> , 2021, 59, 19-29.	7.1	9
1233	Recent advances of electrically conductive metal-organic frameworks in electrochemical applications. <i>Materials Today Nano</i> , 2021, 13, 100105.	2.3	32
1234	ZIF-8@ZIF-67-derived ZnCo ₂ O ₄ @nitrogen-doped carbon/carbon nanotubes wrapped by a carbon layer: a stable oxygen reduction catalyst with a competitive strength in acid media. <i>Materials Today Energy</i> , 2021, 19, 100574.	2.5	16
1235	Origin of the electrocatalytic oxygen evolution activity of nickel phosphides: in-situ electrochemical oxidation and Cr doping to achieve high performance. <i>Science Bulletin</i> , 2021, 66, 708-719.	4.3	55
1236	Biaxial Stretchability in High-Performance, All-Solid-State Supercapacitor with a Double-Layer Anode and a Faradic Cathode Based on Graphitic-2200 Knitted Carbon Fiber. <i>Advanced Energy Materials</i> , 2021, 11, 2002961.	10.2	38
1237	Tailored Catalytic Nanoframes from Metal-Organic Frameworks by Anisotropic Surface Modification and Etching for the Hydrogen Evolution Reaction. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 4747-4755.	7.2	92
1238	A core-shell structured metal-organic frameworks-derived porous carbon nanowires as a superior anode for alkaline metal-ion batteries. <i>Applied Surface Science</i> , 2021, 541, 148473.	3.1	14
1239	Enhanced electrochromic performance of carbon-coated V ₂ O ₅ derived from a metal-organic framework. <i>Applied Surface Science</i> , 2021, 542, 148498.	3.1	28
1240	Single Ru Atoms Stabilized by Hybrid Amorphous/Crystalline FeCoNi Layered Double Hydroxide for Ultraefficient Oxygen Evolution. <i>Advanced Energy Materials</i> , 2021, 11, .	10.2	223
1241	Construction of atomically dispersed Cu-N ₄ sites via engineered coordination environment for high-efficient CO ₂ electroreduction. <i>Chemical Engineering Journal</i> , 2021, 407, 126842.	6.6	91
1242	How to select effective electrocatalysts: Nano or single atom?. <i>Nano Select</i> , 2021, 2, 492-511.	1.9	82
1243	Controlled synthesis of mesoporous carbon with ultra-high N-doping structure from polymer precursor for efficient electrocatalysis of oxygen reduction. <i>Electrochimica Acta</i> , 2021, 368, 137617.	2.6	14
1244	Construction of cobalt nanoparticles decorated intertwined N-doped carbon nanotube clusters with dual active sites for highly effective 4-nitrophenol reduction. <i>Journal of Alloys and Compounds</i> , 2021, 858, 158287.	2.8	5

#	ARTICLE	IF	CITATIONS
1245	Recent Tactics and Advances in the Application of Metal Sulfides as High-Performance Anode Materials for Rechargeable Sodium-Ion Batteries. <i>Advanced Functional Materials</i> , 2021, 31, 2006761.	7.8	89
1246	Cytosine-Co assemblies derived Co _{Nx} rich Co-NCNT as efficient tri-functional electrocatalyst. <i>Journal of Colloid and Interface Science</i> , 2021, 585, 276-286.	5.0	11
1247	Metal-organic frameworks containing solid-state electrolytes for lithium metal batteries and beyond. <i>Materials Chemistry Frontiers</i> , 2021, 5, 1771-1794.	3.2	34
1248	Hollow Carbon-Based Nanoarchitectures Based on ZIF: Inward/Outward Contraction Mechanism and Beyond. <i>Small</i> , 2021, 17, e2004142.	5.2	62
1249	A mild approach to bimetallic ZIF-derived porous carbons as highly efficient oxygen reduction electrocatalysts. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 6188-6196.	3.8	5
1250	Facile Preparation of Low-Cost and Cross-Linked Carbon Nanofibers Derived from PAN/PMMA/Lignin as Supercapacitor Electrodes. <i>Energy & Fuels</i> , 2021, 35, 796-805.	2.5	29
1251	Formation of sandwiched leaf-like CNTs-Co/ZnCo ₂ O ₄ @NC-CNTs nanohybrids for high-power-density rechargeable Zn-air batteries. <i>Nano Energy</i> , 2021, 82, 105710.	8.2	133
1252	MOFs derived 3D sea urchin-like carbon frameworks loaded on PVDF membranes as PMS activator for highly efficient bisphenol A degradation. <i>Separation and Purification Technology</i> , 2021, 258, 117669.	3.9	50
1253	Design of hollow carbon-based materials derived from metal-organic frameworks for electrocatalysis and electrochemical energy storage. <i>Journal of Materials Chemistry A</i> , 2021, 9, 3880-3917.	5.2	117
1254	Two-Dimensional Metal-Organic Frameworks-Based Electrocatalysts for Oxygen Evolution and Oxygen Reduction Reactions. <i>Advanced Energy and Sustainability Research</i> , 2021, 2, 2000067.	2.8	29
1255	Ni ₃ Fe nanoalloys embedded in N-doped carbon derived from dual-metal ZIF: Efficient bifunctional electrocatalyst for Zn-air battery. <i>Carbon</i> , 2021, 174, 475-483.	5.4	44
1256	Co/N co-doped carbonaceous polyhedron as efficient peroxydisulfate activator for degradation of organic pollutants: Role of cobalt. <i>Chemical Engineering Journal</i> , 2021, 417, 127921.	6.6	89
1257	Tailored Catalytic Nanoframes from Metal-Organic Frameworks by Anisotropic Surface Modification and Etching for the Hydrogen Evolution Reaction. <i>Angewandte Chemie</i> , 2021, 133, 4797-4805.	1.6	18
1258	Transition metal/carbon hybrids for oxygen electrocatalysis in rechargeable zinc-air batteries. <i>EcoMat</i> , 2021, 3, e12067.	6.8	48
1259	Cobalt embedded in nitrogen-doped porous carbon as a robust heterogeneous catalyst for the atom-economic alcohol dehydrogenation to carboxylic acids. <i>Carbon</i> , 2021, 174, 284-294.	5.4	23
1260	Defects-rich porous carbon microspheres as green electrocatalysts for efficient and stable oxygen-reduction reaction over a wide range of pH values. <i>Chemical Engineering Journal</i> , 2021, 406, 126883.	6.6	59
1261	Advanced Oxygen Electrocatalysis in Energy Conversion and Storage. <i>Advanced Functional Materials</i> , 2021, 31, 2007602.	7.8	86
1262	Atomic-Level Modulation of Electronic Density at Cobalt Single-Atom Sites Derived from Metal-Organic Frameworks: Enhanced Oxygen Reduction Performance. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 3212-3221.	7.2	445

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1263	Stability of ZIF-8 nanopowders in bacterial culture media and its implication for antibacterial properties. <i>Chemical Engineering Journal</i> , 2021, 413, 127511.	6.6	137
1264	Metal chelation based supramolecular self-assembly enables a high-performance organic anode for lithium ion batteries. <i>Chemical Engineering Journal</i> , 2021, 413, 127525.	6.6	8
1265	Atomic-Level Modulation of Electronic Density at Cobalt Single-Atom Sites Derived from Metal-Organic Frameworks: Enhanced Oxygen Reduction Performance. <i>Angewandte Chemie</i> , 2021, 133, 3249-3258.	1.6	44
1266	Self-supported bifunctional electrocatalysts with Ni nanoparticles encapsulated in vertical N-doped carbon nanotube for efficient overall water splitting. <i>Chemical Engineering Journal</i> , 2021, 413, 127531.	6.6	43
1267	Self-Standing Nanofiber Electrodes with Pt-Co Derived from Electrospun Zeolitic Imidazolate Framework for High Temperature PEM Fuel Cells. <i>Advanced Functional Materials</i> , 2021, 31, 2006771.	7.8	27
1268	Single copper sites dispersed on hierarchically porous carbon for improving oxygen reduction reaction towards zinc-air battery. <i>Nano Research</i> , 2021, 14, 998-1003.	5.8	50
1269	Zinc assisted epitaxial growth of N-doped CNTs-based zeolitic imidazole frameworks derivative for high efficient oxygen reduction reaction in Zn-air battery. <i>Chemical Engineering Journal</i> , 2021, 414, 127569.	6.6	55
1270	Permselective metal-organic framework gel membrane enables long-life cycling of rechargeable organic batteries. <i>Nature Nanotechnology</i> , 2021, 16, 77-84.	15.6	105
1271	Strategies to Develop Earth-Abundant Heterogeneous Oxygen Evolution Reaction Catalysts for pH-Neutral or pH-Near-Neutral Electrolytes. <i>Small Methods</i> , 2021, 5, e2000719.	4.6	31
1272	Coordination-assisted fabrication of N-doped carbon nanofibers/ultrasmall Co ₃ O ₄ nanoparticles for enhanced lithium storage. <i>Journal of Alloys and Compounds</i> , 2021, 855, 157502.	2.8	10
1273	Applications of Atomically Dispersed Oxygen Reduction Catalysts in Fuel Cells and Zinc-Air Batteries. <i>Energy and Environmental Materials</i> , 2021, 4, 307-335.	7.3	58
1274	Recent advancements in MOF based catalysts for applications in electrochemical and photoelectrochemical water splitting: A review. <i>International Journal of Energy Research</i> , 2021, 45, 1190-1226.	2.2	133
1275	Metal-organic frameworks as diverse chemical applications. , 2021, , 349-364.		0
1276	Plasma tailored reactive nitrogen species in MOF derived carbon materials for hybrid sodium-air batteries. <i>Dalton Transactions</i> , 2021, 50, 7041-7047.	1.6	21
1277	Transition-metal single atoms embedded into defective BC ₃ as efficient electrocatalysts for oxygen evolution and reduction reactions. <i>Nanoscale</i> , 2021, 13, 1331-1339.	2.8	27
1278	Recent advances in enzyme-free electrochemical hydrogen peroxide sensors based on carbon hybrid nanocomposites. <i>Journal of Materials Chemistry C</i> , 2021, 9, 6970-6990.	2.7	36
1279	Scalable and controllable fabrication of CNTs improved yolk-shelled Si anodes with advanced in operando mechanical quantification. <i>Energy and Environmental Science</i> , 2021, 14, 3502-3509.	15.6	45
1280	Metal-organic frameworks and their derivatives as electrocatalysts for the oxygen evolution reaction. <i>Chemical Society Reviews</i> , 2021, 50, 2663-2695.	18.7	333

#	ARTICLE	IF	CITATIONS
1281	A triphasic nanocomposite with a synergetic interfacial structure as a trifunctional catalyst toward electrochemical oxygen and hydrogen reactions. <i>Journal of Materials Chemistry A</i> , 2021, 9, 7114-7121.	5.2	10
1282	Facile synthesis of CNT interconnected PVP-ZIF-8 derived hierarchically porous Zn/N co-doped carbon frameworks for oxygen reduction. <i>Nanoscale</i> , 2021, 13, 6248-6258.	2.8	21
1283	N-Doped carbon coated NiCo ₂ O ₄ nanorods for efficient electrocatalytic oxygen evolution. <i>Inorganic Chemistry Frontiers</i> , 2021, 8, 3740-3747.	3.0	22
1284	Make it stereoscopic: interfacial design for full-temperature adaptive flexible zinc-air batteries. <i>Energy and Environmental Science</i> , 2021, 14, 4926-4935.	15.6	108
1285	Metal-organic framework derived nanomaterials for electrocatalysis: recent developments for CO ₂ and N ₂ reduction. <i>Nano Convergence</i> , 2021, 8, 1.	6.3	84
1286	Hierarchical tube brush-like Co ₃ S ₄ @NiCo-LDH on Ni foam as a bifunctional electrocatalyst for overall water splitting. <i>New Journal of Chemistry</i> , 2021, 45, 15429-15436.	1.4	12
1287	MOF-derived Co/Cu-embedded N-doped carbon for trifunctional ORR/OER/HER catalysis in alkaline media. <i>Dalton Transactions</i> , 2021, 50, 5473-5482.	1.6	44
1288	Recent advances of hierarchically porous bifunctional oxygen electrocatalysts derived from metal-organic frameworks for Zn-air batteries. <i>Materials Chemistry Frontiers</i> , 2021, 5, 2649-2667.	3.2	29
1289	Green synthesis of 1,4-dihydropyridines using cobalt carbon nanotubes as recyclable catalysts. <i>Environmental Chemistry Letters</i> , 2021, 19, 1903-1910.	8.3	3
1290	Recent progress and applications of niobium-based nanomaterials and their composites for supercapacitors and hybrid ion capacitors. <i>Sustainable Energy and Fuels</i> , 2021, 5, 3039-3083.	2.5	20
1291	Engineering electrocatalyst nanosurfaces to enrich the activity by inducing lattice strain. <i>Energy and Environmental Science</i> , 2021, 14, 3717-3756.	15.6	98
1292	Iron-Nanoparticle-Loaded Nitrogen-Doped Carbon Nanotube/Carbon Sheet Composites Derived from MOF as Electrocatalysts for an Oxygen Reduction Reaction. <i>ACS Applied Nano Materials</i> , 2021, 4, 459-477.	2.4	35
1293	Defective two-dimensional layered heterometallic phosphonates as highly efficient oxygen evolution electrocatalysts. <i>Inorganic Chemistry Frontiers</i> , 2021, 8, 4448-4457.	3.0	6
1294	Self-templated formation of cobalt-embedded hollow N-doped carbon spheres for efficient oxygen reduction. <i>Nano Research</i> , 2021, 14, 2819-2825.	5.8	16
1295	Advanced Platinum-Based Oxygen Reduction Electrocatalysts for Fuel Cells. <i>Accounts of Chemical Research</i> , 2021, 54, 311-322.	7.6	237
1296	Tuning the electronic structure of NiCoVO _x nanosheets through S doping for enhanced oxygen evolution. <i>Nanoscale</i> , 2021, 13, 17022-17027.	2.8	9
1297	Selective Electrochemical Alkaline Seawater Oxidation Catalyzed by Cobalt Carbonate Hydroxide Nanorod Arrays with Sequential Proton-Electron Transfer Properties. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 905-913.	3.2	25
1298	O,N-Codoped 3D graphene hollow sphere derived from metal-organic frameworks as oxygen reduction reaction electrocatalysts for Zn-air batteries. <i>Nanoscale</i> , 2021, 13, 6174-6183.	2.8	17

