

# Oxygen electrocatalysts in metal–air batteries: from a

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Citation Report

#	ARTICLE	IF	CITATIONS
2	Inorganic & organic materials for rechargeable Li batteries with multi-electron reaction. <i>Science China Materials</i> , 2014, 57, 42-58.	3.5	78
3	The double perovskite oxide Sr <sub>2</sub> CrMoO <sub>6</sub> as an efficient electrocatalyst for rechargeable lithium air batteries. <i>Chemical Communications</i> , 2014, 50, 14855-14858.	2.2	38
4	Carbonized Nanoscale Metal-Organic Frameworks as High Performance Electrocatalyst for Oxygen Reduction Reaction. <i>ACS Nano</i> , 2014, 8, 12660-12668.	7.3	509
5	The role of LiO <sub>2</sub> solubility in O <sub>2</sub> reduction in aprotic solvents and its consequences for Li-O <sub>2</sub> batteries. <i>Nature Chemistry</i> , 2014, 6, 1091-1099.	6.6	942
6	Exploring zinc coordination in novel zinc battery electrolytes. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 10816.	1.3	27
7	Energy-saving and environmentally friendly electrodeposition of MnO <sub>2</sub> . <i>RSC Advances</i> , 2014, 4, 16512-16516.	1.7	20
8	A hierarchical Ni-Co-O@Ni-Co-S nanoarray as an advanced oxygen evolution reaction electrode. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 20402-20405.	1.3	54
9	Carbon embedded MnO <sub>2</sub> @graphene nanosheet composite: a bifunctional catalyst for high performance lithium oxygen batteries. <i>Journal of Materials Chemistry A</i> , 2014, 2, 18736-18741.	5.2	44
10	Nickel cobalt oxide/carbon nanotubes hybrid as a high-performance electrocatalyst for metal/air battery. <i>Nanoscale</i> , 2014, 6, 10235-10242.	2.8	112
11	A comparative study of nanostructured MnO <sub>2</sub> and MnO <sub>2</sub> for lithium oxygen battery application. <i>RSC Advances</i> , 2014, 4, 8973.	1.7	44
12	Advances and challenges for flexible energy storage and conversion devices and systems. <i>Energy and Environmental Science</i> , 2014, 7, 2101.	15.6	767
13	Zinc-Air Battery: Understanding the Structure and Morphology Changes of Graphene-Supported CoMn <sub>2</sub> O <sub>4</sub> Bifunctional Catalysts Under Practical Rechargeable Conditions. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 16545-16555.	4.0	132
14	An efficient bifunctional catalyst of Fe/Fe <sub>3</sub> C carbon nanofibers for rechargeable Li-O <sub>2</sub> batteries. <i>Journal of Materials Chemistry A</i> , 2014, 2, 10634.	5.2	76
15	Li-O <sub>2</sub> Battery Based on Highly Efficient Sb-Doped Tin Oxide Supported Ru Nanoparticles. <i>Advanced Materials</i> , 2014, 26, 4659-4664.	11.1	133
16	Novel approach for a high-energy-density Li-air battery: tri-dimensional growth of Li <sub>2</sub> O <sub>2</sub> crystals tailored by electrolyte Li <sup>+</sup> ion concentrations. <i>Journal of Materials Chemistry A</i> , 2014, 2, 9020.	5.2	41
17	Key scientific challenges in current rechargeable non-aqueous Li-O <sub>2</sub> batteries: experiment and theory. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 12093.	1.3	120
18	Edge-iodine/sulfonic acid-functionalized graphene nanoplatelets as efficient electrocatalysts for oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , 2014, 2, 8690-8695.	5.2	45
19	Aqueous Rechargeable Li and Na Ion Batteries. <i>Chemical Reviews</i> , 2014, 114, 11788-11827.	23.0	1,183

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20	Recent advances in zinc-air batteries. <i>Chemical Society Reviews</i> , 2014, 43, 5257-5275.	18.7	1,882
21	A Carbon- and Binder-Free Nanostructured Cathode for High-Performance Nonaqueous Li-O <sub>2</sub> Battery. <i>Advanced Science</i> , 2015, 2, 1500092.	5.6	76
23	Flexible and Foldable Li-O <sub>2</sub> Battery Based on Paper-Ink Cathode. <i>Advanced Materials</i> , 2015, 27, 8095-8101.	11.1	117
25	Flexible, Stretchable, and Rechargeable Fiber-Shaped Zinc-Air Battery Based on Cross-Stacked Carbon Nanotube Sheets. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 15390-15394.	7.2	291
26	High-Rate Oxygen Evolution Reaction on Al-Doped LiNiO <sub>2</sub> . <i>Advanced Materials</i> , 2015, 27, 6063-6067.	11.1	74
27	Investigation on the Cyclability of Lithium-Oxygen Cells in a Confined Potential Window using Cathodes with Pre-filled Discharge Products. <i>Chemistry - an Asian Journal</i> , 2015, 10, 2182-2189.	1.7	10
28	Recent Progress on Stability Enhancement for Cathode in Rechargeable Non-Aqueous Lithium-Oxygen Battery. <i>Advanced Energy Materials</i> , 2015, 5, 1500633.	10.2	128
29	Carbon Nanofibers as Advanced Pd Catalyst Supports for the Air Electrode of Alkaline Metal-Air Batteries. <i>ChemPlusChem</i> , 2015, 80, 1384-1388.	1.3	20
