

CITATION REPORT

List of articles citing

Hierarchically porous carbons with optimized nitrogen doping as highly active electrocatalysts for oxygen reduction

DOI: 10.1038/ncomms5973

Nature Communications, 2014, 5, 4973.

Source: <https://exaly.com/paper-pdf/59156420/citation-report.pdf>

Version: 2024-04-10

This report has been generated based on the citations recorded by exaly.com for the above article. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

#	Paper	IF	Citations
867	High Performance Heteroatoms Quaternary-doped Carbon Catalysts Derived from Shewanella Bacteria for Oxygen Reduction. 2015 , 5, 17064		47
866	Controlled Synthesis of N-Doped Carbon Nanospheres with Tailored Mesopores through Self-Assembly of Colloidal Silica. 2015 , 54, 15191-6		148
865	Conjugated microporous polymers with dimensionality-controlled heterostructures for green energy devices. 2015 , 27, 3789-96		176
864	Iron Carbide Nanoparticles Encapsulated in Mesoporous Fe-N-Doped Carbon Nanofibers for Efficient Electrocatalysis. 2015 , 127, 8297-8301		132
863	Structural Origin of the Activity in Mn ₃ O ₄ -Graphene Oxide Hybrid Electrocatalysts for the Oxygen Reduction Reaction. 2015 , 8, 3331-9		52
862	Strongly Coupled 3D Hybrids of N-doped Porous Carbon Nanosheet/CoNi Alloy-Encapsulated Carbon Nanotubes for Enhanced Electrocatalysis. 2015 , 11, 5940-8		148
861	CoSe ₂ Supported on Nitrogen-Doped Carbon Nanohorns as a Methanol-Tolerant Cathode for Air-Breathing Micro laminar Flow Fuel Cells. 2015 , 2, 1339-1345		30
860	A Discussion on the Activity Origin in Metal-Free Nitrogen-Doped Carbons For Oxygen Reduction Reaction and their Mechanisms. 2015 , 8, 2772-88		97
859	Controlled Synthesis of N-Doped Carbon Nanospheres with Tailored Mesopores through Self-Assembly of Colloidal Silica. 2015 , 127, 15406-15411		43
858	On the Role of Metals in Nitrogen-Doped Carbon Electrocatalysts for Oxygen Reduction. 2015 , 54, 10102-20		514
857	Iron Carbide Nanoparticles Encapsulated in Mesoporous Fe-N-Doped Carbon Nanofibers for Efficient Electrocatalysis. 2015 , 54, 8179-83		460
856	Polyaniline-Derived Ordered Mesoporous Carbon as an Efficient Electrocatalyst for Oxygen Reduction Reaction. <i>Catalysts</i> , 2015 , 5, 1034-1045	4	19
855	Space-confinement-induced synthesis of hierarchically nanoporous carbon nanowires for the enhanced electrochemical reduction of oxygen. 2015 , 3, 7093-7099		18
854	Dual-site polydopamine spheres/CoFe layered double hydroxides for electrocatalytic oxygen reduction reaction. <i>Electrochimica Acta</i> , 2015 , 170, 248-255	6.7	26
853	Graphene based metal and metal oxide nanocomposites: synthesis, properties and their applications. 2015 , 3, 18753-18808		446
852	Spherical nitrogen-doped hollow mesoporous carbon as an efficient bifunctional electrocatalyst for Zn-air batteries. 2015 , 7, 20547-56		61
851	Improved oxygen reduction activity of porous carbon materials by self-doping nitrogen derived from PVP with urea as a promoter. <i>Electrochimica Acta</i> , 2015 , 177, 73-78	6.7	10

850	A N-self-doped carbon catalyst derived from pig blood for oxygen reduction with high activity and stability. <i>Electrochimica Acta</i> , 2015 , 160, 139-144	6.7	27
849	From cage-in-cage MOF to N-doped and Co-nanoparticle-embedded carbon for oxygen reduction reaction. 2015 , 44, 6748-54		75
848	3-Dimensional porous N-doped graphene foam as a non-precious catalyst for the oxygen reduction reaction. 2015 , 3, 3343-3350		142
847	Highly Dispersed Ag-Functionalized Graphene Electrocatalyst for Oxygen Reduction Reaction in Energy-Saving Electrolysis of Sodium Carbonate. 2015 , 54, 7415-7422		24
846	A graphene-directed assembly route to hierarchically porous Co _{Ni} /C catalysts for high-performance oxygen reduction. 2015 , 3, 16867-16873		135
845	A Co/metal-organic-framework bifunctional electrocatalyst: The effect of the surface cobalt oxidation state on oxygen evolution/reduction reactions in an alkaline electrolyte. 2015 , 40, 9713-9722		98
844	Nitrogen-Doped Graphene with Pyridinic Dominance as a Highly Active and Stable Electrocatalyst for Oxygen Reduction. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 14763-9	9.5	207
843	Observation of different charge transport regimes and large magnetoresistance in graphene oxide layers. 2015 , 89, 188-196		35
842	Bottom-up construction of triazine-based frameworks as metal-free electrocatalysts for oxygen reduction reaction. 2015 , 27, 3190-5		149
841	Review on application of PEDOTs and PEDOT:PSS in energy conversion and storage devices. 2015 , 26, 4438-4462		347
840	Delineating the roles of Co ₃ O ₄ and N-doped carbon nanoweb (CNW) in bifunctional Co ₃ O ₄ /CNW catalysts for oxygen reduction and oxygen evolution reactions. 2015 , 3, 11615-11623		87
839	Heteroatom-doped hierarchical porous carbons as high-performance metal-free oxygen reduction electrocatalysts. 2015 , 3, 11725-11729		67
838	High pressure pyrolyzed non-precious metal oxygen reduction catalysts for alkaline polymer electrolyte membrane fuel cells. 2015 , 7, 7644-50		58
837	Meso/macroporous nitrogen-doped carbon architectures with iron carbide encapsulated in graphitic layers as an efficient and robust catalyst for the oxygen reduction reaction in both acidic and alkaline solutions. 2015 , 27, 2521-7		461
836	Efficient oxygen reduction catalysts formed of cobalt phosphide nanoparticle decorated heteroatom-doped mesoporous carbon nanotubes. 2015 , 51, 7891-4		80
835	Nitrogen-self-doped carbon with a porous graphene-like structure as a highly efficient catalyst for oxygen reduction. 2015 , 3, 10851-10857		42
834	Oxygen reduction electrocatalysts based on spatially confined cobalt monoxide nanocrystals on holey N-doped carbon nanowires: the enlarged interfacial area for performance improvement. 2015 , 3, 21647-21654		17
833	Hydrophilic non-precious metal nitrogen-doped carbon electrocatalysts for enhanced efficiency in oxygen reduction reaction. 2015 , 51, 17285-8		50

832	Graphene-based nanocomposites for structural and functional applications: using 2-dimensional materials in a 3-dimensional world. 2015 , 2, 030205	24
831	Ber die Rolle von Metallen in Elektrokatalysatoren auf Basis von stickstoffdotiertem Kohlenstoff für die Sauerstoffreduktion. 2015 , 127, 10240-10259	69
830	Heteroatom-Doped Graphitic Carbon Catalysts for Efficient Electrocatalysis of Oxygen Reduction Reaction. 2015 , 5, 7244-7253	422
829	ReviewRecent Progress in Electrocatalysts for Oxygen Reduction Suitable for Alkaline Anion Exchange Membrane Fuel Cells. 2015 , 162, F1504-F1539	119
828	BimetalOrganic Framework Self-Adjusted Synthesis of Support-Free Nonprecious Electrocatalysts for Efficient Oxygen Reduction. 2015 , 5, 7068-7076	361
827	B, N-codoped 3D micro-/mesoporous carbon nanofibers web as efficient metal-free catalysts for oxygen reduction. 2015 , 15, 1606-1614	30
826	Electrocatalytic oxygen reduction activity of boron-doped carbon nanoparticles synthesized via solution plasma process. 2015 , 59, 81-85	47
825	Synergistic effect of S,N-co-doped mesoporous carbon materials with high performance for oxygen-reduction reaction and Li-ion batteries. 2015 , 3, 20244-20253	46
824	Porous nitrogen doped carbon foam with excellent resilience for self-supported oxygen reduction catalyst. 2015 , 95, 388-395	65
823	A low-cost and one-step synthesis of N-doped monolithic quasi-graphene films with porous carbon frameworks for Li-ion batteries. 2015 , 17, 43-51	68
822	Direct Transformation from Graphitic C ₃ N ₄ to Nitrogen-Doped Graphene: An Efficient Metal-Free Electrocatalyst for Oxygen Reduction Reaction. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 19626-345	151
821	Molecular metal-N _x centres in porous carbon for electrocatalytic hydrogen evolution. <i>Nature Communications</i> , 2015 , 6, 7992	17.4 467
820	Surface-Tuned Co ₃ O ₄ Nanoparticles Dispersed on Nitrogen-Doped Graphene as an Efficient Cathode Electrocatalyst for Mechanical Rechargeable Zinc-Air Battery Application. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 21138-49	9.5 119
819	Hierarchical pore-in-pore and wire-in-wire catalysts for rechargeable Zn and Li air batteries with ultra-long cycle life and high cell efficiency. 2015 , 8, 3274-3282	96
818	Boron-nitrogen doped carbon scaffolding: organic chemistry, self-assembly and materials applications of borazine and its derivatives. 2015 , 51, 15222-36	63
817	CoxC encased in carbon nanotubes: an efficient oxygen reduction catalyst under both acidic and alkaline conditions. 2015 , 44, 20708-13	10
816	Pd nanoparticles embedded in the outershell of a mesoporous core-shell catalyst for phenol hydrogenation in pure water. <i>RSC Advances</i> , 2015 , 5, 102811-102817	3.7 16
815	Nitrogen-Doped Reduced Graphene Oxide Prepared by Simultaneous Thermal Reduction and Nitrogen Doping of Graphene Oxide in Air and Its Application as an Electrocatalyst. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 26952-8	9.5 79

814	Heteroatom-Doped Carbon Nanostructures Derived from Conjugated Polymers for Energy Applications. 2016 , 8,		31
813	Recent Advances in Boron-Containing Conjugated Porous Polymers. 2016 , 8,		20
812	Sulfur-Enriched Conjugated Polymer Nanosheet Derived Sulfur and Nitrogen co-Doped Porous Carbon Nanosheets as Electrocatalysts for Oxygen Reduction Reaction and Zinc-Air Battery. <i>Advanced Functional Materials</i> , 2016 , 26, 5893-5902	15.6	189
811	A 3D hierarchical assembly of optimized heterogeneous carbon nanosheets for highly efficient electrocatalysis. 2016 , 4, 11625-11629		11
810	Iron-Nitrogen-Doped Vertically Aligned Carbon Nanotube Electrocatalyst for the Oxygen Reduction Reaction. <i>Advanced Functional Materials</i> , 2016 , 26, 738-744	15.6	199
809	Heteroatom-Containing Porous Carbons Derived from Ionic Liquid-Doped Alkali Organic Salts for Supercapacitors. 2016 , 12, 1935-44		49
808	Hybrid polymer matrix composite containing polyaniline and Nafion as novel precursor of the enhanced catalyst for oxygen reduction reaction. <i>RSC Advances</i> , 2016 , 6, 59961-59969	3.7	1
807	Toward enhanced activity of a graphitic carbon nitride-based electrocatalyst in oxygen reduction and hydrogen evolution reactions via atomic sulfur doping. 2016 , 4, 12205-12211		92
806	Two-Dimensional Core-Shelled Porous Hybrids as Highly Efficient Catalysts for the Oxygen Reduction Reaction. 2016 , 55, 6858-63		111
805	A Simple Synthesis of an N-Doped Carbon ORR Catalyst: Hierarchical Micro/Meso/Macro Porosity and Graphitic Shells. 2016 , 22, 501-5		71
804	Platinfreie Nanomaterialien für die Sauerstoffreduktion. 2016 , 128, 2698-2726		78
803	Two-Dimensional Core-Shelled Porous Hybrids as Highly Efficient Catalysts for the Oxygen Reduction Reaction. 2016 , 128, 6972-6977		19
802	Earth-Abundant Nanomaterials for Oxygen Reduction. 2016 , 55, 2650-76		760
801	Hybrid of g-CN Assisted Metal-Organic Frameworks and Their Derived High-Efficiency Oxygen Reduction Electrocatalyst in the Whole pH Range. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 35281-35288	2.5	79
800	Electrocatalytic oxygen reduction on nitrogen-doped carbon nanoparticles derived from cyano-aromatic molecules via a solution plasma approach. 2016 , 98, 411-420		60
799	ZnO-promoted dechlorination for hierarchically nanoporous carbon as superior oxygen reduction electrocatalyst. 2016 , 26, 241-247		60
798	Fe-N-Doped Carbon Capsules with Outstanding Electrochemical Performance and Stability for the Oxygen Reduction Reaction in Both Acid and Alkaline Conditions. 2016 , 10, 5922-32		345
797	Preparation of N-doped activated carbons with high CO ₂ capture performance from microalgae (<i>Chlorococcum</i> sp.). <i>RSC Advances</i> , 2016 , 6, 38724-38730	3.7	19

- 796 **SiO₂** decorated porous carbon materials: A new class of electrocatalysts for the oxygen reduction reaction. **2016**, 4, 7924-7929 30
- 795 A two-dimensional conjugated polymer framework with fully sp²-bonded carbon skeleton. **2016**, 7, 4176-4181 222
- 794 Efficient metal-free N-doped mesoporous carbon catalysts for ORR by a template-free approach. **2016**, 106, 179-187 149
- 793 Volatilizable template-assisted scalable preparation of honeycomb-like porous carbons for efficient oxygen electroreduction. **2016**, 4, 10820-10827 50
- 792 The evolution of hierarchical porosity in self-templated nitrogen-doped carbons and its effect on oxygen reduction electrocatalysis. *RSC Advances*, **2016**, 6, 80398-80407 3.7 33
- 791 Keratin-derived S/N co-doped graphene-like nanobubble and nanosheet hybrids for highly efficient oxygen reduction. **2016**, 4, 15870-15879 69
- 790 Sustainable Hydrothermal Carbonization Synthesis of Iron/Nitrogen-Doped Carbon Nanofiber Aerogels as Electrocatalysts for Oxygen Reduction. **2016**, 12, 6398-6406 63
- 789 In situ formation of nitrogen-doped carbon nanoparticles on hollow carbon spheres as efficient oxygen reduction electrocatalysts. **2016**, 8, 18134-18142 49
- 788 Highly Efficient Electrocatalysts for Oxygen Reduction Reaction Based on 1D Ternary Doped Porous Carbons Derived from Carbon Nanotube Directed Conjugated Microporous Polymers. *Advanced Functional Materials*, **2016**, 26, 8255-8265 15.6 55
- 787 Nitrogen-doped hierarchically porous carbon networks: synthesis and applications in lithium-ion battery, sodium-ion battery and zinc-air battery. *Electrochimica Acta*, **2016**, 219, 592-603 6.7 138
- 786 In Situ Confinement Pyrolysis Transformation of ZIF-8 to Nitrogen-Enriched Meso-Microporous Carbon Frameworks for Oxygen Reduction. *Advanced Functional Materials*, **2016**, 26, 8334-8344 15.6 218
- 785 Defect-induced Catalysis toward the Oxygen Reduction Reaction in Single-walled Carbon Nanotube: Nitrogen doped and Non-nitrogen doped. *Electrochimica Acta*, **2016**, 215, 66-71 6.7 11
- 784 N-, Fe-Doped carbon sphere/oriented carbon nanofiber nanocomposite with synergistically enhanced electrochemical activities. *RSC Advances*, **2016**, 6, 92739-92747 3.7 1
- 783 Influence of counter electrode material during accelerated durability test of non-precious metal electrocatalysts in acidic medium. **2016**, 37, 1109-1118 13
- 782 Yolk-shell N/P/B ternary-doped biocarbon derived from yeast cells for enhanced oxygen reduction reaction. **2016**, 107, 907-916 51
- 781 Is Ammonium Peroxydisulfate Indispensable for Preparation of Aniline-Derived Iron-Nitrogen-Carbon Electrocatalysts?. **2016**, 9, 2301-6 14
- 780 A rational synthesis of hierarchically porous, N-doped carbon from Mg-based MOFs: understanding the link between nitrogen content and oxygen reduction electrocatalysis. *Physical Chemistry Chemical Physics*, **2016**, 18, 20778-83 3.6 39
- 779 Enhancing oxygen reduction reaction durability via coating graphene layers on iron-nitrogen supported carbon nanotubes. *RSC Advances*, **2016**, 6, 73581-73588 3.7 8

778	Cobalt/nitrogen co-doped porous carbon nanosheets as highly efficient catalysts for the oxygen reduction reaction in both basic and acidic media. <i>RSC Advances</i> , 2016 , 6, 82341-82347	3.7	14
777	Hierarchically porous Fe-N-doped carbon nanotubes as efficient electrocatalyst for oxygen reduction. 2016 , 109, 632-639		64
776	2D Nanoporous Fe-N/C Nanosheets as Highly Efficient Non-Platinum Electrocatalysts for Oxygen Reduction Reaction in Zn-Air Battery. 2016 , 12, 5710-5719		82
775	A Micelle Fusion-Aggregation Assembly Approach to Mesoporous Carbon Materials with Rich Active Sites for Ultrasensitive Ammonia Sensing. 2016 , 138, 12586-95		116
774	Iron and nitrogen co-doped hierarchical porous graphitic carbon for a high-efficiency oxygen reduction reaction in a wide range of pH. 2016 , 4, 14364-14370		41
773	A Metal-Amino Acid Complex-Derived Bifunctional Oxygen Electrocatalyst for Rechargeable Zinc-Air Batteries. 2016 , 12, 5414-5421		41
772	A 3D bi-functional porous N-doped carbon microtube sponge electrocatalyst for oxygen reduction and oxygen evolution reactions. 2016 , 9, 3079-3084		212
771	Thermally removable in-situ formed ZnO template for synthesis of hierarchically porous N-doped carbon nanofibers for enhanced electrocatalysis. 2016 , 9, 2270-2283		47
770	A direct phase separation approach synthesis of hierarchically porous functional carbon as an advanced electrocatalyst for oxygen reduction reaction. 2016 , 109, 306-313		6
769	Self-catalyzed growth of Cu@graphdiyne core-shell nanowires array for high efficient hydrogen evolution cathode. 2016 , 30, 858-866		124
768	Self-Assembly of Nitrogen-doped Graphene-Wrapped Carbon Nanoparticles as an Efficient Electrocatalyst for Oxygen Reduction Reaction. <i>Electrochimica Acta</i> , 2016 , 216, 347-354	6.7	16
767	Defect Graphene as a Trifunctional Catalyst for Electrochemical Reactions. 2016 , 28, 9532-9538		711
766	Cobalt Ferrite Bearing Nitrogen-Doped Reduced Graphene Oxide Layers Spatially Separated with Microporous Carbon as Efficient Oxygen Reduction Electrocatalyst. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 20730-40	9.5	33
765	Cobalt Oxide and Cobalt-Graphitic Carbon Core-Shell Based Catalysts with Remarkably High Oxygen Reduction Reaction Activity. 2016 , 3, 1600060		92
764	Mesoporous materials for energy conversion and storage devices. 2016 , 1,		788
763	A metal-organic framework-derived bifunctional oxygen electrocatalyst. 2016 , 1,		1622
762	Nitrogen-doped 3D porous carbons with iron carbide nanoparticles encapsulated in graphitic layers derived from functionalized MOF as an efficient noble-metal-free oxygen reduction electrocatalysts in both acidic and alkaline media. <i>RSC Advances</i> , 2016 , 6, 110820-110830	3.7	20
761	Synthesis of nanoporous structured iron carbide/Fe ₃ C-carbon composites for efficient oxygen reduction reaction in Zn-air batteries. 2016 , 4, 19037-19044		46

