

Co₃O₄ nanocrystals on graphene as a synergistic cataly

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Citation Report

#	ARTICLE	IF	CITATIONS
62	Nitrogen doping of graphene nanoflakes by thermal plasma as catalyst for oxygen reduction in Proton Exchange Membrane fuel cells. , 2012, , .		3
63	Hierarchical mesoporous perovskite La ₀ Sr _{0.5} CoO _{2.91} nanowires with ultrahigh capacity for Li-air batteries. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 19569-19574.	3.3	315
64	Tailoring nanostructured catalysts for electrochemical energy conversion systems. Nanotechnology Reviews, 2012, 1, 427-453.	2.6	13
65	Nitrogen-Doped Graphene-Rich Catalysts Derived from Heteroatom Polymers for Oxygen Reduction in Nonaqueous Lithium-O ₂ Battery Cathodes. ACS Nano, 2012, 6, 9764-9776.	7.3	486
66	Controlled Synthesis of CeO ₂ /Graphene Nanocomposites with Highly Enhanced Optical and Catalytic Properties. Journal of Physical Chemistry C, 2012, 116, 11741-11745.	1.5	198
67	Synthesis of Octopus-Tentacle-Like Cu Nanowire-Ag Nanocrystals Heterostructures and Their Enhanced Electrocatalytic Performance for Oxygen Reduction Reaction. ACS Applied Materials & Interfaces, 2012, 4, 6654-6660.	4.0	46
68	Iron phthalocyanine and nitrogen-doped graphene composite as a novel non-precious catalyst for the oxygen reduction reaction. Nanoscale, 2012, 4, 7326.	2.8	189
69	Graphene for energy conversion and storage in fuel cells and supercapacitors. Nano Energy, 2012, 1, 534-551.	8.2	628
70	Controlled Synthesis of Pd-Pt Alloy Hollow Nanostructures with Enhanced Catalytic Activities for Oxygen Reduction. ACS Nano, 2012, 6, 2410-2419.	7.3	348
71	Reduced graphene oxide/nickel nanocomposites: facile synthesis, magnetic and catalytic properties. Journal of Materials Chemistry, 2012, 22, 3471.	6.7	273
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77	DNA-Directed Growth of Pd Nanocrystals on Carbon Nanotubes towards Efficient Oxygen Reduction Reactions. Chemistry - A European Journal, 2012, 18, 15693-15698.	1.7	51
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80	Complementary microscopy techniques applied for optimizing the structure and performance of graphene-based hybrids. Ultramicroscopy, 2012, 119, 97-101.	0.8	9

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#	ARTICLE	IF	CITATIONS
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1099	Hydrogel-derived non-precious electrocatalysts for efficient oxygen reduction. Scientific Reports, 2015, 5, 11739.	1.6	22
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1133	Ni Nano-particle Encapsulated in Hollow Carbon Sphere Electrocatalyst in Polymer Electrolyte Membrane Water Electrolyzer. <i>Electrochimica Acta</i> , 2015, 167, 429-438.	2.6	15
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1152	Tricobalt tetroxide nanoplate arrays on flexible conductive fabric substrate: Facile synthesis and application for electrochemical supercapacitors. <i>Journal of Power Sources</i> , 2015, 283, 251-259.	4.0	51
1153	Graphene-Based Composite Materials for Chemical Sensor Application. <i>Nanoscience and Technology</i> , 2015, , 65-101.	1.5	11
1154	Electrochemical tuning of olivine-type lithium transition-metal phosphates as efficient water oxidation catalysts. <i>Energy and Environmental Science</i> , 2015, 8, 1719-1724.	15.6	167
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1163	Cu-Deficient Plasmonic Cu _x S Nanoplate Electrocatalysts for Oxygen Reduction. <i>ACS Catalysis</i> , 2015, 5, 2534-2540.	5.5	81
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1184	Ultrathin Spinel-Structured Nanosheets Rich in Oxygen Deficiencies for Enhanced Electrocatalytic Water Oxidation. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 7399-7404.	7.2	1,118

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1187	Trinary Layered Double Hydroxides as High-Performance Bifunctional Materials for Oxygen Electrocatalysis. <i>Advanced Energy Materials</i> , 2015, 5, 1500245.	10.2	328
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1192	Electrochemical doping of three-dimensional graphene networks used as efficient electrocatalysts for oxygen reduction reaction. <i>Nanoscale</i> , 2015, 7, 9394-9398.	2.8	50
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1196	High pressure pyrolyzed non-precious metal oxygen reduction catalysts for alkaline polymer electrolyte membrane fuel cells. <i>Nanoscale</i> , 2015, 7, 7644-7650.	2.8	66
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1199	Strongly coupled Pt nanotubes/N-doped graphene as highly active and durable electrocatalysts for oxygen reduction reaction. <i>Nano Energy</i> , 2015, 13, 318-326.	8.2	62