#	ARTICLE	IF	CITATIONS
1299	Construction of Oriented Interconnected BNNS Skeleton by Self-Growing CNTs Leading High Thermal Conductivity. <i>Advanced Materials Interfaces</i> , 2021, 8, 2001910.	1.9	11
1300	Three-dimensional MOF-derived Co and N co-doped porous carbon bifunctional catalyst for the Zn-Air battery. <i>CrystEngComm</i> , 2021, 23, 4930-4937.	1.3	7
1301	Dual carbon-confined Sb ₂ Se ₃ nanoparticles with pseudocapacitive properties for high-performance lithium-ion half/full batteries. <i>Dalton Transactions</i> , 2021, 50, 6642-6649.	1.6	13
1302	High-performance diluted nickel nanoclusters decorating ruthenium nanowires for pH-universal overall water splitting. <i>Energy and Environmental Science</i> , 2021, 14, 3194-3202.	15.6	53
1303	Efficient and selective removal of Congo red by a C@Mo composite nanomaterial using a citrate-based coordination polymer as the precursor. <i>Dalton Transactions</i> , 2021, 50, 10549-10560.	1.6	4
1304	Mono-Doped Carbon Nanofiber Aerogel as a High-Performance Electrode Material for Rechargeable Zinc-Air Batteries. <i>ChemElectroChem</i> , 2021, 8, 829-838.	1.7	7
1305	Formation of hollow MoO ₂ @C nano-octahedrons using polyoxometalate-based metal-organic framework as a template for enhanced lithium-ion batteries. <i>International Journal of Energy Research</i> , 2021, 45, 9438-9448.	2.2	4
1306	Origin of the Activity of Co-N-C Catalysts for Chemoselective Hydrogenation of Nitroarenes. <i>ACS Catalysis</i> , 2021, 11, 3026-3039.	5.5	105
1307	The Role of Defects in Metal-Organic Frameworks for Nitrogen Reduction Reaction: When Defects Switch to Features. <i>Advanced Functional Materials</i> , 2021, 31, 2010052.	7.8	92
1308	Noble-metal-free Co@Co ₂ P/N-doped carbon nanotube polyhedron as an efficient catalyst for hydrogen generation from ammonia borane. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 9030-9039.	3.8	22
1309	Oxygen Reduction Electrocatalysts toward Practical Fuel Cells: Progress and Perspectives. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 17832-17852.	7.2	265
1310	A General Carboxylate-Assisted Approach to Boost the ORR Performance of ZIF-Derived Fe/N/C Catalysts for Proton Exchange Membrane Fuel Cells. <i>Advanced Functional Materials</i> , 2021, 31, 2009645.	7.8	98
1311	Atomic Zn Sites on N and S Codoped Biomass-Derived Graphene for a High-Efficiency Oxygen Reduction Reaction in both Acidic and Alkaline Electrolytes. <i>ACS Applied Energy Materials</i> , 2021, 4, 2481-2488.	2.5	21
1312	Co- and N-doped carbon nanotubes with hierarchical pores derived from metal-organic nanotubes for oxygen reduction reaction. <i>Journal of Energy Chemistry</i> , 2021, 53, 49-55.	7.1	18
1313	Co/N-doped carbon nanotube arrays grown on 2D MOFs-derived matrix for boosting the oxygen reduction reaction in alkaline and acidic media. <i>Chinese Chemical Letters</i> , 2021, 32, 816-821.	4.8	39
1314	Oxygen Reduction Electrocatalysts toward Practical Fuel Cells: Progress and Perspectives. <i>Angewandte Chemie</i> , 2021, 133, 17976-17996.	1.6	60
1316	Highly Oriented Nitrogen-Doped Carbon Nanotube Integrated Bimetallic Cobalt Copper Organic Framework for Non-enzymatic Electrochemical Glucose and Hydrogen Peroxide Sensor. <i>Electroanalysis</i> , 2021, 33, 1333-1345.	1.5	36
1317	Ultrastable FeCo Bifunctional Electrocatalyst on Se-Doped CNTs for Liquid and Flexible All-Solid-State Rechargeable Zn-Air Batteries. <i>Nano Letters</i> , 2021, 21, 2255-2264.	4.5	120

#	ARTICLE	IF	CITATIONS
1318	3D Ordered Co@Ni ₂ C Skeleton for Bifunctional Oxygen Reduction and Oxygen Evolution Reaction Electrocatalysts. <i>Advanced Materials Interfaces</i> , 2021, 8, 2001922.	1.9	10
1319	Carbon-nanotube-entangled Co,N-codoped carbon nanocomposite for oxygen reduction reaction. <i>Nanotechnology</i> , 2021, 32, 205402.	1.3	6
1320	Enhancing Defects of N-Doped Carbon Nanospheres Via Ultralow Co Atom Loading Engineering for a High-Efficiency Oxygen Reduction Reaction. <i>ACS Applied Energy Materials</i> , 2021, 4, 3439-3447.	2.5	18
1321	Robust Co-Embedded Nitrogen Doped Carbon Catalyst for Oxygen Reduction Reaction in Proton Exchange Membrane Fuel Cell. <i>ChemistrySelect</i> , 2021, 6, 2298-2305.	0.7	3
1322	Urea-Assisted Synthesis and Tailoring Cobalt Cores for Synergetic Promotion of Hydrogen Evolution Reaction in Acid and Alkaline Media. <i>Advanced Energy and Sustainability Research</i> , 2021, 2, 2000091.	2.8	5
1323	Engineering the Activity and Stability of MOF-Nanocomposites for Efficient Water Oxidation. <i>Advanced Energy Materials</i> , 2021, 11, 2003759.	10.2	108
1324	Modulating Metal-Organic Frameworks as Advanced Oxygen Electrocatalysts. <i>Advanced Energy Materials</i> , 2021, 11, 2003291.	10.2	105
1325	3D Hierarchical Carbon-Rich Micro-/Nanomaterials for Energy Storage and Catalysis. <i>Electrochemical Energy Reviews</i> , 2021, 4, 269-335.	13.1	108
1326	High performance lithium-sulfur batteries based on CoP nanoparticle-embedded nitrogen-doped carbon nanotube hollow polyhedra. <i>Journal of Electroanalytical Chemistry</i> , 2021, 885, 114996.	1.9	17
1327	Bio-inspired and dual interaction-based layer-by-layer assembled coatings for superior flame retardancy and hydrophilicity of polyamide 6.6 textiles. <i>European Polymer Journal</i> , 2021, 147, 110320.	2.6	21
1328	Co ₃ P@Co ₃ O ₄ Nanocomposite on Cobalt Foam as Efficient Bifunctional Electrocatalysts for Hydrazine-Assisted Hydrogen Production. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 4688-4701.	3.2	45
1329	Co-Cu Bimetallic Metal Organic Framework Catalyst Outperforms the Pt/C Benchmark for Oxygen Reduction. <i>Journal of the American Chemical Society</i> , 2021, 143, 4064-4073.	6.6	175
1330	Unique Coordination Structure of Cobalt Single-Atom Catalyst Supported on Dopant-Free Carbon. <i>Journal of Physical Chemistry C</i> , 2021, 125, 6735-6742.	1.5	1
1331	Highly Curved Nanostructure-Coated Co, N-Doped Carbon Materials for Oxygen Electrocatalysis. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 12759-12764.	7.2	120
1332	Two-Dimensional Metal-Organic Frameworks and Covalent-Organic Frameworks for Electrocatalysis: Distinct Merits by the Reduced Dimension. <i>Advanced Energy Materials</i> , 2022, 12, 2003990.	10.2	78
1333	Porosity Engineering of MOF-Based Materials for Electrochemical Energy Storage. <i>Advanced Energy Materials</i> , 2021, 11, 2100154.	10.2	75
1334	Well-Defined MOF-Derived Hierarchically Porous N-Doped Carbon Materials for the Selective Hydrogenation of Phenol to Cyclohexanone. <i>Industrial & Engineering Chemistry Research</i> , 2021, 60, 5806-5815.	1.8	28
1335	Micro/Nano-Scaled Metal-Organic Frameworks and Their Derivatives for Energy Applications. <i>Advanced Energy Materials</i> , 2022, 12, 2003970.	10.2	64

#	ARTICLE	IF	CITATIONS
1336	Nitrogen-doped carbon dodecahedron embedded with cobalt nanoparticles for the direct electro-oxidation of glucose and efficient nonenzymatic glucose sensing. <i>Talanta</i> , 2021, 225, 121954.	2.9	30
1337	Metal organic framework (MOF) in aqueous energy devices. <i>Materials Today</i> , 2021, 48, 270-284.	8.3	82
1338	Synthesis of N-doped Co@C/CNT materials based on ZIF-67 and their electrocatalytic performance for oxygen reduction. <i>Ionics</i> , 2021, 27, 2561-2569.	1.2	8
1339	Highly Curved Nanostructureâ€Coated Co, Nâ€Doped Carbon Materials for Oxygen Electrocatalysis. <i>Angewandte Chemie</i> , 2021, 133, 12869-12874.	1.6	19
1340	Research progress on nanoporous carbons produced by the carbonization of metal organic frameworks. <i>New Carbon Materials</i> , 2021, 36, 322-335.	2.9	13
1341	N, S-codoped porous carbon as metal-free electrocatalyst for oxygen reduction reaction. <i>Journal of Solid State Electrochemistry</i> , 2021, 25, 1765-1773.	1.2	10
1342	Ni-, Co-, and Mn-Doped Fe ₂ O ₃ Nano-Parallelepipeds for Oxygen Evolution. <i>ACS Applied Nano Materials</i> , 2021, 4, 5131-5140.	2.4	33
1343	Ferroceneâ€Based Metalâ€Organic Framework Nanosheets as a Robust Oxygen Evolution Catalyst. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 12770-12774.	7.2	111
1344	Recent progress in conjugated microporous polymers for clean energy: Synthesis, modification, computer simulations, and applications. <i>Progress in Polymer Science</i> , 2021, 115, 101374.	11.8	117
1345	Ferroceneâ€Based Metalâ€Organic Framework Nanosheets as a Robust Oxygen Evolution Catalyst. <i>Angewandte Chemie</i> , 2021, 133, 12880-12884.	1.6	4
1346	Rational design of ultrahigh loading metal single-atoms (Co, Ni, Mo) anchored on in-situ pre-crosslinked guar gum derived N-doped carbon aerogel for efficient overall water splitting. <i>Chemical Engineering Journal</i> , 2021, 410, 128359.	6.6	41
1347	Integrated Three-Dimensional Carbon Nanopolyhedron/Metal Sulfides: An Efficient Electrocatalyst Toward Oxygen Reduction Reaction. <i>Frontiers in Energy Research</i> , 2021, 9, .	1.2	2
1348	Recent Advances in Nanoparticles Confined in Twoâ€Dimensional Materials as Highâ€Performance Electrocatalysts for Energyâ€Conversion Technologies. <i>ChemCatChem</i> , 2021, 13, 2541-2558.	1.8	4
1349	N, F and S doped carbon nanofibers generated from electrospun polymerized ionic liquids for metal-free bifunctional oxygen electrocatalysis. <i>Electrochimica Acta</i> , 2021, 377, 138089.	2.6	29
1350	Coconut-Water-Mediated Carbonaceous Electrode: A Promising Eco-Friendly Material for Bifunctional Water Splitting Application. <i>ACS Omega</i> , 2021, 6, 12623-12630.	1.6	7
1351	Integrating the Essence of a Metalâ€Organic Framework with Electrospinning: A New Approach for Making a Metal Nanoparticle Confined N-Doped Carbon Nanotubes/Porous Carbon Nanofibrous Membrane for Energy Storage and Conversion. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 23732-23742.	4.0	43
1352	Carbonâ€based nonprecious metal electrocatalysts derived from MOFs for oxygenâ€reduction reaction. <i>International Journal of Energy Research</i> , 2021, 45, 15676-15738.	2.2	16
1353	Ionâ€Induced Formation of Hierarchical Porous Nitrogenâ€Doped Carbon Materials with Enhanced Oxygen Reduction. <i>ChemCatChem</i> , 2021, 13, 3112-3118.	1.8	2

#	ARTICLE	IF	CITATIONS
1354	Advances in metal-organic frameworks and their derivatives for diverse electrocatalytic applications. <i>Electrochemistry Communications</i> , 2021, 126, 107024.	2.3	131
1355	Metal-Organic Frameworks and Metal-Organic Gels for Oxygen Electrocatalysis: Structural and Compositional Considerations. <i>Advanced Materials</i> , 2021, 33, e2008023.	11.1	60
1356	FeNi Nanoparticles Coated on N-doped Ultrathin Graphene-like Nanosheets as Stable Bifunctional Catalyst for Zn-Air Batteries. <i>Chemistry - an Asian Journal</i> , 2021, 16, 1592-1602.	1.7	6
1357	In-situ evolution process understanding from a salen-ligated manganese cluster to supercapacitive application. <i>Nano Research</i> , 2022, 15, 346.	5.8	12
1358	Metal-Organic Frameworks Derived Multidimensional CoP/N, P-doped Carbon Architecture as an Efficient Electrocatalyst for Overall Water Splitting. <i>ChemCatChem</i> , 2021, 13, 3037-3045.	1.8	8
1359	Turning metal-organic frameworks into efficient single-atom catalysts via pyrolysis with a focus on oxygen reduction reaction catalysts. <i>EnergyChem</i> , 2021, 3, 100056.	10.1	51
1360	Fast and Stable Electrochemical Production of H ₂ O ₂ by Electrode Architecture Engineering. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 7120-7129.	3.2	24
1361	Theoretical screening of VSe ₂ as support for enhanced electrocatalytic performance of transition-metal single atoms. <i>Journal of Colloid and Interface Science</i> , 2021, 590, 210-218.	5.0	28
1362	Recent Advances on Electrospun Nanomaterials for Zinc-Air Batteries. <i>Small Science</i> , 2021, 1, 2100010.	5.8	88
1363	2D/2D NiCo-MOFs/GO hybrid nanosheets for high-performance asymmetrical supercapacitor. <i>Diamond and Related Materials</i> , 2021, 115, 108358.	1.8	31
1364	Metal-Organic Frameworks for Photo/Electrocatalysis. <i>Advanced Energy and Sustainability Research</i> , 2021, 2, 2100033.	2.8	123
1365	Highly dispersed Co/N-rich carbon nanosheets for the oxidative esterification of biomass-derived alcohols: Insights into the catalytic performance and mechanism. <i>Journal of Catalysis</i> , 2021, 397, 148-155.	3.1	28
1366	Temperature-dependent synthesis of MOF-derived Co@N-doped carbon nanotube nanocomposites toward accelerated reduction of 4-nitrophenol. <i>Composites Communications</i> , 2021, 25, 100718.	3.3	16
1367	Self-supported three-dimensional macroporous amorphous NiFe bimetallic-organic frameworks for enhanced water oxidation. <i>Applied Surface Science</i> , 2021, 550, 149323.	3.1	34
1368	Metal organic frameworks as emergent oxygen-reducing cathode catalysts for microbial fuel cells: a review. <i>International Journal of Environmental Science and Technology</i> , 2022, 19, 11539-11560.	1.8	21
1369	Structural Design Strategy and Active Site Regulation of High-Efficient Bifunctional Oxygen Reaction Electrocatalysts for Zn-Air Battery. <i>Small</i> , 2021, 17, e2006766.	5.2	89
1370	Opportunities and Challenges in Precise Synthesis of Transition Metal Single-Atom Supported by 2D Materials as Catalysts toward Oxygen Reduction Reaction. <i>Advanced Functional Materials</i> , 2021, 31, 2103558.	7.8	51
1371	Recent Advances on MOF Derivatives for Non-Noble Metal Oxygen Electrocatalysts in Zinc-Air Batteries. <i>Nano-Micro Letters</i> , 2021, 13, 137.	14.4	84

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1372	Co_3O_4 Embedded in Carbon Nanotube Derived from a Zeolitic-Imidazolate Framework as Anode Material for Lithium-Ion Batteries. Bulletin of the Korean Chemical Society, 2021, 42, 1220-1224.	1.0	4
1373	Single atomically anchored iron on graphene quantum dots for a highly efficient oxygen evolution reaction. Materials Today Energy, 2021, 20, 100693.	2.5	18
1374	Hierarchical Hollow MOF-Derived Bamboo-like N-doped Carbon Nanotube-Encapsulated $\text{Co}_{0.25}\text{Ni}_{0.75}$ Alloy: An Efficient Bifunctional Oxygen Electrocatalyst for Zinc-Air Battery. ACS Applied Materials & Interfaces, 2021, 13, 30486-30496.	4.0	66
1375	ZIF-12/Fe-Cu LDH Composite as a High Performance Electrocatalyst for Water Oxidation. Frontiers in Chemistry, 2021, 9, 686968.	1.8	12
1376	Tuning the morphology and electron structure of metal-organic framework-74 as bifunctional electrocatalyst for OER and HER using bimetallic collaboration strategy. Journal of Alloys and Compounds, 2021, 865, 158795.	2.8	37
1377	Monolithic Co-N-C membrane integrating Co atoms and clusters as a self-supporting multi-functional electrode for solid-state zinc-air batteries and self-powered water splitting. Chemical Engineering Journal, 2021, 414, 128739.	6.6	20
1378	ZIF-based boronic acid functionalized metal-organic frameworks for the enrichment of cis-diol-containing luteolin from food samples prior to HPLC. Mikrochimica Acta, 2021, 188, 229.	2.5	13
1379	Advances in Zeolite Imidazolate Frameworks (ZIFs) Derived Bifunctional Oxygen Electrocatalysts and Their Application in Zinc-Air Batteries. Advanced Energy Materials, 2021, 11, 2100514.	10.2	132
1380	Synergetic surface modulation of ZnO/Pt@ZIF-8 hybrid nanorods for enhanced photocatalytic CO ₂ valorization. Applied Catalysis B: Environmental, 2021, 287, 119934.	10.8	91
1381	Design Engineering, Synthesis Protocols, and Energy Applications of MOF-Derived Electrocatalysts. Nano-Micro Letters, 2021, 13, 132.	14.4	134
1382	Two-dimensional triazine-based porous framework as a novel metal-free bifunctional electrocatalyst for zinc-air battery. Journal of Colloid and Interface Science, 2021, 591, 253-263.	5.0	17
1383	Oxygenated carbon nanotubes cages coated solid-phase microextraction fiber for selective extraction of migrated aromatic amines from food contact materials. Journal of Chromatography A, 2021, 1646, 462031.	1.8	12
1384	Controllable Construction of Bifunctional $\text{Co}_x\text{P}@N,\text{P}$ -Doped Carbon Electrocatalysts for Rechargeable Zinc-Air Batteries. Energy and Environmental Materials, 2022, 5, 515-523.	7.3	40
1385	Encapsulation of lauric acid in reduced graphene-N-doped porous carbon supporting scaffold for multi-functional phase change composites. Renewable Energy, 2021, 170, 661-668.	4.3	18
1386	A Zeolitic-Imidazole Framework-Derived Trifunctional Electrocatalyst for Hydrazine Fuel Cells. ACS Nano, 2021, 15, 10286-10295.	7.3	33
1387	An Enhanced Activity and High Stability PtCo/N-Doped Carbon Skeleton Electrocatalyst Derived from UA@ZIF-67 Template for Methanol Oxidation. ChemistrySelect, 2021, 6, 6973-6985.	0.7	2
1388	Self-Supporting Electrodes for Gas-Involved Key Energy Reactions. Advanced Functional Materials, 2021, 31, 2104620.	7.8	39
1389	Dual-Phase Carbon with Co Single Atoms and Nanoparticles as a Bifunctional Oxygen Electrocatalyst for Rechargeable Zn-Air Batteries. Advanced Functional Materials, 2021, 31, 2103360.	7.8	107