760	Hierarchically Superstructured Metal Sulfides: Facile Perturbation-Assisted Nanofusion Synthesis and Visible Light Photocatalytic Characterizations. 2016 , 2, 1104-1110		7
759	Nanocarbons and their hybrids as catalysts for non-aqueous lithium-oxygen batteries. 2016 , 25, 957-966		50
758	Heteroatom (N or N-S)-Doping Induced Layered and Honeycomb Microstructures of Porous Carbons for CO ₂ Capture and Energy Applications. <i>Advanced Functional Materials</i> , 2016 , 26, 8651-8661	15.6	133
757	A General Approach to Preferential Formation of Active Fe-N Sites in Fe-N/C Electrocatalysts for Efficient Oxygen Reduction Reaction. 2016 , 138, 15046-15056		523
756	Coral-Like MoS ₂ /Cu ₂ O Porous Nanohybrid with Dual-Electrocatalyst Performances. 2016 , 3, 1600658		29
755	Nitrogen, phosphorus and sulfur co-doped ultrathin carbon nanosheets as a metal-free catalyst for selective oxidation of aromatic alkanes and the oxygen reduction reaction. 2016 , 4, 18470-18477		80
754	A Highly Efficient Metal-Free Oxygen Reduction Electrocatalyst Assembled from Carbon Nanotubes and Graphene. 2016 , 28, 4606-13		178
753	Pyrolysis of Animal Bones with Vitamin B12: A Facile Route to Efficient Transition Metal-Nitrogen-Carbon (TM-N-C) Electrocatalysts for Oxygen Reduction. 2016 , 22, 2896-901		41
752	Scalable Fabrication of Nanoporous Carbon Fiber Films as Bifunctional Catalytic Electrodes for Flexible Zn-Air Batteries. 2016 , 28, 3000-6		508
751	Metal-Organic Framework-Derived Honeycomb-Like Open Porous Nanostructures as Precious-Metal-Free Catalysts for Highly Efficient Oxygen Electroreduction. 2016 , 28, 6391-8		354
750	Opening of Bottleneck Pores for the Improvement of Nitrogen Doped Carbon Electrocatalysts. 2016 , 6, 1502389		155
749	Trapping oxygen in hierarchically porous carbon nano-nets: graphitic nitrogen dopants boost the electrocatalytic activity. <i>RSC Advances</i> , 2016 , 6, 56765-56771	3.7	7
748	Molecular engineering of Ni-/Co-porphyrin multilayers on reduced graphene oxide sheets as bifunctional catalysts for oxygen evolution and oxygen reduction reactions. 2016 , 7, 5640-5646		108
747	Fe/N/C catalyst with high activity for oxygen reduction reaction derived from surfactant modified porous carbon-supported melamine-formaldehyde resin. 2016 , 41, 11090-11098		17
746	Applications of hierarchically structured porous materials from energy storage and conversion, catalysis, photocatalysis, adsorption, separation, and sensing to biomedicine. 2016 , 45, 3479-563		904
745	Template-free synthesis of three-dimensional nanoporous N-doped graphene for high performance fuel cell oxygen reduction reaction in alkaline media. 2016 , 175, 405-413		34
744	Nitrogen-doped activated graphene/SWCNT hybrid for oxygen reduction reaction. 2016 , 16, 1242-1249		13
743	A Bonded Double-Doped Graphene Nanoribbon Framework for Advanced Electrocatalysis. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 16649-55	9.5	12

742	Bimodal Porous Iron/Nitrogen-Doped Highly Crystalline Carbon Nanostructure as a Cathode Catalyst for the Oxygen Reduction Reaction in an Acid Medium. 2016 , 6, 5095-5102		61
741	Nitrogen-Doped Porous Carbon Superstructures Derived from Hierarchical Assembly of Polyimide Nanosheets. 2016 , 28, 1981-7		313
740	Porous Core-Shell Fe ₃ C Embedded N-doped Carbon Nanofibers as an Effective Electrocatalysts for Oxygen Reduction Reaction. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 4118-25	9.5	210
739	Observable Electrochemical Oxidation of Carbon Promoted by Platinum Nanoparticles. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 3940-7	9.5	29
738	The influence of pore size distribution on the oxygen reduction reaction performance in nitrogen doped carbon microspheres. 2016 , 4, 2581-2589		158
737	Mussel-inspired one-pot synthesis of transition metal and nitrogen co-doped carbon (M/N-C) as efficient oxygen catalysts for Zn-air batteries. 2016 , 8, 5067-75		89
736	Controlled synthesis of hollow micro/meso-pore nitrogen-doped carbon with tunable wall thickness and specific surface area as efficient electrocatalysts for oxygen reduction reaction. 2016 , 4, 2433-2437		54
735	Active sites of nitrogen-doped carbon materials for oxygen reduction reaction clarified using model catalysts. 2016 , 351, 361-5		2682
734	Highly efficient nonprecious metal catalysts towards oxygen reduction reaction based on three-dimensional porous carbon nanostructures. 2016 , 45, 517-31		665
733	Towards high-efficiency nanoelectrocatalysts for oxygen reduction through engineering advanced carbon nanomaterials. 2016 , 45, 1273-307		510
732	Nitro Lignin-Derived Nitrogen-Doped Carbon as an Efficient and Sustainable Electrocatalyst for Oxygen Reduction. 2016 , 10, 4364-71		114
731	A Facile Synthesis of Nitrogen/Sulfur Co-Doped Graphene for the Oxygen Reduction Reaction. 2016 , 8, 163-170		45
730	Porous N-doped graphitic carbon assembled one-dimensional hollow structures as high performance electrocatalysts for ORR. <i>RSC Advances</i> , 2016 , 6, 12467-12471	3.7	7
729	Ligand-Free Noble Metal Nanocluster Catalysts on Carbon Supports via "Soft" Nitriding. 2016 , 138, 4718-21		162
728	Hierarchical Carbon with High Nitrogen Doping Level: A Versatile Anode and Cathode Host Material for Long-Life Lithium-Ion and Lithium-Sulfur Batteries. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 10274-82	9.5	45
727	A facile synthesis of Fe ₃ C@mesoporous carbon nitride nanospheres with superior electrocatalytic activity. 2016 , 8, 5441-5		47
726	Heteroatom doped graphdiyne as efficient metal-free electrocatalyst for oxygen reduction reaction in alkaline medium. 2016 , 4, 4738-4744		109
725	Nitrogen-Doped Carbon Nanoparticle-Carbon Nanofiber Composite as an Efficient Metal-Free Cathode Catalyst for Oxygen Reduction Reaction. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 6962-71	9.5	129

7 ²⁴	Ionic liquid-assisted synthesis of dual-doped graphene as efficient electrocatalysts for oxygen reduction. 2016 , 102, 58-65		45
7 ²³	Bifunctional Nitrogen-Doped Microporous Carbon Microspheres Derived from Poly(o-methylaniline) for Oxygen Reduction and Supercapacitors. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 3601-8	9.5	75
7 ²²	Fe-Cluster Pushing Electrons to N-Doped Graphitic Layers with FeC(Fe) Hybrid Nanostructure to Enhance O Reduction Catalysis of Zn-Air Batteries. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 4587-4596	9.5	96
7 ²¹	Efficient Synthesis of Nitrogen- and Sulfur-co-Doped Ketjenblack with a Single-Source Precursor for Enhancing Oxygen Reduction Reaction Activity. 2017 , 23, 3674-3682		19
7 ²⁰	Two-Dimensional Corrugated Porous Carbon-, Nitrogen-Framework/Metal Heterojunction for Efficient Multielectron Transfer Processes with Controlled Kinetics. 2017 , 11, 1770-1779		39
7 ¹⁹	MOF-derived multifractal porous carbon with ultrahigh lithium-ion storage performance. 2017 , 7, 40574		30
7 ¹⁸	Pyrolysis of conjugated nanoporous polycarbazoles to mesoporous N-doped carbon nanotubes as efficient electrocatalysts for the oxygen reduction reaction. 2017 , 5, 4507-4512		34
7 ¹⁷	2D Heterostructures Derived from MoS ₂ -Templated, Cobalt-Containing Conjugated Microporous Polymer Sandwiches for the Oxygen Reduction Reaction and Electrochemical Energy Storage. 2017 , 4, 709-715		26
7 ¹⁶	Highly porous nitrogen-doped carbon nanoparticles synthesized via simple thermal treatment and their electrocatalytic activity for oxygen reduction reaction. 2017 , 115, 515-525		27
7 ¹⁵	Atomically Dispersed Fe/N-Doped Hierarchical Carbon Architectures Derived from a Metal-Organic Framework Composite for Extremely Efficient Electrocatalysis. 2017 , 2, 504-511		223
7 ¹⁴	Simple-Cubic Carbon Frameworks with Atomically Dispersed Iron Dopants toward High-Efficiency Oxygen Reduction. 2017 , 17, 2003-2009		134
7 ¹³	Enhanced activation of peroxydisulfate by nitrogen doped porous carbon for effective removal of organic pollutants. 2017 , 115, 730-739		234
7 ¹²	Removal of Cr ⁶⁺ from wastewater via adsorption with high-specific-surface-area nitrogen-doped hierarchical porous carbon derived from silkworm cocoon. 2017 , 405, 372-379		66
7 ¹¹	Structure controllable carbon matrix derived from benzene-constructed porous organic polymers for high-performance Li-S batteries. 2017 , 116, 633-639		16
7 ¹⁰	In situ FeN@N-doped porous carbon hybrids as superior catalysts for oxygen reduction reaction. 2017 , 9, 8102-8106		65
7 ⁰⁹	2D nitrogen-doped hierarchically porous carbon: Key role of low dimensional structure in favoring electrocatalysis and mass transfer for oxygen reduction reaction. 2017 , 209, 447-454		78
7 ⁰⁸	Highly uniform and monodisperse carbon nanospheres enriched with cobalt-nitrogen active sites as a potential oxygen reduction electrocatalyst. 2017 , 346, 80-88		40
7 ⁰⁷	Roles of Fe-N and Fe-FeC@C Species in Fe-N/C Electrocatalysts for Oxygen Reduction Reaction. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 9567-9575	9.5	115

706	One-step preparation of N-doped graphitic layer-encased cobalt/iron carbide nanoparticles derived from cross-linked polyphthalocyanines as highly active electrocatalysts towards the oxygen reduction reaction. 2017 , 7, 1529-1536		15
705	Synthesis of honeycomb-like mesoporous nitrogen-doped carbon nanospheres as Pt catalyst supports for methanol oxidation in alkaline media. 2017 , 407, 64-71		50
704	Self-Assembled Fe-N-Doped Carbon Nanotube Aerogels with Single-Atom Catalyst Feature as High-Efficiency Oxygen Reduction Electrocatalysts. 2017 , 13, 1603407		207
703	Hollow Nitrogen-Doped Carbon Spheres with FeO Nanoparticles Encapsulated as a Highly Active Oxygen-Reduction Catalyst. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 10610-10617	9.5	102
702	Facile Integration of Hierarchical Pores and N,P-Codoping in Carbon Networks Enables Efficient Oxygen Reduction Reaction. <i>Electrochimica Acta</i> , 2017 , 238, 375-383	6.7	30
701	In Situ Formation of Hierarchical Porous Fe,Co/N-Doped Carbon as a Highly Efficient Electrocatalyst for Oxygen Reduction. 2017 , 4, 2005-2011		7
700	Biomass Derived N-Doped Porous Carbon Supported Single Fe Atoms as Superior Electrocatalysts for Oxygen Reduction. 2017 , 13, 1604290		97
699	Covalent Modification of Graphene Oxide with Vitamin B1: Preparation, Characterization, and Catalytic Reactivity for Synthesis of Benzimidazole Derivatives. 2017 , 56, 6462-6467		20
698	Nitrogen and Phosphorus Codoped Mesoporous Carbon Derived from Polypyrrole as Superior Metal-Free Electrocatalyst toward the Oxygen Reduction Reaction. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 16236-16242	9.5	89
697	Hierarchically porous materials: synthesis strategies and structure design. 2017 , 46, 481-558		784
696	High oxygen reduction activity on a metal-organic framework derived carbon combined with high degree of graphitization and pyridinic-N dopants. 2017 , 5, 789-795		123
695	High-performance oxygen reduction and evolution carbon catalysis: From mechanistic studies to device integration. 2017 , 10, 1163-1177		50
694	Functional Carbon Nanomesh Clusters. <i>Advanced Functional Materials</i> , 2017 , 27, 1701514	15.6	18
693	MOF-Based Metal-Doping-Induced Synthesis of Hierarchical Porous Cu/N/C Oxygen Reduction Electrocatalysts for Zn-Air Batteries. 2017 , 13, 1700740		105
692	A bottom-up, template-free route to mesoporous N-doped carbons for efficient oxygen electroreduction. 2017 , 52, 9794-9805		7
691	Synthesis of Highly Porous Metal-Free Oxygen Reduction Electrocatalysts in a Self-Sacrificial Bacterial Cellulose Microreactor. 2017 , 1, 1700045		8
690	Direct synthesis of interconnected N, S-codoped porous exfoliated carbon nanosheets as advanced electrocatalysts for oxygen reduction reaction. 2017 , 122, 114-121		32
689	Highly efficient Fe/N/C catalyst using adenosine as C/N-source for APEFC. 2017 , 26, 616-621		7

688	2D Porous Carbons prepared from Layered Organic-Inorganic Hybrids and their Use as Oxygen-Reduction Electrocatalysts. 2017 , 29, 1700707		95
687	Porous nitrogen-doped carbon derived from biomass for electrocatalytic reduction of CO ₂ to CO. <i>Electrochimica Acta</i> , 2017 , 245, 561-568	6.7	49
686	Novel highly active and selective Fe-N-C oxygen reduction electrocatalysts derived from in-situ polymerization pyrolysis. 2017 , 38, 201-209		71
685	N, S co-doped carbon spheres with highly dispersed CoO as non-precious metal catalyst for oxygen reduction reaction. 2017 , 360, 106-113		32
684	A powerful role of exfoliated metal oxide 2D nanosheets as additives for improving electrocatalyst functionality of graphene. <i>Electrochimica Acta</i> , 2017 , 235, 720-729	6.7	19
683	Fe/N co-doped carbon materials with controllable structure as highly efficient electrocatalysts for oxygen reduction reaction in Al-air batteries. 2017 , 8, 49-58		56
682	3D interconnected hierarchically porous N-doped carbon with NH ₃ activation for efficient oxygen reduction reaction. 2017 , 210, 57-66		114
681	Perfectly ordered mesoporous iron-nitrogen doped carbon as highly efficient catalyst for oxygen reduction reaction in both alkaline and acidic electrolytes. 2017 , 36, 286-294		171
680	A Co-N/C hollow-sphere electrocatalyst derived from a metanilic CoAl layered double hydroxide for the oxygen reduction reaction, and its active sites in various pH media. 2017 , 10, 2508-2518		41
679	Metal-polydopamine frameworks and their transformation to hollow metal/N-doped carbon particles. 2017 , 9, 5323-5328		104
678	Simultaneous co-doping of N and S by a facile in-situ polymerization of 6-N,N-dibutylamine-1,3,5-triazine-2,4-dithiol on graphene framework: An efficient and durable oxygen reduction catalyst in alkaline medium. 2017 , 118, 531-544		28
677	Low-Temperature and Gram-Scale Synthesis of Two-Dimensional Fe/N-Carbon Sheets for Robust Electrochemical Oxygen Reduction Reaction. 2017 , 29, 2890-2898		45
676	In situ mosaic strategy generated Co-based N-doped mesoporous carbon for highly selective hydrogenation of nitroaromatics. 2017 , 348, 212-222		74
675	Rechargeable zinc-air batteries: a promising way to green energy. 2017 , 5, 7651-7666		323
674	Pyrolysis of Self-Assembled Iron Porphyrin on Carbon Black as Core/Shell Structured Electrocatalysts for Highly Efficient Oxygen Reduction in Both Alkaline and Acidic Medium. <i>Advanced Functional Materials</i> , 2017 , 27, 1604356	15.6	94
673	Sacrificial Templating Fabrication of Hierarchically Porous Nitrogen-Doped Carbon Nanosheets as Superior Oxygen Reduction Electrocatalysts. 2017 , 3, 130-134		1
672	Hierarchical hybrid of Ni ₃ N/N-doped reduced graphene oxide nanocomposite as a noble metal free catalyst for oxygen reduction reaction. 2017 , 400, 245-253		22
671	Pyridinic nitrogen-rich carbon nanocapsules from a bioinspired polydopamine derivative for highly efficient electrocatalytic oxygen reduction. 2017 , 5, 519-523		24