30	An Organic Catalyst for Li-O <sub>2</sub> Batteries: Dilithium Quinone-1,4-Dicarboxylate. <i>ChemSusChem</i> , 2015, 8, 2198-2203.	3.6	13
31	Synthesis, Spectroscopic Characterization, Crystal Structures, Energetics, and Thermal Stabilities of Li[AlX <sub>4</sub> ] (X = Cl, Br): Investigation and Performance of Their Electrolyte Solutions. <i>European Journal of Inorganic Chemistry</i> , 2015, 2015, 3128-3138.	1.0	5
32	Chitosan Waste-Derived Co and N Co-doped Carbon Electrocatalyst for Efficient Oxygen Reduction Reaction. <i>ChemElectroChem</i> , 2015, 2, 1806-1812.	1.7	49
33	Diameter-Controlled Synthesis and Capacitive Performance of Mesoporous Dual-Layer MnO <sub>2</sub> Nanotubes. <i>ChemNanoMat</i> , 2015, 1, 159-166.	1.5	11
34	Synergistically enhanced oxygen reduction activity of MnO <sub>x</sub> -CeO <sub>2</sub> /Ketjenblack composites. <i>Chemical Communications</i> , 2015, 51, 10123-10126.	2.2	69
35	A review of cathode materials and structures for rechargeable lithium-air batteries. <i>Energy and Environmental Science</i> , 2015, 8, 2144-2198.	15.6	415
36	A high-capacity Li-ion/Li-oxygen hybrid cathode. <i>Journal of Materials Chemistry A</i> , 2015, 3, 13628-13631.	5.2	6
37	Rechargeable Zn-air batteries: Progress in electrolyte development and cell configuration advancement. <i>Journal of Power Sources</i> , 2015, 283, 358-371.	4.0	248
38	FeS <sub>2</sub> microspheres with an ether-based electrolyte for high-performance rechargeable lithium batteries. <i>Journal of Materials Chemistry A</i> , 2015, 3, 12898-12904.	5.2	111
39	Mg <sub>2</sub> Al <sub>3</sub> , a complex and disordered intermetallic compound as anode material for metal-air batteries. <i>Journal of Solid State Electrochemistry</i> , 2015, 19, 685-695.	1.2	11

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40	An Efficient Bi-functional Electrocatalyst Based on Strongly Coupled CoFe <sub>2</sub> O <sub>4</sub> /Carbon Nanotubes Hybrid for Oxygen Reduction and Oxygen Evolution. <i>Electrochimica Acta</i> , 2015, 177, 65-72.	2.6	92
41	The improved electrochemical performance of cross-linked 3D graphene nanoribbon monolith electrodes. <i>Nanoscale</i> , 2015, 7, 6504-6509.	2.8	29
42	Honeycomb-like NiMoO <sub>4</sub> ultrathin nanosheet arrays for high-performance electrochemical energy storage. <i>Journal of Materials Chemistry A</i> , 2015, 3, 6128-6135.	5.2	203
43	The anion effect on the oxygen reduction of MnX (X = O, S, and Se) catalysts. <i>Journal of Materials Chemistry A</i> , 2015, 3, 3425-3431.	5.2	34
44	Probing LaMO <sub>3</sub> Metal and Oxygen Partial Density of States Using X-ray Emission, Absorption, and Photoelectron Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2015, 119, 2063-2072.	1.5	56
45	Increasing the reversibility of Li-O <sub>2</sub> batteries with caterpillar structured MnO <sub>2</sub> /GNF bifunctional electrocatalysts. <i>Electrochimica Acta</i> , 2015, 157, 299-306.	2.6	23
46	Î <sup>2</sup> -FeOOH decorated highly porous carbon aerogels composite as a cathode material for rechargeable Li-O <sub>2</sub> batteries. <i>Journal of Materials Chemistry A</i> , 2015, 3, 6447-6454.	5.2	16
47	Open mesoporous spherical shell structured Co <sub>3</sub> O <sub>4</sub> with highly efficient catalytic performance in Li-O <sub>2</sub> batteries. <i>Journal of Materials Chemistry A</i> , 2015, 3, 7600-7606.	5.2	36
48	Fabrication of ultrathin CoMoO <sub>4</sub> nanosheets modified with chitosan and their improved performance in energy storage device. <i>Dalton Transactions</i> , 2015, 44, 6158-6168.	1.6	129
49	Porous perovskite calcium manganese oxide microspheres as an efficient catalyst for rechargeable sodium-oxygen batteries. <i>Journal of Materials Chemistry A</i> , 2015, 3, 3320-3324.	5.2	86
50	SnO <sub>2</sub> nanocrystal-decorated mesoporous ZSM-5 as a precious metal-free electrode catalyst for methanol oxidation. <i>Energy and Environmental Science</i> , 2015, 8, 1261-1266.	15.6	50
51	Perovskite-Nitrogen Doped Carbon Nanotube Composite as Bifunctional Catalysts for Rechargeable Lithium-Air Batteries. <i>ChemSusChem</i> , 2015, 8, 1058-1065.	3.6	92
52	Chemical etching of manganese oxides for electrocatalytic oxygen reduction reaction. <i>Chemical Communications</i> , 2015, 51, 11599-11602.	2.2	71
53	Hierarchical mesoporous/macroporous Co <sub>3</sub> O <sub>4</sub> ultrathin nanosheets as free-standing catalysts for rechargeable lithium-oxygen batteries. <i>Journal of Materials Chemistry A</i> , 2015, 3, 17620-17626.	5.2	54