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1205	One-pot synthesis of cobalt-coordinated N-doped carbon catalysts via co-synthesis of ionic liquids and cobalt porphyrins. <i>Chemical Communications</i> , 2015, 51, 16637-16640.	2.2	16
1206	Structure-activity relationship in high-performance iron-based electrocatalysts for oxygen reduction reaction. <i>Journal of Power Sources</i> , 2015, 300, 279-284.	4.0	68
1207	One-pot fabrication of yolk-shell structured La _{0.9} Sr _{0.1} CoO ₃ perovskite microspheres with enhanced catalytic activities for oxygen reduction and evolution reactions. <i>Journal of Materials Chemistry A</i> , 2015, 3, 22448-22453.	5.2	70
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1209	Oxygen reduction electrocatalysts based on spatially confined cobalt monoxide nanocrystals on holey N-doped carbon nanowires: the enlarged interfacial area for performance improvement. <i>Journal of Materials Chemistry A</i> , 2015, 3, 21647-21654.	5.2	17
1210	Electrocatalytic performances of N-doped graphene with anchored iridium species in oxygen reduction reaction. <i>2D Materials</i> , 2015, 2, 034019.	2.0	20
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1214	An amorphous CoSe film behaves as an active and stable full water-splitting electrocatalyst under strongly alkaline conditions. <i>Chemical Communications</i> , 2015, 51, 16683-16686.	2.2	336
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1217	Photoelectrochemical water splitting in an organic artificial leaf. <i>Journal of Materials Chemistry A</i> , 2015, 3, 23936-23945.	5.2	61
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1222	Nb ₂ O ₅ nanoparticles supported on reduced graphene oxide sheets as electrocatalyst for the H ₂ O ₂ electrogeneration. <i>Journal of Catalysis</i> , 2015, 332, 51-61.	3.1	70
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1224	Influence of enolate/epoxy configuration, doping and vacancy on the catalytic activity of graphene. <i>RSC Advances</i> , 2015, 5, 93215-93225.	1.7	20
1225	Hydrothermal synthesis of 2D MoS ₂ nanosheets for electrocatalytic hydrogen evolution reaction. <i>RSC Advances</i> , 2015, 5, 89389-89396.	1.7	110
1226	A nitrogen-doped mesoporous carbon containing an embedded network of carbon nanotubes as a highly efficient catalyst for the oxygen reduction reaction. <i>Nanoscale</i> , 2015, 7, 19201-19206.	2.8	55
1227	Nanoparticle Superlattices as Efficient Bifunctional Electrocatalysts for Water Splitting. <i>Journal of the American Chemical Society</i> , 2015, 137, 14305-14312.	6.6	377
1228	Defective titanium dioxide single crystals exposed by high-energy {001} facets for efficient oxygen reduction. <i>Nature Communications</i> , 2015, 6, 8696.	5.8	263
1229	Facile Synthesis of Co ₃ O ₄ /Nitrogen-Doped Graphene Composite and their Electrochemical Performances. <i>Advanced Materials Research</i> , 0, 1120-1121, 347-351.	0.3	0
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1232	A chemistry and material perspective on lithium redox flow batteries towards high-density electrical energy storage. <i>Chemical Society Reviews</i> , 2015, 44, 7968-7996.	18.7	388
1233	In Situ X-ray Absorption Near-Edge Structure Study of Advanced NiFe(OH) _x Electrocatalyst on Carbon Paper for Water Oxidation. <i>Journal of Physical Chemistry C</i> , 2015, 119, 19573-19583.	1.5	146
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#	ARTICLE	IF	CITATIONS
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1512	Mesoporous cobalt hydroxide prepared using liquid crystal template for efficient oxygen evolution in alkaline media. <i>Electrochimica Acta</i> , 2016, 207, 177-186.	2.6	36
1513	Unipolar resistive switching effect and mechanism of solution-processed spinel Co ₃ O ₄ thin films. <i>Materials and Design</i> , 2016, 103, 230-235.	3.3	24
1514	Nanoporous Mn-based electrocatalysts through thermal conversion of cyano-bridged coordination polymers toward ultra-high efficiency hydrogen peroxide production. <i>Journal of Materials Chemistry A</i> , 2016, 4, 9266-9274.	5.2	51
1515	CoFe ₂ O ₄ nanoparticles anchored on bowl-like carbon backbone for enhanced reversible lithium storage. <i>RSC Advances</i> , 2016, 6, 50153-50157.	1.7	13
1516	Cobalt oxide anchored on nitrogen and sulfur dual-doped graphene foam as an effective oxygen electrode catalyst in alkaline media. <i>Applied Materials Today</i> , 2016, 4, 1-8.	2.3	34
1517	Scalable Seashell-Based Chemical Vapor Deposition Growth of Three-Dimensional Graphene Foams for Oil-Water Separation. <i>Journal of the American Chemical Society</i> , 2016, 138, 6360-6363.	6.6	212
1518	NiCo ₂ O ₄ @La _{0.8} Sr _{0.2} MnO ₃ core-shell structured nanorods as efficient electrocatalyst for Li O ₂ battery with enhanced performances. <i>Journal of Power Sources</i> , 2016, 319, 19-26.	4.0	43