670	Engineering Favorable Morphology and Structure of Fe-N-C Oxygen-Reduction Catalysts through Tuning of Nitrogen/Carbon Precursors. 2017 , 10, 774-785		97
669	Nanoreactor of Nickel-Containing Carbon-Shells as Oxygen Reduction Catalyst. 2017 , 29, 1605083		50
668	FeNx moiety-modified hierarchically porous carbons derived from porphyrins for highly effective oxygen reduction reaction. 2017 , 5, 1526-1532		49
667	Atomic interpretation of high activity on transition metal and nitrogen-doped carbon nanofibers for catalyzing oxygen reduction. 2017 , 5, 3336-3345		67
666	Texturing in situ: N,S-enriched hierarchically porous carbon as a highly active reversible oxygen electrocatalyst. 2017 , 10, 742-749		374
665	S, N Dual-Doped Graphene-like Carbon Nanosheets as Efficient Oxygen Reduction Reaction Electrocatalysts. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 398-405	9.5	148
664	Molecular-Level Design of Hierarchically Porous Carbons Codoped with Nitrogen and Phosphorus Capable of In Situ Self-Activation for Sustainable Energy Systems. 2017 , 13, 1602010		37
663	Solvothermal co-gelation synthesis of N-doped three-dimensional open macro/mesoporous carbon as efficient electrocatalyst for oxygen reduction reaction. 2017 , 75, 9-12		14
662	Uniform FeO/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	9.5	63
661	In Situ Coupling Strategy for the Preparation of FeCo Alloys and Co N Hybrid for Highly Efficient Oxygen Evolution. 2017 , 29, 1704091		136
660	Coffee Waste-Derived Hierarchical Porous Carbon as a Highly Active and Durable Electrocatalyst for Electrochemical Energy Applications. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 41303-41313	9.5	49
659	Assembly of hollow mesoporous nanoarchitectures composed of ultrafine Mo ₂ C nanoparticles on N-doped carbon nanosheets for efficient electrocatalytic reduction of oxygen. 2017 , 4, 1171-1177		138
658	From covalent triazine-based frameworks to N-doped porous carbon/reduced graphene oxide nanosheets: efficient electrocatalysts for oxygen reduction. 2017 , 5, 23170-23178		47
657	Porous Perovskite-Type Lanthanum Cobaltite as Electrocatalysts toward Oxygen Evolution Reaction. 2017 , 5, 10910-10917		49
656	Heteroatom-Doped Carbon Nanotube and Graphene-Based Electrocatalysts for Oxygen Reduction Reaction. 2017 , 13, 1702002		138
655	Coupling cobalt-iron bimetallic nitrides and N-doped multi-walled carbon nanotubes as high-performance bifunctional catalysts for oxygen evolution and reduction reaction. <i>Electrochimica Acta</i> , 2017 , 258, 51-60	6.7	44
654	Hierarchically Porous Graphitic Carbon with Simultaneously High Surface Area and Colossal Pore Volume Engineered via Ice Templating. 2017 , 11, 11047-11055		57
653	A high-performance mesoporous carbon supported nitrogen-doped carbon electrocatalyst for oxygen reduction reaction. 2017 , 28, 485701		10

- 652 A review of nanocarbons in energy electrocatalysis: Multifunctional substrates and highly active sites. **2017**, 26, 1077-1093 220
- 651 Nitrogen containing carbon spheres as an efficient electrocatalyst for oxygen reduction: Microelectrochemical investigation and visualization. **2017**, 5, 20014-20023 11
- 650 Single Cobalt Atom and N Codoped Carbon Nanofibers as Highly Durable Electrocatalyst for Oxygen Reduction Reaction. **2017**, 7, 6864-6871 189
- 649 Metal-free nitrogen-doped carbon nanoribbons as highly efficient electrocatalysts for oxygen reduction reaction. **2017**, 124, 34-41 32
- 648 Porous yolk-shell microspheres as N-doped carbon matrix for motivating the oxygen reduction activity of oxygen evolution oriented materials. **2017**, 28, 365403 5
- 647 Earth-abundant carbon catalysts for renewable generation of clean energy from sunlight and water. **2017**, 41, 367-376 69
- 646 Fabrication of a mesoporous BaSrCoFeO perovskite as a low-cost and efficient catalyst for oxygen reduction. **2017**, 46, 13903-13911 12
- 645 Selectively doping pyridinic and pyrrolic nitrogen into a 3D porous carbon matrix through template-induced edge engineering: enhanced catalytic activity towards the oxygen reduction reaction. **2017**, 5, 21709-21714 43
- 644 Electrocatalysis of Rechargeable Non-Lithium Metal-Air Batteries. **2017**, 4, 1700589 17
- 643 A rechargeable iodine-carbon battery that exploits ion intercalation and iodine redox chemistry. *Nature Communications*, **2017**, 8, 527 17.4 108
- 642 A Facile and Versatile Electrochemical Tuning of Graphene for Oxygen Reduction Reaction in Acidic, Neutral and Alkali media. **2017**, 2, 8541-8552 2
- 641 Teflon: A Decisive Additive in Directly Fabricating Hierarchical Porous Carbon with Network Structure from Natural Leaf. **2017**, 5, 9307-9312 16
- 640 Conjugated polymer-mediated synthesis of nitrogen-doped carbon nanoribbons for oxygen reduction reaction. **2017**, 124, 630-636 35
- 639 Poly(3, 4-ethylenedioxythiophene) coated titanium dioxide nanoparticles in situ synthesis and their application for rechargeable lithium sulfur batteries. *Electrochimica Acta*, **2017**, 252, 461-469 6.7 23
- 638 Covalent Porphyrin Framework-Derived FeP@FeN-Coupled Nanoparticles Embedded in N-Doped Carbons as Efficient Trifunctional Electrocatalysts. *ACS Applied Materials & Interfaces*, **2017**, 9, 32848-32858 8.5 81
- 637 Design and preparation of porous carbons from conjugated polymer precursors. **2017**, 20, 629-656 111
- 636 Sulfur and nitrogen co-doped holey graphene aerogel for structurally resilient solid-state supercapacitors under high compressions. **2017**, 5, 17253-17266 55
- 635 Synergy of facet control and surface metalloid modification on hierarchical PtNi nanoroses toward high electrocatalytic activity. **2017**, 19, 4964-4971 3

634	Recent advances in air electrodes for Zn air batteries: electrocatalysis and structural design. 2017 , 4, 945-976		174
633	Metal-Organic Framework-Derived FeCo-N-Doped Hollow Porous Carbon Nanocubes for Electrocatalysis in Acidic and Alkaline Media. 2017 , 10, 3019-3024		73
632	Transformation from FeS/Fe ₃ C nanoparticles encased S, N dual doped carbon nanotubes to nanosheets for enhanced oxygen reduction performance. 2017 , 123, 135-144		23
631	Facile and scalable preparation of nitrogen, phosphorus codoped nanoporous carbon as oxygen reduction reaction electrocatalyst. <i>Electrochimica Acta</i> , 2017 , 248, 11-19	6.7	22
630	Temperature-directed growth of highly pyridinic nitrogen doped, graphitized, ultra-hollow carbon frameworks as an efficient electrocatalyst for the oxygen reduction reaction. 2017 , 5, 18064-18070		35
629	In situ synthesis of ultrathin metal-organic framework nanosheets: a new method for 2D metal-based nanoporous carbon electrocatalysts. 2017 , 5, 18610-18617		120
628	NaCl Crystallites as Dual-Functional and Water-Removable Templates To Synthesize a Three-Dimensional Graphene-like Macroporous Fe-N-C Catalyst. 2017 , 7, 6144-6149		98
627	Dual active nitrogen doped hierarchical porous hollow carbon nanospheres as an oxygen reduction electrocatalyst for zinc-air batteries. 2017 , 9, 13257-13263		62
626	A new 3D crosslinked polymer strategy for highly efficient oxygen reduction Fe _N /C catalysts. <i>RSC Advances</i> , 2017 , 7, 39178-39184	3.7	3
625	Nitrogen-Doped Porous Graphdiyne: A Highly Efficient Metal-Free Electrocatalyst for Oxygen Reduction Reaction. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 29744-29752	9.5	131
624	Fe/N/C Nanotubes with Atomic Fe Sites: A Highly Active Cathode Catalyst for Alkaline Polymer Electrolyte Fuel Cells. 2017 , 7, 6485-6492		108
623	Rapid construction of 3D foam-like carbon nanoarchitectures via a simple photochemical strategy for capacitive deionization. <i>RSC Advances</i> , 2017 , 7, 39372-39382	3.7	15
622	Recent Progress in Oxygen Electrocatalysts for Zinc Air Batteries. 2017 , 1, 1700209		142
621	Generalized Synthesis of a Family of Highly Heteroatom-Doped Ordered Mesoporous Carbons. 2017 , 29, 10178-10186		46
620	Nitrogen and phosphorus co-doped hierarchically porous carbons derived from cattle bones as efficient metal-free electrocatalysts for the oxygen reduction reaction. 2017 , 5, 24329-24334		74
619	Surface-coating synthesis of nitrogen-doped inverse opal carbon materials with ultrathin micro/mesoporous graphene-like walls for oxygen reduction and supercapacitors. 2017 , 5, 25237-25248		26
618	Unprecedented carbon sub-microspheres with a porous hierarchy for highly efficient oxygen electrochemistry. 2017 , 9, 18731-18736		13
617	Preparation and Properties of Tremella-like Fe-N-C Composite Catalyst for Oxygen Reduction Reaction. 2017 , 45, 1297-1302		4

616	A Facile Activation Strategy for an MOF-Derived Metal-Free Oxygen Reduction Reaction Catalyst: Direct Access to Optimized Pore Structure and Nitrogen Species. 2017 , 7, 6082-6088	141
615	Highly Efficient Oxygen Reduction Reaction Electrocatalysts Synthesized under Nanospace Confinement of Metal-Organic Framework. 2017 , 11, 8379-8386	80
614	Nitrogen-enriched polydopamine analogue-derived defect-rich porous carbon as a bifunctional metal-free electrocatalyst for highly efficient overall water splitting. 2017 , 5, 17064-17072	50
613	Facile Synthesis of Defect-Rich and S/N Co-Doped Graphene-Like Carbon Nanosheets as an Efficient Electrocatalyst for Primary and All-Solid-State Zn-Air Batteries. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 24545-24554	9.5 65
612	Single-Step Synthesis of N-Doped Three-Dimensional Graphitic Foams for High-Performance Supercapacitors. 2017 , 5, 6950-6957	39
611	Single-Atomic Ruthenium Catalytic Sites on Nitrogen-Doped Graphene for Oxygen Reduction Reaction in Acidic Medium. 2017 , 11, 6930-6941	327
610	Nitrogen-Doped Carbon Vesicles with Dual Iron-Based Sites for Efficient Oxygen Reduction. 2017 , 10, 499-505	24
609	Highly efficient nitrogen-doped carbide-derived carbon materials for oxygen reduction reaction in alkaline media. 2017 , 113, 159-169	76
608	Facile synthesis of porous nitrogen-doped holey graphene as an efficient metal-free catalyst for the oxygen reduction reaction. 2017 , 10, 305-319	51
607	Substrate-Induced Synthesis of Nitrogen-Doped Holey Graphene Nanocapsules for Advanced Metal-Free Bifunctional Electrocatalysts. 2017 , 34, 1600207	15
606	Template Free Preparation of Heteroatoms Doped Carbon Spheres with Trace Fe for Efficient Oxygen Reduction Reaction and Supercapacitor. 2017 , 7, 1602002	137
605	Ni ₃ Fe-N Doped Carbon Sheets as a Bifunctional Electrocatalyst for Air Cathodes. 2017 , 7, 1601172	305
604	Dichotomizing the Oxygen Electrocatalytic Properties of Doped Carbon Catalysts in Acid through a Salt-Activated Synthesis. 2017 , 9, 103-108	4
603	Post Iron Decoration of Mesoporous Nitrogen-Doped Carbon Spheres for Efficient Electrochemical Oxygen Reduction. 2017 , 7, 1701154	57
602	Highly Effective Dual Transition Metal Macrocyclic Based Electrocatalyst with Macro-/Mesoporous Structures for Oxygen Reduction Reaction. <i>Catalysts</i> , 2017 , 7, 201	4 13
601	Three-dimensional nitrogen-doped carbon nanotubes/carbon nanofragments complexes for efficient metal-free electrocatalyst towards oxygen reduction reaction. 2018 , 43, 6158-6166	13
600	Nitrogen-Enriched Carbon/CNT Composites Based on Schiff-Base Networks: Ultrahigh N Content and Enhanced Lithium Storage Properties. 2018 , 14, e1703569	23
599	Recent Advances on Non-precious Metal Porous Carbon-based Electrocatalysts for Oxygen Reduction Reaction. 2018 , 5, 1775-1785	114

598	Polydopamine-Derived, In Situ N-Doped 3D Mesoporous Carbons for Highly Efficient Oxygen Reduction. 2018 , 4, 417-422		15
597	Ancient Chemistry "Pharaoh's Snakes" for Efficient Fe-/N-Doped Carbon Electrocatalysts. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 10778-10785	9.5	52
596	Template Conversion of Covalent Organic Frameworks into 2D Conducting Nanocarbons for Catalyzing Oxygen Reduction Reaction. 2018 , 30, e1706330		105
595	Defective N/S-Codoped 3D Cheese-Like Porous Carbon Nanomaterial toward Efficient Oxygen Reduction and Zn-Air Batteries. 2018 , 14, e1800563		105
594	3D interconnected hierarchical porous N-doped carbon constructed by flake-like nanostructure with Fe/FeC for efficient oxygen reduction reaction and supercapacitor. 2018 , 10, 9252-9260		69
593	Selected Review of the Degradation of Pt and Pd-based Carbon-supported Electrocatalysts for Alkaline Fuel Cells: Towards Mechanisms of Degradation. 2018 , 18, 229-238		49
592	Defect electrocatalytic mechanism: concept, topological structure and perspective. 2018 , 2, 1250-1268		90
591	The Concept of "Noble, Heteroatom-Doped Carbons," Their Directed Synthesis by Electronic Band Control of Carbonization, and Applications in Catalysis and Energy Materials. 2018 , 30, e1706836		102
590	Pyridinic-N-Dominated Doped Defective Graphene as a Superior Oxygen Electrocatalyst for Ultrahigh-Energy-Density Zn-Air Batteries. 2018 , 3, 1183-1191		325
589	Deflagration synthesis of nitrogen/fluorine co-doped hollow carbon nanoparticles with excellent oxygen reduction performance. 2018 , 5, 1307-1313		11
588	Electrocatalytically Active Hollow Carbon Nanospheres Derived from PS-b-P4VP Micelles. 2018 , 35, 1700404		7
587	Combustion reaction-derived nitrogen-doped porous carbon as an effective metal-free catalyst for the oxygen reduction reaction. 2018 , 152, 333-340		12
586	Carbazole-decorated covalent triazine frameworks: Novel nonmetal catalysts for carbon dioxide fixation and oxygen reduction reaction. 2018 , 362, 1-9		68
585	Anchoring perovskite LaMnO ₃ nanoparticles on biomass-derived N, P co-doped porous carbon for efficient oxygen reduction. <i>Electrochimica Acta</i> , 2018 , 274, 40-48	6.7	36
584	Highly polarized carbon nano-architecture as robust metal-free catalyst for oxygen reduction in polymer electrolyte membrane fuel cells. 2018 , 49, 23-30		67
583	Structural effects of highly E-conjugated mesogenic Schiff-base moiety on the cationic polymerization of benzoxazine and formation of ordered morphologies. 2018 , 124, 139-148		7
582	New Phosphorus-Doped Perovskite Oxide as an Oxygen Reduction Reaction Electrocatalyst in an Alkaline Solution. 2018 , 24, 6950-6957		18
581	Atomic-Level CoO Layer Stabilized by Metallic Cobalt Nanoparticles: A Highly Active and Stable Electrocatalyst for Oxygen Reduction. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 7052-7060	9.5	31

580	Nitrogen-doped carbon materials. 2018 , 132, 104-140	348
579	Bottom-Up Design of Nitrogen-Containing Carbon Catalysts for the Oxygen Reduction Reaction. 2018 , 10, 2019-2023	17
578	Recent Progress of Carbon-Based Materials in Oxygen Reduction Reaction Catalysis. 2018 , 5, 1764-1774	47
577	High-rate oxygen electroreduction over metal-free graphene foams embedding PNi coupled moieties in acidic media. 2018 , 6, 4145-4151	22
576	Highly anisotropic, multichannel wood carbon with optimized heteroatom doping for supercapacitor and oxygen reduction reaction. 2018 , 130, 532-543	112
575	Advanced Architectures and Relatives of Air Electrodes in Zn-Air Batteries. 2018 , 5, 1700691	430
574	Poplar-Catkin-Derived N, P Co-doped Carbon Microtubes as Efficient Oxygen Electrocatalysts for Zn-Air Batteries. 2018 , 5, 1113-1119	23
573	Highlighting the relative effects of surface characteristics and porosity on CO ₂ capture by adsorbents templated from melamine-based polyaminals. 2018 , 258, 573-581	26
572	High-Performance Oxygen Reduction Electrocatalysis Enabled by 3D PdNi Nanocorals with Hierarchical Porosity. 2018 , 35, 1700366	13
571	In Situ Self-Template Synthesis of Fe-N-Doped Double-Shelled Hollow Carbon Microspheres for Oxygen Reduction Reaction. 2018 , 12, 208-216	180
570	Active Salt/Silica-Templated 2D Mesoporous FeCo-N -Carbon as Bifunctional Oxygen Electrodes for Zinc-Air Batteries. 2018 , 57, 1856-1862	267
569	N-doped carbon nanotubes containing a high concentration of single iron atoms for efficient oxygen reduction. 2018 , 10, e461-e461	72
568	Pomegranate-Structured Silica/Sulfur Composite Cathodes for High-Performance Lithium-Sulfur Batteries. 2018 , 13, 568-576	5
567	Active Salt/Silica-Templated 2D Mesoporous FeCo-Nx-Carbon as Bifunctional Oxygen Electrodes for Zinc-Air Batteries. 2018 , 130, 1874-1880	36
566	Vapor-Phase Polymerization and Carbonization to Nitrogen-Doped Carbon Nanoscale Networks with Designable Pore Geometries Templated from Block Copolymers. 2018 , 5, 1701390	5
565	Astragali Radix-derived nitrogen-doped porous carbon: An efficient electrocatalyst for the oxygen reduction reaction. 2018 , 43, 551-561	18
564	Graphene-Like Nitrogen-Doped Carbon Nanosheet Prepared from Direct Calcination of Dopamine Confined by g-C ₃ N ₄ for Oxygen Reduction. 2018 , 5, 1800303	24
563	In vivo guiding nitrogen-doped carbon nanozyme for tumor catalytic therapy. <i>Nature Communications</i> , 2018 , 9, 1440	17.4 480