54	SrCo <sub>0.9</sub> Ti <sub>0.1</sub> O <sub>3</sub> As a New Electrocatalyst for the Oxygen Evolution Reaction in Alkaline Electrolyte with Stable Performance. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 17663-17670.	4.0	125
55	Oxygen Redox Catalyst for Rechargeable Lithium-Air Battery. <i>Green Energy and Technology</i> , 2015, , 541-557.	0.4	0
56	Toward a Sodium-Air Battery: Revealing the Critical Role of Humidity. <i>Journal of Physical Chemistry C</i> , 2015, 119, 13433-13441.	1.5	66
57	The role of oxygen vacancies in improving the performance of CoO as a bifunctional cathode catalyst for rechargeable Li-O <sub>2</sub> batteries. <i>Journal of Materials Chemistry A</i> , 2015, 3, 17598-17605.	5.2	155

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58	Investigation of the activity and stability of Pd-based catalysts towards the oxygen reduction (ORR) and evolution reactions (OER) in iron-air batteries. RSC Advances, 2015, 5, 25424-25427.	1.7	39
59	MWNT-supported bifunctional catalyst of $\text{Fe}^{2+}$ -FeOOH nanospindles for enhanced rechargeable Li-O <sub>2</sub> batteries. Journal of Alloys and Compounds, 2015, 639, 428-434.	2.8	4
60	Facile in Situ Preparation of Graphitic-C <sub>3</sub> N <sub>4</sub> @carbon Paper As an Efficient Metal-Free Cathode for Nonaqueous Li-O <sub>2</sub> Battery. ACS Applied Materials & Interfaces, 2015, 7, 10823-10827.	4.0	75
61	Hierarchical porous NiCo <sub>2</sub> O <sub>4</sub> @Ni as carbon-free electrodes for Lithium-air oxygen batteries. Electrochimica Acta, 2015, 168, 292-299.	2.6	26
62	An atomic-level strategy for the design of a low overpotential catalyst for Li-O <sub>2</sub> batteries. Nano Energy, 2015, 13, 679-686.	8.2	68
63	TiO <sub>2</sub> embedded in carbon submicron-tablets: synthesis from a metal-organic framework precursor and application as a superior anode in lithium-ion batteries. Chemical Communications, 2015, 51, 11370-11373.	2.2	64
64	DMSO-Li <sub>2</sub> O <sub>2</sub> Interface in the Rechargeable Li-O <sub>2</sub> Battery Cathode: Theoretical and Experimental Perspectives on Stability. ACS Applied Materials & Interfaces, 2015, 7, 11402-11411.	4.0	66
65	Trinary Layered Double Hydroxides as High-Performance Bifunctional Materials for Oxygen Electrocatalysis. Advanced Energy Materials, 2015, 5, 1500245.	10.2	328
66	Protocol for High-Sensitivity Surface Area Measurements of Nanostructured Films Enabled by Atomic Layer Deposition of TiO <sub>2</sub> . Journal of Physical Chemistry C, 2015, 119, 26119-26127.	1.5	8
67	Recent advances in surface and interface engineering for electrocatalysis. Chinese Journal of Catalysis, 2015, 36, 1476-1493.	6.9	48
68	A high-rate and long cycle life solid-state lithium-air battery. Energy and Environmental Science, 2015, 8, 3745-3754.	15.6	129
69	Electrodeposition of Pluronic F127 assisted rod-like EMD/carbon arrays for efficient energy storage. Dalton Transactions, 2015, 44, 16446-16457.	1.6	9
70	A chemistry and material perspective on lithium redox flow batteries towards high-density electrical energy storage. Chemical Society Reviews, 2015, 44, 7968-7996.	18.7	388
71	A bi-functional metal-free catalyst composed of dual-doped graphene and mesoporous carbon for rechargeable lithium-air oxygen batteries. Journal of Materials Chemistry A, 2015, 3, 18456-18465.	5.2	81
72	Highly active Co-doped LaMnO <sub>3</sub> perovskite oxide and N-doped carbon nanotube hybrid bi-functional catalyst for rechargeable zinc-air batteries. Electrochemistry Communications, 2015, 60, 38-41.	2.3	86
73	Highly Active and Durable Nanocrystal-Decorated Bifunctional Electrocatalyst for Rechargeable Zinc-Air Batteries. ChemSusChem, 2015, 8, 3129-3138.	3.6	57
74	Critical advances for the iron molten air battery: a new lowest temperature, rechargeable, ternary electrolyte domain. Journal of Materials Chemistry A, 2015, 3, 21039-21043.	5.2	15
75	Bi-layer lithium phosphorous oxynitride/aluminium substituted lithium lanthanum titanate as a promising solid electrolyte for long-life rechargeable lithium-air oxygen batteries. Journal of Materials Chemistry A, 2015, 3, 22421-22431.	5.2	36

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76	Composition-controlled synthesis of $\text{Li}_x\text{Co}_{3-x}\text{O}_4$ solid solution nanocrystals on carbon and their impact on electrocatalytic activity toward oxygen reduction reaction. <i>RSC Advances</i> , 2015, 5, 90785-90796.	1.7	19
77	Surface modification of $\text{MnCo}_2\text{O}_4$ with conducting polypyrrole as a highly active bifunctional electrocatalyst for oxygen reduction and oxygen evolution reaction. <i>Electrochimica Acta</i> , 2015, 180, 788-794.	2.6	77