#	ARTICLE	IF	CITATIONS
1390	Carbon coated Si nanoparticles anchored to graphene sheets with excellent cycle performance and rate capability for Lithium-ion battery anodes. <i>Surface and Coatings Technology</i> , 2021, 418, 127262.	2.2	17
1391	Bimetal-organic framework-derived carbon nanocubes with 3D hierarchical pores as highly efficient oxygen reduction reaction electrocatalysts for microbial fuel cells. <i>Science China Materials</i> , 2021, 64, 2926-2937.	3.5	14
1392	Constructing Precise Coordination of Nickel Active Sites on Hierarchical Porous Carbon Framework for Superior Oxygen Reduction. <i>Small</i> , 2021, 17, e2102125.	5.2	35
1393	Three-dimensional atomic mapping of ligands on palladium nanoparticles by atom probe tomography. <i>Nature Communications</i> , 2021, 12, 4301.	5.8	16
1394	MOF-derived hcp-Co nanoparticles encapsulated in ultrathin graphene for carboxylic acids hydrogenation to alcohols. <i>Journal of Catalysis</i> , 2021, 399, 201-211.	3.1	12
1395	Hierarchical Porous Carbon Membrane Embedded with Pyrolyzed Co-Based Metal-Organic Frameworks as Multifunctional Interlayers for Advanced Li-SeS ₂ Batteries. <i>Energy Technology</i> , 2021, 9, 2100274.	1.8	4
1396	Metal-Organic Framework Derived Nanostructured Bifunctional Electrocatalysts for Water Splitting. <i>ChemElectroChem</i> , 2021, 8, 3782-3803.	1.7	14
1397	Metal single-atom-confined electrocatalysts to water oxidation: Development, innovation, and challenges. <i>Electrochemical Science Advances</i> , 2022, 2, e202100102.	1.2	3
1398	P/N Co-doped Carbon Nanotubes with Dominated Capacity-controlled Absorption Effect Enabling Superior Potassium Storage. <i>ChemElectroChem</i> , 2021, 8, 3767-3776.	1.7	8
1399	Efficient oxygen evolution catalysts with synergistic reactivity: CoFe ₂ O ₄ /C derived from bimetallic organic framework supported on nitrogen-doped carbon nanoarray structure. <i>Materials Research Bulletin</i> , 2021, 139, 111287.	2.7	8
1400	Chiral UiO-MOFs based QCM sensors for enantioselective discrimination of hazardous biomolecule. <i>Journal of Hazardous Materials</i> , 2021, 413, 125467.	6.5	19
1401	Cobalt nanoparticles encapsulated by nitrogen-doped carbon framework as anode materials for high performance lithium-ion capacitors. <i>Journal of Electroanalytical Chemistry</i> , 2021, 893, 115326.	1.9	7
1402	ZnO@zeolitic imidazolate frameworks derived porous hybrid hollow carbon shell as an efficient electrocatalyst for oxygen reduction. <i>Journal of Materials Science</i> , 2021, 56, 14989-15003.	1.7	4
1403	Precise regulation of pyrrole-type single-atom Mn ₄ sites for superior pH-universal oxygen reduction. , 2021, 3, 856-865.		60
1404	Designed preparation of CoS/Co/MoC nanoparticles incorporated in N and S dual-doped porous carbon nanofibers for high-performance Zn-air batteries. <i>Chinese Chemical Letters</i> , 2021, 32, 2243-2248.	4.8	23
1405	Metal-organic framework derived hierarchical NiCo ₂ O ₄ triangle nanosheet arrays@SiC nanowires network/carbon cloth for flexible hybrid supercapacitors. <i>Journal of Materials Science and Technology</i> , 2021, 81, 162-174.	5.6	35
1406	Recent Advances in Electrode Design for Rechargeable Zinc-Air Batteries. <i>Small Science</i> , 2021, 1, 2100044.	5.8	47
1407	Microalgae biomass-derived nitrogen-enriching carbon materials as an efficient pH-universal oxygen reduction electrocatalyst for Zn-air battery. <i>Science of the Total Environment</i> , 2021, 782, 146844.	3.9	14

#	ARTICLE	IF	CITATIONS
1408	Surface microenvironment optimization-induced robust oxygen reduction for neutral zinc-air batteries. <i>Natural Sciences</i> , 2021, 1, e20210005.	1.0	6
1409	One-Pot Crystallization of 2D and 3D Cobalt-Based Metal-Organic Frameworks and Their High-Performance Electrocatalytic Oxygen Evolution. <i>Inorganic Chemistry</i> , 2021, 60, 12685-12690.	1.9	8
1410	Design and Synthesis of N-Doped Carbon Skeleton Assembled by Carbon Nanotubes and Graphene as a High-Performance Electrode Material for Supercapacitors. <i>ACS Applied Energy Materials</i> , 2021, 4, 7731-7742.	2.5	22
1411	Electrocatalytic study of NiO-MOF with activated carbon composites for methanol oxidation reaction. <i>Scientific Reports</i> , 2021, 11, 17192.	1.6	18
1412	Anchoring Fe-N-C Sites on Hierarchically Porous Carbon Sphere and CNT Interpenetrated Nanostructures as Efficient Cathodes for Zinc-Air Batteries. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 41609-41618.	4.0	23
1413	Electrospinning Synthesis of Self-Standing Cobalt/Nanocarbon Hybrid Membrane for Long-Life Rechargeable Zinc-Air Batteries. <i>Advanced Functional Materials</i> , 2021, 31, 2105021.	7.8	66
1414	Atomic Co _{3S1} sites for boosting oxygen reduction reaction via an atomic exchange strategy. <i>Nano Research</i> , 2022, 15, 1803-1808.	5.8	9
1415	Heuristic Iron-Cobalt-Mediated Robust pH-Universal Oxygen Bifunctional Lusters for Reversible Aqueous and Flexible Solid-State Zn-Air Cells. <i>ACS Nano</i> , 2021, 15, 14683-14696.	7.3	51
1416	A Review on Experimental Identification of Active Sites in Model Bifunctional Electrocatalytic Systems for Oxygen Reduction and Evolution Reactions. <i>ChemElectroChem</i> , 2021, 8, 3433-3456.	1.7	13
1417	N/B Co-doped carbon as metal-free cathode catalyst for high-performance asymmetric neutral-alkaline microbial fuel cell. <i>Electrochimica Acta</i> , 2021, 389, 138518.	2.6	10
1418	Constructing N, P-dually doped biochar materials from biomass wastes for high-performance bifunctional oxygen electrocatalysts. <i>Chemosphere</i> , 2021, 278, 130508.	4.2	30
1419	Rational design of Fe-N-C electrocatalysts for oxygen reduction reaction: From nanoparticles to single atoms. <i>Nano Research</i> , 2022, 15, 1753-1778.	5.8	44
1420	Boosting Oxygen Reduction via Integrated Construction and Synergistic Catalysis of Porous Platinum Alloy and Defective Graphitic Carbon. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 25530-25537.	7.2	74
1421	Atomic iridium species anchored on porous carbon network support: An outstanding electrocatalyst for CO ₂ conversion to CO. <i>Applied Catalysis B: Environmental</i> , 2021, 292, 120173.	10.8	20
1422	A metal-organic framework derived cobalt oxide/nitrogen-doped carbon nanotube nanotentacles on electrospun carbon nanofiber for electrochemical energy storage. <i>Chemical Engineering Journal</i> , 2021, 420, 129679.	6.6	44
1423	Coumarin bearing asymmetrical zinc(II) phthalocyanine functionalized SWCNT hybrid nanomaterial: Synthesis, characterization and investigation of bifunctional electrocatalyst behavior for water splitting. <i>Journal of Electroanalytical Chemistry</i> , 2021, 897, 115552.	1.9	15
1424	Tuning the Cationic Ratio of Fe ₁ CoxNi _y P Integrated on Vertically Aligned Reduced Graphene Oxide Array via Electroless Plating as Efficient Self-Supported Bifunctional Electrocatalyst for Water Splitting. <i>Journal of Electrochemical Energy Conversion and Storage</i> , 2022, 19, .	1.1	6
1425	Atomically dispersed Co atoms in nitrogen-doped carbon aerogel for efficient and durable oxygen reduction reaction. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 36836-36847.	3.8	13

#	ARTICLE	IF	CITATIONS
1426	Microporous Fe-N ₄ catalysts derived from biomass aerogel for a high-performance Zn-air battery. <i>Materials Today Energy</i> , 2021, 21, 100826.	2.5	19
1427	Cobalt/nitrogen doped porous carbon as catalysts for efficient oxygen reduction reaction: Towards hybrid enzymatic biofuel cells. <i>Electrochimica Acta</i> , 2021, 389, 138791.	2.6	14
1428	Insight into the Role and Strategies of Metal-Organic Frameworks in Direct Methanol Fuel Cells: A Review. <i>Energy & Fuels</i> , 2021, 35, 15265-15284.	2.5	18
1429	Enhanced electrochemical performance of graphitic carbon-wrapped spherical FeOF nanoparticles using maleopimaric acid as a cathode material for sodium-ion batteries. <i>Journal of Materials Science and Technology</i> , 2021, 85, 184-193.	5.6	10
1430	Ligand Functionalized Iron-Based Metal-Organic Frameworks for Efficient Electrocatalytic Oxygen Evolution. <i>ChemCatChem</i> , 2021, 13, 4976-4984.	1.8	10
1431	Recent progress, developing strategies, theoretical insights, and perspectives towards high-performance copper single atom electrocatalysts. <i>Materials Today Energy</i> , 2021, 21, 100761.	2.5	8
1432	Boosting Oxygen Reduction via Integrated Construction and Synergistic Catalysis of Porous Platinum Alloy and Defective Graphitic Carbon. <i>Angewandte Chemie</i> , 2021, 133, 25734-25741.	1.6	5
1433	Anchoring Ag(I) into Nitro-Functionalized Metal-Organic Frameworks: Effectively Catalyzing Cycloaddition of CO ₂ with Propargylic Alcohols under Mild Conditions. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 45558-45565.	4.0	29
1434	A sol-gel pretreatment combined strategy for constructing cobalt-embedded and nitrogen-doped carbon matrix with high-density active sites as bifunctional oxygen reduction and evolution electrocatalysts. <i>Journal of Alloys and Compounds</i> , 2021, 875, 160036.	2.8	3
1435	CoNi Nanoparticles Supported on N-Doped Bifunctional Hollow Carbon Composites as High-Performance ORR/OER Catalysts for Rechargeable Zn-Air Batteries. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 45394-45405.	4.0	69
1436	MOF/PCP-based Electrocatalysts for the Oxygen Reduction Reaction. <i>Electrochemical Energy Reviews</i> , 2022, 5, 32-81.	13.1	47
1437	ZIF-8@ZIF-67-Derived Co Embedded into Nitrogen-Doped Carbon Nanotube Hollow Porous Carbon Supported Pt as an Efficient Electrocatalyst for Methanol Oxidation. <i>Nanomaterials</i> , 2021, 11, 2491.	1.9	12
1438	Construction of hierarchical Mn ₂ O ₃ hollow microspheres derived from metal-organic frameworks for high performance supercapacitors. <i>Journal of Power Sources</i> , 2021, 505, 230077.	4.0	25
1439	Banana peel derived nitrogen-doped porous carbon with enhanced electrocatalytic activity for complete oxidation of methanol under room temperature. <i>Sensors and Actuators B: Chemical</i> , 2021, 344, 130112.	4.0	4
1440	High performance of homo-metallic tetracyanonickelate based coordination polymer towards water oxidation electrocatalysis. <i>Inorganica Chimica Acta</i> , 2021, 526, 120510.	1.2	3
1441	Ultrathin 2D catalysts with N-coordinated single Co atom outside Co cluster for highly efficient Zn-air battery. <i>Chemical Engineering Journal</i> , 2021, 421, 129719.	6.6	38
1442	Co/CoOx heterojunctions encapsulated N-doped carbon sheets via a dual-template-guided strategy as efficient electrocatalysts for rechargeable Zn-air battery. <i>Journal of Colloid and Interface Science</i> , 2021, 599, 46-57.	5.0	41
1443	Study of carbon dioxide sequestration and electricity generation by a new hybrid bioenergy system with the novelty catalyst. <i>Applied Thermal Engineering</i> , 2021, 197, 117366.	3.0	2

#	ARTICLE	IF	CITATIONS
1444	Cobalt nanorods decorated titanium oxide arrays as efficient and stable electrocatalyst for oxygen evolution reaction. <i>Electrochimica Acta</i> , 2021, 396, 139213.	2.6	9
1445	Bimetallic organic frame nanosheet fluorescent probe used for detecting tetracycline and folic acid. <i>Microchemical Journal</i> , 2021, 170, 106673.	2.3	11
1446	Porous MoWN/MoWC@N C Nano-octahedrons synthesized via confined carburization and vapor deposition in MOFs as efficient trifunctional electrocatalysts for oxygen reversible catalysis and hydrogen production in the same electrolyte. <i>Journal of Colloid and Interface Science</i> , 2021, 601, 626-639.	5.0	10
1447	Lattice-strain and electron-density modulation of palladium nanocatalysts for highly efficient oxygen reduction. <i>Journal of Colloid and Interface Science</i> , 2021, 602, 159-167.	5.0	3
1448	A highly stable cathode for lithium-sulfur battery built of Ni-doped carbon framework linked to CNT. <i>Journal of Alloys and Compounds</i> , 2021, 881, 160496.	2.8	16
1449	Direct integration of ultralow-platinum alloy into nanocarbon architectures for efficient oxygen reduction in fuel cells. <i>Science Bulletin</i> , 2021, 66, 2207-2216.	4.3	49
1450	High-efficient and durable overall water splitting performance by interfacial engineering of Fe-doped urchin-like Ni ₂ P/Ni ₃ S ₂ heterostructure. <i>Chemical Engineering Journal</i> , 2021, 424, 130434.	6.6	49
1451	ZIF-derived two-dimensional Co@Carbon hybrid: Toward highly efficient trifunctional electrocatalysts. <i>Chemical Engineering Journal</i> , 2021, 423, 130313.	6.6	19
1452	Designing a spontaneously deriving NiFe-LDH from bimetallic MOF-74 as an electrocatalyst for oxygen evolution reaction in alkaline solution. <i>Chemical Engineering Journal</i> , 2021, 423, 130204.	6.6	50
1453	Three dimension Ni/Co-decorated N-doped hierarchically porous carbon derived from metal-organic frameworks as trifunctional catalysts for Zn-air battery and microbial fuel cells. <i>Electrochimica Acta</i> , 2021, 395, 139074.	2.6	8
1454	Nickel-cobalt phosphate nanoparticles wrapped in nitrogen-doped carbon loading on partially phosphatized foamed nickel as efficient electrocatalyst for water splitting. <i>Chemical Engineering Journal</i> , 2021, 426, 130854.	6.6	24
1455	Reduced graphene oxide supported ZIF-67 derived CoP enables high-performance potassium ion storage. <i>Journal of Colloid and Interface Science</i> , 2021, 604, 319-326.	5.0	32
1456	Stone-Wales defect-rich carbon-supported dual-metal single atom sites for Zn-air batteries. <i>Nano Energy</i> , 2021, 90, 106488.	8.2	55
1457	Review of electrochemical oxidation desulfurization for fuels and minerals. <i>Fuel</i> , 2021, 305, 121562.	3.4	30
1458	Advanced opportunities and insights on the influence of nitrogen incorporation on the physico-/electro-chemical properties of robust electrocatalysts for electrocatalytic energy conversion. <i>Coordination Chemistry Reviews</i> , 2021, 449, 214209.	9.5	28
1459	Highly active catalyst using zeolitic imidazolate framework derived nano-polyhedron for the electro-oxidation of l-cysteine and amperometric sensing. <i>Journal of Colloid and Interface Science</i> , 2021, 603, 822-833.	5.0	11
1460	Gold nanodot assembly within a cobalt chalcogenide nanoshell: Promotion of electrocatalytic activity. <i>Journal of Colloid and Interface Science</i> , 2022, 605, 274-285.	5.0	5
1461	Tuning the reversible chemisorption of hydroxyl ions to promote the electrocatalysis on ultrathin metal-organic framework nanosheets. <i>Journal of Energy Chemistry</i> , 2022, 65, 71-77.	7.1	17