562	Use of Rotating Ring-Disk Electrodes to Investigate Graphene Nanoribbon Loadings for the Oxygen Reduction Reaction in Alkaline Medium. 2018 , 5, 1691-1701		20
561	Looking carbon in a solid salt—Synthesis of porous heteroatom-doped carbon foams for enhanced organic pollutant degradation under visible light. 2018 , 12, 168-176		12
560	Nitrogen-doped carbon nanosheets and nanoflowers with holey mesopores for efficient oxygen reduction catalysis. 2018 , 6, 10354-10360		55
559	Biomass based iron and nitrogen co-doped 3D porous carbon as an efficient oxygen reduction catalyst. 2018 , 523, 144-150		34
558	Organosilica with Grafted Polyacrylonitrile Brushes for High Surface Area Nitrogen-Enriched Nanoporous Carbons. 2018 , 30, 2208-2212		18
557	Zirconium-Substituted Cobalt Ferrite Nanoparticle Supported N-doped Reduced Graphene Oxide as an Efficient Bifunctional Electrocatalyst for Rechargeable Zn/Air Battery. 2018 , 8, 3715-3726		50
556	Oxygen Species on Nitrogen-Doped Carbon Nanosheets as Efficient Active Sites for Multiple Electrocatalysis. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 11678-11688	9.5	42
555	Facile one-pot hydrothermal synthesis of particle-based nitrogen-doped carbon spheres and their supercapacitor performance. 2018 , 42, 6903-6909		19
554	A Facile Approach to Prepare Multiple Heteroatom-Doped Carbon Materials from Imine-Linked Porous Organic Polymers. 2018 , 8, 4200		39
553	A Universal Method to Engineer Metal Oxide-Metal-Carbon Interface for Highly Efficient Oxygen Reduction. 2018 , 12, 3042-3051		88
552	1D N-doped hierarchically porous hollow carbon tubes derived from a supramolecular template as metal-free electrocatalysts for a highly efficient oxygen reduction reaction. 2018 , 6, 6212-6219		55
551	Improved electrochemical performance of Fe-N-C catalysts through ionic liquid modification in alkaline media. 2018 , 375, 222-232		50
550	Efficient N-doping of hollow core-mesoporous shelled carbon spheres via hydrothermal treatment in ammonia solution for the electrocatalytic oxygen reduction reaction. 2018 , 261, 88-97		57
549	Defective Carbon-Based Materials for the Electrochemical Synthesis of Hydrogen Peroxide. 2018 , 6, 311-317		153
548	Creation of Triple Hierarchical Micro-Meso-Macroporous N-doped Carbon Shells with Hollow Cores Toward the Electrocatalytic Oxygen Reduction Reaction. 2018 , 10, 3		79
547	Selective catalytic two-electron O ₂ reduction for onsite efficient oxidation reaction in heterogeneous electro-Fenton process. <i>Chemical Engineering Journal</i> , 2018 , 332, 486-498	14.7	94
546	Two-dimensional polymer-based nanosheets for electrochemical energy storage and conversion. 2018 , 27, 99-116		23
545	Self-terminated activation for high-yield production of N,P-codoped nanoporous carbon as an efficient metal-free electrocatalyst for Zn-air battery. 2018 , 128, 97-105		58

544	Construction of a hierarchical 3D Co/N-carbon electrocatalyst for efficient oxygen reduction and overall water splitting. 2018 , 6, 489-497		90
543	Facile synthesis of efficient core-shell structured iron-based carbon catalyst for oxygen reduction reaction. 2018 , 43, 1386-1395		4
542	N/S/B-doped graphitized carbon encased Fe species as a highly active and durable catalyst towards oxygen reduction reaction. 2018 , 514, 108-116		21
541	Litchi-like porous Fe/N/C spheres with atomically dispersed FeN _x promoted by sulfur as highly efficient oxygen electrocatalysts for Zn air batteries. 2018 , 6, 4605-4610		43
540	Covalent Triazine Framework Anchored with Co ₃ O ₄ Nanoparticles for Efficient Oxygen Reduction. 2018 , 5, 717-721		10
539	Ammonia Defective Etching and Nitrogen-Doping of Porous Carbon toward High Exposure of Heme-Derived FeN _x Site for Efficient Oxygen Reduction. 2018 , 6, 551-560		23
538	Electrocatalysis of oxygen reduction on heteroatom-doped nanocarbons and transition metal nitrogen carbon catalysts for alkaline membrane fuel cells. 2018 , 6, 776-804		257
537	Enhancement of oxygen reduction reaction performance: The characteristic role of FeN coordinations. <i>Electrochimica Acta</i> , 2018 , 260, 264-273	6.7	26
536	Bifunctional electrocatalysts for Zn air batteries. 2018 , 2, 39-67		123
535	CO capture by nitrogen-doped porous carbons derived from nitrogen-containing hyper-cross-linked polymers. 2018 , 513, 304-313		68
534	Biomass-derived nitrogen-doped porous carbons with tailored hierarchical porosity and high specific surface area for high energy and power density supercapacitors. 2018 , 427, 807-813		131
533	Electro-Reduction of Molecular Oxygen Mediated by a Cobalt(II)octaethylporphyrin System onto Oxidized Glassy Carbon/Oxidized Graphene Substrate. <i>Catalysts</i> , 2018 , 8, 629	4	2
532	Enhancement of nitrogen self-doped nanocarbons electrocatalyst tune-up solution plasma synthesis.. <i>RSC Advances</i> , 2018 , 8, 35503-35511	3.7	2
531	Nitrogen-doped porous carbon sphere supported Pt nanoparticles for methanol and ethanol electro-oxidation in alkaline media.. <i>RSC Advances</i> , 2018 , 8, 36353-36359	3.7	9
530	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	17.4	431
529	Graphdiyne: Recent Achievements in Photo- and Electrochemical Conversion. 2018 , 5, 1800959		61
528	Constructing Successive Active Sites for Metal-free Electrocatalyst with Boosted Electrocatalytic Activities Toward Hydrogen Evolution and Oxygen Reduction Reactions. 2018 , 10, 5194-5200		22
527	Two-dimensional nickel hydroxide nanosheets with high-content of nickel(III) species towards superior urea electro-oxidation. <i>Journal of Electroanalytical Chemistry</i> , 2018 , 829, 81-87	4.1	23

526	Low-Cost Sulfonated Phthalocyanines-Derived Hierarchical Porous Co-Cu-N-S-Doped Carbons for Efficient Oxygen Electroreduction. 2018 , 165, H658-H666		1
525	Multiscale Structural Engineering of Ni-Doped CoO Nanosheets for Zinc-Air Batteries with High Power Density. 2018 , 30, e1804653		93
524	Insights into the role of oxygen functional groups and defects in the rechargeable nonaqueous LiO ₂ batteries. <i>Electrochimica Acta</i> , 2018 , 292, 838-845	6.7	16
523	Boosting ORR Electrocatalytic Performance of Metal-Free Mesoporous Biomass Carbon by Synergism of Huge Specific Surface Area and Ultrahigh Pyridinic Nitrogen Doping. 2018 , 6, 13807-13812		49
522	Mesoporous S doped Fe-N-C materials as highly active oxygen reduction reaction catalyst. 2018 , 54, 12073-12076		36
521	Engineering the Interface of Carbon Electrocatalysts at the Triple Point for Enhanced Oxygen Reduction Reaction. 2018 , 24, 18374-18384		39
520	Covalent Phenanthroline Framework Derived FeS@Fe ₃ C Composite Nanoparticles Embedding in N-S-Codoped Carbons as Highly Efficient Trifunctional Electrocatalysts. <i>Advanced Functional Materials</i> , 2018 , 28, 1803973	15.6	95
519	Three-Dimensional N-doped Porous Carbon Derived from Monosodium Glutamate for Capacitive Deionization and the Oxygen Reduction Reaction. 2018 , 5, 3873-3880		9
518	Trimetallic Sulfide Mesoporous Nanospheres as Superior Electrocatalysts for Rechargeable Zn-Air Batteries. 2018 , 8, 1801839		69
517	Graphitic Carbon Nitride for Electrochemical Energy Conversion and Storage. 2018 , 3, 2796-2815		105
516	Hierarchical Porous Prism Arrays Composed of Hybrid Ni-NiO-Carbon as Highly Efficient Electrocatalysts for Overall Water Splitting. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 38906-38914	9.4	42
515	Design of a Three-Dimensional Interconnected Hierarchical MicroMesoporous Structure of Graphene as Support Material for Spinel NiCo ₂ O ₄ Electrocatalysts toward Oxygen Reduction Reaction. 2018 , 122, 27469-27476		34
514	Platinum Nanoparticles Dispersed on High-Surface-Area Roelike Nitrogen-Doped Mesoporous Carbon for Oxygen Reduction Reaction. 2018 , 1, 6198-6207		7
513	A Self-Sacrificing Dual-Template Strategy to Heteroatom-Enriched Porous Carbon Nanosheets with High Pyridinic-N and Pyrrolic-N Content for Oxygen Reduction Reaction and Sodium Storage. 2018 , 5, 1801149		11
512	Sepia-Derived N, P Co-doped Porous Carbon Spheres as Oxygen Reduction Reaction Electrocatalyst and Supercapacitor. 2018 , 6, 16032-16038		51
511	Designing Porous Structures and Active Sites in Carbon-Based Electrocatalysts. 2018 , 77-99		
510	Heteroatom-Doped, Three-Dimensional, Carbon-Based Catalysts for Energy Conversion and Storage by Metal-Free Electrocatalysis. 2018 , 167-225		1
509	Active Sites in Nitrogen-Doped Carbon Materials for Oxygen Reduction Reaction. 2018 , 227-249		8

508	FeN-functionalized carbon electrocatalyst derived from a zeolitic imidazolate framework for oxygen reduction: Fe and NH ₃ treatment effects. 2018 , 8, 5368-5381		32
507	Nitrogen doped hierarchical activated carbons derived from polyacrylonitrile fibers for CO adsorption and supercapacitor electrodes.. <i>RSC Advances</i> , 2018 , 8, 29767-29774	3.7	6
506	The Marriage of the FeN Moiety and MXene Boosts Oxygen Reduction Catalysis: Fe 3d Electron Delocalization Matters. 2018 , 30, e1803220		157
505	Nitrogen-doped graphene derived from ionic liquid as metal-free catalyst for oxygen reduction reaction and its mechanisms. 2018 , 225, 513-521		39
504	SiO ₂ -protected shell mediated templating synthesis of FeN-doped carbon nanofibers and their enhanced oxygen reduction reaction performance. 2018 , 11, 2208-2215		150
503	Highly efficient electrocatalyst of N-doped graphene-encapsulated cobalt-iron carbides towards oxygen reduction reaction. 2018 , 137, 358-367		71
502	Pore-scale study of effects of macroscopic pores and their distributions on reactive transport in hierarchical porous media. <i>Chemical Engineering Journal</i> , 2018 , 349, 428-437	14.7	42
501	Hierarchical oxygen reduction reaction electrocatalysts based on FeSn _{0.5} species embedded in carbon nitride-graphene based supports. <i>Electrochimica Acta</i> , 2018 , 280, 149-162	6.7	18
500	Nitrile chain reactions for cyano-based ionic liquid derived mesoporous carbon as efficient bifunctional electrocatalyst. <i>Electrochimica Acta</i> , 2018 , 280, 258-265	6.7	7
499	Hierarchical CoP/Ni ₅ P ₄ /CoP microsheet arrays as a robust pH-universal electrocatalyst for efficient hydrogen generation. 2018 , 11, 2246-2252		204
498	Novel Route to Fe-Based Cathode as an Efficient Bifunctional Catalysts for Rechargeable Zn//Air Battery. 2018 , 8, 1800955		114
497	Nitrogen-doped porous carbon as-mediated by a facile solution combustion synthesis for supercapacitor and oxygen reduction electrocatalyst. <i>Chemical Engineering Journal</i> , 2018 , 350, 278-289	14.7	57
496	All-round utilization of biomass derived all-solid-state asymmetric carbon-based supercapacitor. 2018 , 528, 349-359		45
495	Chitosan/phytic acid hydrogel as a platform for facile synthesis of heteroatom-doped porous carbon frameworks for electrocatalytic oxygen reduction. 2018 , 137, 68-77		24
494	Solvothermally Controlled Synthesis of Organic-Inorganic Hybrid Nanosheets as Efficient pH-Universal Hydrogen-Evolution Electrocatalysts. 2018 , 11, 2828-2836		20
493	3D nitrogen-doped graphene aerogels as efficient electrocatalyst for the oxygen reduction reaction. 2018 , 139, 137-144		64
492	Uniform yolk-shell Fe ₃ O ₄ @nitrogen-doped carbon composites with superior electrochemical performance for lithium-ion batteries. <i>Electrochimica Acta</i> , 2018 , 282, 595-601	6.7	22
491	Novel Nanomaterials as Electrocatalysts for Fuel Cells. 2018 , 169-204		2

490	Iron Phosphide Incorporated into Iron-Treated Heteroatoms-Doped Porous Bio-Carbon as Efficient Electrocatalyst for the Oxygen Reduction Reaction. 2018 , 5, 1944-1953		21
489	Three-Dimensional Heteroatom-Doped Nanocarbon for Metal-Free Oxygen Reduction Electrocatalysis: A Review. <i>Catalysts</i> , 2018 , 8, 301	4	22
488	Porphyrin-like Fe-N ₄ sites with sulfur adjustment on hierarchical porous carbon for different rate-determining steps in oxygen reduction reaction. 2018 , 11, 6260-6269		83
487	Atomic Fe-N Coupled Open-Mesoporous Carbon Nanofibers for Efficient and Bioadaptable Oxygen Electrode in Mg-Air Batteries. 2018 , 30, e1802669		95
486	Few-layer graphdiyne doped with sp-hybridized nitrogen atoms at acetylenic sites for oxygen reduction electrocatalysis. 2018 , 10, 924-931		379
485	Preparation and application synthesis of magnetic nanocomposite using waste toner for the removal of Cr(vi).. <i>RSC Advances</i> , 2018 , 8, 27654-27660	3.7	12
484	Carbon-Rich Nanomaterials: Fascinating Hydrogen and Oxygen Electrocatalysts. 2018 , 30, e1800528		102
483	A Defect-Driven Metal-free Electrocatalyst for Oxygen Reduction in Acidic Electrolyte. 2018 , 4, 2345-2356		193
482	Recent Advances toward the Rational Design of Efficient Bifunctional Air Electrodes for Rechargeable Zn-Air Batteries. 2018 , 14, e1703843		115
481	S-enriched porous polymer derived N-doped porous carbons for electrochemical energy storage and conversion. 2018 , 12, 346-357		5
480	Low-Temperature Carbide-Mediated Growth of Bicontinuous Nitrogen-Doped Mesoporous Graphene as an Efficient Oxygen Reduction Electrocatalyst. 2018 , 30, e1803588		57
479	Highly space-confined ammonium perchlorate in three-dimensional hierarchically ordered porous carbon with improved thermal decomposition properties. 2018 , 457, 508-515		40
478	Electrochemical performance of polyaniline-derived nitrogen-doped carbon nanowires. <i>Electrochimica Acta</i> , 2018 , 283, 1618-1631	6.7	27
477	N-doped and Fe-, N-codoped carbon: tuning of porous structures for highly efficient oxygen reduction reaction. 2018 , 53, 15246-15256		9
476	Heteroatom-doped nanoporous carbon from recyclable lobata and its dual activities for oxygen reduction and hydrogen evolution reactions.. <i>RSC Advances</i> , 2018 , 8, 24392-24398	3.7	
475	A eutectic salt-assisted semi-closed pyrolysis route to fabricate high-density active-site hierarchically porous Fe/N/C catalysts for the oxygen reduction reaction. 2018 , 6, 15504-15509		78
474	Directly Anchoring Highly Dispersed Copper Sites on Nitrogen-Doped Carbon for Enhanced Oxygen Reduction Electrocatalysis. 2018 , 5, 1822-1826		19
473	From Metal-Organic Frameworks to Single-Atom Fe Implanted N-doped Porous Carbons: Efficient Oxygen Reduction in Both Alkaline and Acidic Media. 2018 , 57, 8525-8529		462

472	From Metal-Organic Frameworks to Single-Atom Fe Implanted N-doped Porous Carbons: Efficient Oxygen Reduction in Both Alkaline and Acidic Media. 2018 , 130, 8661-8665		79
471	Mesoporous non-noble metal electrocatalyst derived from ZIF-67 and cobalt porphyrin for the oxygen reduction in alkaline solution. <i>Journal of Electroanalytical Chemistry</i> , 2018 , 825, 65-72	4.1	19
470	Synthesis of 3D N, S Dual-Doped Porous Carbons with Ultrahigh Surface Areas for Highly Efficient Oxygen Reduction Reactions. 2018 , 5, 3506-3513		4
469	Selectively nitrogen-doped carbon materials as superior metal-free catalysts for oxygen reduction. <i>Nature Communications</i> , 2018 , 9, 3376	17.4	267
468	Self-assembly of 3D porous architectures from energetic nanoparticles for enhanced energetic performances. 2018 , 20, 6387-6393		3
467	Phenolic resin derived porous carbon/Fe ₂ O ₃ composites with improved lithium storage performance. 2018 , 131, 276-282		9
466	Preparation of 3D open ordered mesoporous carbon single-crystals and their structural evolution during ammonia activation. 2018 , 54, 9494-9497		12
465	Hierarchically porous adamantane-shaped carbon nanoframes. 2018 , 6, 18906-18911		20
464	Tailoring the Structure of Carbon Nanomaterials toward High-End Energy Applications. 2018 , 30, e1802104		65
463	Polymeric graphitic carbon nitride nanosheet-coated amorphous carbon supports for enhanced fuel cell electrode performance and stability. 2018 , 237, 318-326		21
462	Recent progress in hierarchically structured O ₂ -cathodes for Li-O ₂ batteries. <i>Chemical Engineering Journal</i> , 2018 , 352, 972-995	14.7	39
461	Facile preparation of biomass-derived bifunctional electrocatalysts for oxygen reduction and evolution reactions. 2018 , 43, 8611-8622		39
460	Graphitic Nitrogen Is Responsible for Oxygen Electroreduction on Nitrogen-Doped Carbons in Alkaline Electrolytes: Insights from Activity Attenuation Studies and Theoretical Calculations. 2018 , 8, 6827-6836		132
459	The recent progress of nitrogen-doped carbon nanomaterials for electrochemical batteries. 2018 , 6, 12932-12944		149
458	Aqueous supercapacitors based on carbonized silk electrodes.. <i>RSC Advances</i> , 2018 , 8, 22146-22153	3.7	13
457	2D graphdiyne materials: challenges and opportunities in energy field. 2018 , 61, 765-786		89
456	Multiple active components synergistically driven heteroatom-doped porous carbon as high-performance counter electrode in dye-sensitized solar cells. 2019 , 31, 89-94		9
455	Porous Organic Polymers for CO ₂ Storage and Conversion Reactions. 2019 , 11, 244-257		91