1519	Unusually Huge Charge Storage Capacity of Mn ₃ O ₄ -Graphene Nanocomposite Achieved by Incorporation of Inorganic Nanosheets. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 13360-13372.	4.0	46
1520	Photoelectrochemical Solar Fuel Production. , 2016, , .		87
1521	Carbon-based electrocatalyst derived from bimetallic metal-organic framework arrays for high performance oxygen reduction. <i>Nano Energy</i> , 2016, 25, 100-109.	8.2	124
1522	Bulk Production of Nonprecious Metal Catalysts from Cheap Starch as Precursor and Their Excellent Electrochemical Activity. <i>ACS Sustainable Chemistry and Engineering</i> , 2016, 4, 3235-3244.	3.2	22
1523	The Oxygen Evolution Reaction: Mechanistic Concepts and Catalyst Design. , 2016, , 41-104.		81
1524	Hollow CoP nanoparticle/N-doped graphene hybrids as highly active and stable bifunctional catalysts for full water splitting. <i>Nanoscale</i> , 2016, 8, 10902-10907.	2.8	158
1525	In situ grown Co ₃ O ₄ on hydrogen storage alloys for enhanced electrochemical performance. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 8946-8953.	3.8	26
1526	Hierarchical NiCo ₂ O ₄ hollow nanospheres as high efficient bi-functional catalysts for oxygen reduction and evolution reactions. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 8847-8854.	3.8	104
1527	Cobalt phosphate nanoparticles decorated with nitrogen-doped carbon layers as highly active and stable electrocatalysts for the oxygen evolution reaction. <i>Journal of Materials Chemistry A</i> , 2016, 4, 8155-8160.	5.2	222
1528	An efficient bifunctional electrocatalyst for water splitting based on cobalt phosphide. <i>Nanotechnology</i> , 2016, 27, 23LT01.	1.3	54

#	ARTICLE	IF	CITATIONS
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1530	Facile synthesis of highly active and durable PdM/C (M = Fe, Mn) nanocatalysts for the oxygen reduction reaction in an alkaline medium. <i>Journal of Materials Chemistry A</i> , 2016, 4, 8337-8349.	5.2	51
1531	Highly acid-durable carbon coated Co ₃ O ₄ nanoarrays as efficient oxygen evolution electrocatalysts. <i>Nano Energy</i> , 2016, 25, 42-50.	8.2	187
1532	An efficient bifunctional two-component catalyst for oxygen reduction and oxygen evolution in reversible fuel cells, electrolyzers and rechargeable air electrodes. <i>Energy and Environmental Science</i> , 2016, 9, 2020-2024.	15.6	221
1533	CoO nanoparticles embedded in three-dimensional nitrogen/sulfur co-doped carbon nanofiber networks as a bifunctional catalyst for oxygen reduction/evolution reactions. <i>Carbon</i> , 2016, 106, 84-92.	5.4	134
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1535	Versatile nanoporous bimetallic phosphides towards electrochemical water splitting. <i>Energy and Environmental Science</i> , 2016, 9, 2257-2261.	15.6	535
1536	Enhancing Activity and Stability of Cobalt Oxide Electrocatalysts for the Oxygen Evolution Reaction via Transition Metal Doping. <i>Journal of the Electrochemical Society</i> , 2016, 163, F3020-F3028.	1.3	55
1537	Volatilizable template-assisted scalable preparation of honeycomb-like porous carbons for efficient oxygen electroreduction. <i>Journal of Materials Chemistry A</i> , 2016, 4, 10820-10827.	5.2	54
1538	Facile Synthesis of Co ₃ O ₄ /Nitrogen-Doped Graphene Composite with Enhanced Electrochemical Performance. <i>Materials Science Forum</i> , 2016, 847, 14-21.	0.3	5
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1540	MOF Derived Nonstoichiometric Ni _x Co ₃ O ₄ Nanocage for Superior Electrocatalytic Oxygen Evolution. <i>Advanced Materials Interfaces</i> , 2016, 3, 1600632.	1.9	111
1541	Application of graphene in dye and quantum dots sensitized solar cell. <i>Solar Energy</i> , 2016, 137, 531-550.	2.9	32
1542	Preparation of Cobalt Sulfide Nanoparticle-Decorated Nitrogen and Sulfur Co-Doped Reduced Graphene Oxide Aerogel Used as a Highly Efficient Electrocatalyst for Oxygen Reduction Reaction. <i>Small</i> , 2016, 12, 5920-5926.	5.2	65
1543	Efficient catalyst of defective CeO _{2-x} and few-layer carbon hybrid for oxygen reduction reaction. <i>Journal of Alloys and Compounds</i> , 2016, 688, 613-618.	2.8	41
1544	Cobalt nanoparticles encapsulated in N-doped graphene nanoshells as an efficient cathode electrocatalyst for a mechanical rechargeable zinc-air battery. <i>RSC Advances</i> , 2016, 6, 90069-90075.	1.7	22
1545	Ultrafine Co ₂ P nanoparticles encapsulated in nitrogen and phosphorus dual-doped porous carbon nanosheet/carbon nanotube hybrids: high-performance bifunctional electrocatalysts for overall water splitting. <i>Journal of Materials Chemistry A</i> , 2016, 4, 15501-15510.	5.2	90