#	ARTICLE	IF	CITATIONS
1462	Tuning electrochemical transformation process of zeolitic imidazolate framework for efficient water oxidation activity. <i>Journal of Energy Chemistry</i> , 2022, 65, 505-513.	7.1	23
1463	Hetero-structural mass transfer channel boosts electrocatalytic oxygen reactions of metallic catalyst. <i>Chemical Engineering Journal</i> , 2022, 428, 131140.	6.6	7
1464	Interfacial engineering-induced electronic regulation drastically enhances the electrocatalytic oxygen evolution: Immobilization of Janus-structured NiS/NiO nanoparticles onto carbon nanotubes/nanofiber-integrated superstructures. <i>Chemical Engineering Journal</i> , 2022, 428, 131094.	6.6	23
1465	Boosting CO ₂ transport of poly (ethylene oxide) membranes by hollow Rubik-like "expressway" channels with anion pillared hybrid ultramicroporous materials. <i>Chemical Engineering Journal</i> , 2022, 427, 130845.	6.6	9
1466	Biomass-derived bifunctional electrocatalysts for oxygen reduction and evolution reaction: A review. <i>Journal of Energy Chemistry</i> , 2022, 65, 149-172.	7.1	66
1467	Continuous-flow rapid synthesis of wavelength-tunable luminescent lanthanide metal-organic framework nanorods by a microfluidic reactor. <i>Journal of Alloys and Compounds</i> , 2022, 890, 161860.	2.8	6
1468	Nanomaterials derived from metal-organic frameworks for energy storage supercapacitor application. , 2021, , 441-470.		4
1469	Local spin-state tuning of cobalt-iron selenide nanoframes for the boosted oxygen evolution. <i>Energy and Environmental Science</i> , 2021, 14, 365-373.	15.6	159
1471	Accurately metal-modulated bimetallic metal-organic frameworks as advanced trifunctional electrocatalysts. <i>Journal of Materials Chemistry A</i> , 2021, 9, 14682-14690.	5.2	15
1472	A metal-organic framework derived electrical insulating-conductive double-layer configuration for stable lithium metal anodes. <i>Journal of Materials Chemistry A</i> , 2021, 9, 13661-13669.	5.2	20
1473	Controlled assembly of cobalt embedded N-doped graphene nanosheets (Co@NGr) by pyrolysis of a mixed ligand Co(<i>scp</i>) MOF as a sacrificial template for high-performance electrocatalysts. <i>RSC Advances</i> , 2021, 11, 21179-21188.	1.7	9
1474	The role of metal-organic porous frameworks in dual catalysis. <i>Inorganic Chemistry Frontiers</i> , 2021, 8, 3618-3658.	3.0	30
1475	Core-corona Co/CoP clusters strung on carbon nanotubes as a Schottky catalyst for glucose oxidation assisted H ₂ production. <i>Journal of Materials Chemistry A</i> , 2021, 9, 10893-10908.	5.2	56
1476	Engineering the structure of ZIF-derived catalysts by revealing the critical role of temperature for enhanced oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , 2021, 9, 18515-18525.	5.2	56
1477	ZIF-67 Derived MnO ₂ Doped Electrocatalyst for Oxygen Reduction Reaction. <i>Catalysts</i> , 2021, 11, 92.	1.6	18
1478	Highly Accessible Atomically Dispersed Fe _x Sites Electrocatalyst for Proton-Exchange Membrane Fuel Cell. <i>Advanced Science</i> , 2021, 8, 2002249.	5.6	67
1479	Inverted Design for High-Performance Supercapacitor Via Co(OH) ₂ -Derived Highly Oriented MOF Electrodes. <i>Advanced Energy Materials</i> , 2018, 8, 1702294.	10.2	205
1480	Three-Dimensional Hierarchical Architectures Derived from Surface-Mounted Metal-Organic Framework Membranes for Enhanced Electrocatalysis. <i>Angewandte Chemie</i> , 2017, 129, 13969-13973.	1.6	42

#	ARTICLE	IF	CITATIONS
1481	Synthesis of Porous Carbon-coated Cobalt Catalyst through Pyrolyzing Metal-Organic Framework and their Bifunctional OER/ORR Catalytic Activity for Zn-Air Rechargeable Batteries. Bulletin of the Korean Chemical Society, 2020, 41, 310-316.	1.0	25
1482	Nano-architectonics for coordination assemblies at interfacial media. Advances in Inorganic Chemistry, 2020, 76, 199-228.	0.4	4
1483	Valence-engineered MoNi ₄ /MoOx@NF as a Bi-functional electrocatalyst compelling for urea-assisted water splitting reaction. Electrochimica Acta, 2020, 350, 136382.	2.6	20
1484	Nickel and cobalt metal-organic-frameworks-derived hollow microspheres porous carbon assembled from nanorods and nanospheres for outstanding supercapacitors. Journal of Colloid and Interface Science, 2020, 575, 96-107.	5.0	50
1485	Snowflake Co ₃ O ₄ -CuO heteroanode arrays supported on three-dimensional framework for enhanced oxygen evolution. Journal of Electroanalytical Chemistry, 2020, 871, 114235.	1.9	8
1486	Selectively etched graphene encapsulated CoFe catalyst for zinc-air battery application. Materials Today Energy, 2020, 17, 100438.	2.5	8
1487	One-step ultrasonic synthesis of Co/Ni-catecholates for improved performance in oxygen reduction reaction. Ultrasonics Sonochemistry, 2020, 67, 105179.	3.8	34
1488	Electric Field Polarization To Increase Bifunctional Oxygen Electrocatalyst Performance of Nitrogen-Iron Functionalized Carbon Nanomaterials. ACS Applied Energy Materials, 2020, 3, 1484-1495.	2.5	6
1489	Electrocatalyzing S Cathodes via Multisulfiphilic Sites for Superior Room-Temperature Sodium-Sulfur Batteries. ACS Nano, 2020, 14, 7259-7268.	7.3	100
1490	Metal-Organic Framework-Derived Nanoconfinements of CoF ₂ and Mixed-Conducting Wiring for High-Performance Metal Fluoride-Lithium Battery. ACS Nano, 2021, 15, 1509-1518.	7.3	69
1491	Electrochemical and photoelectrochemical water splitting with a CoOx catalyst prepared by flame assisted deposition. Dalton Transactions, 2020, 49, 588-592.	1.6	3
1492	Bamboo-like nitrogen-doped porous carbon nanofibers encapsulated nickel-cobalt alloy nanoparticles composite material derived from the electrospun fiber of a bimetal-organic framework as efficient bifunctional oxygen electrocatalysts. Nanoscale, 2020, 12, 5942-5952.	2.8	59
1493	A core-dual-shell nanorod array with a cascading band configuration for enhanced photocatalytic properties and anti-photocorrosion. Journal of Materials Chemistry A, 2020, 8, 3726-3734.	5.2	25
1494	Surface-coordinated metal-organic framework thin films (SURMOFs) for electrocatalytic applications. Nanoscale, 2020, 12, 12712-12730.	2.8	35
1495	ZIF-67 Derived Cu-Doped Electrocatalyst for Oxygen Reduction Reaction. Journal of Electrochemical Energy Conversion and Storage, 2021, 18, .	1.1	11
1496	Zeolitic-imidazolate Framework (ZIF)@ZnCo-ZIF Core-shell Template Derived Co, N-doped Carbon Catalysts for Oxygen Reduction Reaction. Engineered Science, 2018, , .	1.2	15
1497	An Electrochemical Aptasensor for Pb ²⁺ Detection Based on Metal-Organic-Framework-Derived Hybrid Carbon. Biosensors, 2021, 11, 1.	2.3	18
1498	Applications of Metal-Organic Frameworks-Based Membranes in Separation. Physica Status Solidi (A) Applications and Materials Science, 2021, 218, 2100292.	0.8	1

#	ARTICLE	IF	CITATIONS
1499	Surface-coordinated metal-organic framework thin films (SURMOFs): From fabrication to energy applications. <i>EnergyChem</i> , 2021, 3, 100065.	10.1	25
1500	1D/3D Heterogeneous Assembling Body as Trifunctional Electrocatalysts Enabling Zinc-Air Battery and Self-Powered Overall Water Splitting. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	88
1501	Recent advances and perspectives of metal/covalent-organic frameworks in metal-air batteries. <i>Journal of Energy Chemistry</i> , 2021, 63, 113-129.	7.1	25
1502	Constructing 3D hierarchical MOFs nanospheres for oxygen evolution from high-throughput calculations. <i>Journal of Colloid and Interface Science</i> , 2022, 607, 1944-1952.	5.0	13
1503	MOFs fertilized transition-metallic single-atom electrocatalysts for highly-efficient oxygen reduction: Spreading the synthesis strategies and advanced identification. <i>Journal of Energy Chemistry</i> , 2022, 67, 391-422.	7.1	43
1504	Random Copolymerization of ϵ -Caprolactone and L-Lactide by Ring Opening Polymerization Using a Co/N-Doped Carbon Framework as Catalyst. <i>Chemistry Africa</i> , 2022, 5, 79-87.	1.2	1
1505	Chapter 1. MOF-derived Materials for Extremely Efficient Electrocatalysis. <i>RSC Smart Materials</i> , 2019, , 1-38.	0.1	2
1507	Accelerating Triple Transport in Zinc-Air Batteries and Water Electrolysis by Spatially Confining Co Nanoparticles in Breathable Honeycomb-Like Macroporous N-Doped Carbon. <i>Small</i> , 2021, 17, e2103517.	5.2	43
1508	Modern Carbon-Based Materials for Adsorptive Removal of Organic and Inorganic Pollutants from Water and Wastewater. <i>Molecules</i> , 2021, 26, 6628.	1.7	37
1509	Metallic NiFe as Bifunctional Electrocatalysts for Efficient Urea Conversion. <i>International Journal of Electrochemical Science</i> , 0, , 12420-12427.	0.5	0
1510	Sacrificial templating synthesis of metal-organic framework hybrid nanosheets as efficient pre-electrocatalyst for oxygen evolution reaction in alkaline. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2022, 632, 127745.	2.3	7
1511	Engineering attractive interaction in ZIF-based phase change materials for boosting electro- and photo- driven thermal energy storage. <i>Chemical Engineering Journal</i> , 2022, 430, 133007.	6.6	27
1512	Metal-Organic Frameworks for Electrocatalysis. , 2020, , 29-66.		1
1513	Carbon fibers-coated Co@N-doped porous carbon derived from ZIF-67/alginate fibers for efficient oxygen reduction reaction. <i>Journal of Photonics for Energy</i> , 2020, 10, 1.	0.8	3
1514	Dual Nanoislands on Ni/C Hybrid Nanosheet Activate Superior Hydrazine Oxidation-Assisted High-Efficiency H_2 Production. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	6
1515	Dual Nanoislands on Ni/C Hybrid Nanosheet Activate Superior Hydrazine Oxidation-Assisted High-Efficiency H_2 Production. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	74
1516	MOF Structure Engineering to Synthesize Co_xNi_xC Catalyst with Richer Accessible Active Sites for Enhanced Oxygen Reduction. <i>Small</i> , 2021, 17, e2104684.	5.2	94
1517	A Ferrocene Metal-Organic Framework Solid for Fe-Loaded Carbon Matrices and Nanotubes: High-Yield Synthesis and Oxygen Reduction Electrocatalysis. <i>Inorganic Chemistry</i> , 2021, 60, 17315-17324.	1.9	4

#	ARTICLE	IF	CITATIONS
1519	Recent advances in carbon substrate supported nonprecious nanoarrays for electrocatalytic oxygen evolution. <i>Journal of Materials Chemistry A</i> , 2021, 9, 25773-25795.	5.2	71
1520	Electrocatalytic oxygen reduction of COF-derived porous Fe-Nx nanoclusters/carbon catalyst and application for high performance Zn-air battery. <i>Microporous and Mesoporous Materials</i> , 2022, 330, 111609.	2.2	8
1521	Design and synthesis of MOF-derived CuO/g-C ₃ N ₄ composites with octahedral structures as advanced anode materials for asymmetric supercapacitors with high energy and power densities. <i>Materials Advances</i> , 2022, 3, 672-681.	2.6	9
1522	Flexible, compressible, versatile biomass-derived freestanding carbon monoliths as binder- and substrate-free tri-functional electrodes for solid-state zinc-air batteries and overall water splitting. <i>Applied Catalysis B: Environmental</i> , 2022, 304, 120977.	10.8	17
1523	Cobalt doped Fe-Mn@CNTs catalysts with highly stability for low-temperature selective catalytic reduction of NOx. <i>Nano Research</i> , 2022, 15, 3001-3009.	5.8	9
1524	Preparation and study of tungsten carbide catalyst synergistically codoped with Fe and nitrogen for oxygen reduction reaction. <i>Journal of Materials Research and Technology</i> , 2021, 15, 7100-7110.	2.6	5
1525	A Multiscale Strategy to Construct Cobalt Nanoparticles Confined within Hierarchical Carbon Nanofibers for Efficient CO ₂ Electroreduction. <i>Small</i> , 2022, 18, e2104958.	5.2	4
1526	Watermelon Peel-Derived Nitrogen-Doped Porous Carbon as a Superior Oxygen Reduction Electrocatalyst for Zinc-Air Batteries. <i>ChemElectroChem</i> , 2021, 8, 4790-4796.	1.7	13
1527	Flower-like three-dimensional bifunctional cathode catalyst for high-performance Li-O ₂ batteries: ZIF-67@3D-N/rGO. <i>Ceramics International</i> , 2022, 48, 5601-5608.	2.3	5
1528	Engineering the composition and structure of superaerophobic nanosheet array for efficient hydrogen evolution. <i>Chemical Engineering Journal</i> , 2022, 433, 133517.	6.6	12
1529	Metal-organic framework-derived nitrogen-doped three-dimensional porous carbon loaded CoTe ₂ nanoparticles as anodes for high energy lithium-ion capacitors. <i>Journal of Energy Storage</i> , 2022, 47, 103617.	3.9	8
1530	Recent progress in carbon-based materials boosting electrochemical water splitting. <i>Chinese Chemical Letters</i> , 2022, 33, 3623-3631.	4.8	28
1531	Hofmann-type Metal-Organic Framework Based Bimetal/Carbon Nanosheets for Efficient Electrocatalytic Oxygen Evolution. <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 0, , .	0.6	2
1532	MOFs in the time domain. <i>Nature Reviews Chemistry</i> , 2022, 6, 9-30.	13.8	34
1533	Ultrafine VN nanodots induced generation of abundant cobalt single-atom active sites on nitrogen-doped carbon nanotube for efficient hydrogen evolution. <i>Journal of Energy Chemistry</i> , 2022, 68, 646-657.	7.1	15
1534	(La _{0.65} Sr _{0.3}) _{0.95} FeO _{3-δ} perovskite with high oxygen vacancy as efficient bifunctional electrocatalysts for Zn-air batteries. <i>RSC Advances</i> , 2021, 11, 38977-38981.	1.7	4
1535	Self-supporting CoP-C nanosheet arrays derived from a metal-organic framework as synergistic catalysts for efficient water splitting. <i>Dalton Transactions</i> , 2021, 50, 17549-17558.	1.6	8
1537	Surface Modification of Nano-Cu ₂ O for Controlling CO ₂ Electrochemical Reduction to Ethylene and Syngas. <i>Angewandte Chemie - International Edition</i> , 2022, 61, , .	7.2	62