454	Biomass Waste-Derived 3D Metal-Free Porous Carbon as a Bifunctional Electrocatalyst for Rechargeable Zinc-Air Batteries. 2019 , 7, 17039-17046		44
453	Two-Dimensional Conjugated Aromatic Networks as High-Site-Density and Single-Atom Electrocatalysts for the Oxygen Reduction Reaction. 2019 , 131, 14866-14872		15
452	Two-Dimensional Conjugated Aromatic Networks as High-Site-Density and Single-Atom Electrocatalysts for the Oxygen Reduction Reaction. 2019 , 58, 14724-14730		75
451	Highly dispersed Fe ₂ O ₃ embedded in nitrogen doped carbon for the efficient oxygen reduction reaction. 2019 , 9, 4581-4587		9
450	Characterization techniques and analytical methods of carbon-based materials for energy applications. 2019 , 63-88		2
449	A template-directed bifunctional NiS _x /nitrogen-doped mesoporous carbon electrocatalyst for rechargeable Zn-Air batteries. 2019 , 7, 19889-19897		27
448	Highly wrinkled carbon tubes as an advanced anode for K-ion full batteries. 2019 , 7, 20675-20682		18
447	Enhancement mechanism of sulfur dopants on the catalytic activity of N and P co-doped three-dimensional hierarchically porous carbon as a metal-free oxygen reduction electrocatalyst. 2019 , 9, 5906-5914		13
446	Hierarchical Cobalt-Doped Molybdenum-Nickel Nitride Nanowires as Multifunctional Electrocatalysts. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 27751-27759	9.5	39
445	Soybean milk derived carbon intercalated with reduced graphene oxide as high efficient electrocatalysts for oxygen reduction reaction. 2019 , 44, 21790-21802		8
444	Facile Synthesis of 3D Fe/N Codoped Mesoporous Graphene as Efficient Bifunctional Oxygen Electrocatalysts for Rechargeable Zn-Air Batteries. 2019 , 7, 13873-13885		41
443	Engineering Interface and Oxygen Vacancies of NiCoSe to Boost Oxygen Catalysis for Flexible Zn-Air Batteries. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 27964-27972	9.5	17
442	Confinement of Fe ₂ O ₃ nanoparticles in the shell of N-doped carbon hollow microsphere for efficient oxygen reduction reaction. <i>Chemical Engineering Science</i> , 2019 , 207, 235-246	4.4	22
441	Fe ₃ C nanoparticles-loaded 3D nanoporous N-doped carbon: A highly efficient electrocatalyst for oxygen reduction in alkaline media. 2019 , 44, 21506-21517		10
440	Influence of Heat Resistance of Precursor in Cathode Catalysts for Polymer Electrolyte Fuel Cell on Oxygen Reduction Activity. 2019 , 48, 152-155		1
439	N,P co-doped hollow carbon nanofiber membranes with superior mass transfer property for trifunctional metal-free electrocatalysis. 2019 , 64, 103879		70
438	Bio-Derived Co P Nanoparticles Supported on Nitrogen-Doped Carbon as Promising Oxygen Reduction Reaction Electrocatalyst for Anion Exchange Membrane Fuel Cells. 2019 , 15, e1902090		22
437	Direct carbonization of ZIF-8 to N-doped carbons: Amino acid modulation and enhanced catalytic activity for oxygen reduction reaction. 2019 , 237, 121856		13

436	In-situ synthesis and characterization of metal free heteroatom doped graphene based oxygen reduction reaction catalyst from pyrolysed Assam silk cocoons. 2019 , 268, 012040		1
435	Precise fabrication of porous one-dimensional gC3N4 nanotubes doped with Pd and Cu atoms for efficient CO oxidation and CO2 reduction. 2019 , 107, 107460		27
434	Porous Carbons Derived from Collagen-Enriched Biomass: Tailored Design, Synthesis, and Application in Electrochemical Energy Storage and Conversion. <i>Advanced Functional Materials</i> , 2019 , 29, 1905095	15.6	60
433	Hydrogen oxidation reaction on modified platinum model electrodes in alkaline media. <i>Electrochimica Acta</i> , 2019 , 327, 135016	6.7	11
432	Nitrogen and Sulfur Co-Doped Graphene-Like Carbon from Industrial Dye Wastewater for Use as a High-Performance Supercapacitor Electrode. 2019 , 3, 1900043		9
431	Metal-organic frameworks: a promising platform for constructing non-noble electrocatalysts for the oxygen-reduction reaction. 2019 , 7, 1964-1988		118
430	Atomic- and Molecular-Level Design of Functional Metal-Organic Frameworks (MOFs) and Derivatives for Energy and Environmental Applications. 2019 , 6, 1901129		77
429	Shaddock peel derived nitrogen and phosphorus dual-doped hierarchical porous carbons as high-performance catalysts for oxygen reduction reaction. 2019 , 44, 26982-26991		12
428	Fe/Co-based nanoparticles encapsulated in heteroatom-doped carbon electrocatalysts for oxygen reduction reaction. 2019 , 62, 1626-1641		13
427	Construction of a sp ³ /sp ² Carbon Interface in 3D N-Doped Nanocarbons for the Oxygen Reduction Reaction. 2019 , 131, 15233-15241		30
426	Construction of a sp ³ /sp ² Carbon Interface in 3D N-Doped Nanocarbons for the Oxygen Reduction Reaction. 2019 , 58, 15089-15097		110
425	Universal Synthesis of Porous Inorganic Nanosheets via Graphene-Cellulose Templating Route. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 34100-34108	9.5	7
424	Silver Nanoparticles Encapsulated in an N-Doped Porous Carbon Matrix as High-Active Catalysts toward Oxygen Reduction Reaction via Electron Transfer to Outer Graphene Shells. 2019 , 7, 16511-16519		11
423	Kinetics-controlled synthesis of hierarchically porous materials with tunable properties from diverse building blocks. 2019 , 155, 611-617		8
422	Highly Exposed Active Sites of Defect-Enriched Derived MOFs for Enhanced Oxygen Reduction Reaction. 2019 , 7, 17855-17862		35
421	Hollow Carbon Nanospheres with Developed Porous Structure and Retained N Doping for Facilitated Electrochemical Energy Storage. 2019 , 35, 12889-12897		17
420	A novel hard-template method for fabricating tofu-gel based N self-doped porous carbon as stable and cost-efficient electrocatalyst in microbial fuel cell. 2019 , 44, 26477-26488		10
419	In Situ ZnO-Activated Hierarchical Porous Carbon Nanofibers as Self-Standing Electrodes for Flexible Zn-Air Batteries. 2019 , 7, 17817-17824		15

4 ¹⁸	New insight to the role of edges and heteroatoms in nanocarbons for oxygen reduction reaction. 2019 , 66, 104096	44
4 ¹⁷	NH-MIL-125(Ti)-derived porous cages of titanium oxides to support Pt-Co alloys for chemoselective hydrogenation reactions. 2019 , 10, 2111-2117	24
4 ¹⁶	Rational design and construction of nanoporous iron- and nitrogen-doped carbon electrocatalysts for oxygen reduction reaction. 2019 , 7, 1380-1393	111
4 ¹⁵	N,P Co-Coordinated Manganese Atoms in Mesoporous Carbon for Electrochemical Oxygen Reduction. 2019 , 15, e1804524	51
4 ¹⁴	Multi-heteroatom doped graphene-like carbon nanospheres with 3D inverse opal structure: a promising bisphenol-A remediation material. 2019 , 6, 809-819	29
4 ¹³	Controllable nitrogen-doping of nanoporous carbons enabled by coordination frameworks. 2019 , 7, 647-656	31
4 ¹²	Ultrahigh energy density of a N, O codoped carbon nanosphere based all-solid-state symmetric supercapacitor. 2019 , 7, 1177-1186	140
4 ¹¹	Air cathode of zinc-air batteries: a highly efficient and durable aerogel catalyst for oxygen reduction. 2019 , 11, 826-832	36
4 ¹⁰	Coupling pentlandite nanoparticles and dual-doped carbon networks to yield efficient and stable electrocatalysts for acid water oxidation. 2019 , 7, 461-468	33
4 ⁰⁹	Hierarchically Porous Silica Prepared with Anionic Polyelectrolyte-Nonionic Surfactant Mesomorphous Complex as Dynamic Template. 2019 , 4, 1443-1448	2
4 ⁰⁸	Carbon-Based Metal-Free Catalysts for Energy Storage and Environmental Remediation. 2019 , 31, e1806128	118
4 ⁰⁷	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. 2019 , 54, 5412-5423	37
4 ⁰⁶	Single-Atom Fe-N _x -C as an Efficient Electrocatalyst for Zinc-Air Batteries. <i>Advanced Functional Materials</i> , 2019 , 29, 1808872	15.6 221
4 ⁰⁵	Tofu-derived nitrogen-doped mesoporous carbon materials as metal-free catalyst for oxygen reduction reaction. 2019 , 9, 401-409	7
4 ⁰⁴	N-doped 3D porous carbon catalyst derived from biowaste Triarrhena sacchariflora panicle for oxygen reduction reaction. 2019 , 146, 70-77	22
4 ⁰³	Unraveling the relationship between the morphologies of metal-organic frameworks and the properties of their derived carbon materials. 2019 , 48, 7211-7217	15
4 ⁰²	New insights into the heat of adsorption of water, acetonitrile, and n-hexane in porous carbon with oxygen functional groups. 2019 , 552, 412-417	8
4 ⁰¹	High efficient oxygen reduction performance of Fe/Fe ₃ C nanoparticles in situ encapsulated in nitrogen-doped carbon via a novel microwave-assisted carbon bath method. 2019 , 1, 131-136	5

400	Polycyclic aromatic hydrocarbons in the graphene era. 2019 , 62, 1099-1144		79
399	Iron and Iodine Co-doped Triazine-Based Frameworks with Efficient Oxygen Reduction Reaction in Alkaline and Acidic Media. 2019 , 7, 11787-11794		5
398	Morphological Attributes Govern Carbon Dioxide Reduction on N-Doped Carbon Electrodes. 2019 , 3, 1719-1733		78
397	Transforming reed waste into a highly active metal-free catalyst for oxygen reduction reaction. 2019 , 62, 700-708		28
396	Graphdiyne and its Assembly Architectures: Synthesis, Functionalization, and Applications. 2019 , 31, e1803101		133
395	Coupling metal-organic frameworks and g-CN to derive Fe@N-doped graphene-like carbon for peroxydisulfate activation: Upgrading framework stability and performance. 2019 , 255, 117763		103
394	Highly Efficient Fe-N-C Electrocatalyst for Oxygen Reduction Derived from Core-Shell-Structured Fe(OH) ₃ @Zeolitic Imidazolate Framework. 2019 , 2, 3194-3203		23
393	CO ₂ Conversion into N-Doped Carbon Nanomesh Sheets. 2019 , 2, 2991-2998		5
392	A MOF@COF Composite with Enhanced Uptake through Interfacial Pore Generation. 2019 , 58, 9512-9516		42
391	A MOF@COF Composite with Enhanced Uptake through Interfacial Pore Generation. 2019 , 131, 9612-9616		27
390	Anion exchange of a cationic Cd(II)-based metal-organic framework with potassium ferricyanide towards highly active FeC-containing Fe/N/C catalysts for oxygen reduction. 2019 , 55, 6930-6933		16
389	A room-temperature interfacial approach towards iron/nitrogen co-doped fibrous porous carbons as electrocatalysts for the oxygen reduction reaction and Zn-Air batteries. 2019 , 11, 10257-10265		26
388	Ni nanoparticles supported on carbon nanosheets with tunable N doping content for hydrogen oxidation reaction. 2019 , 728, 19-24		8
387	Fabrication of Porous Nanonetwork-Structured Carbons from Well-Defined Cylindrical Molecular Bottlebrushes. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 18763-18769	9.5	7
386	Biomass-Derived Air Cathode Materials: Pore-Controlled S,N-Co-doped Carbon for Fuel Cells and Metal-Air Batteries. 2019 , 9, 3389-3398		69
385	Coral-like Au/TiO ₂ Hollow Nanofibers with Through-Holes as a High-Efficient Catalyst through Mass Transfer Enhancement. 2019 , 35, 4843-4848		18
384	The Role of Defect Sites in Nanomaterials for Electrocatalytic Energy Conversion. 2019 , 5, 1371-1397		170
383	Nitrogen (N), Phosphorus (P)-Codoped Porous Carbon as a Metal-Free Electrocatalyst for N Reduction under Ambient Conditions. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 12408-12414	9.5	75

382	Fe ₂ O ₃ Nanoparticles Modified 2D N-Doped Porous Graphene-like Carbon as an Efficient and Robust Electrocatalyst for Oxygen Reduction Reaction. 2019 , 4, 4131-4139		6
381	Synergetic contribution of Fe/Co and N/B dopants in mesoporous carbon nanosheets as remarkable electrocatalysts for zinc-air batteries. <i>Chemical Engineering Journal</i> , 2019 , 371, 433-442	14.7	48
380	Iron and nitrogen co-doped porous carbon derived from soybean dregs with enhanced catalytic performance for oxygen reduction. <i>Journal of Electroanalytical Chemistry</i> , 2019 , 839, 141-148	4.1	13
379	3D Heteroatom-Doped Carbon Nanomaterials as Multifunctional Metal-Free Catalysts for Integrated Energy Devices. 2019 , 31, e1805598		129
378	Chemical Approaches to Carbon-Based Metal-Free Catalysts. 2019 , 31, e1804863		53
377	Progress in Nonmetal-Doped Graphene Electrocatalysts for the Oxygen Reduction Reaction. 2019 , 12, 2133-2146		45
376	Electrocatalytic Water Splitting and CO ₂ Reduction: Sustainable Solutions via Single-Atom Catalysts Supported on 2D Materials. 2019 , 3, 1800492		41
375	Visible-light-driven activation of persulfate over cyano and hydroxyl group co-modified mesoporous g-C ₃ N ₄ for boosting bisphenol A degradation. 2019 , 7, 5552-5560		130
374	Covalent organic frameworks derived hollow structured N-doped noble carbon for asymmetric-electrolyte Zn-air battery. 2019 , 62, 385-392		20
373	Carbon Nanomaterials for Energy and Biorelated Catalysis: Recent Advances and Looking Forward. 2019 , 5, 389-408		50
372	In situ nanoarchitecturing and active-site engineering toward highly efficient carbonaceous electrocatalysts. 2019 , 59, 207-215		42
371	Trifunctional Electrocatalysis on Dual-Doped Graphene Nanorings Integrated Boxes for Efficient Water Splitting and Zn-Air Batteries. 2019 , 9, 1803867		125
370	Pore Engineering of 2D Mesoporous Nitrogen-Doped Carbon on Graphene through Block Copolymer Self-Assembly. 2019 , 6, 1901476		15
369	Coupled nanocomposite Co _{5.47} Ni _{0.3} Fe ₇ inlaid in a tremella-like carbon framework as a highly efficient multifunctional electrocatalyst for oxygen transformation and overall water splitting. 2019 , 3, 3538-3549		10
368	Iron Sulfide Nanoparticles Embedded Into a Nitrogen and Sulfur Co-doped Carbon Sphere as a Highly Active Oxygen Reduction Electrocatalyst. 2019 , 7, 855		15
367	N,S-Codoped hierarchical porous carbon spheres embedded with cobalt nanoparticles as efficient bifunctional oxygen electrocatalysts for rechargeable zinc-air batteries. 2019 , 11, 21302-21310		25
366	N-, P-, and S-doped graphene-like carbon catalysts derived from onium salts with enhanced oxygen chemisorption for Zn-air battery cathodes. 2019 , 241, 442-451		190
365	A metal-organic framework-derived bifunctional catalyst for hybrid sodium-air batteries. 2019 , 241, 407-414		73

364	Hierarchical porous N-P-coupled carbons as metal-free bifunctional electro-catalysts for oxygen conversion. 2019 , 464, 380-387	31
363	Two-in-one solution using insect wings to produce graphene-graphite films for efficient electrocatalysis. 2019 , 12, 33-39	22
362	Novel and multifunctional inorganic mixing salt-templated 2D ultrathin Fe/Co-N/S-carbon nanosheets as effectively bifunctional electrocatalysts for Zn-air batteries. 2019 , 241, 95-103	76
361	Sustainable and Atomically Dispersed Iron Electrocatalysts Derived from Nitrogen- and Phosphorus-Modified Woody Biomass for Efficient Oxygen Reduction. 2019 , 6, 1801623	17
360	B, N Co-Doped Three-Dimensional Carbon Aerogels with Excellent Electrochemical Performance for the Oxygen Reduction Reaction. 2019 , 25, 2877-2883	22
359	Low-dimensional heteroatom-doped carbon nanomaterials prepared with thermally removable templates for the electrocatalytic reduction of oxygen. 2019 , 11, 253-268	11
358	Biomass derived hierarchical porous carbon materials as oxygen reduction reaction electrocatalysts in fuel cells. 2019 , 102, 1-71	74
357	An Interpenetrating Porous Organic Polymer as a Precursor for FeP/Fe P-Embedded Porous Carbon toward a pH-Universal ORR Catalyst. 2019 , 12, 915-923	33
356	Balancing the Micro-Mesoporosity for Activity Maximization of N-Doped Carbonaceous Electrocatalysts for the Oxygen Reduction Reaction. 2019 , 12, 1017-1025	36
355	Silver nanofibers with controllable microstructure and crystal facet as highly efficient and methanol-tolerant oxygen reduction electrocatalyst. 2019 , 413, 233-240	9
354	Bimetallic metal-organic frameworks derived cobalt nanoparticles embedded in nitrogen-doped carbon nanotube nanopolyhedra as advanced electrocatalyst for high-performance of activated carbon air-cathode microbial fuel cell. 2019 , 127, 181-187	36
353	Copper-assisted thermal conversion of microporous covalent melamine-boroxine frameworks to hollow B, N-codoped carbon capsules as bifunctional metal-free electrode materials. <i>Electrochimica Acta</i> , 2019 , 298, 210-218	6.7 26
352	Thermal Sugar Bubbling Preparation of N-Doped Porous Carbon for High-Performance Solid-State Zn-Air Batteries. 2019 , 2, 373-379	18
351	Hierarchically Porous Organic Materials Derived From Copolymers: Preparation and Electrochemical Applications. 2019 , 59, 149-186	4
350	Enhanced role of graphitic-N on nitrogen-doped porous carbon ball for direct dehydrogenation of ethylbenzene. 2019 , 462, 61-68	15
349	Sp ² -carbon dominant carbonaceous materials for energy conversion and storage. 2019 , 137, 1-37	18
348	Defect-Induced Pt-Co-Se Coordinated Sites with Highly Asymmetrical Electronic Distribution for Boosting Oxygen-Involving Electrocatalysis. 2019 , 31, e1805581	118
347	N-Doped porous carbon nanosheets decorated with graphitized carbon layer encapsulated CoS nanoparticles: an efficient bifunctional electrocatalyst for the OER and ORR. 2019 , 11, 901-907	65