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#	ARTICLE	IF	CITATIONS
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1548	Activating earth-abundant electrocatalysts for efficient, low-cost hydrogen evolution/oxidation: sub-monolayer platinum coatings on titanium tungsten carbide nanoparticles. <i>Energy and Environmental Science</i> , 2016, 9, 3290-3301.	15.6	138
1549	Bifunctional CoP and CoN porous nanocatalysts derived from ZIF-67 in situ grown on nanowire photoelectrodes for efficient photoelectrochemical water splitting and CO ₂ reduction. <i>Journal of Materials Chemistry A</i> , 2016, 4, 15353-15360.	5.2	90
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1551	LaNiO ₃ -nanorod/graphene composite as an efficient bi-functional catalyst for zinc-air batteries. <i>RSC Advances</i> , 2016, 6, 86386-86394.	1.7	55
1552	In situ anchoring of Co ₉ S ₈ nanoparticles on N and S co-doped porous carbon tube as bifunctional oxygen electrocatalysts. <i>NPG Asia Materials</i> , 2016, 8, e308-e308.	3.8	164
1553	Novel Hydrogel-Derived Bifunctional Oxygen Electrocatalyst for Rechargeable Air Cathodes. <i>Nano Letters</i> , 2016, 16, 6516-6522.	4.5	241
1554	A general melt-injection-decomposition route to oriented metal oxide nanowire arrays. <i>Applied Surface Science</i> , 2016, 390, 760-764.	3.1	9
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1560	Electronic Coupling of Cobalt Nanoparticles to Nitrogen-Doped Graphene for Oxygen Reduction and Evolution Reactions. <i>ChemSusChem</i> , 2016, 9, 3067-3073.	3.6	21
1561	Pt nanoparticle and Fe,N-codoped 3D graphene as synergistic electrocatalyst for oxygen reduction reaction. <i>Journal of Power Sources</i> , 2016, 335, 31-37.	4.0	32
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1563	One-Pot Microwave-Assisted Synthesis of Reduced Graphene Oxide/Iron Oxide Nanocomposite Catalyst for the Oxygen Reduction Reaction. <i>ChemistrySelect</i> , 2016, 1, 3640-3646.	0.7	22
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#	ARTICLE	IF	CITATIONS
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1570	Tuning Nanowires and Nanotubes for Efficient Fuel-Cell Electrocatalysis. <i>Advanced Materials</i> , 2016, 28, 10117-10141.	11.1	228
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1572	Insights into the Catalytic Activity of Barium Carbonate for Oxygen Reduction Reaction. <i>Journal of Physical Chemistry C</i> , 2016, 120, 22895-22902.	1.5	15
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1586	Transition metal (Fe, Co, Ni, and Mn) oxides for oxygen reduction and evolution bifunctional catalysts in alkaline media. <i>Nano Today</i> , 2016, 11, 601-625.	6.2	738
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1595	Metal-organic framework derived CoSe ₂ nanoparticles anchored on carbon fibers as bifunctional electrocatalysts for efficient overall water splitting. <i>Nano Research</i> , 2016, 9, 2234-2243.	5.8	215
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1656	Vanadium Carbide Based Composite for High Performance Oxygen Reduction Reaction and Lithium Ion Batteries. <i>ChemistrySelect</i> , 2016, 1, 2682-2686.	0.7	13
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1661	Enhanced electrocatalytic performance of perovskite supported iron oxide nanoparticles for oxygen reduction reaction. <i>RSC Advances</i> , 2016, 6, 94826-94832.	1.7	14
1662	Oxidation of Cobalt by Oxygen Bombardment at Room Temperature. <i>Journal of Physical Chemistry C</i> , 2016, 120, 22421-22425.	1.5	14
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1669	Cobalt-Nitrogen Co-Doped Carbon Nanotube Cathode Catalyst for Alkaline Membrane Fuel Cells. <i>ChemElectroChem</i> , 2016, 3, 1455-1465.	1.7	66
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#	ARTICLE	IF	CITATIONS
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#	ARTICLE	IF	CITATIONS
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#	ARTICLE	IF	CITATIONS
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#	ARTICLE	IF	CITATIONS
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#	ARTICLE	IF	CITATIONS
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1786	A Bonded Double-Doped Graphene Nanoribbon Framework for Advanced Electrocatalysis. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 16649-16655.	4.0	13
1787	X ₂₀ CoCrWMo ₁₀₋₉ //Co ₃ O ₄ : a metal-ceramic composite with unique efficiency values for water-splitting in the neutral regime. <i>Energy and Environmental Science</i> , 2016, 9, 2609-2622.	15.6	84
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1792	Dual-Templated Cobalt Oxide for Photochemical Water Oxidation. <i>ChemSusChem</i> , 2016, 9, 409-415.	3.6	12