78	Hydrothermal Synthesis of Boron and Nitrogen Codoped Hollow Graphene Microspheres with Enhanced Electrocatalytic Activity for Oxygen Reduction Reaction. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 19398-19407.	4.0	83
79	Recent developments in materials for aluminum-air batteries: A review. <i>Journal of Industrial and Engineering Chemistry</i> , 2015, 32, 1-20.	2.9	224
80	Carbon nanotube-supported $\text{Cu}_3\text{N}$ nanocrystals as a highly active catalyst for oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , 2015, 3, 18983-18990.	5.2	52
81	Functionalizing Titanium Disilicide Nanonets with Cobalt Oxide and Palladium for Stable Li Oxygen Battery Operations. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 21948-21955.	4.0	34
82	Template-directed fabrication of porous gas diffusion layer for magnesium air batteries. <i>Journal of Power Sources</i> , 2015, 297, 202-207.	4.0	22
83	Covalency-reinforced oxygen evolution reaction catalyst. <i>Nature Communications</i> , 2015, 6, 8249.	5.8	393
84	A low-cost cementite ( $\text{Fe}_3\text{C}$ ) nanocrystal@N-doped graphitic carbon electrocatalyst for efficient oxygen reduction. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 27527-27533.	1.3	22
85	Another Way of Looking at Reactivity Enhancement in Large-Area Graphene: The Role of Exchange Splitting from First-Principles Methods. <i>Journal of Physical Chemistry C</i> , 2015, 119, 26636-26642.	1.5	1
86	Nanostructured porous $\text{RuO}_2/\text{MnO}_2$ as a highly efficient catalyst for high-rate $\text{Li}-\text{O}_2$ batteries. <i>Nanoscale</i> , 2015, 7, 20614-20624.	2.8	42
87	N-doped porous carbon derived from biomass as an advanced electrocatalyst for aqueous aluminium/air battery. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 16230-16237.	3.8	49
88	Porous nanoarchitectures of spinel-type transition metal oxides for electrochemical energy storage systems. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 30963-30977.	1.3	142
89	Synergistic Bifunctional Catalyst Design based on Perovskite Oxide Nanoparticles and Intertwined Carbon Nanotubes for Rechargeable Zinc-Air Battery Applications. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 902-910.	4.0	176
90	Sea Urchin Shaped $\text{Fe}-\text{MnO}_2/\text{RuO}_2$ Mixed Oxides Nanostructure as Promising Electrocatalyst for Lithium-Air Oxygen Battery. <i>Journal of the Electrochemical Society</i> , 2015, 162, A300-A307.	1.3	32
91	Lithium-Air Batteries: Performance Interplays with Instability Factors. <i>ChemElectroChem</i> , 2015, 2, 312-323.	1.7	30
92	Low Surface Energy Plane Exposed $\text{Co}_3\text{O}_4$ Nanocubes Supported on Nitrogen-Doped Graphene as an Electrocatalyst for Efficient Water Oxidation. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 442-451.	4.0	108
93	Nanostructured Mn-based oxides for electrochemical energy storage and conversion. <i>Chemical Society Reviews</i> , 2015, 44, 699-728.	18.7	740

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95	Electrocatalytic Activity of Co-based Perovskite Oxides for Oxygen Reduction and Evolution Reactions. <i>International Journal of Electrochemical Science</i> , 2016, 11, 5900-5908.	0.5	17
96	Investigation of MnO <sub>2</sub> and Ordered Mesoporous Carbon Composites as Electrocatalysts for Li-O <sub>2</sub> Battery Applications. <i>Nanomaterials</i> , 2016, 6, 21.	1.9	17
97	Lithium-air battery cathode modification via an unconventional thermal method employing borax. <i>RSC Advances</i> , 2016, 6, 66307-66310.	1.7	1
98	Measuring the oxygen content of a single oil droplet. <i>Chemical Science</i> , 2016, 7, 6458-6462.	3.7	16
99	Nanofibrous Co <sub>3</sub> O <sub>4</sub> /PPy Hybrid with Synergistic Effect as Bifunctional Catalyst for Lithium-Oxygen Batteries. <i>Advanced Materials Interfaces</i> , 2016, 3, 1600030.	1.9	33
100	Effect of Chemical Doping on Cathodic Performance of Bicontinuous Nanoporous Graphene for Li-O <sub>2</sub> Batteries. <i>Advanced Energy Materials</i> , 2016, 6, 1501870.	10.2	132
101	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
102	Advances in Hybrid Electrocatalysts for Oxygen Evolution Reactions: Rational Integration of NiFe Layered Double Hydroxides and Nanocarbon. <i>Particle and Particle Systems Characterization</i> , 2016, 33, 473-486.	1.2	106
103	Layer-by-layer assembly of exfoliated layered double hydroxide nanosheets for enhanced electrochemical oxidation of water. <i>Journal of Materials Chemistry A</i> , 2016, 4, 11516-11523.	5.2	104