346	Carbon-Based Metal-Free Catalysts for Key Reactions Involved in Energy Conversion and Storage. 2019 , 31, e1801526	184
345	Tunable nitrogen-doped microporous carbons: Delineating the role of optimum pore size for enhanced CO ₂ adsorption. <i>Chemical Engineering Journal</i> , 2019 , 362, 731-742	14.7 65
344	Design Principle of Fe-N-C Electrocatalysts: How to Optimize Multimodal Porous Structures?. 2019 , 141, 2035-2045	240
343	Protein hydrogel networks: A unique approach to heteroatom self-doped hierarchically porous carbon structures as an efficient ORR electrocatalyst in both basic and acidic conditions. 2019 , 246, 89-99	68
342	Highly Efficient Hydrogen Evolution from a Mesoporous Hybrid of Nickel Phosphide Nanoparticles Anchored on Cobalt Phosphosulfide/Phosphide Nanosheet Arrays. 2019 , 15, e1804272	65
341	Active Sites and Mechanism of Oxygen Reduction Reaction Electrocatalysis on Nitrogen-Doped Carbon Materials. 2019 , 31, e1804297	252
340	Bimetallic Covalent Organic Frameworks for Constructing Multifunctional Electrocatalyst. 2019 , 25, 3105-3111	32
339	Carbon particles co-doped with N, B and Fe from metal-organic supramolecular polymers for boosted oxygen reduction performance. 2019 , 412, 623-630	16
338	Well-defined gradient Fe/Zn bimetal organic framework cylinders derived highly efficient iron- and nitrogen- codoped hierarchically porous carbon electrocatalysts towards oxygen reduction. 2019 , 57, 108-117	67
337	Nitrogen-doped carbon materials as a promising platform toward the efficient catalysis for hydrogen generation. 2019 , 571, 25-41	41
336	First-row transition metals and nitrogen co-doped carbon nanotubes: The exact origin of the enhanced activity for oxygen reduction reaction. 2019 , 143, 859-868	34
335	Fabricating hierarchically porous and Fe ₃ C-embedded nitrogen-rich carbon nanofibers as exceptional electrocatalysts for oxygen reduction. 2019 , 142, 115-122	46
334	Atomic Modulation and Structure Design of Carbons for Bifunctional Electrocatalysis in Metal-Air Batteries. 2019 , 31, e1803800	141
333	In-situ formation of hierarchical 1D-3D hybridized carbon nanostructure supported nonnoble transition metals for efficient electrocatalysis of oxygen reaction. 2019 , 243, 151-160	57
332	Cobalt and nitrogen codoped porous carbon as superior bifunctional electrocatalyst for oxygen reduction and hydrogen evolution reaction in alkaline medium. <i>Chinese Chemical Letters</i> , 2019 , 30, 681-685	8.1 30
331	Nitrogen-doped hierarchically porous carbon nanopolyhedras derived from core-shell ZIF-8@ZIF-8 single crystals for enhanced oxygen reduction reaction. 2019 , 327, 366-373	28
330	N/O dual-doped hollow carbon microspheres constructed by holey nanosheet shells as large-grain cathode host for high loading Li-S batteries. 2020 , 24, 644-654	49
329	Recent progress of mesoscience in design of electrocatalytic materials for hydrogen energy conversion. 2020 , 48, 19-33	8

328	Selective electrochemical HO generation and activation on a bifunctional catalyst for heterogeneous electro-Fenton catalysis. 2020 , 382, 121102	71
327	Catalytic hydrogenation of alginic acid into sugar alcohols over ruthenium supported on nitrogen-doped mesoporous carbons. 2020 , 352, 66-72	5
326	Pyridinic nitrogen exclusively doped carbon materials as efficient oxygen reduction electrocatalysts for Zn-air batteries. 2020 , 261, 118234	85
325	Fe,Ni,S,N-doped carbon materials as highly active Bi-functional catalysts for rechargeable Zinc-Air battery. 2020 , 258, 126826	4
324	Porous Materials for Catalysis. 2020 , 115-137	7
323	String of pyrolyzed ZIF-67 particles on carbon fibers for high-performance electrocatalysis. 2020 , 25, 137-144	48
322	Nitrogen doped hierarchical porous hard carbon derived from a facial Ti-peroxy-initiating in-situ polymerization and its application in electrochemical capacitors. 2020 , 294, 109884	6
321	Green and facile synthesis of iron oxide nanoparticle-embedded N-doped biocarbon as an efficient oxygen reduction electrocatalyst for microbial fuel cells. <i>Chemical Engineering Journal</i> , 2020 , 385, 123393	33
320	Synthesis of ZIF/CNT nanonecklaces and their derived cobalt nanoparticles/N-doped carbon catalysts for oxygen reduction reaction. <i>Journal of Alloys and Compounds</i> , 2020 , 816, 152684	5.7 11
319	Porous carbon membrane with enhanced selectivity and antifouling capability for water treatment under electrochemical assistance. 2020 , 560, 59-68	19
318	Phosphorus-doped porous carbon nitride for efficient sole production of hydrogen peroxide via photocatalytic water splitting with a two-channel pathway. 2020 , 8, 3701-3707	48
317	Scalable fabrication of heteroatom-doped versatile hierarchical porous carbons with an all-in-one phthalonitrile precursor and their applications. 2020 , 159, 495-503	12
316	Iron-Nitrogen-Carbon Catalysts for Proton Exchange Membrane Fuel Cells. 2020 , 4, 33-44	127
315	Advanced nanomaterials for efficient oxygen electrodes in metal-air batteries. 2020 , 191-222	
314	Emerged carbon nanomaterials from metal-organic precursors for electrochemical catalysis in energy conversion. 2020 , 393-423	4
313	Aerobijels: Ultralight Carbon Monoliths from Cocontinuous Emulsions. <i>Advanced Functional Materials</i> , 2020 , 30, 1908383	15.6 2
312	Novel Co _{1-x} S/C-3 supported on N-doped ketjen black as an efficient electrocatalyst for oxygen reduction reaction in alkaline media. 2020 , 106, 215-226	1
311	Iron-Containing Porphyrins Self-Assembled on ZnO Nanoparticles as Electrocatalytic Materials for Oxygen Reduction. 2020 , 3, 742-751	10

310	Efficient and stable heterogeneous electro-Fenton system using iron oxides embedded in Cu, N co-doped hollow porous carbon as functional electrocatalyst. 2020 , 238, 116424	19
309	Metal-free, active nitrogen-enriched, efficient bifunctional oxygen electrocatalyst for ultrastable zinc-air batteries. 2020 , 27, 514-521	44
308	Degradation of norfloxacin by CoFe alloy nanoparticles encapsulated in nitrogen doped graphitic carbon (CoFe@N-GC) activated peroxymonosulfate. <i>Chemical Engineering Journal</i> , 2020 , 392, 123725	14.7 43
307	Iron oxide@graphitic carbon core-shell nanoparticles embedded in ordered mesoporous N-doped carbon matrix as an efficient cathode catalyst for PEMFC. 2020 , 264, 118468	40
306	Oxygen and nitrogen co-doped ordered mesoporous carbon materials enhanced the electrochemical selectivity of O reduction to HO. 2020 , 562, 540-549	19
305	3D Carbon Materials for Efficient Oxygen and Hydrogen Electrocatalysis. 2020 , 10, 1902494	56
304	Effect of Experimental Operations on the Limiting Current Density of Oxygen Reduction Reaction Evaluated by Rotating-Disk Electrode. 2020 , 7, 1107-1114	21
303	Nanopore Confinement of Electrocatalysts Optimizing Triple Transport for an Ultrahigh-Power-Density Zinc-Air Fuel Cell with Robust Stability. 2020 , 32, e2003251	38
302	Production, properties, and catalytic applications of sludge derived biochar for environmental remediation. 2020 , 187, 116390	70
301	Single-Atom Catalysts across the Periodic Table. 2020 , 120, 11703-11809	237
300	Self-assembly induced metal ionic-polymer derived Fe-Nx/C nanowire as oxygen reduction reaction electrocatalyst. 2020 , 391, 1-10	8
299	Structure and activity of nanozymes: Inspirations for de novo design of nanozymes. 2020 , 41, 81-119	127
298	Cutting edge development on graphene derivatives modified by liquid crystal and CdS/TiO ₂ hybrid matrix: optoelectronics and biotechnological aspects. 2020 , 1-65	37
297	Constructing Nitrogen, Selenium Co-Doped Graphene Aerogel Electrode Materials for Synergistically Enhanced Capacitive Performance. 2020 , 7, 3311-3318	18
296	Promoted oxygen reduction kinetics on nitrogen-doped hierarchically porous carbon by engineering proton-feeding centers. 2020 , 13, 2849-2855	44
295	Single-Atom Vacancy Defect to Trigger High-Efficiency Hydrogen Evolution of MoS. 2020 , 142, 4298-4308	287
294	NaCl-Promoted Hierarchically Porous Carbon Self-Co-Doped with Iron and Nitrogen for Efficient Oxygen Reduction. 2020 , 5, 13703-13710	0
293	Synthesis of Ultrasmall, Homogeneously Distributed Ni ₃ Fe Alloy Nanoparticles on N-Doped Porous Graphene as a Bifunctional Electrocatalyst for Rechargeable Flexible Solid Zinc-Air Batteries. 2020 , 3, 12148-12161	9

292	Template-free synthesis of hollow spherical carbons: Curvature-dependent electrocatalytic performance for oxygen reduction reaction. 2020 , 475, 228629		9
291	Secondary-Atom-Doping Enables Robust Fe-N-C Single-Atom Catalysts with Enhanced Oxygen Reduction Reaction. 2020 , 12, 163		56
290	NiCo alloy nanoparticles encapsulated in N-doped 3D porous carbon as efficient electrocatalysts for oxygen reduction reaction. 2020 , 45, 22797-22807		8
289	Solar light harvest: modified d-block metals in photocatalysis. 2020 , 10, 5321-5344		1
288	Three-dimensional layered Fe-N/C catalysts built by electrospinning and the comparison of different active species on oxygen reduction reaction performance. <i>Journal of Alloys and Compounds</i> , 2020 , 848, 156605	5.7	5
287	Heat-treated multi-walled carbon nanotubes-supported (Fe,Co,Ni)-coordinated polyporphyrin: A robust air cathode catalyst for rechargeable zinc-air batteries. <i>Electrochimica Acta</i> , 2020 , 358, 136918	6.7	7
286	Nitrogen and Sulfur Codoped Graphene Macroassemblies as High-Performance Electrocatalysts for the Oxygen Reduction Reaction in Microbial Fuel Cells. 2020 , 8, 16591-16599		11
285	Structural Advantage Induced by Zinc Gluconate: Hierarchically Porous Carbon with In-Situ Growth Iron-Inside Carbon Nanotubes for Efficient Oxygen Reduction Reaction. 2020 , 5, 12759-12763		1
284	Recent advances in electrochemical 2e oxygen reduction reaction for on-site hydrogen peroxide production and beyond. 2020 , 56, 12109-12121		31
283	Nonprecious Bimetallic Sites Coordinated on N-Doped Carbons with Efficient and Durable Catalytic Activity for Oxygen Reduction. 2020 , 16, e2000742		28
282	Enhanced electrochemical performance of modified thin carbon electrodes for all-vanadium redox flow batteries. 2020 , 1, 2033-2042		2
281	Biomass-derived nitrogen and sulfur co-doped carbon microtubes for the oxygen reduction reaction. 2020 , 4, 3251-3257		10
280	A Role of Activators for Efficient CO Affinity on Polyacrylonitrile-Based Porous Carbon Materials. 2020 , 8, 710		11
279	Nitrogen, Sulfur Co-Doped Hierarchically Porous Carbon as a Metal-Free Electrocatalyst for Oxygen Reduction and Carbon Dioxide Reduction Reaction. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 44578-44587	9.5	20
278	Tailoring the hetero-structure of iron oxides in the framework of nitrogen doped carbon for the oxygen reduction reaction and zinc-air batteries. 2020 , 8, 25791-25804		6
277	Nitrogen-Doped Porous Carbon Material Derived from Biomass of Beancurd as an Efficient Electrocatalyst for Oxygen Reduction and Zn-air Fuel Cell. 2020 , 167, 084516		8
276	Hierarchically Porous Carbons Derived from Nonporous Coordination Polymers. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 25211-25220	9.5	12
275	Designing CO ₂ reduction electrode materials by morphology and interface engineering. 2020 , 13, 2275-2309		105

274	Performance improvement of N-doped carbon ORR catalyst via large through-hole structure. 2020 , 31, 335717		9
273	Nitrogen and high oxygen-containing metal-free porous carbon nanosheets for supercapacitor and oxygen reduction reaction applications. 2020 , 1, 010036		4
272	A novel cobalt and nitrogen co-doped mesoporous hollow carbon hemisphere as high-efficient electrocatalysts for oxygen reduction reaction. 2020 , 579, 12-20		9
271	Hexagonal La O Nanocrystals Chemically Coupled with Nitrogen-Doped Porous Carbon as Efficient Catalysts for the Oxygen Reduction Reaction. 2020 , 26, 12606-12614		1
270	Nitrogen-, phosphorus-doped carbonCarbon nanotube CoP dodecahedra by controlling zinc content for high-performance electrocatalytic oxygen evolution. <i>Rare Metals</i> , 2020 , 39, 680-687	5.5	37
269	Heteroatom doped carbon nanosheets from waste tires as electrode materials for electrocatalytic oxygen reduction reaction: Effect of synthesis techniques on properties and activity. 2020 , 167, 104-113		16
268	Nanocasting SiO into metal-organic frameworks imparts dual protection to high-loading Fe single-atom electrocatalysts. <i>Nature Communications</i> , 2020 , 11, 2831	17.4	173
267	N,S dual-doped carbon nanosheet networks with hierarchical porosity derived from biomass of Allium cepa as efficient catalysts for oxygen reduction and Znair batteries. 2020 , 55, 7464-7476		16
266	Graphdiyne as a Promising Mid-Infrared Nonlinear Optical Material for Ultrafast Photonics. 2020 , 8, 2000067		38
265	Molecular engineering of nanostructures and activities on bifunctional oxygen electrocatalysts for Zinc-air batteries. 2020 , 270, 118869		19
264	Carbon-Covered Hollow Nitrogen-Doped Carbon Nanoparticles and Nitrogen-Doped Carbon-Covered Hollow Carbon Nanoparticles for Oxygen Reduction. 2020 , 3, 3487-3493		11
263	Supported and coordinated single metal site electrocatalysts. 2020 , 37, 93-111		42
262	Tailoring Hierarchically Porous Nitrogen-, Sulfur-Codoped Carbon for High-Performance Supercapacitors and Oxygen Reduction. 2020 , 16, e1906584		23
261	Graphdiyne-Polymer Nanocomposite as a Broadband and Robust Saturable Absorber for Ultrafast Photonics. 2020 , 14, 1900367		56
260	Redox reactions of halogens for reversible electrochemical energy storage. 2020 , 49, 9929-9934		9
259	Synthesis of Robust MOFs@COFs Porous Hybrid Materials via an Aza-DielsAlder Reaction: Towards High-Performance Supercapacitor Materials. 2020 , 132, 19770-19777		11
258	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	9.5	13
257	Synthesis of Robust MOFs@COFs Porous Hybrid Materials via an Aza-Diels-Alder Reaction: Towards High-Performance Supercapacitor Materials. 2020 , 59, 19602-19609		56

256	Fe ₃ O ₄ nanoparticles encapsulated in single-atom Fe-N-C towards efficient oxygen reduction reaction: Effect of the micro and macro pores. 2020 , 162, 245-255		42
255	Nitrogen and sulfur dual-doped hollow mesoporous carbon spheres as efficient metal-free catalyst for oxygen reduction reaction. 2020 , 114, 107848		10
254	N-doped carbon nanotube frameworks modified electrode for the selective sensing of hydroquinone and catechol. <i>Journal of Electroanalytical Chemistry</i> , 2020 , 861, 113968	4.1	14
253	Hierarchical and scalable integration of nanostructures for energy and environmental applications: a review of processing, devices, and economic analyses. 2020 , 4, 012002		6
252	Synthesis of a Porous CN-Derived Framework with High Yield by Gallic Acid Cross-Linking Using Salt Melts. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 13127-13133	9.5	7
251	Design and fabrication of hierarchically porous carbon frameworks with Fe ₂ O ₃ cubes as hard template for CO ₂ adsorption. <i>Chemical Engineering Journal</i> , 2020 , 389, 124459	14.7	31
250	Nitrogen-doped hierarchically structured porous carbon as a bifunctional electrode material for oxygen reduction and supercapacitor. <i>Journal of Alloys and Compounds</i> , 2020 , 826, 154208	5.7	20
249	Zinc-Mediated Template Synthesis of Fe-N-C Electrocatalysts with Densely Accessible Fe-N Active Sites for Efficient Oxygen Reduction. 2020 , 32, e1907399		183
248	Synthesis of nitrogen-doped porous hollow carbon nanospheres with a high nitrogen content: A sustainable synthetic strategy using energetic precursors. 2020 , 714, 136725		9
247	Porphyrin-Based Triazine Polymers and Their Derived Porous Carbons for Efficient CO ₂ Capture. 2020 , 59, 3205-3212		13
246	Novel g-C ₃ N ₄ assisted metal organic frameworks derived high efficiency oxygen reduction catalyst in microbial fuel cells. 2020 , 450, 227681		24
245	N- and S-doped nanoporous carbon framework derived from conjugated microporous polymers incorporation with ionic liquids for efficient oxygen reduction reaction. 2020 , 16, 100382		15
244	Applications of metal-organic framework-derived materials in fuel cells and metal-air batteries. <i>Coordination Chemistry Reviews</i> , 2020 , 409, 213214	23.2	97
243	Boosting bifunctional electrocatalytic activity in S and N co-doped carbon nanosheets for high-efficiency Zn-air batteries. 2020 , 8, 4386-4395		62
242	Nitrogen-doped carbide-derived carbon/carbon nanotube composites as cathode catalysts for anion exchange membrane fuel cell application. 2020 , 272, 119012		44
241	B, N-codoped Cu-N/B-C Composite as an Efficient Electrocatalyst for Oxygen-Reduction Reaction in Alkaline Media. 2020 , 5, 3647-3654		3
240	Indiscrete metal/metal-N-C synergic active sites for efficient and durable oxygen electrocatalysis toward advanced Zn-air batteries. 2020 , 272, 118967		53
239	Facile preparation of Fe ₃ C decorate three-dimensional N-doped porous carbon for efficient oxygen reduction reaction. 2020 , 45, 13272-13281		5

238	CoNi Nanoalloy@Organic Framework Electrocatalysts with Ultrahigh Electron Transfer Kinetics for Efficient Oxygen Reduction. 2020 , 8, 6898-6904	7
237	Fabrication and Applications of 3D Nanoarchitectures for Advanced Electrocatalysts and Sensors. 2020 , 32, e1907500	10
236	Microporous carbon from malva nut for supercapacitors: effects of primary carbonizations on structures and performances. 2020 , 105, 107816	13
235	The Current State of Aqueous Zn-Based Rechargeable Batteries. 2020 , 5, 1665-1675	127
234	Polyaniline supported g-C ₃ N ₄ quantum dots surpass benchmark Pt/C: Development of morphologically engineered g-C ₃ N ₄ catalysts towards metal-free methanol electro-oxidation. 2020 , 461, 228150	13
233	Nanoscaled Fractal Superstructures via Laser Patterning: A Versatile Route to Metallic Hierarchical Porous Materials. 2021 , 8, 2000253	6
232	Preparation and Application of Hierarchical Porous Carbon Materials from Waste and Biomass: A Review. 2021 , 12, 1699-1724	30
231	The study of the pyrolysis products of Ni (II) and Pd (II) chelate complexes as catalysts for the oxygen electroreduction reaction. 2021 , 25, 789-796	0
230	Carbon hybrid with 3D nano-forest architecture in-situ catalytically constructed by CoFe alloy as advanced multifunctional electrocatalysts for Zn-air batteries-driven water splitting. 2021 , 53, 422-432	19
229	Iron porphyrin-derived ordered carbonaceous frameworks. 2021 , 364, 164-171	5
228	PEDOT functionalized ZIF-67 derived Co-N-S triple-doped porous carbon for high-efficiency oxygen reduction. 2021 , 535, 147659	10
227	Highly active sites of low spin Fe/N ₄ species: The identification and the ORR performance. 2021 , 14, 122-130	20
226	Modulating Single-Atom Palladium Sites with Copper for Enhanced Ambient Ammonia Electrosynthesis. 2021 , 133, 349-354	19
225	Bifunctional air electrodes for flexible rechargeable Zn-air batteries. <i>Chinese Chemical Letters</i> , 2021 , 32, 999-1009	8.1 6
224	Coordination Engineering of Single-Atom Catalysts for the Oxygen Reduction Reaction: A Review. 2021 , 11, 2002473	74
223	Structural regulation of N-doped carbon nanocages as high-performance bifunctional electrocatalysts for rechargeable Zn-air batteries. 2021 , 173, 715-723	9
222	Self-templating construction of N, P-co-doped carbon nanosheets for efficient electrocatalytic oxygen reduction reaction. <i>Chemical Engineering Journal</i> , 2021 , 410, 128015	14.7 10
221	Self-Assembly Approach Towards MoS ₂ -Embedded Hierarchical Porous Carbons for Enhanced Electrocatalytic Hydrogen Evolution. 2021 , 27, 2155-2164	1