#	ARTICLE	IF	CITATIONS
1538	Co Nanoparticles Encapsulated in N-Doped Carbon Nanotubes Grafted CNTs as Electrocatalysts for Enhanced Oxygen Reduction Reaction. <i>Advanced Materials Interfaces</i> , 2022, 9, .	1.9	8
1539	One-step dealloying of Ni-Y-Al metallic glass for fabrication of nanoporous hybrid toward efficient water splitting reaction. <i>Ionics</i> , 2022, 28, 1367-1376.	1.2	5
1540	Highly efficient construction of hollow Co@N nanocube cage dispersion implanted with porous carbonized nanofibers for Li-O ₂ batteries. <i>Journal of Materials Chemistry A</i> , 2022, 10, 740-751.	5.2	13
1541	Robust nanocube framework CoS ₂ -based composites as high-performance anodes for Li- and Na-ion batteries. <i>Composites Part B: Engineering</i> , 2022, 231, 109592.	5.9	17
1542	Facile yet versatile assembling of helical carbon nanofibers via metal-organic frameworks burned in ethanol flame and their electrochemical properties as electrode of supercapacitor. <i>Journal of Power Sources</i> , 2022, 521, 230908.	4.0	3
1543	ZIF-67-derived Co nanoparticles embedded in N-doped porous carbon composite interconnected by MWCNTs as highly efficient ORR electrocatalysts for a flexible direct formate fuel cell. <i>Chemical Engineering Journal</i> , 2022, 432, 134192.	6.6	39
1544	Supercritical CO ₂ assisted synthesis of highly accessible iron single atoms and clusters on nitrogen-doped carbon as efficient oxygen reduction electrocatalysts. <i>Chemical Engineering Journal</i> , 2022, 433, 134460.	6.6	22
1545	Template-directed growth of ordered metal-organic frameworks array and derived nickel-cobalt double hydroxide electrode for hybrid supercapacitor and aqueous NiCo-Zn battery. <i>Journal of Alloys and Compounds</i> , 2022, 900, 163532.	2.8	13
1546	Metal-organic frameworks derived transition metal phosphides for electrocatalytic water splitting. <i>Journal of Energy Chemistry</i> , 2022, 68, 494-520.	7.1	70
1547	FeCo Nanoalloys Encapsulated in Porous Nitrogen-Doped Carbon Derived from F127-Assisted Metal-Organic Frameworks for Efficient Oxygen Reduction Reaction. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1548	Design and Synthesis of Hollow Nanostructures for Electrochemical Water Splitting. <i>Advanced Science</i> , 2022, 9, e2105135.	5.6	110
1549	Triethylamine Sensors Based on Nanoscale Porous Carbon Nanocages Originated from Zeolitic Imidazolate Framework Derivatives. <i>ACS Applied Nano Materials</i> , 2022, 5, 1986-1994.	2.4	8
1550	Recent progress of carbon-based electrocatalytic materials in Lithium-based batteries. <i>Sustainable Materials and Technologies</i> , 2022, 32, e00384.	1.7	0
1551	Hydrogen-assisted synthesis of Ni-ZIF-derived nickel nanoparticle chains coated with nitrogen-doped graphitic carbon layers as efficient electrocatalysts for non-enzymatic glucose detection. <i>Mikrochimica Acta</i> , 2022, 189, 80.	2.5	6
1552	Operando Monitoring and Deciphering the Structural Evolution in Oxygen Evolution Electrocatalysis. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	90
1553	Oxygen plasma induced interfacial CoOx/Phthalocyanine Cobalt as bifunctional electrocatalyst towards oxygen-involving reactions. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 9905-9914.	3.8	11
1554	Surface Modification of Nano-Cu ₂ O for Controlling CO ₂ Electrochemical Reduction to Ethylene and Syngas. <i>Angewandte Chemie</i> , 0, , .	1.6	9
1555	Multi-Strategy Architecture of High-Efficiency Electrocatalysts for Underwater Zn-H ₂ O ₂ Batteries with Superior Power Density of 442 mW cm ⁻² . <i>Small</i> , 2022, 18, e2106532.	5.2	9

#	ARTICLE	IF	CITATIONS
1556	Electrochemical deposition of electronically rich Pt single atoms and nanocrystals on porous carbon for enhanced electrocatalysis in strong acids. <i>Sustainable Energy and Fuels</i> , 2022, 6, 1058-1062.	2.5	1
1557	Metal-organic frameworks derived low-crystalline NiCo ₂ S ₄ /Co ₃ S ₄ nanocages with dual heterogeneous interfaces for high-performance supercapacitors. <i>Chinese Chemical Letters</i> , 2023, 34, 107137.	4.8	8
1558	Synthesis of Co/CeO ₂ hetero-particles with abundant oxygen-vacancies supported by carbon aerogels for ORR and OER. <i>Nanoscale</i> , 2022, 14, 1997-2003.	2.8	30
1559	A novel 3D hybrid carbon-based conductive network constructed by bimetallic MOF-derived CNTs embedded nitrogen-doped carbon framework for oxygen reduction reaction. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 5474-5485.	3.8	14
1560	Heteroatom-doped nanomaterials/core-shell nanostructure based electrocatalysts for the oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , 2022, 10, 987-1021.	5.2	24
1561	Nitrogen-doped porous carbon derived from bimetallic zeolitic imidazolate frameworks for electrochemical Li ⁺ /Na ⁺ storage. <i>Journal of Solid State Electrochemistry</i> , 2022, 26, 683-693.	1.2	1
1562	Metal-organic frameworks for the electrocatalytic ORR and HER. , 2022, , 211-237.		4
1563	PtNi Alloy Coated in Porous Nitrogen-Doped Carbon as Highly Efficient Catalysts for Hydrogen Evolution Reactions. <i>Molecules</i> , 2022, 27, 499.	1.7	6
1564	Cobalt Nanocluster-Decorated N-Rich Hierarchical Carbon Architectures Efficiently Catalyze Oxygen Reduction and Hydrogen Evolution Reactions. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 2001-2009.	3.2	8
1565	Synthetic Origin-Dependent catalytic activity of Metal-Organic Frameworks: Unprecedented demonstration with ZIF-8 on CO ₂ cycloaddition reaction. <i>Chemical Engineering Journal</i> , 2022, 435, 134964.	6.6	13
1566	Rational Construction of Cobalt Sulfide Nanoparticles Embedded in Hollow N, P, S Codoped Carbon Shells for Enhanced Supercapacitor Performance. <i>ACS Applied Energy Materials</i> , 2022, 5, 1436-1446.	2.5	6
1567	Efficient capture of ornidazole through cobalt/zinc-containing naonoporous carbons derived from cobalt/zinc-based MOF-74. <i>Journal of Solid State Chemistry</i> , 2022, 308, 122936.	1.4	12
1568	Metal-Organic Frameworks Derived Electrocatalysts for Oxygen and Carbon Dioxide Reduction Reaction. <i>Chemical Record</i> , 2022, 22, e202100329.	2.9	26
1569	Cobalt nanoparticles encapsulated in iron and nitrogen co-doped urchin-like porous carbons as an efficient bifunctional oxygen reversible catalyst for Zn-air batteries. <i>Chemical Engineering Journal</i> , 2022, 436, 135191.	6.6	10
1570	N-doped CNTs capped with carbon layer armored CoFe alloy as highly stable bifunctional catalyst for oxygen electrocatalysis. <i>Nano Research</i> , 2022, 15, 3971-3979.	5.8	17
1571	Atomically Dispersed Iron with Densely Exposed Active Sites as Bifunctional Oxygen Catalysts for Zinc-Air Flow Batteries. <i>Small</i> , 2022, 18, e2105892.	5.2	26
1572	Recent Progress in the Synthesis and Electrocatalytic Application of Metal-Organic Frameworks Encapsulated Nanoparticle Composites. , 2022, , 731-764.		7
1573	Nanomembranes in fuel cells. , 2022, , 285-347.		1

#	ARTICLE	IF	CITATIONS
1574	F127-assisted preparation of FeCo nanoalloys encapsulated in nitrogen-doped carbon for efficient oxygen reduction reaction. <i>New Journal of Chemistry</i> , 2022, 46, 7608-7614.	1.4	5
1575	Single-atom catalysts for high-efficiency photocatalytic and photoelectrochemical water splitting: distinctive roles, unique fabrication methods and specific design strategies. <i>Journal of Materials Chemistry A</i> , 2022, 10, 6835-6871.	5.2	63
1576	A heteroepitaxially grown two-dimensional metal-organic framework and its derivative for the electrocatalytic oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , 2022, 10, 10408-10416.	5.2	13
1577	Three-dimensional CoOOH nanoframes confining high-density Mo single atoms for large-current-density oxygen evolution. <i>Journal of Materials Chemistry A</i> , 2022, 10, 6242-6250.	5.2	20
1578	Hollow Carbon Sphere and Polyhedral Carbon Composites Supported Iron Nanoparticles as Excellent Bifunctional Electrocatalysts of Zn-Air Battery. <i>Energy Technology</i> , 2022, 10, .	1.8	7
1579	F-doped carbon hollow nanospheres for efficient electrochemical oxygen reduction. <i>Journal of Materials Science</i> , 2022, 57, 5924-5932.	1.7	7
1580	Stabilizing Cobalt Single Atoms via Flexible Carbon Membranes as Bifunctional Electrocatalysts for Binder-Free Zinc-Air Batteries. <i>Nano Letters</i> , 2022, 22, 2497-2505.	4.5	78
1581	Integrating Bimetal Alloy into N-Doped Carbon Nanotubes@Nanowires Superstructure for Zn-Air Batteries. <i>ChemSusChem</i> , 2022, 15, .	3.6	13
1582	Preparation of nitrogen-doped porous carbon modified by iron carbide and its application in an oxygen reduction reaction. <i>Journal of Chemical Sciences</i> , 2022, 134, 1.	0.7	1
1583	2D Materials for Wearable Energy Harvesting. <i>Advanced Materials Technologies</i> , 2022, 7, .	3.0	16
1584	General Synergistic Capture-Bonding Superassembly of Atomically Dispersed Catalysts on Micropore-Vacancy Frameworks. <i>Nano Letters</i> , 2022, 22, 2889-2897.	4.5	27
1585	Bimetal Metal-Organic Frameworks Derived Hierarchical Porous Cobalt@Nitrogen-Doped Carbon Tubes as An Efficient Electrocatalyst for Oxygen Reduction Reaction. <i>ChemElectroChem</i> , 2022, 9, .	1.7	7
1586	Ultrastable bimetallic Fe ₂ Mo for efficient oxygen reduction reaction in pH-universal applications. <i>Nano Research</i> , 2022, 15, 4950-4957.	5.8	8
1587	Direct transformation of ZIF-8 into hollow porous carbons and hollow carbon composites. <i>Nano Research</i> , 2022, 15, 5769-5774.	5.8	10
1588	Tailoring structural properties of carbon via implanting optimal co nanoparticles in N-rich carbon cages toward high-efficiency oxygen electrocatalysis for rechargeable Zn-air batteries. , 2022, 4, 576-585.		27
1589	Recent advances in solid-liquid-gas three-phase interfaces in electrocatalysis for energy conversion and storage. <i>EcoMat</i> , 2022, 4, .	6.8	25
1590	Corrosion Chemistry of Electrocatalysts. <i>Advanced Materials</i> , 2022, 34, e2200840.	11.1	43
1591	Oxygen-Rich Cobalt-Nitrogen-Carbon Porous Nanosheets for Bifunctional Oxygen Electrocatalysis. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	55

#	ARTICLE	IF	CITATIONS
1592	Self-supported metal (Fe, Co, Ni)-embedded nitrogen-doping carbon nanorod framework as trifunctional electrode for flexible Zn-air batteries and switchable water electrolysis. <i>Green Energy and Environment</i> , 2023, 8, 1644-1653.	4.7	9
1593	A comprehensive review on batteries and supercapacitors: Development and challenges since their inception. <i>Energy Storage</i> , 2023, 5, .	2.3	63
1594	Construction of CoP/Co ₂ P Coexisting Bifunctional Self-Supporting Electrocatalysts for High-Efficiency Oxygen Evolution and Hydrogen Evolution. <i>ACS Omega</i> , 2022, 7, 12846-12855.	1.6	13
1595	Carbon Nanotube Interwoven Polyhedrons with Inside-out Lithiophilic Gradients toward Stable Lithium Metal Battery. <i>Chemical Engineering Journal</i> , 2022, , 136256.	6.6	4
1596	Polyhedral Carbon Anchored on Carbon Nanosheet with Abundant Atomic Fe _x Moieties for Oxygen Reduction. <i>Advanced Materials Interfaces</i> , 2022, 9, .	1.9	1
1597	Zeolitic imidazolate frameworks-derived hollow Co/N-doped CNTs as oxidase-mimic for colorimetric-fluorescence immunoassay of ochratoxin A. <i>Sensors and Actuators B: Chemical</i> , 2022, 359, 131609.	4.0	30
1598	Insight into the degradation of tetracycline hydrochloride by non-radical-dominated peroxymonosulfate activation with hollow shell-core Co@NC: Role of cobalt species. <i>Separation and Purification Technology</i> , 2022, 289, 120662.	3.9	53
1599	A general strategy for overcoming the trade-off between ultrasmall size and high loading of MOF-derived metal nanoparticles by millisecond pyrolysis. <i>Nano Energy</i> , 2022, 97, 107125.	8.2	17
1600	Copper-involved highly efficient oxygen reduction reaction in both alkaline and acidic media. <i>Chemical Engineering Journal</i> , 2022, 437, 135377.	6.6	25
1601	Water-regulated and bioinspired one-step pyrolysis of iron-cobalt nanoparticles-capped carbon nanotubes/porous honeycombed nitrogen-doped carbon composite for highly efficient oxygen reduction. <i>Journal of Colloid and Interface Science</i> , 2022, 618, 352-361.	5.0	10
1602	Recent advances of carbon-based nanomaterials (CBNMs) for wastewater treatment: Synthesis and application. <i>Chemosphere</i> , 2022, 299, 134364.	4.2	37
1603	ZIF-derived zinc decorated cobalt nanoparticles for efficient oxygen reduction and Zn-air batteries. <i>Journal of Alloys and Compounds</i> , 2022, 908, 164638.	2.8	13
1604	Atomically dispersed Co anchored on N,S-riched carbon as efficient electrocatalysts for advanced Li-S batteries. <i>Journal of Alloys and Compounds</i> , 2022, 910, 164799.	2.8	10
1605	Tuning the atomic configuration of Co-N-C electrocatalyst enables highly-selective H ₂ O ₂ production in acidic media. <i>Applied Catalysis B: Environmental</i> , 2022, 310, 121312.	10.8	64
1606	Round-the-clock bifunctional honeycomb-like nitrogen-doped carbon-decorated Co ₂ P/Mo ₂ C-heterojunction electrocatalyst for direct water splitting with 18.1% STH efficiency. <i>Applied Catalysis B: Environmental</i> , 2022, 310, 121354.	10.8	45
1607	Nanostructuring Nickel-Zinc-Boron/Graphitic Carbon Nitride as the Positive Electrode and BiVO ₄ -Immobilized Nitrogen-Doped Defective Carbon as the Negative Electrode for Asymmetric Capacitors. <i>ACS Applied Nano Materials</i> , 2021, 4, 14258-14273.	2.4	14
1608	Sulfide with Oxygen-Rich Carbon Network for Good Lithium-Storage Kinetics. <i>ACS Nano</i> , 2022, 16, 2651-2660.	7.3	22
1609	Accelerating Anode Reaction with Electro-oxidation of Alcohols over Ru Nanoparticles to Reduce the Potential for Water Splitting. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 1452-1459.	4.0	13