104	Cable-Type Water-Survivable Flexible Li-O <sub>2</sub> Battery. <i>Small</i> , 2016, 12, 3101-3105.	5.2	102
105	Sodium-Oxygen Batteries: A Comparative Review from Chemical and Electrochemical Fundamentals to Future Perspective. <i>Advanced Materials</i> , 2016, 28, 7065-7093.	11.1	198
106	Superaerophilic Carbon-Nanotube Array Electrode for High-Performance Oxygen Reduction Reaction. <i>Advanced Materials</i> , 2016, 28, 7155-7161.	11.1	231
107	Self-Assembled 3D Foam-Like NiCo <sub>2</sub> O <sub>4</sub> as Efficient Catalyst for Lithium Oxygen Batteries. <i>Small</i> , 2016, 12, 602-611.	5.2	97
108	Cobalt nanoparticle-embedded carbon nanotube/porous carbon hybrid derived from MOF-encapsulated Co <sub>3</sub> O <sub>4</sub> for oxygen electrocatalysis. <i>Chemical Communications</i> , 2016, 52, 9727-9730.	2.2	291
109	Warum Lithium-Sauerstoff-Batterien versagen: Parasitäre chemische Reaktionen und ihr synergistischer Effekt. <i>Angewandte Chemie</i> , 2016, 128, 11514-11524.	1.6	22
110	First-principles calculations of the OH <sup>•</sup> adsorption energy on perovskite oxide. <i>AIP Conference Proceedings</i> , 2016, , .	0.3	6
111	Rechargeable Metal-Air Proton-Exchange Membrane Batteries for Renewable Energy Storage. <i>ChemElectroChem</i> , 2016, 3, 247-255.	1.7	15
112	Recent progress and perspectives on bi-functional oxygen electrocatalysts for advanced rechargeable metal-air batteries. <i>Journal of Materials Chemistry A</i> , 2016, 4, 7107-7134.	5.2	408

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113	N-, P- and Fe-tridoped nanoporous carbon derived from plant biomass: an excellent oxygen reduction electrocatalyst for zinc-air batteries. <i>Journal of Materials Chemistry A</i> , 2016, 4, 8602-8609.	5.2	112
114	Transition Metal Nitrides for Electrocatalytic Energy Conversion: Opportunities and Challenges. <i>Chemistry - A European Journal</i> , 2016, 22, 3588-3598.	1.7	305
115	Efficiency and long-term durability of a nitrogen-doped single-walled carbon nanotube electrocatalyst synthesized by defluorination-assisted nanotube-substitution for oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , 2016, 4, 9184-9195.	5.2	21
116	Nitrogen-doped carbonaceous catalysts for gas-diffusion cathodes for alkaline aluminum-air batteries. <i>Journal of Power Sources</i> , 2016, 306, 329-336.	4.0	24
117	Improving the Performance of Lithium-Sulfur Batteries by Employing Polyimide Particles as Hosting Matrixes. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 7464-7470.	4.0	52
118	Sodium chloride-assisted green synthesis of a 3D Fe-N-C hybrid as a highly active electrocatalyst for the oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , 2016, 4, 7781-7787.	5.2	88
119	Ruthenium oxide coated ordered mesoporous carbon nanofiber arrays: a highly bifunctional oxygen electrocatalyst for rechargeable Zn-air batteries. <i>Journal of Materials Chemistry A</i> , 2016, 4, 6282-6289.	5.2	63
120	Pt and Pd catalyzed oxidation of $\text{Li}_2\text{O}$ and DMSO during $\text{Li-O}_2$ battery charging. <i>Chemical Communications</i> , 2016, 52, 6605-6608.	2.2	45
121	Hierarchical porous N-doped graphene foams with superior oxygen reduction reactivity for polymer electrolyte membrane fuel cells. <i>Applied Energy</i> , 2016, 175, 459-467.	5.1	51
122	Scalable synthesis and excellent catalytic effect of hydrangea-like $\text{RuO}_2$ mesoporous materials for lithium- $\text{O}_2$ batteries. <i>Energy Storage Materials</i> , 2016, 2, 8-13.	9.5	40
123	Hierarchical iron nickel oxide architectures derived from metal-organic frameworks as efficient electrocatalysts for oxygen evolution reaction. <i>Electrochimica Acta</i> , 2016, 208, 17-24.	2.6	86
124	$\text{NiCo}_2\text{O}_4@ \text{La}_{0.8}\text{Sr}_{0.2}\text{MnO}_3$ core-shell structured nanorods as efficient electrocatalyst for $\text{Li-O}_2$ battery with enhanced performances. <i>Journal of Power Sources</i> , 2016, 319, 19-26.	4.0	43
125	Bulk Production of Nonprecious Metal Catalysts from Cheap Starch as Precursor and Their Excellent Electrochemical Activity. <i>ACS Sustainable Chemistry and Engineering</i> , 2016, 4, 3235-3244.	3.2	22
126	Progress in development of flexible metal-air batteries. <i>Functional Materials Letters</i> , 2016, 09, 1630001.	0.7	41
127	Measurement of a new parameter representing the gas transport properties of the catalyst layers of polymer electrolyte fuel cells. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 13066-13073.	1.3	8
128	Synergistically enhanced activity of graphene quantum dots/graphene hydrogel composites: a novel all-carbon hybrid electrocatalyst for metal/air batteries. <i>Nanoscale</i> , 2016, 8, 11398-11402.	2.8	59