220	Porous nitrogen-enriched hollow carbon nanofibers as freestanding electrode for enhanced lithium storage. 2021 , 32, 416-422		2
219	Synthesis of an ordered porous carbon with the dual nitrogen-doped interfaces and its ORR catalysis performance. <i>Chinese Chemical Letters</i> , 2021 , 32, 140-145	8.1	6
218	N,S-Co-Doped Porous Carbon Nanofiber Films Derived from Fullerenes (C ₆₀) as Efficient Electrocatalysts for Oxygen Reduction and a Zn-Air Battery. 2021 , 27, 1423-1429		8
217	Hollow Carbon-Based Nanoarchitectures Based on ZIF: Inward/Outward Contraction Mechanism and Beyond. 2021 , 17, e2004142		21
216	Design of hollow carbon-based materials derived from metal-organic frameworks for electrocatalysis and electrochemical energy storage. 2021 , 9, 3880-3917		41
215	Nitrogen-Doped Porous Graphene-like Carbon Nanosheets as Efficient Oxygen Reduction Reaction Catalysts under Alkaline and Acidic Conditions. 2021 , 60, 210-217		1
214	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	14.7	31
213	Modulating Single-Atom Palladium Sites with Copper for Enhanced Ambient Ammonia Electrosynthesis. 2021 , 60, 345-350		57
212	Hierarchical N-Doped Carbons Endowed with Structural Base Sites toward Highly Selective Adsorption and Catalytic Oxidation of H ₂ S. 2021 , 60, 2101-2111		7
211	Crystalline/amorphous hetero-phase Ru nanoclusters for efficient electrocatalytic oxygen reduction and hydrogen evolution. 2021 , 5, 6648-6658		2
210	Boosting Energy Storage via Confining Soluble Redox Species onto Solid-Liquid Interface. 2021 , 11, 2003599		15
209	Highly exposed discrete Co atoms anchored in ultrathin porous N, P-codoped carbon nanosheets for efficient oxygen electrocatalysis and rechargeable aqueous/solid-state Zn-air batteries.		2
208	The cooperation of Fe ₃ C nanoparticles with isolated single iron atoms to boost the oxygen reduction reaction for Zn-air batteries. 2021 , 9, 6831-6840		28
207	Performance of Nitrogen-doped Hollow Carbon Spheres as Oxidase Mimic. 2021 , 36, 527		1
206	An MnO ₂ nanosheet@nitrogen-doped graphene aerogel enables high specific energy and high specific power for supercapacitors and Zn-air batteries. 2021 , 9, 5848-5856		3
205	Heteroatom-doped carbon-based oxygen reduction electrocatalysts with tailored four-electron and two-electron selectivity. 2021 , 57, 7350-7361		6
204	Multifunctional carbon-based metal-free catalysts for advanced energy conversion and storage. 2021 , 2, 100328		24
203	Green synthesis of iron and nitrogen co-doped porous carbon via pyrolysing lotus root as a high-performance electrocatalyst for oxygen reduction reaction. 2021 , 45, 10393-10408		6

202	Defect and Doping Co-Engineered Non-Metal Nanocarbon ORR Electrocatalyst. 2021 , 13, 65	49
201	Meso-macroporous Carbons Decorated with Ample Nitrogen Sites as Bifunctional Catalysts in CO ₂ Catalytic Conversion and Oxygen Reduction Reaction. 2021 , 6, 1570-1578	1
200	Rational design of hierarchically porous Fe-N-doped carbon as efficient electrocatalyst for oxygen reduction reaction and Zn-air batteries. 2021 , 14, 4768	5
199	N-rich mesoporous carbon supported Co ₂ N ₂ C and Fe ₂ N ₂ C catalysts derived from o-phenylenediamine for oxygen reduction reaction. 2021 , 45, 13531-13544	2
198	Understanding of Neighboring Fe-N ₄ -C and Co-N ₄ -C Dual Active Centers for Oxygen Reduction Reaction. <i>Advanced Functional Materials</i> , 2021 , 31, 2011289	15.6 43
197	Superior stability and methanol tolerance of a metal-free nitrogen-doped hierarchical porous carbon electrocatalyst derived from textile waste. 2021 , 11, 1834-1846	3
196	A hierarchically ordered porous nitrogen-doped carbon catalyst with densely accessible Co-N active sites for efficient oxygen reduction reaction. 2021 , 317, 111002	8
195	Nanostructured Iron Sulfide/N, S Dual-Doped Carbon Nanotube-Graphene Composites as Efficient Electrocatalysts for Oxygen Reduction Reaction. 2021 , 14,	7
194	Metal organic framework (MOF) in aqueous energy devices. 2021 , 48, 270-270	16
193	Highly Porous Chitosan-derived Nitrogen-doped Carbon Applicable for High-performance Gas Diffusion Oxygen Electrodes. 2021 , 50, 636-639	
192	Bifunctional Covalent Organic Framework-Derived Electrocatalysts with Modulated p-Band Centers for Rechargeable Zn-Air Batteries. <i>Advanced Functional Materials</i> , 2021 , 31, 2101727	15.6 26
191	Review Current Progress of Non-Precious Metal for ORR Based Electrocatalysts Used for Fuel Cells. 2021 , 168, 044521	3
190	Understanding the Oxygen Reduction Reaction Activity of Quasi-1D and 2D N-Doped Heat-Treated Graphene Oxide Catalysts with Inherent Metal Impurities. 2021 , 4, 3593-3603	7
189	MIL-101-Derived Mesoporous Carbon Supporting Highly Exposed Fe Single-Atom Sites as Efficient Oxygen Reduction Reaction Catalysts. 2021 , 33, e2101038	94
188	Carbon-based nonprecious metal electrocatalysts derived from MOFs for oxygen-reduction reaction. 2021 , 45, 15676-15738	5
187	The Role of Sulfur Doping in Determining the Performance of Fe/N-C Based Electrocatalysts for Oxygen Reduction Reactions. 2021 , 168, 054523	1
186	Bimetallic ZIFs derived nitrogen-doped hollow carbon with carbon nanotube bridges as a superior oxygen reduction reaction electrocatalyst. 2021 , 97, 466-475	5
185	Modification of the Coordination Environment of Active Sites on MoC for High-Efficiency CH ₄ Production. 2021 , 11, 2100044	8

- ¹⁸⁴ Emulsion-Guided Controllable Construction of Anisotropic Particles: Droplet Size Determines Particle Structure. **2021**, 33, e2102930 6
- ¹⁸³ Iron-Containing Nitrogen-Doped Carbon Nanomaterials Prepared via NaCl Template as Efficient Electrocatalysts for the Oxygen Reduction Reaction. **2021**, 8, 2288-2297 2
- ¹⁸² Efficient ORR activity of N-doped porous carbon encapsulated cobalt electrocatalyst derived from a novel bimetal-organic framework. **2021**, 138, 111237 7
- ¹⁸¹ Novel composite phase change materials based on hollow carbon nanospheres supporting fatty amines with high light-to-thermal transition efficiency. **2021**, 225, 111035 7
- ¹⁸⁰ Characterisation of passively Q-switched Yb:Lu₂O₃ ceramic laser based on graphdiyne absorber. **2021**, 115, 103739 3
- ¹⁷⁹ Advances in Zeolite Imidazolate Frameworks (ZIFs) Derived Bifunctional Oxygen Electrocatalysts and Their Application in Zinc-Air Batteries. **2021**, 11, 2100514 24
- ¹⁷⁸ Extra Sodiation Sites in Hard Carbon for High Performance Sodium Ion Batteries.. **2021**, 5, e2100580 6
- ¹⁷⁷ An azine-based polymer derived hierarchically porous N-doped carbon for hydrophilic dyes removal. **2021**, 413, 125299 9
- ¹⁷⁶ N, P, and S tri-doped holey carbon as an efficient electrocatalyst for oxygen reduction in whole pH range for fuel cell and zinc-air batteries. **2021**, 179, 365-376 11
- ¹⁷⁵ Bimetal-organic framework-derived carbon nanocubes with 3D hierarchical pores as highly efficient oxygen reduction reaction electrocatalysts for microbial fuel cells. 1 3
- ¹⁷⁴ Constructing Precise Coordination of Nickel Active Sites on Hierarchical Porous Carbon Framework for Superior Oxygen Reduction. **2021**, 17, e2102125 15
- ¹⁷³ Atomic Pyridinic Nitrogen Sites Promoting Levulinic Acid Hydrogenations over Double-Shelled Hollow Ru/C Nanoreactors. **2021**, 17, e2101271 9
- ¹⁷² Engineering Carbon Materials for Electrochemical Oxygen Reduction Reactions. **2021**, 11, 2100695 13
- ¹⁷¹ Metal-Free B, N co-Doped Hierarchical Porous Carbon Electrocatalyst with an Excellent O Reduction Performance. **2021**, 10, 713-719 2
- ¹⁷⁰ Selection of hydrogel electrolytes for flexible zinc-air batteries. **2021**, 21, 100538 6
- ¹⁶⁹ Metal-free carbon based air electrodes for Zn-air batteries: Recent advances and perspective. **2021**, 140, 111315 5
- ¹⁶⁸ One-Step Chemical Vapor Deposition Synthesis of Hierarchical Ni and N Co-Doped Carbon Nanosheet/Nanotube Hybrids for Efficient Electrochemical CO₂ Reduction at Commercially Viable Current Densities. **2021**, 11, 10333-10344 4
- ¹⁶⁷ Improved the specificity of peroxidase-like carbonized polydopamine nanotubes with high nitrogen doping for glutathione detection. **2021**, 341, 129987 2

166	Constructing Graphitic-Nitrogen-Bonded Pentagons in Interlayer-Expanded Graphene Matrix toward Carbon-Based Electrocatalysts for Acidic Oxygen Reduction Reaction. 2021 , 33, e2103133		8
165	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	9.5	4
164	A flexible and wearable epidermal ethanol biofuel cell for on-body and real-time bioenergy harvesting from human sweat. 2021 , 86, 106061		23
163	Design high performance biomass-derived renewable carbon material for electric energy storage system. 2021 , 309, 127391		2
162	Rapid Access to Ordered Mesoporous Carbons for Chemical Hydrogen Storage. 2021 , 133, 22652-22660		2
161	Rapid Access to Ordered Mesoporous Carbons for Chemical Hydrogen Storage. 2021 , 60, 22478-22486		11
160	Nitrogen-doped carbon nanowalls/diamond films as efficient electrocatalysts toward oxygen reduction reaction. 2021 , 33,		0
159	Self-assembled manganese phthalocyanine nanoparticles with enhanced peroxidase-like activity for anti-tumor therapy. 1		6
158	MOF/PCP-based Electrocatalysts for the Oxygen Reduction Reaction. 1		6
157	Advanced Trifunctional Electrocatalysis with Cu-, N-, S-Doped Defect-Rich Porous Carbon for Rechargeable Zn-Air Batteries and Self-Driven Water Splitting.		3
156	Metal-organic framework assembly derived hierarchically ordered porous carbon for oxygen reduction in both alkaline and acidic media. <i>Chemical Engineering Journal</i> , 2021 , 430, 132762	14.7	2
155	Defect-rich and metal-free N, S co-doped 3D interconnected mesoporous carbon material as an advanced electrocatalyst towards oxygen reduction reaction. 2021 , 184, 127-135		21
154	Porous N, B co-doped carbon nanotubes as efficient metal-free electrocatalysts for ORR and Zn-air batteries. <i>Chemical Engineering Journal</i> , 2021 , 422, 130134	14.7	27
153	Facile preparation of N-doped hierarchically porous carbon derived from pitch-based hyper-cross-linked polymers as an efficient metal-free catalyst for oxygen-reduction. 2021 , 565, 150579		2
152	Bovine blood husbandry waste as a pathway to renewable energy. 2021 , 90, 106505		2
151	Harnessing selective and durable electrosynthesis of H ₂ O ₂ over dual-defective yolk-shell carbon nanosphere toward on-site pollutant degradation. 2021 , 298, 120572		7
150	Introduction. 2021 , 1-34		
149	Highly fluorescent nitrogen-doped graphene quantum dots (N-GQDs) as an efficient nanoprobe for imaging of microbial cells. 1-8		4

148	High energy density aqueous zinc/quinone batteries enabled by carbon cloth with multiple anchoring effects. 2021 , 9, 6131-6138	7
147	Functionalized graphene-based nanocomposites for smart optoelectronic applications. 2021 , 10, 605-635	7
146	High-performance electrocatalyst based on polyazine derived mesoporous nitrogen-doped carbon for oxygen reduction reaction.. <i>RSC Advances</i> , 2021 , 11, 29555-29563	3.7 0
145	Sacrificial ZnO nanorods drive N and O dual-doped carbon towards trifunctional electrocatalysts for Zn//air batteries and self-powered water splitting devices. 2021 , 11, 4149-4161	2
144	Preparation of zero valence Pd nanoparticles with ultra-efficient electrocatalytic activity for ORR. 2021 , 9, 14507-14514	15
143	Atomic-level engineering of two-dimensional electrocatalysts for CO reduction. 2021 , 13, 7081-7095	7
142	Defect-rich N/S-co-doped porous hollow carbon nanospheres derived from fullerenes as efficient electrocatalysts for the oxygen-reduction reaction and Zn//air batteries.	2
141	Covalent organic frameworks (COFs) for electrochemical applications. 2021 , 50, 6871-6913	104
140	Carbon Nanotubes Loaded on Graphene Microfolds as Efficient Bifunctional Electrocatalysts for the Oxygen Reduction and Oxygen Evolution Reactions. 2017 , 9, 4520-4528	7
139	Synthesis of Metal/Metal Oxide Supported Reduced Graphene Oxide (RGO) for the Applications of Electrocatalysis and Supercapacitors. 2019 , 1-48	3
138	Encapsulated FeP nanoparticles with in-situ formed P-doped graphene layers: Boosting activity in oxygen reduction reaction. 2021 , 64, 1159-1172	7
137	Catalyst Engineering for Electrochemical Energy Conversion from Water to Water: Water Electrolysis and the Hydrogen Fuel Cell. 2020 , 6, 653-679	30
136	Local Modulation of Single-Atomic Mn Sites for Enhanced Ambient Ammonia Electrosynthesis. 2021 , 11, 509-516	37
135	Surface/interface nanoengineering for rechargeable Zn//air batteries. 2020 , 13, 1132-1153	148
134	Effect of porphyrin metal center on synthesis, structure, morphology and oxygen reduction properties of porphyrin encapsulated metal organic frameworks. 2021 , 25, 1-9	2
133	Facile Synthesis of Graphene-like Porous Carbon with Densely Populated Co-Nx Sites as Efficient Bifunctional Electrocatalysts for Rechargeable Zinc//air Batteries. 2021 , 4, 11545-11554	4
132	Bringing catalytic order out of chaos with nitrogen-doped ordered mesoporous carbon. 2021 , 4, 3161-3194	26
131	Nanocarbon Materials in Catalysis. 25-63	

130	N and S Co-doped Ordered Mesoporous Carbon: An Efficient Electrocatalyst for Oxygen Reduction Reaction in Microbial Fuel Cells. 2020 , 16, 625-638		0
129	Graphene and Its Composites. 2021 , 21-35		
128	Catalytic performance of nanostructured materials recently used for developing fuel cells electrodes. 2021 , 46, 39315-39368		5
127	FeN ₄ -doped carbon nanotubes derived from metal organic frameworks for effective degradation of organic dyes by peroxydisulfate: Impacts of FeN ₄ spin states. <i>Chemical Engineering Journal</i> , 2021 , 133339	14.7	2
126	Spinel-Type Metal Oxide Nanoparticles Supported on Platelet-Type Carbon Nanofibers as a Bifunctional Catalyst for Oxygen Evolution Reaction and Oxygen Reduction Reaction. 2020 , 88, 566-573		2
125	Iron and nitrogen-doped double gyroid mesoporous carbons for oxygen reduction in acidic environments. 2021 , 3, 015001		0
124	Fine-Tuning Pyridinic Nitrogen in Nitrogen-Doped Porous Carbon Nanostructures for Boosted Peroxidase-Like Activity and Sensitive Biosensing. 2020 , 2020, 8202584		7
123	One-pot synthesis of hierarchically porous carbons with high microporosity as high-rate electrocatalysts. 2022 , 576, 151853		1
122	Aerosol-assisted synthesis of bimetallic nanoparticle-loaded bamboo-like N-doped carbon nanotubes as an efficient bifunctional oxygen catalyst for Zn-air batteries.		1
121	Second harmonic generation from tetraphenylethylene functionalized graphdiyne.		
120	Wood for Application in Electrochemical Energy Storage Devices. 2021 , 2, 100654		1
119	Template-free construction of hollow mesoporous carbon spheres from a covalent triazine framework for enhanced oxygen electroreduction. 2021 ,		6
118	Molecular Engineering toward High-Crystallinity Yet High-Surface-Area Porous Carbon Nanosheets for Enhanced Electrocatalytic Oxygen Reduction. 2021 , e2103477		2
117	Atomic Fe-N /C in flexible carbon fiber membrane as binder-free air cathode for Zn-air batteries with stable cycling over 1000 hours. 2021 , e2105410		23
116	Ionothermal-Transformation Strategy to Synthesize Hierarchically Tubular Porous Single-Iron-Atom Catalysts for High-Performance Zinc-Air Batteries. <i>ACS Applied Materials & Interfaces</i> , 2021 ,	9.5	2
115	Zinc chloride-activated micro-mesoporous carbon material derived from energy grass and its electrocatalytic performance toward oxygen reduction reaction. 2021 , 46, 103697		2
114	Mesoporous Carbon Promoting the Efficiency and Stability of Single Atomic Electrocatalysts for Oxygen Reduction Reaction. <i>SSRN Electronic Journal</i> ,		1
113	Metal OxideCarbon Nanocomposites for Electrochemical Storage. 2022 , 49-67		