#	ARTICLE	IF	CITATIONS
1610	A Substrate-Induced Fabrication of Active Free-Standing Nanocarbon Film as Air Cathode in Rechargeable Zinc-Air Batteries. <i>Small</i> , 2022, 18, 2106606.	5.2	15
1612	Recent progress and future perspectives of flexible metal-air batteries. <i>SmartMat</i> , 2021, 2, 519-553.	6.4	43
1613	Designing Self-Supported Electrocatalysts for Electrochemical Water Splitting: Surface/Interface Engineering toward Enhanced Electrocatalytic Performance. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 59593-59617.	4.0	58
1614	<i>In situ</i> phosphating of Zn-doped bimetallic skeletons as a versatile electrocatalyst for water splitting. <i>Energy and Environmental Science</i> , 2022, 15, 2425-2434.	15.6	50
1615	Twin PdPtIr porous nanotubes as a dual-functional catalyst for oxygen reduction and evolution reactions. <i>Journal of Materials Chemistry A</i> , 2022, 10, 11354-11362.	5.2	11
1616	ZIFs derived polyhedron with cobalt oxide nanoparticles as novel nanozyme for the biomimetic catalytic oxidation of glucose and non-enzymatic sensor. <i>Analytica Chimica Acta</i> , 2022, 1209, 339839.	2.6	9
1617	Selective Hydrogenation of 5-Hydroxymethylfurfural to 2,5-Dimethylfuran Over Popcorn-Like Nitrogen-Doped Carbon-Confined CuCo Bimetallic Catalyst. <i>Frontiers in Chemistry</i> , 2022, 10, 882670.	1.8	2
1618	Metal Embedded Porous Carbon for Efficient CO ₂ Cycloaddition under Mild Conditions. <i>Catalysts</i> , 2022, 12, 427.	1.6	8
1619	An electrochemical sensor based on ZIF-67/Ag nanoparticles (NPs)/polydopamine (PDA) nanocomposites for detecting chloride ion with good reproducibility. <i>Journal of Electroanalytical Chemistry</i> , 2022, , 116323.	1.9	2
1620	Rational design and synthesis of one-dimensional platinum-based nanostructures for oxygen-reduction electrocatalysis. <i>Chinese Journal of Catalysis</i> , 2022, 43, 1459-1472.	6.9	95
1621	In-situ synthesis of graphite carbon nitride nanotubes/Cobalt@Carbon with castor-fruit-like structure as high-efficiency electromagnetic wave absorbers. <i>Journal of Colloid and Interface Science</i> , 2022, 620, 454-464.	5.0	15
1624	MOF-based nanomaterials for zinc-based battery cathodes. , 2022, , 315-340.		0
1625	Acceleration of the pre-oxidation process by tuning the degree of sulfurization for promoted oxygen evolution reaction. <i>Chemical Communications</i> , 2022, 58, 6360-6363.	2.2	23
1626	MOFs-based nanomaterials for metal-sulfur batteries. , 2022, , 269-292.		0
1627	One-step synthesis of CeFeO ₃ nanoparticles on porous nanocarbon frameworks derived from ZIF-8 for a boosted oxygen reduction reaction in pH universal electrolytes. <i>Journal of Materials Chemistry A</i> , 2022, 10, 13013-13020.	5.2	19
1628	Metal-organic framework based cathode materials in lithium-sulfur batteries. , 2022, , 333-360.		2
1629	Edge-enriched N, S co-doped hierarchical porous carbon for oxygen reduction reaction. <i>Chinese Chemical Letters</i> , 2023, 34, 107462.	4.8	16
1630	Integrating Bi@C Nanospheres in Porous Hard Carbon Frameworks for Ultrafast Sodium Storage. <i>Advanced Materials</i> , 2022, 34, e2202673.	11.1	93

#	ARTICLE	IF	CITATIONS
1631	Iron Single Atoms Anchored on Nitrogen-Doped Carbon Matrix/Nanotube Hybrid Supports for Excellent Oxygen Reduction Properties. <i>Nanomaterials</i> , 2022, 12, 1593.	1.9	2
1632	Accelerated intermediate conversion through nickel doping into mesoporous Co-N/C nanopolyhedron for efficient ORR. <i>Journal of Energy Chemistry</i> , 2022, 73, 240-247.	7.1	23
1633	Enhancement Strategy of Photoelectrocatalytic Activity of Cobalt-Copper Layer Double Hydroxide toward Methanol Oxidation: Cerium Doping and Modification with Porphyrin. <i>Inorganic Chemistry</i> , 2022, 61, 7414-7425.	1.9	6
1634	Salt-Templated Nanoarchitectonics of CoSe ₂ -NC Nanosheets as an Efficient Bifunctional Oxygen Electrocatalyst for Water Splitting. <i>International Journal of Molecular Sciences</i> , 2022, 23, 5239.	1.8	7
1635	Carbon-based material-supported single-atom catalysts for energy conversion. <i>IScience</i> , 2022, 25, 104367.	1.9	20
1636	A highly active and durable PtCoFe/nitrogen-incorporated carbon skeleton catalyst evolved from HA-CoFe-ZIF template for methanol electrooxidation. <i>Ionics</i> , 2022, 28, 3379-3388.	1.2	2
1637	Recent progress in Biomass-derived nanoelectrocatalysts for the sustainable energy development. <i>Fuel</i> , 2022, 323, 124349.	3.4	22
1638	Seizing gaseous Fe ²⁺ to densify O ₂ -accessible Fe ⁴⁺ sites for high-performance proton exchange membrane fuel cells. <i>Energy and Environmental Science</i> , 2022, 15, 3033-3040.	15.6	49
1639	Electrocatalytic Performance of Fe-N Encapsulated in Hollowly Mesoporous Carbon Microspheres for Oxygen Reduction Reaction and Zn-Air Battery. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 7031-7040.	3.2	13
1640	Atomically dispersed metal catalysts confined by covalent organic frameworks and their derivatives for electrochemical energy conversion and storage. <i>Coordination Chemistry Reviews</i> , 2022, 466, 214592.	9.5	16
1641	Coupled nickel-cobalt nanoparticles/N,P,S-co-doped carbon hybrid nanocages with high performance for catalysis and protein adsorption. <i>Dalton Transactions</i> , 2022, 51, 9030-9038.	1.6	4
1642	Cerium-induced lattice disordering in Co-based nanocatalysts promoting the hydrazine electro-oxidation behavior. <i>Chemical Communications</i> , 2022, 58, 6845-6848.	2.2	15
1643	Bimetallic Intersection in PdFe@FeO _x Nanomaterial for Enhanced Water Splitting Electrocatalysis. <i>Advanced Sustainable Systems</i> , 2022, 6, .	2.7	8
1644	Intramolecular hydroxyl nucleophilic attack pathway by a polymeric water oxidation catalyst with single cobalt sites. <i>Nature Catalysis</i> , 2022, 5, 414-429.	16.1	85
1645	In-situ microwave synthesis of metal-organic framework-derived mesoporous polymorphic CoSe ₂ @N-doped carbon for supercapacitor applications. <i>Materials Chemistry and Physics</i> , 2022, 287, 126311.	2.0	6
1646	Metal-organic framework derived magnetic phase change nanocage for fast-charging solar-thermal energy conversion. <i>Nano Energy</i> , 2022, 99, 107383.	8.2	26
1647	Multiscale design of 3D metal-organic frameworks (M ⁿ BTC, M: Cu, Co, Ni) via PLAL enabling bifunctional electrocatalysts for robust overall water splitting. <i>Chemical Engineering Journal</i> , 2022, 446, 137045.	6.6	95
1648	Preventing surface passivation of transition metal nanoparticles in oxygen electrocatalyst to extend the lifespan of Zn-air battery. <i>Journal of Materials Science and Technology</i> , 2022, 128, 205-212.	5.6	5

#	ARTICLE	IF	CITATIONS
1649	First-row transition metal-based materials derived from bimetallic metal-organic frameworks as highly efficient electrocatalysts for electrochemical water splitting. <i>Energy and Environmental Science</i> , 2022, 15, 3119-3151.	15.6	125
1650	Bio-Inspired Micro-Reactor Mimicking Multi-Ridged Mitochondrial Intimae for Efficient Oxygen Reduction. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1651	Carbon nanorods assembled coral-like hierarchical meso-macroporous carbon as sustainable materials for efficient biosensing and biofuel cell. <i>Analytica Chimica Acta</i> , 2022, 1220, 339994.	2.6	3
1652	Synergistically tuning the graphitic degree, porosity, and the configuration of active sites for highly active bifunctional catalysts and Zn-air batteries. <i>Nano Research</i> , 2022, 15, 7959-7967.	5.8	15
1653	Metal-organic framework-derived Co nanoparticles and single atoms as efficient electrocatalyst for pH universal hydrogen evolution reaction. <i>Nano Research</i> , 2022, 15, 7917-7924.	5.8	12
1654	Recent advances in metal-organic frameworks-derived carbon-based electrocatalysts for the oxygen reduction reaction. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 21634-21661.	3.8	25
1655	Atomically dispersed dual-metal-site PGM-free electrocatalysts for oxygen reduction reaction: Opportunities and challenges. <i>SusMat</i> , 2022, 2, 569-590.	7.8	36
1656	Single-atom Fe-N5 catalyst for high-performance zinc-air batteries. <i>Nano Research</i> , 2022, 15, 8056-8064.	5.8	36
1657	Recent progresses of metal-organic framework-based materials in electrochemical energy storage. <i>Materials Today Sustainability</i> , 2022, 19, 100174.	1.9	4
1658	Theoretical study on CO ₂ reduction to methanol catalyzed by highly stable single-atom transition metal riveted bilayer 2D material. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2022, 648, 129365.	2.3	2
1659	Atomic and Nanosized Co Species Functionalized N-Doped Porous Carbon Hybrid for Boosting Electrocatalytic Oxygen Reduction. <i>New Journal of Chemistry</i> , 0, , .	1.4	1
1660	Constructing Unique Mesoporous Carbon Superstructures via Monomicelle Interface Confined Assembly. <i>Journal of the American Chemical Society</i> , 2022, 144, 11767-11777.	6.6	41
1661	Plasmon-Boosted Fe, Co Dual Single-Atom Catalysts for Ultrasensitive Luminol-Dissolved O ₂ Electrochemiluminescence Detection of Prostate-Specific Antigen. <i>Analytical Chemistry</i> , 2022, 94, 9758-9765.	3.2	35
1662	Riemannian Surface on Carbon Anodes Enables Li-Ion Storage at ~35 Å°C. <i>ACS Central Science</i> , 2022, 8, 905-914.	5.3	5
1663	Sulfur-modulated FeNi nanoalloys as bifunctional oxygen electrode for efficient rechargeable aqueous Zn-air batteries. <i>Science China Materials</i> , 2022, 65, 3007-3016.	3.5	6
1664	Non-enzymatic electrochemical sensing of dopamine from COVID-19 quarantine person. <i>Materials Chemistry and Physics</i> , 2022, 289, 126451.	2.0	13
1665	Insight into the Effects of Current Collectors and In Situ Ni Leaching in High-Voltage Aqueous Supercapacitors. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	19
1666	Core-shell ZIF@ZIF-Derived Co Nanoparticle in situ-grown N-doped Carbon Nanotube Polyhedron for Ultrasensitive Electrochemical Detection of Chloramphenicol. <i>ChemElectroChem</i> , 0, , .	1.7	5

#	ARTICLE	IF	CITATIONS
1667	Enhancing Electrochemical Performance of CoF ₂ @Li Batteries via Honeycombed Nanocomposite Cathode. Energy & Fuels, 0, , .	2.5	6
1668	2D metal-organic frameworks and their derivatives for the oxygen evolution reaction. Journal of Alloys and Compounds, 2022, 919, 165823.	2.8	18
1669	Rhombic dodecahedron Ce-Co/C composites with porous hollow structure for efficient electromagnetic wave absorption. Journal of Alloys and Compounds, 2022, 919, 165866.	2.8	12
1670	Multi-scale study on a synergetic multimetal-based selenide anode with nitrogen-doped porous carbon support for high-performance lithium storage. Journal of Alloys and Compounds, 2022, 919, 165841.	2.8	4
1671	MOF-derived CoFe alloy nanoparticles encapsulated within N,O Co-doped multilayer graphitized shells as an efficient bifunctional catalyst for zinc-air batteries. Journal of Materials Chemistry A, 2022, 10, 14866-14874.	5.2	12
1672	Heterogeneous interface-induced electrocatalytic efficiency boosting of bimetallic Cu/Zn selenides for stable water oxidation and oxygen reduction reactions. Catalysis Science and Technology, 2022, 12, 5302-5314.	2.1	7
1673	Applications of metal-organic frameworks for lithium-sulfur batteries. , 2022, , 49-119.		0
1674	A Dual-Responsive Magnetoactive and Electro-Ionic Soft Actuator Derived from a Nickel-Based Metal-Organic Framework. Advanced Materials, 2022, 34, .	11.1	14
1675	A Hexagonal Nut-Like Metal-Organic Framework and Its Conformal Transformation. Small, 2022, 18, .	5.2	7
1676	Recent advances in bifunctional catalysts for zinc-air batteries: Synthesis and potential mechanisms. Science China Technological Sciences, 2022, 65, 2221-2245.	2.0	10
1677	Metal-Organic Framework-derived Co Nanoparticles Embedded in P, N-Dual-doped Porous Carbon/rGO Catalyst for Water Splitting and Oxygen Reduction. ChemNanoMat, 2022, 8, .	1.5	2
1678	Fabrication of long-life quasi-solid-state Na-CO ₂ battery by formation of Na ₂ C ₂ O ₄ discharge product. Cell Reports Physical Science, 2022, 3, 100973.	2.8	7
1679	Metal-organic framework-derived Co@NMPC as efficient electrocatalyst for hydrogen evolution reaction: Revealing the synergic effect of pyridinic N-Co. International Journal of Hydrogen Energy, 2022, 47, 27374-27382.	3.8	7
1680	Facile synthesis of the encapsulation of Co-based multimetallic alloys/oxide nanoparticles nitrogen-doped carbon nanotubes as electrocatalysts for the HER/OER. International Journal of Hydrogen Energy, 2022, 47, 27775-27786.	3.8	26
1681	Highly efficient bifunctional catalyst with 2D MoN formed in situ synergy for OER and ORR based-on Co(II) doped Mo(IV)-Ni(II) supramolecular coordination polymer. Molecular Catalysis, 2022, 528, 112513.	1.0	1
1682	Construction of Ferrocene-based bimetallic CoFe-FcDA nanosheets for efficient oxygen evolution reaction. Molecular Catalysis, 2022, 528, 112502.	1.0	4
1683	NiCo-LDH@MnO ₂ nanocages as advanced catalysts for efficient formaldehyde elimination. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 650, 129619.	2.3	8
1684	High-Performance Non-Enzymatic Electrochemical Dopamine Sensors Based on Metal-Organic Framework Derived Co-C-Matrix Nanoplatfoms. Journal of the Electrochemical Society, 2022, 169, 087504.	1.3	7

#	ARTICLE	IF	CITATIONS
1685	Base-free oxidative esterification of 5-hydroxymethylfurfural to furan-2,5-dimethylcarboxylate over n-doped carbon-supported Co/Fe bimetallic catalyst under batch-operation or continuous-flow conditions. <i>Journal of Energy Chemistry</i> , 2022, 75, 95-108.	7.1	11
1686	Advances and challenges in two-dimensional materials for oxygen evolution. <i>Nano Research</i> , 2022, 15, 8714-8750.	5.8	53
1687	Heterogenization of Molecular Electrocatalytic Active Sites through Reticular Chemistry. <i>Advanced Materials</i> , 2023, 35, .	11.1	11
1688	Metal-organic framework nanocrystal-derived hollow porous materials: Synthetic strategies and emerging applications. <i>Innovation(China)</i> , 2022, 3, 100281.	5.2	96
1689	The strain induced synergistic catalysis of FeN ₄ and MnN ₃ dual-site catalysts for oxygen reduction in proton-/anion-exchange membrane fuel cells. <i>Applied Catalysis B: Environmental</i> , 2022, 317, 121770.	10.8	53
1690	Bio-Inspired Micro-Reactor Mimicking Multi-Ridged Mitochondrial Intimae for Efficient Oxygen Reduction. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1691	Applications of metal-organic framework-based bioelectrodes. <i>Chemical Science</i> , 2022, 13, 8727-8743.	3.7	19
1692	Ni-doped CoP with multi-level hollow structure as efficient electrocatalyst for overall water splitting. <i>Journal of Materials Science</i> , 2022, 57, 14430-14439.	1.7	3
1693	Porous carbon framework decorated with carbon nanotubes encapsulating cobalt phosphide for efficient overall water splitting. <i>Journal of Colloid and Interface Science</i> , 2023, 629, 22-32.	5.0	12
1694	Self-assembly of nanoparticles at solid-liquid interface for electrochemical capacitors. <i>Rare Metals</i> , 2022, 41, 3591-3611.	3.6	4
1695	Surface Modification of Hollow Nanostructured Materials for Energy Storage. <i>Crystal Growth and Design</i> , 2022, 22, 5755-5769.	1.4	5
1696	Carbon-based catalyst supports for oxygen reduction in proton-exchange membrane fuel cells. <i>Trends in Chemistry</i> , 2022, 4, 886-906.	4.4	63
1697	In situ derived Ni-N-CNTs from ZIF-8 crystals as efficient electrocatalysts for oxygen reduction reaction. <i>Inorganic Chemistry Communication</i> , 2022, 144, 109922.	1.8	0
1698	Intensifying uneven charge distribution via geometric distortion engineering in atomically dispersed M-N _x /S sites for efficient oxygen electroreduction. <i>Nano Research</i> , 2022, 15, 8928-8935.	5.8	10
1699	Surface functionalization of carbon cloth with conductive Ni/Fe-MOFs for highly efficient oxygen evolution. <i>Surfaces and Interfaces</i> , 2022, 33, 102294.	1.5	7
1700	Co/N nanoparticles supported on a C ₃ N ₄ /polydopamine framework as a bifunctional electrocatalyst for rechargeable zinc-air batteries. <i>Journal of Electroanalytical Chemistry</i> , 2022, 921, 116702.	1.9	4
1701	Comparative study of Mn-ZIF-67 derived carbon (Mn-Co/C) and its rGO-based composites for the methanol oxidation. <i>Journal of Environmental Chemical Engineering</i> , 2022, 10, 108351.	3.3	13
1702	Co nanoparticles/N-doped carbon nanotubes: Facile synthesis by taking Co-based complexes as precursors and electrocatalysis on oxygen reduction reaction. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2022, 653, 129912.	2.3	5