129	Nanosized $\text{CoWO}_4$ and $\text{NiWO}_4$ as efficient oxygen-evolving electrocatalysts. <i>Electrochimica Acta</i> , 2016, 209, 75-84.	2.6	70
130	An urchin-like $\text{Ni}_3\text{ZnC}_{0.7}$ -carbon nanotube-porous carbon composite derived from metal-organic gel as a cathode material for rechargeable $\text{Li-O}_2$ batteries. <i>RSC Advances</i> , 2016, 6, 45612-45616.	1.7	8



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131	Versatile nanoporous bimetallic phosphides towards electrochemical water splitting. <i>Energy and Environmental Science</i> , 2016, 9, 2257-2261.	15.6	535
132	Platinum Iron Intermetallic Nanoparticles Supported on Carbon Formed In Situ by High-Pressure Pyrolysis for Efficient Oxygen Reduction. <i>ChemCatChem</i> , 2016, 8, 3131-3136.	1.8	4
133	Exploration of LiO <sub>2</sub> by the method of electrochemical quartz crystal microbalance in TEGDME based Li-O <sub>2</sub> battery. <i>Journal of Power Sources</i> , 2016, 329, 525-529.	4.0	18
134	Cobalt nanoparticles encapsulated in N-doped graphene nanoshells as an efficient cathode electrocatalyst for a mechanical rechargeable zinc-air battery. <i>RSC Advances</i> , 2016, 6, 90069-90075.	1.7	22
135	Novel Hydrogel-Derived Bifunctional Oxygen Electrocatalyst for Rechargeable Air Cathodes. <i>Nano Letters</i> , 2016, 16, 6516-6522.	4.5	241
136	Kohlenstoffbasierte Metallfreie Katalysatoren für die Elektrokatalyse jenseits der ORR. <i>Angewandte Chemie</i> , 2016, 128, 11910-11933.	1.6	58
137	A critical review of macroscopic modeling studies on Li-O <sub>2</sub> and Li-air batteries using organic electrolyte: Challenges and opportunities. <i>Journal of Power Sources</i> , 2016, 332, 420-446.	4.0	60
138	Insights into the Catalytic Activity of Barium Carbonate for Oxygen Reduction Reaction. <i>Journal of Physical Chemistry C</i> , 2016, 120, 22895-22902.	1.5	15
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398	3D-ordered porous nitrogen and sulfur Co-Doped carbon supported PdCuW nanoparticles as efficient catalytic cathode materials for Li-O <sub>2</sub> batteries. <i>Electrochimica Acta</i> , 2018, 272, 33-43.	2.6	9
399	Co <sub>3</sub> O <sub>4</sub> Nanosheets as Active Material for Hybrid Zn Batteries. <i>Small</i> , 2018, 14, e1800225.	5.2	131
400	Facile One-Pot Synthesis of CoFe Alloy Nanoparticles Decorated N-Doped Carbon for High-Performance Rechargeable Zinc-Air Battery Stacks. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 7743-7751.	3.2	41
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403	Recent Advances in Carbon-Based Bifunctional Oxygen Electrocatalysts for Zn-Air Batteries. <i>ChemElectroChem</i> , 2018, 5, 1424-1434.	1.7	129
404	Nitrogen, Fluorine, and Boron Ternary Doped Carbon Fibers as Cathode Electrocatalysts for Zinc-Air Batteries. <i>Small</i> , 2018, 14, e1800737.	5.2	159
405	Controllable Synthesis of [111] Faceted InN Nanopyramids on ZnO for Photoelectrochemical Water Splitting. <i>Small</i> , 2018, 14, e1703623.	5.2	16
406	Hierarchically porous Mo-doped Ni-Fe oxide nanowires efficiently catalyzing oxygen/hydrogen evolution reactions. <i>Journal of Materials Chemistry A</i> , 2018, 6, 8430-8440.	5.2	65
407	Conducting Polymers in the Fields of Energy, Environmental Remediation, and Chemical-Chiral Sensors. <i>Chemical Reviews</i> , 2018, 118, 4731-4816.	23.0	357
408	Enhancement of Oxygen Transfer by Design Nickel Foam Electrode for Zinc-Air Battery. <i>Journal of the Electrochemical Society</i> , 2018, 165, A809-A818.	1.3	41
409	Cathodically Stable Li-O <sub>2</sub> Battery Operations Using Water-in-Salt Electrolyte. <i>Chem</i> , 2018, 4, 1345-1358.	5.8	69
410	Catalysts in metal-air batteries. <i>MRS Communications</i> , 2018, 8, 372-386.	0.8	7
411	Synergistic enhancement of oxygen reduction reaction with BC <sub>3</sub> and graphitic-N in boron- and nitrogen-codoped porous graphene. <i>Journal of Catalysis</i> , 2018, 359, 242-250.	3.1	61
412	New Phosphorus-Doped Perovskite Oxide as an Oxygen Reduction Reaction Electrocatalyst in an Alkaline Solution. <i>Chemistry - A European Journal</i> , 2018, 24, 6950-6957.	1.7	34
413	Atomic-Level Co <sub>3</sub> O <sub>4</sub> Layer Stabilized by Metallic Cobalt Nanoparticles: A Highly Active and Stable Electrocatalyst for Oxygen Reduction. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 7052-7060.	4.0	45
414	Superior Oxygen Reduction Electrocatalyst: Hollow Porous Spinel Microsphere. <i>Chem</i> , 2018, 4, 196-198.	5.8	34