112	Scalable preparation of high-strength hierarchically porous carbon beads with bicontinuous macroporous network by solvent induced phase separation technique for NO _x removal. 2022 , 330, 111620	0
111	Enhanced oxygen reduction with carbon-polyhedron-supported discrete cobalt-nitrogen sites for Zn-air batteries. <i>Chemical Engineering Journal</i> , 2022 , 431, 134084	14.7 3
110	A Facile "Double Catalysts" Approach to Directionally Fabricate Pyridinic N-B Pair Doped Crystal Graphene Nanoribbons/Amorphous Carbon Hybrid Electrocatalysts for Efficient Oxygen Reduction Reaction.. 2022 , e2107040	8
109	Stable Thiophene-sulfur Covalent Organic Frameworks for Oxygen Reduction Reaction(ORR). 1	3
108	Multiple roles of graphene in electrocatalysts for metal-air batteries. 2022 ,	1
107	Bifunctional Single-Atom Cobalt Electrocatalysts with Dense Active Sites Prepared via a Silica Xerogel Strategy for Rechargeable Zinc-Air Batteries.. 2022 , 12,	4
106	Bio-Based Graphene Sheet/Copolymer Composite as Supporting Material for Nanocatalysts towards Electrochemical Studies and Direct Alkaline Alcohol Fuel Cells. 2022 , 2022, 1-13	0
105	Liquid-assisted grinding/compression: a facile mechanosynthetic route for the production of high-performing Co ₉ N ₄ electrocatalyst materials. 2022 , 24, 305-314	1
104	Atomically Dispersed Fe ₂ O ₃ Dual Metal Sites as Bifunctional Oxygen Electrocatalysts for Rechargeable and Flexible Zn-Air Batteries. 2022 , 12, 1216-1227	31
103	Electrochemical functionalization of carbon nanomaterials and their application in immobilization of enzymes. 2022 , 67-103	
102	Porous carbons for energy storage and conversion. 2022 , 239-540	
101	Mesoporous carbon promoting the efficiency and stability of single atomic electrocatalysts for oxygen reduction reaction. 2022 , 191, 393-402	3
100	MOF-derived CoN/CoFe/NC bifunctional electrocatalysts for zinc-air batteries. 2022 , 582, 152375	1
99	Citrulline-induced mesoporous CoS/CoO heterojunction nanorods triggering high-efficiency oxygen electrocatalysis in solid-state Zn-air batteries. <i>Chemical Engineering Journal</i> , 2022 , 434, 134744	14.7 4
98	Activated carbon-based electrodes for two-steps catalytic/ electrocatalytic reduction of glycerol in Amberlyst-15 mediator.. <i>Chemosphere</i> , 2022 , 133949	8.4
97	Progress of Fabrication and Applications of Electrospun Hierarchically Porous Nanofibers. 1	6
96	Interfacial Assembly of Functional Mesoporous Carbon-Based Materials into Films for Batteries and Electrocatalysis. 2101998	4
95	Advanced Zn-I Battery with Excellent Cycling Stability and Good Rate Performance by a Multifunctional Iodine Host.. <i>ACS Applied Materials & Interfaces</i> , 2022 ,	9.5 3

- 94 Highly Porous Iron-Doped Nitrogen-Carbon Framework on Reduced Graphene Oxide as an Excellent Oxygen Reduction Catalyst for Proton-Exchange Membrane Fuel Cells. 1
- 93 A hierarchically ordered porous Fe, N, S tri-doped carbon electrocatalyst with densely accessible Fe-N active sites and uniform sulfur-doping for efficient oxygen reduction reaction.. **2022**, 615, 617-626 1
- 92 Balance of N-Doping Engineering and Carbon Chemistry to Expose Edge Graphitic N Sites for Enhanced Oxygen Reduction Electrocatalysis.. *ACS Applied Materials & Interfaces*, **2021**, 13, 61129-61138 2
- 91 Advanced carbon-based nanostructured materials for fuel cells. **2022**, 201-227
- 90 Synthesis of a graphitized hierarchical porous carbon material supported with a transition metal for electrochemical conversion. 1
- 89 Interaction of water with nitrogen-doped graphene. **2022**, 105, 0
- 88 Block Copolymer Self-Assembly Guided Synthesis of Mesoporous Carbons with In-Plane Holey Pores for Efficient Oxygen Reduction Reaction.. **2022**, e2100884 0
- 87 Controlled Synthesis of Mesoporous EConjugated Polymer Nanoarchitectures as Anodes for Lithium-Ion Batteries.. **2022**, e2100897 1
- 86 Applications of Collagen-Derived Carbons in Electrochemical Energy Storage and Conversion. **2022**, 243-286
- 85 Theoretical Investigation of the Active Sites in N-Doped Graphene Bilayer for the Oxygen Reduction Reaction in Alkaline Media in PEMFCs. **2022**, 126, 5863-5872 1
- 84 Porous Structure Controlling the Selectivity of Oxygen Reduction Reaction on N-Doped Carbon in Alkaline Solution. **2022**, 7, 0
- 83 Preparation of nitrogen-doped porous carbon modified by iron carbide and its application in an oxygen reduction reaction. **2022**, 134, 1
- 82 Favorable pore size distribution of biomass-derived N, S dual-doped carbon materials for advanced oxygen reduction reaction. **2022**, 47, 12964-12974 1
- 81 Successful Manufacturing Protocols of N-Rich Carbon Electrodes Ensuring High ORR Activity: A Review. **2022**, 10, 643 1
- 80 Preparation and Characterization of Multi-Doped Porous Carbon Nanofibers from Carbonization in Different Atmospheres and Their Oxygen Electrocatalytic Properties Research.. **2022**, 12, 1
- 79 A comprehensive review on the thermal, electrical, and mechanical properties of graphene-based multi-functional epoxy composites. 1 4
- 78 N-doped carbon nanotubes supported Pt nanowire catalysts for proton exchange membrane fuel cells. **2022**, 529, 231229 0
- 77 In-situ construction of ultrathin MoP-MoS₂ heterostructure on N, P and S co-doped hollow carbon spheres as nanoreactor for efficient hydrogen evolution. *Chemical Engineering Journal*, **2022**, 438, 135544 14.7 1

76	Nitrogen doped porous carbon polyhedral supported Fe and Ni dual-metal single-atomic catalysts: template-free and metal ligand-free synthesis with microwave-assistance and d-band center modulating for boosted ORR catalysis in zinc-air batteries. <i>Chemical Engineering Journal</i> , 2022 , 437, 135295	14.7	1
75	Highly ordered nanoarrays catalysts embedded in carbon nanotubes as highly efficient and robust air electrode for flexible solid-state rechargeable zinc-air batteries.. 2022 , 616, 679-690		1
74	Accelerated oxygen evolution enabled by encapsulating hybrid CoOx/RuO2 nanoparticle with nanoporous carbon. 2022 , 589, 152958		0
73	Hollow Carbon Nanospheres Decorated with Abundant Pyridinic N+O for Efficient Acetylene Hydrochlorination. 2022 , 10, 194-203		3
72	Oxygen Reduction Reaction of Block Copolymer Template-Directed Porous Carbon Catalysts. 2022 , 5, 897-914		1
71	High-Performance Zinc-Air Batteries Based on Bifunctional Hierarchically Porous Nitrogen-Doped Carbon. 2021 , e2105928		2
70	Mesoporous carbons from self-assembled polymers.		1
69	Hierarchical Core-Shell Co N/CoP Embedded in N, P-doped Carbon Nanotubes as Efficient Oxygen Reduction Reaction Catalysts for Zn-air Batteries.. 2022 , e2108094		1
68	Hollow twin shell nanocomposite of ultrafine Fe3(PO4)2 embedded N,P,S-doped hierarchical carbon as bifunctional oxygen electrocatalyst for Zn-air batteries. 2022 , 10, 107693		
67	Data_Sheet_1.docx. 2019 ,		
66	Water on porous, nitrogen-containing layered carbon materials: the performance of computational model chemistries.. <i>Physical Chemistry Chemical Physics</i> , 2022 ,	3.6	
65	Lewis base sites of non-oxide supports boost oxygen absorption and activation over supported Pt catalysts.. <i>RSC Advances</i> , 2022 , 12, 12537-12543	3.7	0
64	Edge-enriched N, S co-doped hierarchical porous carbon for oxygen reduction reaction. <i>Chinese Chemical Letters</i> , 2022 ,	8.1	0
63	Synthesis of Pure Thiophene-Sulfur-Doped Graphene for an Oxygen Reduction Reaction with High Performance.. <i>Journal of Physical Chemistry Letters</i> , 2022 , 4350-4356	6.4	0
62	Polyethyleneimine-reinforced Sn/Cu foam dendritic self-supporting catalytic cathode for CO reduction to HCOOH.. <i>Chemosphere</i> , 2022 , 134704	8.4	0
61	Highly porous nanostructures: Rational fabrication and promising application in energy electrocatalysis. <i>Coordination Chemistry Reviews</i> , 2022 , 466, 214604	23.2	5
60	Non-Noble-Metal Catalyst and Zn/Graphene Film for Low-Cost and Ultra-Long-Durability Solid-State Zn-Air Batteries in Harsh Electrolytes. <i>Advanced Functional Materials</i> , 2200397	15.6	4
59	Structural and Electronic Modulations of Imidazolium Covalent Organic Framework-Derived Electrocatalysts for Oxygen Redox Reactions in Rechargeable Zn-Air Batteries.. <i>ACS Applied Materials & Interfaces</i> , 2022 ,	9.5	1

58	Highly Dispersed Co-, N-, S-Doped Topological Defect-Rich Hollow Carbon Nanoboxes as Superior Bifunctional Oxygen Electrocatalysts for Rechargeable Zn//Air Batteries. <i>ACS Applied Materials & Interfaces</i> ,	9.5	1
57	Cobalt-Containing Nitrogen-Doped Carbon Materials Derived from Saccharides as Efficient Electrocatalysts for Oxygen Reduction Reaction. <i>Catalysts</i> , 2022 , 12, 568	4	1
56	One-pot synthesized, Fe-incorporated self-standing carbons with a hierarchical porosity remove carbamazepine and sulfamethoxazole through heterogeneous electro-Fenton. <i>Chemical Engineering Journal</i> , 2022 , 137006	14.7	1
55	Bio-Inspired Micro-Reactor Mimicking Multi-Ridged Mitochondrial Intima for Efficient Oxygen Reduction. <i>SSRN Electronic Journal</i> ,	1	
54	Oxygen reduction reaction by metal-free catalysts. 2022 , 241-275		
53	Bimetal nanoparticles hybridized with carbon nanotube boosting bifunctional oxygen electrocatalytic performance. <i>Rare Metals</i> ,	5.5	0
52	Metal-Free Carbon-Based Nanomaterials: Fuel Cell Applications as Electrocatalysts. 2022 , 73-139		
51	New nitrogen-doped graphitic carbon nanosheets with rich structural defects and hierarchical nanopores as efficient metal-free electrocatalysts for oxygen reduction reaction in Zn-Air batteries. <i>Chemical Engineering Science</i> , 2022 , 259, 117816	4.4	0
50	Interconnected hierarchical nanoarchitectonics of porous carbon nanosheets derived from renewable biomass for efficient oxygen evolution reaction. <i>Journal of Alloys and Compounds</i> , 2022 , 166321	5.7	0
49	Nano-CaCO ₃ templated porous carbons anchored with Fe single atoms enable high-efficiency N ₂ electroreduction to NH ₃ . <i>Electrochimica Acta</i> , 2022 , 426, 140805	6.7	0
48	Electroreduction of oxygen on iron- and cobalt-containing nitrogen-doped carbon catalysts prepared from the rapeseed press cake. <i>Journal of Electroanalytical Chemistry</i> , 2022 , 920, 116599	4.1	0
47	Bio-Inspired Micro-Reactor Mimicking Multi-Ridged Mitochondrial Intima for Efficient Oxygen Reduction.		
46	State-of-the-art and developmental trends in platinum group metal-free cathode catalyst for anion exchange membrane fuel cell (AEMFC). 2022 , 121733		2
45	Understanding Synthesis-Structure-Performance Correlations of Nanoarchitected Activated Carbons for Electrochemical Applications and Carbon Capture. 2204714		4
44	Enhanced nitrogen doping in porous carbon and its composite with MnO ₂ as an efficient oxygen reduction catalyst for Mg//air batteries.		0
43	CO ₂ Conversion on N-Doped Carbon Catalysts via Thermo- and Electrocatalysis: Role of C/N/Ox Moieties. 2022 , 12, 10127-10140		
42	Fabrication of visible-light-active Fe-2MI film electrode for simultaneous removal of Cr(VI) and phenol. 2022 , 151, 107013		0
41	NaCl-Induced Construction of Hierarchically Porous Fe ₂ C Electrocatalysts with Concave Dodecahedron Morphology for Acidic Oxygen Reduction.		0

- 40 Three-Dimensional Fe Single-Atom Catalyst for High-Performance Cathode of Zn//Air Batteries. **2022**, 22, 7386-7393 3
- 39 Synergistic Electrocatalytic Syngas Production from Carbon Dioxide by Bi-Metallic Atomically Dispersed Catalysts. **2022**, 9, 0
- 38 Flexible Biofuel Cell-In-A-Tube (i ez Tube): An Entirely Self-Contained Biofuel Cell for Wearable Green Bio-energy Harvesting. 2209697 0
- 37 Doping Effect on Mesoporous Carbon-Supported Single-Site Bifunctional Catalyst for Zinc//Air Batteries. 4
- 36 Essential data for industrially relevant development of bifunctional cathodes and biopolymer electrolytes in solid-state zinc//air secondary batteries. 0
- 35 Preparing Co/N-Doped Carbon as Electrocatalyst toward Oxygen Reduction Reaction via the Ancient Pharaoh's Snakes Reaction. **2022**, 8, 150 0
- 34 Design of Oxygen Reduction Catalysts in Primary Zinc//Air Batteries. **2022**, 35-67 1
- 33 Rational design of advanced oxygen electrocatalysts for high-performance zinc-air batteries. **2022**, 0
- 32 Bio-inspired micro-reactor mimicking multi-ridged mitochondrial intimae for efficient oxygen reduction. **2023**, 610, 155469 0
- 31 Organic ligand-facilitated in situ exsolution of CoFe alloy over Ba_{0.5}Sr_{0.5}Co_{0.8}Fe_{0.2}O₃ perovskite toward enhanced oxygen electrocatalysis for rechargeable Zn-air batteries. 0
- 30 Tailoring of Active Sites from Single to Dual Atom Sites for Highly Efficient Electrocatalysis. 0
- 29 3D Macro/mesoporous Highly Reproducible Amino-functionalized Covalent Organic Framework Nanospheres for Fat-rich Foodstuffs Pretreatment in Nontargeted Analysis. **2022**, 140319 0
- 28 Hierarchical Porous Carbon Anchored Atomic/Clustered Cobalt for Boosting Oxygen Reduction Electrocatalysis. 0
- 27 Biomass-derived carbon material as efficient electrocatalysts for the oxygen reduction reaction. **2023**, 168, 106676 0
- 26 High-performance zinc//air batteries enabled by hybridizing atomically dispersed FeN₂ with Co₃O₄ nanoparticles. 1
- 25 Boosting the oxygen electrode reaction performance of porous carbon derived composites via extracting encapsulated Co nanoparticles by in-situ catalyzed carbon nanotubes. **2023**, 937, 168393 0
- 24 Strategies for enhancing the catalytic activity and electronic conductivity of MOFs-based electrocatalysts. **2023**, 478, 214969 1
- 23 Y and Fe co-doped LaNiO₃ perovskite as a novel bifunctional electrocatalyst for rechargeable zinc-air batteries. **2022**, 0

22	Zinc-assisted synthesis of Fe-N-C catalysts based on polyaniline with high oxygen reduction reaction catalytic activities in direct methanol fuel cells.	0
21	CoO x Supported on EMOc for Efficient Electrocatalytic Oxygen Evolution Reaction. 2022 , 9,	0
20	Carbon-Based Electrocatalysts for Acidic Oxygen Reduction Reaction.	0
19	Carbon-Based Electrocatalysts for Acidic Oxygen Reduction Reaction.	0
18	Nonmetallic nitrogen doped MnO ₂ as highly efficient oxygen electrocatalyst for rechargeable zinc-air batteries.	0
17	Versatile Carbon Superstructures for Energy Storage.	1
16	Rational design of porous Fe _x -N@MOF as a highly efficient catalyst for oxygen reduction over a wide pH range. 2023 , 944, 169039	0
15	Molten NaCl assisted pyrolysis of ZIF-8/PAN electrospun fibers to synthesis 1D cross-linked mesoporous N-rich carbon as oxygen reduction electrocatalysts. 2023 , 463, 142174	0
14	Mesoporous Carbon-Based Materials for Enhancing the Performance of Lithium-Sulfur Batteries. 2023 , 24, 7291	0
13	Recent Progress of the Preparation and Application of Electrospun Porous Nanofibers. 2023 , 15, 921	4
12	Tetrazole-functionalized benzoquinoline-linked covalent organic frameworks with efficient performance for electrocatalytic H ₂ O ₂ production and LiB batteries. 2023 , 7, 1650-1658	0
11	The effect of acid composition on the preparation of graphene oxide as a catalyst for glycerol acetylation. 2023 ,	0
10	Nanoporous Carbon Materials for Energy Harvesting, Storage, and Conversion. 2023 , 41-63	0
9	Nanostructured Conducting Polymers and Their Applications in Energy Storage Devices. 2023 , 15, 1450	1
8	Regulating the Coordination Geometry and Oxidation State of Single-Atom Fe Sites for Enhanced Oxygen Reduction Electrocatalysis. 2300373	0
7	One-Pot Synthesis of Nitrogen-Doped Porous Carbon Derived from the <i>Siraitia grosvenorii</i> Peel for Rechargeable Zinc-Air Batteries. 2023 , 37, 5412-5420	0
6	Carbon-Based Electrodes for Advanced Zinc-Air Batteries: Oxygen-Catalytic Site Regulation and Nanostructure Design. 2023 , 6,	0
5	Universal Fully Integrated Wearable Sensor Arrays for the Multiple Electrolyte and Metabolite Monitoring in Raw Sweat, Saliva, or Urine.	1

- 4 Enhanced adhesion and corrosion resistance of reduced graphene oxide coated-steel with iron oxide nanoparticles. **2023**, 624, 157121 ○
- 3 Experimental and theoretical insights into cobalt nanoparticles encapsulated in N- and S-codoped carbon as advanced bifunctional electrocatalyst for rechargeable zinc-air batteries. **2023**, 6, ○
- 2 A Stable Imide-Linked Metalphthalocyanine Framework with Atomically Dispersed Fe-N 4 Sites and Ultrafine Nickel Oxide Nanoparticles to Boost Reversible Oxygen Electrocatalysis with a Record-Low \overline{E} of 0.59V. ○
- 1 Pomegranate-Like Fe₃N₄C with Optimized Fe₃N₄ Configuration as Bi-Functional Catalysts for Rechargeable Zinc-Air Batteries. ○