#	ARTICLE	IF	CITATIONS
1703	Ultrasonic-assisted fungi modification of lignocellulose-derived hierarchical porous carbon for efficient desalination. <i>Desalination</i> , 2022, 541, 116035.	4.0	11
1704	Boosting lifespan of conversion-reaction anodes for full/half potassium-ion batteries via multi-dimensional carbon nano-architectures confinement effect. <i>Journal of Energy Chemistry</i> , 2022, 75, 55-65.	7.1	8
1705	Cobalt coordinated two-dimensional covalent organic framework a sustainable and robust electrocatalyst for selective CO ₂ electrochemical conversion to formic acid. <i>Fuel Processing Technology</i> , 2022, 237, 107451.	3.7	23
1706	Bimetallic dispersion zeolitic imidazolate framework derived spherical porous bifunctional catalysts for liquid/solid Zn-Air batteries. <i>Journal of Alloys and Compounds</i> , 2022, 925, 166680.	2.8	4
1707	Insight into role of Ni/Fe existing forms in reversible oxygen catalysis based on Ni-Fe single-atom/nanoparticles and N-doped carbon. <i>Rare Metals</i> , 2022, 41, 4034-4040.	3.6	19
1708	Metal-Organic Framework-Based Nanomaterials for Electrocatalytic Oxygen Evolution. <i>Small Methods</i> , 2022, 6, .	4.6	53
1709	Sustainable fabrication of Co-MOF@CNT nano-composite for efficient adsorption and removal of organic dyes and selective sensing of Cr(VI) in aqueous phase. <i>Materials Chemistry and Physics</i> , 2022, 291, 126748.	2.0	19
1710	Novel FeNi-FeCo-C composite nanofibers: Highly efficient electrocatalysts for oxygen evolution from water splitting. <i>Journal of Alloys and Compounds</i> , 2022, 926, 166910.	2.8	1
1711	Facile synthesis of Fe ₃ C-dominated Fe/Fe ₃ C/FeNO _{0.0324} multiphase nanocrystals embedded in nitrogen-modified graphitized carbon as efficient pH-universal catalyst for oxygen reduction reaction and zinc-air battery. <i>Chemical Engineering Journal</i> , 2023, 451, 138823.	6.6	19
1712	Two new Ni/Co-MOFs as electrocatalysts for the oxygen evolution reaction in alkaline electrolytes. <i>New Journal of Chemistry</i> , 2022, 46, 18996-19001.	1.4	1
1713	Un capped metal-organic framework (MOF) dispersions driven by O ₂ plasma towards superior oxygen evolution electrocatalysis. <i>Journal of Materials Chemistry A</i> , 2022, 10, 20813-20818.	5.2	5
1714	Ru nanoclusters confined on γ -Co(OH) ₂ nanosheets as efficient bifunctional oxygen electrocatalysts for Zn-air batteries. <i>Inorganic Chemistry Frontiers</i> , 2022, 9, 5774-5782.	3.0	3
1715	Metal-organic framework in fuel cell technology: Fundamentals and application. , 2022, , 135-189.		1
1716	Electroreduction of nitrate to ammonia on atomically-dispersed Cu-N ₄ active sites with high efficiency and stability. <i>Fuel</i> , 2023, 332, 126106.	3.4	8
1717	Modulating coordination structures and metal environments of MOFs-Engineered electrocatalysts for water electrolysis. <i>Chemical Engineering Journal</i> , 2023, 452, 139475.	6.6	19
1718	Yttrium- and Cerium-Codoped Ultrathin Metal-Organic Framework Nanosheet Arrays for High-Efficiency Electrocatalytic Overall Water Splitting. <i>Nano Letters</i> , 2022, 22, 7238-7245.	4.5	48
1719	Petal-like NiCoP sheets on 3D nitrogen-doped carbon nanofiber network as a robust bifunctional electrocatalyst for water splitting. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 34376-34386.	3.8	5
1720	MOF-Derived Bimetallic Pd-Co Alkaline ORR Electrocatalysts. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 44735-44744.	4.0	11

#	ARTICLE	IF	CITATIONS
1722	Bead-like cobalt-nitrogen co-doped carbon nanocage/carbon nanofiber composite: a high-performance oxygen reduction electrocatalyst for zinc-air batteries. <i>Nano Research</i> , 2023, 16, 545-554.	5.8	17
1723	Tuning the electronic structure of a metal-organic framework for an efficient oxygen evolution reaction by introducing minor atomically dispersed ruthenium. , 2023, 5, .		88
1724	Rechargeable Batteries for Grid Scale Energy Storage. <i>Chemical Reviews</i> , 2022, 122, 16610-16751.	23.0	340
1725	Accelerated Diffusion Kinetics in ZnTe/CoTe ₂ Heterojunctions for High Rate Potassium Storage. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	69
1726	ZIF-8 derived bimetallic Fe-Ni-Nanoporous carbon for enhanced oxygen reduction reaction. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 37002-37012.	3.8	10
1727	High-performance bifunctional oxygen electrocatalysts for zinc-air batteries over nitrogen-doped carbon encapsulating CoNi nanoparticles. <i>Journal Physics D: Applied Physics</i> , 2022, 55, 484005.	1.3	1
1728	In Situ Grown CoMn-Based Metal-Organic Framework on Nickel Foam as Efficient and Robust Electrodes for Electrochemical Oxygen Evolution Reaction. <i>Journal of Electrochemical Energy Conversion and Storage</i> , 2023, 20, .	1.1	0
1729	Polyoxometalate-assisted synthesis of amorphous zeolitic imidazolate for efficient electrocatalytic oxygen evolution. <i>Results in Chemistry</i> , 2022, 4, 100568.	0.9	0
1730	Rare earth Y doping induced lattice strain of mesoporous PtPd nanospheres for alkaline oxygen reduction electrocatalysis. <i>Nanotechnology</i> , 2023, 34, 055401.	1.3	1
1731	Advances in Supercapacitor Development: Materials, Processes, and Applications. <i>Journal of Electronic Materials</i> , 2023, 52, 96-129.	1.0	26
1732	Machine Learning in the Development of Adsorbents for Clean Energy Application and Greenhouse Gas Capture. <i>Advanced Science</i> , 2022, 9, .	5.6	8
1733	The cathode catalysts of hydrogen fuel cell: From laboratory toward practical application. <i>Nano Research</i> , 2023, 16, 4365-4380.	5.8	10
1734	Emerging noble metal-free Mo-based bifunctional catalysts for electrochemical energy conversion. <i>Nano Research</i> , 2022, 15, 10234-10267.	5.8	9
1735	Melamine-Sacrificed Pyrolytic Synthesis of Spiderweb-like Nanocages Encapsulated with Catalytic Co Atoms as Cathode for Advanced Li-S Batteries. <i>Batteries</i> , 2022, 8, 161.	2.1	3
1736	Post-synthetic electrostatic adsorption-assisted fabrication of efficient single-atom Fe-N-C oxygen reduction catalysts for Zn-air batteries. <i>Science China Materials</i> , 0, , .	3.5	3
1737	Cobalt Sulfide Nanoparticles Encapsulated in Carbon Nanotube-Grafted Carbon Nanofibers as Catalysts for Oxygen Evolution. <i>ACS Applied Nano Materials</i> , 2022, 5, 16594-16601.	2.4	7
1738	A new insight into the promoting effects of transition metal phosphides in methanol electrooxidation. <i>Chinese Chemical Letters</i> , 2023, 34, 107899.	4.8	2
1739	An ultrasensitive label-free electrochemical aptasensing platform for thiamethoxam detection based on ZIF-67 derived Co-N doped porous carbon. <i>Bioelectrochemistry</i> , 2023, 149, 108317.	2.4	9

#	ARTICLE	IF	CITATIONS
1740	Bifunctional Catalytic Activity of NiOOH toward Oxygen Reduction and Oxygen Evolution Reactions in Alkaline Solutions. <i>Oxygen</i> , 2022, 2, 479-492.	1.6	4
1741	Pressure-induced bimetallic carbon nanotubes from metal-organic frameworks as optimized bifunctional electrocatalysts for water splitting. <i>Rare Metals</i> , 2023, 42, 155-164.	3.6	23
1742	Bimetallic ZIFs derived 3D acetylene black loading $\text{La}_2\text{O}_3/\text{Co}$ bifunctional ORR/OER catalysts. <i>Applied Surface Science</i> , 2023, 610, 155551.	3.1	7
1743	Superstructures of Zeolitic Imidazolate Frameworks to Single and Multiatom Sites for Electrochemical Energy Conversion. <i>Small</i> , 2022, 18, .	5.2	13
1744	Regulation of Porosity in MOFs: A Review on Tunable Scaffolds and Related Effects and Advances in Different Applications. <i>Journal of Environmental Chemical Engineering</i> , 2022, 10, 108836.	3.3	23
1745	A novel electrocatalyst composed of graphene oxide/graphitic carbon nitride and $\text{CuFe}/\text{N-C@Co}$ nanoparticles-embedded in nitrogen-doped carbon nanotube for oxygen reduction reaction and supercapacitor. <i>Journal of Energy Storage</i> , 2022, 56, 106012.	3.9	4
1746	Tunable active-sites of Co nanoparticles encapsulated in carbon nanofiber as high performance bifunctional OER/ORR electrocatalyst. <i>Journal of Colloid and Interface Science</i> , 2023, 630, 140-149.	5.0	36
1747	Rational design of ultrafine cobalt free electrospun nanofibers as efficient and durable bifunctional oxygen electrocatalysts for rechargeable zinc-air battery. <i>Separation and Purification Technology</i> , 2023, 304, 122316.	3.9	5
1748	Aqueous non-metallic ion batteries: Materials, mechanisms and design strategies. <i>Coordination Chemistry Reviews</i> , 2023, 474, 214867.	9.5	32
1749	Porous dehydroxyl cobalt phytate as electrocatalyst for high-efficiency water oxidation. <i>Applied Surface Science</i> , 2023, 609, 155405.	3.1	2
1750	Modulating organic ligands to construct 2D-3D-hybrid porous P-doped metal-organic frameworks electrocatalyst for overall water splitting. <i>Journal of Alloys and Compounds</i> , 2023, 933, 167670.	2.8	8
1751	Bio-inspired micro-reactor mimicking multi-ridged mitochondrial intimae for efficient oxygen reduction. <i>Applied Surface Science</i> , 2023, 610, 155469.	3.1	1
1752	Direct electrochemistry of doxorubicin and its ultra-sensitive detection using a novel porous thorny carbon dodecahedron. <i>New Journal of Chemistry</i> , 2022, 46, 23039-23049.	1.4	2
1753	Tailoring the MOF structure via ligand optimization afforded a dandelion flower like $\text{CoS}/\text{Co-N}_x/\text{CoNi}/\text{NiS}$ catalyst to enhance the ORR/OER in zinc-air batteries. <i>Nanoscale</i> , 2022, 14, 17908-17920.	2.8	18
1754	Bifunctional oxygen electrocatalysts enriched with single Fe atoms and NiFe_2O_4 nanoparticles for rechargeable zinc-air batteries. <i>Energy Storage Materials</i> , 2023, 54, 517-523.	9.5	22
1755	Spinel-structured CuCo_2O_4 with a mixed 1D/2D morphology for asymmetric supercapacitor and oxygen evolution electrocatalyst applications. <i>Electrochimica Acta</i> , 2023, 437, 141507.	2.6	12
1756	Two-dimensional hollow carbon skeleton decorated with ultrafine Co_3O_4 nanoparticles for enhanced lithium storage. <i>Journal of Colloid and Interface Science</i> , 2023, 631, 191-200.	5.0	10
1757	An integrated platinum-nanocarbon electrocatalyst for efficient oxygen reduction. <i>Nature Communications</i> , 2022, 13, .	5.8	62

#	ARTICLE	IF	CITATIONS
1758	Carbonâ€Nanotubeâ€Bridging Strategy for Integrating Single Fe Atoms and NiCo Nanoparticles in a Bifunctional Oxygen Electrocatalyst toward Highâ€Efficiency and Longâ€Life Rechargeable Zincâ€Air Batteries. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	40
1759	Bimetallic organic frameworkâ€decorated leafâ€like 2D nanosheets as flexible air cathode for rechargeable Znâ€air batteries. <i>Chemistry - A European Journal</i> , 0, .	1.7	0
1760	Pyrolytically synthesized cobalt based carbon nitrogen framework as an efficient cathode catalyst in MFC application. <i>Journal of Environmental Chemical Engineering</i> , 2022, 10, 108940.	3.3	8
1761	Galvanic Replacement Preparation of Spindle-Structured Sb@C@NC as Anode for Superior Lithium-Ion Storage. <i>Batteries</i> , 2022, 8, 245.	2.1	1
1762	Metalâ€organic framework-derived advanced oxygen electrocatalysts as air-cathodes for Znâ€air batteries: recent trends and future perspectives. <i>Materials Horizons</i> , 2023, 10, 745-787.	6.4	24
1763	Highly efficient selective hydrogenation of nitrocyclohexane to cyclohexanone oxime in ethylenediamine over MOF-derived catalysts: Effects of Ni-Co alloy and solvent. <i>Chemical Engineering Journal</i> , 2023, 455, 140864.	6.6	4
1764	A carbon-covered silicon material modified by phytic acid with 3D conductive network as anode for lithium-ion batteries. <i>Advanced Powder Technology</i> , 2023, 34, 103891.	2.0	6
1765	Microalgae-derived single-atom oxygen reduction catalysts for zinc-air batteries. <i>Carbon</i> , 2023, 203, 827-834.	5.4	4
1766	Key materials and structural design in flexible and stretchable zinc-air batteries. <i>Nano Energy</i> , 2023, 106, 108039.	8.2	10
1767	Modest modulation on the electronic structure of Co ₉ S ₈ by vanadium doping for high-performance rechargeable Znâ€air batteries. <i>Applied Catalysis B: Environmental</i> , 2023, 324, 122250.	10.8	19
1768	FeNi coordination polymer based highly efficient and durable bifunction oxygen electrocatalyst for rechargeable zinc-air battery. <i>Separation and Purification Technology</i> , 2023, 308, 122974.	3.9	10
1769	Arc-integration of graphite-coated plasmonic satellite-magnetic core nanoassembly: Efficient tailoring of nanostructure/functionality for catalysis of pollutants. <i>Applied Surface Science</i> , 2023, 612, 155852.	3.1	1
1770	Exploiting Asymmetric Co States in a Co-N-C Catalyst for an Efficient Oxygen Reduction Reaction. <i>Symmetry</i> , 2022, 14, 2496.	1.1	1
1771	A Stable Rechargeable Aqueous Znâ€Air Battery Enabled by Heterogeneous MoS ₂ Cathode Catalysts. <i>Nanomaterials</i> , 2022, 12, 4069.	1.9	2
1772	Preparation of Spiral Nitrogen-Doped Macroscopic Graphene Tube and Tuning the Activity of Oxygen Catalysis by Twisted Ferrum (Fe) Wires. <i>Metals</i> , 2022, 12, 2050.	1.0	0
1773	Effect of the carbon on the electrochemical performance of rechargeable Zn-air batteries. <i>International Journal of Hydrogen Energy</i> , 2023, 48, 5313-5322.	3.8	8
1774	Bifunctional Oxygen Electrocatalysts Derived from Metalâ€Organic Framework-Hydrolyzed Nanosheets for Rechargeable Zn-Air Batteries. <i>ACS Applied Energy Materials</i> , 2022, 5, 14799-14806.	2.5	4
1775	Designing bifunctional ZIF-67 derivatives decorated N-doped carbon nanotubes as an electrocatalyst for oxygen conversion reaction in rechargeable zinc-air battery. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2022, 141, 104598.	2.7	4