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417	Multiscale Principles To Boost Reactivity in Gas-Involving Energy Electrocatalysis. <i>Accounts of Chemical Research</i> , 2018, 51, 881-889.	7.6	437
418	MoP Nanoflakes as Efficient Electrocatalysts for Rechargeable Li-O <sub>2</sub> Batteries. <i>ACS Applied Energy Materials</i> , 2018, 1, 331-335.	2.5	26
419	Cerium ion intercalated MnO <sub>2</sub> nanospheres with high catalytic activity toward oxygen reduction reaction for aluminum-air batteries. <i>Electrochimica Acta</i> , 2018, 263, 544-554.	2.6	52



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423	Plasma-Assisted Synthesis and Surface Modification of Electrode Materials for Renewable Energy. <i>Advanced Materials</i> , 2018, 30, e1705850.	11.1	476
424	Tunable Bifunctional Activity of Mn <sub>x</sub> Co <sub>3x</sub> O <sub>4</sub> Nanocrystals Decorated on Carbon Nanotubes for Oxygen Electrocatalysis. <i>ChemSusChem</i> , 2018, 11, 1295-1304.	3.6	50
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439	The characteristics and performance of hybrid redox flow batteries with zinc negative electrodes for energy storage. <i>Renewable and Sustainable Energy Reviews</i> , 2018, 90, 992-1016.	8.2	77
440	Efficient catalysts for oxygen evolution derived from cobalt-based alloy nanochains. <i>Catalysis Science and Technology</i> , 2018, 8, 2427-2433.	2.1	19
441	Facile fabrication of two-dimensional reduced graphene oxide/CoAl-layered double hydroxides nanocomposites for lithium-oxygen battery with improved electrochemical performance. <i>Journal of Alloys and Compounds</i> , 2018, 744, 196-203.	2.8	21
442	Strong Lanthanoid Substitution Effect on Electrocatalytic Activity of Double-Perovskite-Type $\text{BaLnMn}_{2-x}\text{O}_{5-x}$ ( $\text{Ln} = \text{Y, Gd, Nd, and La}$ ) for Oxygen Reduction Reaction. <i>Journal of Physical Chemistry C</i> , 2018, 122, 7081-7087.	1.5	10
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445	Facile preparation of efficient electrocatalysts for oxygen reduction reaction: One-dimensional meso/macroporous cobalt and nitrogen Co-doped carbon nanofibers. <i>Journal of Power Sources</i> , 2018, 380, 174-184.	4.0	48
446	Formation of hollow $\text{MoS}_2$ /carbon microspheres for high capacity and high rate reversible alkali-ion storage. <i>Journal of Materials Chemistry A</i> , 2018, 6, 8280-8288.	5.2	62
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448	Graphene-templated synthesis of sandwich-like porous carbon nanosheets for efficient oxygen reduction reaction in both alkaline and acidic media. <i>Science China Materials</i> , 2018, 61, 915-925.	3.5	17
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455	Investigation of Water Dissociation and Surface Hydroxyl Stability on Pure and Ni-Modified $\text{CoOOH}$ by Ambient Pressure Photoelectron Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2018, 122, 810-817.	1.2	18

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457	CoS <sub>2</sub> @TiO <sub>2</sub> hybrid nanostructures: efficient and durable bifunctional electrocatalysts for alkaline electrolyte membrane water electrolyzers. <i>Journal of Materials Chemistry A</i> , 2018, 6, 1075-1085.	5.2	39
458	Aprotic Lithium-Air Batteries Tested in Ambient Air with a High-Performance and Low-Cost Bifunctional Perovskite Catalyst. <i>ChemCatChem</i> , 2018, 10, 1635-1642.	1.8	5
459	Boosting Bifunctional Oxygen Electrocatalysis with 3D Graphene Aerogel-Supported Ni/MnO Particles. <i>Advanced Materials</i> , 2018, 30, 1704609.	11.1	547
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461	<i>In situ</i> encapsulation of core-shell-structured Co@Co <sub>3</sub> O <sub>4</sub> into nitrogen-doped carbon polyhedra as a bifunctional catalyst for rechargeable Zn-air batteries. <i>Journal of Materials Chemistry A</i> , 2018, 6, 1443-1453.	5.2	178
462	Innovation and challenges in materials design for flexible rechargeable batteries: from 1D to 3D. <i>Journal of Materials Chemistry A</i> , 2018, 6, 735-753.	5.2	99
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465	Bifunctional electrocatalysts for Zn-air batteries. <i>Sustainable Energy and Fuels</i> , 2018, 2, 39-67.	2.5	179
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471	CuO embedded Ni(OH) <sub>2</sub> nanocomposite as advanced electrode materials for supercapacitors. <i>Journal of Alloys and Compounds</i> , 2018, 736, 332-339.	2.8	70
472	Iron Oxide Nanoclusters Incorporated into Iron Phthalocyanine as Highly Active Electrocatalysts for the Oxygen Reduction Reaction. <i>ChemCatChem</i> , 2018, 10, 475-483.	1.8	18