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1794	Graphene Emerges as a Versatile Template for Materials Preparation. <i>Small</i> , 2016, 12, 2674-2688.	5.2	56
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1796	Catalytic properties of graphitic and pyridinic nitrogen doped on carbon black for oxygen reduction reaction. <i>Chinese Journal of Catalysis</i> , 2016, 37, 1119-1126.	6.9	68
1797	Phosphorus and cobalt co-doped reduced graphene oxide bifunctional electrocatalyst for oxygen reduction and evolution reactions. <i>RSC Advances</i> , 2016, 6, 64155-64164.	1.7	18
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1800	Recent Advances in Inorganic Heterogeneous Electrocatalysts for Reduction of Carbon Dioxide. <i>Advanced Materials</i> , 2016, 28, 3423-3452.	11.1	1,256
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1807	CoMn Layered Double Hydroxides/Carbon Nanotubes Architectures as High-Performance Electrocatalysts for the Oxygen Evolution Reaction. <i>ChemElectroChem</i> , 2016, 3, 906-912.	1.7	78
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1810	Deep eutectic solvent promoted one step sustainable conversion of fresh seaweed biomass to functionalized graphene as a potential electrocatalyst. <i>Green Chemistry</i> , 2016, 18, 2819-2826.	4.6	84
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1813	Controlled growth cerium oxide nanoparticles on reduced graphene oxide for oxygen catalytic reduction. <i>Electrochimica Acta</i> , 2016, 191, 669-676.	2.6	42
1814	A versatile strategy to fabricate MOFs/carbon material integrations and their derivatives for enhanced electrocatalysis. <i>RSC Advances</i> , 2016, 6, 7728-7735.	1.7	28
1815	Ultrathin cobalt phosphide nanosheets as efficient bifunctional catalysts for a water electrolysis cell and the origin for cell performance degradation. <i>Green Chemistry</i> , 2016, 18, 2287-2295.	4.6	108
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1818	Synergistic effect between strongly coupled CoAl layered double hydroxides and graphene for the electrocatalytic reduction of oxygen. <i>Electrochimica Acta</i> , 2016, 192, 196-204.	2.6	28
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1820	Cloud-like graphene nanoplatelets on Nd _{0.5} Sr _{0.5} Co ₃ nanorods as an efficient bifunctional electrocatalyst for hybrid Li-air batteries. <i>Journal of Materials Chemistry A</i> , 2016, 4, 2122-2127.	5.2	54
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1824	Supramolecular gel-assisted synthesis of double shelled Co@CoO@C/C nanoparticles with synergistic electrocatalytic activity for the oxygen reduction reaction. <i>Nanoscale</i> , 2016, 8, 4681-4687.	2.8	74
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1827	Exploration of the electrochemical mechanism of ultrasmall multiple phases molybdenum carbides nanocrystals for hydrogen evolution reaction. <i>RSC Advances</i> , 2016, 6, 9240-9246.	1.7	48
1828	Functionalized graphene oxide and multi-walled carbon nanotubes in hexadecyl trimethyl ammonium bromide and chitosan matrix as metal-free catalyst for enhanced oxygen reduction reaction. <i>Fullerenes Nanotubes and Carbon Nanostructures</i> , 2016, 24, 144-148.	1.0	2
1829	Organic-inorganic hybrid PtCo nanoparticle with high electrocatalytic activity and durability for oxygen reduction. <i>NPG Asia Materials</i> , 2016, 8, e237-e237.	3.8	57
1830	Subnanometer Cobalt-Hydroxide-Anchored N-Doped Carbon Nanotube Forest for Bifunctional Oxygen Catalyst. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 1571-1577.	4.0	67
1831	Microporous Organic Polymers Derived Microporous Carbon Supported Pd Catalysts for Oxygen Reduction Reaction: Impact of Framework and Heteroatom. <i>Journal of Physical Chemistry C</i> , 2016, 120, 2187-2197.	1.5	54
1832	Three-dimensional (3D) interconnected networks fabricated via in-situ growth of N-doped graphene/carbon nanotubes on Co-containing carbon nanofibers for enhanced oxygen reduction. <i>Nano Research</i> , 2016, 9, 317-328.	5.8	70
1833	Oxygen reduction catalyzed by nanocomposites based on graphene quantum dots-supported copper nanoparticles. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 1559-1567.	3.8	37
1834	Facile Synthesis of Nickel-Iron/Nanocarbon Hybrids as Advanced Electrocatalysts for Efficient Water Splitting. <i>ACS Catalysis</i> , 2016, 6, 580-588.	5.5	354

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1836	Self-assembled Co ₃ O ₄ nanostructure with controllable morphology towards high performance anode for lithium ion batteries. <i>Electrochimica Acta</i> , 2016, 188, 909-916.	2.6	34
1837	Carbon-Dotted Defective CoO with Oxygen Vacancies: A Synergetic Design of Bifunctional Cathode Catalyst for Li ⁺ O ₂ Batteries. <i>ACS Catalysis</i> , 2016, 6, 400-406.	5.5	194