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1776	Zeolitic Imidazolate Framework Decorated Molybdenum Carbide Catalysts for Hydrodeoxygenation of Guaiacol to Phenol. <i>Catalysts</i> , 2022, 12, 1605.	1.6	3
1777	Bulk preparation of free-standing single-iron-atom catalysts directly as the air electrodes for high-performance zinc-air batteries. , 2023, 5, .		12
1778	Highly Conductive Hexaazatrinaphthylene-based Salphen Organic Frameworks with Atomically Dispersed Dual-Metal Sites for Efficient Electrochemical Oxygen Evolution. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2022, , 130799.	2.3	0
1779	Construction of three-dimensional carbon materials-based conductive bonding network in flexible supercapacitor electrodes. <i>Electrochimica Acta</i> , 2023, 440, 141751.	2.6	1
1780	POM@ZIF Derived Mixed Metal Oxide Catalysts for Sustained Electrocatalytic Oxygen Evolution. <i>Chemistry - A European Journal</i> , 2023, 29, .	1.7	3
1781	N-doped graphitic carbon encapsulating cobalt nanoparticles derived from novel metal-organic frameworks for electrocatalytic oxygen evolution reaction. <i>Chinese Chemical Letters</i> , 2023, 34, 108056.	4.8	3
1782	Co, N co-doped carbon nanosheets coupled with NiCo ₂ O ₄ as an efficient bifunctional oxygen catalyst for Zn-air batteries. <i>International Journal of Hydrogen Energy</i> , 2023, 48, 13452-13459.	3.8	5
1783	Rational design of cobalt catalysts embedded in N-Doped carbon for the alcohol dehydrogenation to carboxylic acids. <i>Molecular Catalysis</i> , 2023, 535, 112891.	1.0	4
1784	Supramolecular complex derived carbon nanotubes decorated with iron single atoms and nanoclusters as efficient bifunctional oxygen electrocatalysts for rechargeable Zn-air batteries. <i>Carbon</i> , 2023, 205, 302-309.	5.4	11
1785	A Pre-division Metal Clusters Strategy to Mediate Efficient Dual-Active Sites ORR Catalyst for Ultralong Rechargeable Zn-Air Battery. <i>Angewandte Chemie</i> , 0, , .	1.6	0
1786	A Pre-division Metal Clusters Strategy to Mediate Efficient Dual-Active Sites ORR Catalyst for Ultralong Rechargeable Zn-Air Battery. <i>Angewandte Chemie - International Edition</i> , 2023, 62, .	7.2	15
1787	Effect of temperature and presence of minor amount of metal on porous carbon materials derived from ZIF8 pyrolysis for electrocatalysis. <i>Catalysis Today</i> , 2023, 423, 113993.	2.2	2
1788	Iron-induced lattice distortion generally boots the graphene-supported nickel phosphide nanoparticles catalysis for efficient overall water splitting. <i>Electrochimica Acta</i> , 2023, 441, 141807.	2.6	4
1789	1D/3D rambutan-like Mott-Schottky porous carbon polyhedrons for efficient tri-iodide reduction and hydrogen evolution reaction. <i>Chemical Engineering Journal</i> , 2023, 458, 141301.	6.6	19
1790	Oriented attachment of carbon/cobalt-cobalt oxide nanotubes on manganese-doped carbon nanofibers for flexible symmetric supercapacitors. <i>Applied Surface Science</i> , 2023, 615, 156386.	3.1	7
1791	Highly densed BCN nanofiber core with MoS ₂ shell for enhanced hydrogen evolution reaction and supercapacitance applications. <i>Applied Surface Science</i> , 2023, 615, 156400.	3.1	13
1792	3D Sulfur and nitrogen doped carbon materials Ni-MOF electrocatalysts for oxygen evolution reaction. <i>Ionics</i> , 2023, 29, 1077-1087.	1.2	3
1793	CoS ₂ /N-doped carbon nanotubes hollow polyhedron derived from core-shell ZIF-8@ZIF-67 for efficient hydrogen evolution reaction. <i>International Journal of Hydrogen Energy</i> , 2023, 48, 9362-9370.	3.8	7

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1794	Synthesis of amorphous trimetallic PdCuNiP nanoparticles for enhanced OER. <i>Frontiers in Chemistry</i> , 2023, 11, .	1.8	2
1795	Design and Performance Enhancement of Cobalt-Encapsulated Nitrogen-Doped Carbon Nanofiber Electrocatalyst through Ionic Liquid Modification for Efficient Oxygen Reduction. <i>ACS Applied Nano Materials</i> , 2023, 6, 1975-1984.	2.4	7
1796	Protruding N-doped carbon nanotubes on elongated hexagonal Co-N-C nanoplates as bifunctional oxygen electrocatalysts for Zn-air batteries. <i>Materials Chemistry Frontiers</i> , 2023, 7, 946-954.	3.2	4
1797	Efficient bifunctional hydrogen and oxygen evolution reaction electrocatalyst based on the NU-1000/CuCo ₂ S ₄ heterojunction. <i>International Journal of Hydrogen Energy</i> , 2023, 48, 14749-14762.	3.8	10
1798	One-pot synthesis of NiFe-MOF/NiFe ₂ O ₄ hollow spheres and their application as bifunctional ORR/OER electrocatalysts in Zn-air batteries. <i>Journal of Alloys and Compounds</i> , 2023, 943, 169144.	2.8	19
1799	In-situ growth of carbon nanotubes for improving the performance of Co-N/C catalysts in proton exchange membrane fuel cell. <i>Chemical Engineering Journal</i> , 2023, 461, 142054.	6.6	9
1800	3D Hierarchical-Structured Nanoarray Electrode for Boosted and Sustained Urea Electro-Oxidation. <i>Small</i> , 2023, 19, .	5.2	11
1801	Increasing Accessible Active Site Density of Non-Precious Metal Oxygen Reduction Reaction Catalysts through Ionic Liquid Modification. <i>ACS Applied Materials & Interfaces</i> , 2023, 15, 18781-18789.	4.0	8
1802	Transfer learning aided high-throughput computational design of oxygen evolution reaction catalysts in acid conditions. <i>Journal of Energy Chemistry</i> , 2023, 80, 744-757.	7.1	7
1803	Heterostructure engineering and ultralow Pt-loaded multicomponent nanocage for efficient electrocatalytic oxygen evolution. <i>Journal of Colloid and Interface Science</i> , 2023, 639, 214-222.	5.0	3
1804	Synergies of Ru/Co nanoparticles and Co single atoms active sites toward efficient electrocatalysis of oxygen reduction reaction for Zn-Air battery. <i>Chemical Engineering Journal</i> , 2023, 463, 142184.	6.6	9
1805	Introduction of a three-dimensional flower-like Mo ₂ C ₂ X/poly (2, 2'-dithiodianiline) on reduced graphene oxide as an efficient electrode for supercapacitor and hydrogen evolution reaction. <i>Journal of Energy Storage</i> , 2023, 62, 106906.	3.9	4
1806	Hollow-structured molecularly imprinted polymers enabled specific enrichment and highly sensitive determination of aflatoxin B1 and sterigmatocystin against complex sample matrix. <i>Journal of Hazardous Materials</i> , 2023, 451, 131127.	6.5	4
1807	Understanding the potential-induced activation of a cobalt MOF electrocatalyst for the oxygen evolution reaction. <i>Applied Surface Science</i> , 2023, 623, 157001.	3.1	3
1808	Nanostructured NiFe (oxy)hydroxide fabricated on nickel foams by laser-induced water plasma for enhanced alkaline oxygen evolution reaction. <i>Applied Surface Science</i> , 2023, 622, 156934.	3.1	4
1809	Electrocatalytic transformation of oxygen to hydroxyl radicals via three-electron pathway using nitrogen-doped carbon nanotube-encapsulated nickel nanocatalysts for effective organic decontamination. <i>Journal of Hazardous Materials</i> , 2023, 452, 131352.	6.5	10
1810	CoNi nanocrystal anchoring on MOF derived carbon skeleton autocatalytic growth N-doped carbon nanotubes for efficient bifunctional electrocatalyst towards methanol oxidation/oxygen reduction. <i>Journal of Alloys and Compounds</i> , 2023, 952, 170079.	2.8	3
1811	In Situ X-ray Absorption Spectroscopy of Metal/Nitrogen-doped Carbons in Oxygen Electrocatalysis. <i>Angewandte Chemie</i> , 2023, 135, .	1.6	2

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1812	Structure defects engineering in Prussian blue cathode materials for high-performance sodium-ion batteries. <i>Journal of Alloys and Compounds</i> , 2023, 950, 169903.	2.8	7
1814	Application of metal-organic frameworks, covalent organic frameworks and their derivatives for the metal-air batteries. , 2023, 2, e9120052.		30
1815	Carbon-Conjugated Co Complexes as Model Electrocatalysts for Oxygen Reduction Reaction. <i>Catalysts</i> , 2023, 13, 330.	1.6	1
1816	Oxidization-induced structural optimization of Ni ₃ Fe-N-C derived from 3D covalent organic framework for high-efficiency and durable oxygen evolution reaction. <i>Nano Research</i> , 2023, 16, 6710-6720.	5.8	3
1817	Nanostructure Engineering and Electronic Modulation of a PtNi Alloy Catalyst for Enhanced Oxygen Reduction Electrocatalysis in Zinc-Air Batteries. <i>Journal of Physical Chemistry Letters</i> , 2023, 14, 1740-1747.	2.1	11
1818	Unveiling Hidden Zeolitic Imidazolate Frameworks Guided by Intuition-Based Geometrical Factors. <i>Small</i> , 2023, 19, .	5.2	0
1819	Post-synthetic Chemical Fixation of Fe ²⁺ in MOF to Prepare Fe ₂ -Embedded N-Doped Graphene Nanoribbons for Superior Oxygen Reduction Reaction. <i>Chemistry - an Asian Journal</i> , 2023, 18, .	1.7	1
1820	MOF-Derived CoNi Nanoalloy Particles Encapsulated in Nitrogen-Doped Carbon as Superdurable Bifunctional Oxygen Electrocatalyst. <i>Nanomaterials</i> , 2023, 13, 715.	1.9	2
1821	Ni-Co Alloy Nanoparticles Catalyze Selective Electrochemical Coupling of Nitroarenes into Azoxybenzene Compounds in Aqueous Electrolyte. <i>ACS Nano</i> , 2023, 17, 3984-3995.	7.3	11
1822	In Situ X-ray Absorption Spectroscopy of Metal/Nitrogen-doped Carbons in Oxygen Electrocatalysis. <i>Angewandte Chemie - International Edition</i> , 2023, 62, .	7.2	10
1824	MOF-Based Co and Mn Embedded in Nitrogen-Doped Microporous Carbon as an Efficient Catalyst for Oxygen Reduction Reaction in Anion Exchange Membrane Fuel Cell. <i>International Journal of Energy Research</i> , 2023, 2023, 1-14.	2.2	0
1825	Formation of hierarchically 3D cactus-like architecture as efficient Mott-Schottky electrocatalyst for long-life Li-S batteries. <i>Nano Research</i> , 2023, 16, 9318-9326.	5.8	8
1826	Boost the Utilization of Dense FeN ₄ Sites for High-Performance Proton Exchange Membrane Fuel Cells. <i>Energy and Environmental Materials</i> , 0, .	7.3	3
1827	In-situ Ni-oxidation-assisted coupling reduction of NiO and CO ₂ to synthesize core-shell Ni@octahedral carbon with energy storage properties. <i>Chemical Engineering Journal</i> , 2023, 462, 142268.	6.6	4
1828	Crystal Engineering Enables Cobalt-Based Metal-Organic Frameworks as High-Performance Electrocatalysts for H ₂ O ₂ Production. <i>Journal of the American Chemical Society</i> , 2023, 145, 7791-7799.	6.6	44
1829	Nanostructured Conducting Polymers and Their Applications in Energy Storage Devices. <i>Polymers</i> , 2023, 15, 1450.	2.0	12
1830	Interface engineering of CeO ₂ nanoparticle/Bi ₂ WO ₆ nanosheet nanohybrids with oxygen vacancies for oxygen evolution reactions under alkaline conditions. <i>RSC Advances</i> , 2023, 13, 8873-8881.	1.7	0
1831	Microenvironment regulation of M-N-C single-atom catalysts towards oxygen reduction reaction. <i>Nano Research</i> , 2023, 16, 4468-4487.	5.8	19

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1832	Hierarchical Structure Carbon-Coated CoNi Nanocatalysts Derived from Flower-Like Bimetal MOFs: Enhancing the Hydrogen Storage Performance of MgH ₂ under Mild Conditions. ACS Sustainable Chemistry and Engineering, 2023, 11, 4825-4837.	3.2	11
1833	Optimizing dâ€Orbital Electronic Configuration via Metalâ€Metal Oxide Coreâ€Shell Charge Donation for Boosting Reversible Oxygen Electrocatalysis. Small, 2023, 19, .	5.2	13
1834	Electrocatalytic Water Oxidation by Hydrolytically Stable Metalâ€Organic Frameworks at Both Neutral and Alkaline Medium: Inverse Relation of Dimensionality with Catalytic Activity. ChemCatChem, 2023, 15, .	1.8	1
1835	Nanoengineered Zn-modified Nickel Sulfide (NiS) as a bifunctional electrocatalyst for overall water splitting. International Journal of Hydrogen Energy, 2023, 48, 21969-21980.	3.8	6
1836	Carbon Nanotubeâ€Reinforced Dual Carbon Stressâ€Buffering for Highly Stable Silicon Anode Material in Lithiumâ€Ion Battery. Small, 2023, 19, .	5.2	14
1837	Exploration and Insight of Dynamic Structure Evolution for Electrocatalysts. Accounts of Materials Research, 2023, 4, 427-437.	5.9	6
1839	Nitrogen doped and carbon coated CoP hollow nanospheres with enhanced electrocatalytic activity towards the oxygen evolution reaction. New Journal of Chemistry, 2023, 47, 9316-9322.	1.4	2
1840	Electrocatalytic Synthesis of Essential Amino Acids from Nitric Oxide Using Atomically Dispersed Fe on Nâ€doped Carbon. Angewandte Chemie - International Edition, 2023, 62, .	7.2	34
1841	Electrocatalytic Synthesis of Essential Amino Acids from Nitric Oxide Using Atomically Dispersed Fe on Nâ€doped Carbon. Angewandte Chemie, 2023, 135, .	1.6	1
1842	A feather-like interlayer design with highly exposed active sites for high-performance lithium-sulfur batteries. Electrochimica Acta, 2023, 456, 142452.	2.6	3
1855	Tuning the functionality of metalâ€organic frameworks (MOFs) for fuel cells and hydrogen storage applications. Journal of Materials Science, 2023, 58, 8637-8677.	1.7	3
1892	é«~æ^âšâ”çç³âÿâ, -â€-â%o,çš,,ç”ç©¶è;â±+âšâ...¶âœ”é”Çç©æ”ç”µæ±â,â”ç””. Science China Materials, 2023, 66, 3381-3400.		
1894	Sustainable zincâ€air battery chemistry: advances, challenges and prospects. Chemical Society Reviews, 2023, 52, 6139-6190.	18.7	24
1961	Recent development in metal-organic frameworks and their derivatives for electrocatalysis and fuel cells. , 2024, , 187-220.		0
1962	Metal-organic framework-derived metal compound materials. , 2024, , 85-107.		0