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477	Efficient CO <sub>2</sub> Utilization via a Hybrid Na-CO <sub>2</sub> System Based on CO <sub>2</sub> Dissolution. IScience, 2018, 9, 278-285.	1.9	40
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484	Integration of Zn-Ag and Zn-Air Batteries: A Hybrid Battery with the Advantages of Both. ACS Applied Materials & Interfaces, 2018, 10, 36873-36881.	4.0	70
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487	Conductive Molybdenum Sulfide for Efficient Electrocatalytic Hydrogen Evolution. Small, 2018, 14, e1803361.	5.2	73
488	Nitrogen-Doped Defect-Rich Graphitic Carbon Nanorings with CoO Nanoparticles as Highly Efficient Electrocatalyst for Oxygen Electrochemistry. ACS Sustainable Chemistry and Engineering, 2018, 6, 15811-15821.	3.2	35
491	In Situ Activating Strategy to Significantly Boost Oxygen Electrocatalysis of Commercial Carbon Cloth for Flexible and Rechargeable Zn-Air Batteries. Advanced Science, 2018, 5, 1800760.	5.6	91
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493	Surface/Interfacial Engineering of Inorganic Low-Dimensional Electrode Materials for Electrocatalysis. Accounts of Chemical Research, 2018, 51, 2857-2866.	7.6	190
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496	Highly Active Bifunctional Electrocatalysts for Oxygen Evolution and Reduction in Zn-Air Batteries. <i>ChemSusChem</i> , 2018, 11, 4203-4208.	3.6	22
497	Fe/Co Double Hydroxide/Oxide Nanoparticles on N-Doped CNTs as Highly Efficient Electrocatalyst for Rechargeable Liquid and Quasi-Solid-State Zinc-Air Batteries. <i>Advanced Energy Materials</i> , 2018, 8, 1801836.	10.2	94
498	Correlation of Low-Index Facets to Active Sites in Micrometer-Sized Polyhedral Pyrochlore Electrocatalyst. <i>ACS Catalysis</i> , 2018, 8, 9647-9655.	5.5	11
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501	Exploring Indium-Based Ternary Thiospinel as Conceivable High-Potential Air-Cathode for Rechargeable Zn-Air Batteries. <i>Advanced Energy Materials</i> , 2018, 8, 1802263.	10.2	248
503	La <sub>0.7</sub> Sr <sub>0.3</sub> Mn <sub>1-x</sub> Ni <sub>x</sub> O <sub>3-<math>\delta</math></sub> Electrocatalysts for the Four-Electron Oxygen Reduction Reaction in Concentrated Alkaline Media. <i>Journal of Physical Chemistry C</i> , 2018, 122, 22301-22308.	1.5	20
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505	An Efficient Anti-Poisoning Catalyst against SO <sub>x</sub> , NO <sub>x</sub> , and PO <sub>x</sub> : P, N-Doped Carbon for Oxygen Reduction in Acidic Media. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 15101-15106.	7.2	122
506	Recent Advances in Materials and Design of Electrochemically Rechargeable Zinc-Air Batteries. <i>Small</i> , 2018, 14, e1801929.	5.2	192
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508	Fundamental Understanding and Material Challenges in Rechargeable Nonaqueous Li-O <sub>2</sub> Batteries: Recent Progress and Perspective. <i>Advanced Energy Materials</i> , 2018, 8, 1800348.	10.2	137
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512	Boron and nitrogen co-doped graphene aerogels: Facile preparation, tunable doping contents and bifunctional oxygen electrocatalysis. <i>Carbon</i> , 2018, 137, 458-466.	5.4	82
513	Oxygen Evolution Reaction on Pristine and Oxidized TiC (100) Surface in Li-O <sub>2</sub> Battery. <i>Journal of Physical Chemistry C</i> , 2018, 122, 12665-12672.	1.5	27
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518	A porous Zn cathode for $\text{Li-CO}_2$ batteries generating fuel-gas CO. <i>Journal of Materials Chemistry A</i> , 2018, 6, 13952-13958.	5.2	66
519	All inorganic based $\text{Nd}_{0.9}\text{Mn}_{0.1}\text{FeO}_3$ perovskite for Li-ion battery application: Synthesis, structural and morphological investigation. <i>Journal of Alloys and Compounds</i> , 2018, 766, 1014-1023.	2.8	13
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524	First-Principles Study of Magnesium Peroxide Nucleation for $\text{Mg-Air}$ Battery. <i>Chemistry - an Asian Journal</i> , 2018, 13, 3198-3203.	1.7	7
525	Flexible, Flame-Resistant, and Dendrite-Impermeable Gel-Polymer Electrolyte for $\text{Li-O}_2/\text{Air}$ Batteries Workable Under Hurdle Conditions. <i>Small</i> , 2018, 14, e1801798.	5.2	113
526	MOF derived carbon based nanocomposite materials as efficient electrocatalysts for oxygen reduction and oxygen and hydrogen evolution reactions. <i>RSC Advances</i> , 2018, 8, 26728-26754.	1.7	75
527	Progress and Future Perspectives on $\text{Li(Na)-CO}_2$ Batteries. <i>Advanced Sustainable Systems</i> , 2018, 2, 1800060.	2.7	54
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