1838	Towards high-efficiency nanoelectrocatalysts for oxygen reduction through engineering advanced carbon nanomaterials. <i>Chemical Society Reviews</i> , 2016, 45, 1273-1307.	18.7	589
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1840	Cobalt nitrides as a class of metallic electrocatalysts for the oxygen evolution reaction. <i>Inorganic Chemistry Frontiers</i> , 2016, 3, 236-242.	3.0	243
1841	Direct electrochemical formation of nanostructured amorphous Co(OH) ₂ on gold electrodes with enhanced activity for the oxygen evolution reaction. <i>Journal of Materials Chemistry A</i> , 2016, 4, 991-999.	5.2	175
1842	Spontaneous Cross-linking for Fabrication of Nanohybrids Embedded with Size-Controllable Particles. <i>ACS Nano</i> , 2016, 10, 889-898.	7.3	61
1843	Graphene oxide-polydopamine derived N, S-codoped carbon nanosheets as superior bifunctional electrocatalysts for oxygen reduction and evolution. <i>Nano Energy</i> , 2016, 19, 373-381.	8.2	597
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1846	A switchable pH-differential unitized regenerative fuel cell with high performance. <i>Journal of Power Sources</i> , 2016, 314, 76-84.	4.0	28
1847	Rational Synthesis of Three-Dimensional Nanosuperstructures for Applications in Energy Storage and Conversion. <i>IEEE Transactions on Device and Materials Reliability</i> , 2016, 16, 475-482.	1.5	2
1848	Comprehensive electronic structure characterization of pristine and nitrogen/phosphorus doped carbon nanocages. <i>Carbon</i> , 2016, 103, 480-487.	5.4	23
1849	Co-supported catalysts on nitrogen and sulfur co-doped vertically-aligned carbon nanotubes for oxygen reduction reaction. <i>RSC Advances</i> , 2016, 6, 32676-32684.	1.7	7
1850	Nitrogen-doped hollow carbon spheres with highly graphitized mesoporous shell: Role of Fe for oxygen evolution reaction. <i>Applied Catalysis B: Environmental</i> , 2016, 191, 202-208.	10.8	81
1851	N,S-Codoped microporous carbon nanobelts with blooming nanoflowers for oxygen reduction. <i>Journal of Materials Chemistry A</i> , 2016, 4, 5834-5838.	5.2	51
1852	Solvent-thermal preparation of a CuCo ₂ O ₄ /RGO heterocomposite: an efficient catalyst for the reduction of p-nitrophenol. <i>New Journal of Chemistry</i> , 2016, 40, 4769-4774.	1.4	38

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1854	Iron polyphthalocyanine sheathed multiwalled carbon nanotubes: A high-performance electrocatalyst for oxygen reduction reaction. <i>Nano Research</i> , 2016, 9, 1497-1506.	5.8	112
1855	Co@Co ₃ O ₄ core-shell particle encapsulated N-doped mesoporous carbon cage hybrids as active and durable oxygen-evolving catalysts. <i>Dalton Transactions</i> , 2016, 45, 5575-5582.	1.6	53
1856	Facile electrospinning preparation of phosphorus and nitrogen dual-doped cobalt-based carbon nanofibers as bifunctional electrocatalyst. <i>Journal of Power Sources</i> , 2016, 311, 68-80.	4.0	67
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1858	Interfacial effects on the catalysis of the hydrogen evolution, oxygen evolution and CO ₂ -reduction reactions for (co-)electrolyzer development. <i>Nano Energy</i> , 2016, 29, 4-28.	8.2	104
1859	Nitrogen and sulfur co-doped graphene aerogels as an efficient metal-free catalyst for oxygen reduction reaction in an alkaline solution. <i>RSC Advances</i> , 2016, 6, 22781-22790.	1.7	40
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1861	Pt/Câ€“LiCo ₂ composites with ultralow Pt loadings as synergistic bifunctional electrocatalysts for oxygen reduction and evolution reactions. <i>Journal of Materials Chemistry A</i> , 2016, 4, 4516-4524.	5.2	65
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1863	High-Performance Pd ₃ Pb Intermetallic Catalyst for Electrochemical Oxygen Reduction. <i>Nano Letters</i> , 2016, 16, 2560-2566.	4.5	144
1864	Two-dimensional layered MoS ₂ : rational design, properties and electrochemical applications. <i>Energy and Environmental Science</i> , 2016, 9, 1190-1209.	15.6	532
1865	Thermolytical Entrapment of Ultrasmall MoC Nanoparticles into 3D Frameworks of Nitrogen-Rich Graphene for Efficient Oxygen Reduction. <i>Journal of Physical Chemistry C</i> , 2016, 120, 15707-15713.	1.5	17
1866	Recyclable graphene-supported palladium nanocomposites for Suzuki coupling reaction. <i>Green Processing and Synthesis</i> , 2016, 5, .	1.3	5
1867	Electro-catalyst based on cerium doped cobalt oxide for oxygen evolution reaction in electrochemical water splitting. <i>Journal of Materials Science: Materials in Electronics</i> , 2016, 27, 5294-5302.	1.1	44
1868	Three-dimensional coral-like cobalt selenide as an advanced electrocatalyst for highly efficient oxygen evolution reaction. <i>Electrochimica Acta</i> , 2016, 194, 59-66.	2.6	128
1869	Graphene-based materials with tailored nanostructures for energy conversion and storage. <i>Materials Science and Engineering Reports</i> , 2016, 102, 1-72.	14.8	221
1870	Solvent-directed sol-gel assembly of 3-dimensional graphene-tented metal oxides and strong synergistic disparities in lithium storage. <i>Journal of Materials Chemistry A</i> , 2016, 4, 4032-4043.	5.2	19

#	ARTICLE	IF	CITATIONS
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1873	Pyridine-functionalized graphene oxide, an efficient metal free electrocatalyst for oxygen reduction reaction. <i>Electrochimica Acta</i> , 2016, 194, 95-103.	2.6	51
1874	Base- and acid hybrid water electrolysis. <i>Chemical Communications</i> , 2016, 52, 3147-3150.	2.2	28
1875	CoSe ₂ and NiSe ₂ Nanocrystals as Superior Bifunctional Catalysts for Electrochemical and Photoelectrochemical Water Splitting. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 5327-5334.	4.0	425
1876	Microwave-Assisted Synthesis of Reduced Graphene Oxide/SnO ₂ Nanocomposite for Oxygen Reduction Reaction in Microbial Fuel Cells. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 4633-4643.	4.0	103
1877	Synthesis of Co ₃ O ₄ /graphene composite catalysts through CTAB-assisted method for Orange II degradation by activation of peroxymonosulfate. <i>Journal of Materials Science: Materials in Electronics</i> , 2016, 27, 1020-1030.	1.1	23
1878	Electrodeposited Co-doped NiSe ₂ nanoparticles film: a good electrocatalyst for efficient water splitting. <i>Nanoscale</i> , 2016, 8, 3911-3915.	2.8	367
1879	Vertically stacked holey graphene/polyaniline heterostructures with enhanced energy storage for on-chip micro-supercapacitors. <i>Nano Research</i> , 2016, 9, 1012-1021.	5.8	39
1880	Precious-metal-free Co-Fe-O coupled nitrogen-enriched porous carbon nanosheets derived from Schiff-base porous polymers as superior electrocatalysts for the oxygen evolution reaction. <i>Journal of Materials Chemistry A</i> , 2016, 4, 6505-6512.	5.2	89
1881	Cobalt oxide-coated N- and B-doped graphene hollow spheres as bifunctional electrocatalysts for oxygen reduction and oxygen evolution reactions. <i>Journal of Materials Chemistry A</i> , 2016, 4, 5877-5889.	5.2	155
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1884	Nanostructured Co _x Ni _{1-x} bimetallic alloys for high efficient and ultrafast adsorption: experiments and first-principles calculations. <i>RSC Advances</i> , 2016, 6, 9209-9220.	1.7	12
1885	Graphene anchored palladium complex as efficient and recyclable catalyst in the Heck cross-coupling reaction. <i>Journal of Molecular Catalysis A</i> , 2016, 416, 140-146.	4.8	43
1886	Graphene frameworks supported cobalt oxide with tunable morphologies for enhanced lithium storage behaviors. <i>Journal of Materials Science</i> , 2016, 51, 4856-4863.	1.7	4
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1890	Nanostructuring of nanoporous iron carbide spheres via thermal degradation of triple-shelled Prussian blue hollow spheres for oxygen reduction reaction. <i>RSC Advances</i> , 2016, 6, 10341-10351.	1.7	30
1891	Understanding the High Activity of Fe-N-C Electrocatalysts in Oxygen Reduction: Fe/Fe ₃ C Nanoparticles Boost the Activity of Fe-N-C. <i>Journal of the American Chemical Society</i> , 2016, 138, 3570-3578.	6.6	1,549
1892	Highly improved voltage efficiency of seawater battery by use of chloride ion capturing electrode. <i>Journal of Power Sources</i> , 2016, 313, 46-50.	4.0	32
1893	Bacterial-cellulose-derived carbon nanofiber-supported CoFe ₂ O ₄ as efficient electrocatalyst for oxygen reduction and evolution reactions. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 5351-5360.	3.8	63
1894	An iron porphyrin-based conjugated network wrapped around carbon nanotubes as a noble-metal-free electrocatalyst for efficient oxygen reduction reaction. <i>Inorganic Chemistry Frontiers</i> , 2016, 3, 821-827.	3.0	39
1895	Improved performance of cobalt-based spinel by the simple solvothermal method as electrocatalyst for oxygen reduction reaction in alkaline solution. <i>Ionics</i> , 2016, 22, 1425-1432.	1.2	10
1896	Highly Functional Bioinspired Fe/N/C Oxygen Reduction Reaction Catalysts: Structure-Regulating Oxygen Sorption. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 6464-6471.	4.0	46
1897	Noble-metal-free Co ₃ S ₄ -S/G porous hybrids as an efficient electrocatalyst for oxygen reduction reaction. <i>Chemical Science</i> , 2016, 7, 4167-4173.	3.7	98
1899	Structural effects of a carbon matrix in non-precious metal O ₂ -reduction electrocatalysts. <i>Chemical Society Reviews</i> , 2016, 45, 2396-2409.	18.7	175
1900	Graphene-supported non-precious metal electrocatalysts for oxygen reduction reactions: the active center and catalytic mechanism. <i>Journal of Materials Chemistry A</i> , 2016, 4, 7148-7154.	5.2	17
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#	ARTICLE	IF	CITATIONS
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1909	Electrochemistry of layered GaSe and GeS: applications to ORR, OER and HER. Physical Chemistry Chemical Physics, 2016, 18, 1699-1711.	1.3	77
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1912	Hollandite Structure K _x IrO ₂ Catalyst with Highly Efficient Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2016, 8, 820-826.	4.0	94
1913	Synthesis of PtM (M=Co, Ni)/Reduced Graphene Oxide Nanocomposites as Electrocatalysts for the Oxygen Reduction Reaction. Nanoscale Research Letters, 2016, 11, 3.	3.1	25
1914	Synergistic effects of codecoration of oxide nanoparticles on the gas sensing performance of In ₂ O ₃ nanorods. Sensors and Actuators B: Chemical, 2016, 227, 591-599.	4.0	62
1915	Graphene decorated with multiple nanosized active species as dual function electrocatalysts for lithium-oxygen batteries. Electrochimica Acta, 2016, 188, 718-726.	2.6	14
1916	Maghemite nanorods anchored on a 3D nitrogen-doped carbon nanotubes substrate as scalable direct electrode for water oxidation. International Journal of Hydrogen Energy, 2016, 41, 69-78.	3.8	19
1917	Using nitrogen-rich polymeric network and iron(II) acetate as precursors to synthesize highly efficient electrocatalyst for oxygen reduction reaction in alkaline media. Journal of Power Sources, 2016, 307, 152-159.	4.0	29
1918	Multi-channelled hierarchical porous carbon incorporated Co ₃ O ₄ nanopillar arrays as 3D binder-free electrode for high performance supercapacitors. Nano Energy, 2016, 20, 94-107.	8.2	122
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1921	Iron-based sodium-ion full batteries. Journal of Materials Chemistry A, 2016, 4, 1754-1761.	5.2	50
1922	Atomic-layer-deposited iron oxide on arrays of metal/carbon spheres and their application for electrocatalysis. Nano Energy, 2016, 20, 244-253.	8.2	62
1923	Hierarchical Metal-Free Nitrogen-Doped Porous Graphene/Carbon Composites as an Efficient Oxygen Reduction Reaction Catalyst. ACS Applied Materials & Interfaces, 2016, 8, 1415-1423.	4.0	116
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1927	One-pot synthesis of monodispersed porous CoFe ₂ O ₄ nanospheres on graphene as an efficient electrocatalyst for oxygen reduction and evolution reactions. <i>RSC Advances</i> , 2016, 6, 307-313.	1.7	49
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1929	Vertically oriented cobalt selenide/NiFe layered-double-hydroxide nanosheets supported on exfoliated graphene foil: an efficient 3D electrode for overall water splitting. <i>Energy and Environmental Science</i> , 2016, 9, 478-483.	15.6	774
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1932	Nanoporous PdCr alloys as highly active electrocatalysts for oxygen reduction reaction. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 4166-4173.	1.3	25
1933	Electrochemical and Computational Study of Oxygen Reduction Reaction on Nonprecious Transition Metal/Nitrogen Doped Carbon Nanofibers in Acid Medium. <i>Journal of Physical Chemistry C</i> , 2016, 120, 1586-1596.	1.5	148
1934	Macroscopic-scale synthesis of nitrogen-doped carbon nanofiber aerogels by template-directed hydrothermal carbonization of nitrogen-containing carbohydrates. <i>Nano Energy</i> , 2016, 19, 117-127.	8.2	115
1935	The developments of SnO ₂ /graphene nanocomposites as anode materials for high performance lithium ion batteries: A review. <i>Journal of Power Sources</i> , 2016, 304, 81-101.	4.0	216
1936	Mesoporous carbon-supported cobalt catalyst for selective oxidation of toluene and degradation of water contaminants. <i>Particuology</i> , 2016, 24, 216-222.	2.0	17
1937	Superior oxygen reduction electrocatalysis enabled by integrating hierarchical pores, Fe ₃ C nanoparticles and bamboo-like carbon nanotubes. <i>Nanoscale</i> , 2016, 8, 959-964.	2.8	51
1938	Self-supported electrocatalysts for advanced energy conversion processes. <i>Materials Today</i> , 2016, 19, 265-273.	8.3	268
1939	Nitrogen-doped porous carbon spheres anchored with Co ₃ O ₄ nanoparticles as high-performance anode materials for lithium-ion batteries. <i>Electrochimica Acta</i> , 2016, 187, 234-242.	2.6	83
1940	Metal-organic-framework-engaged formation of Co nanoparticle-embedded carbon@Co ₉ S ₈ double-shelled nanocages for efficient oxygen reduction. <i>Energy and Environmental Science</i> , 2016, 9, 107-111.	15.6	499
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1942	Hydrangea-like NiCo ₂ S ₄ hollow microspheres as an advanced bifunctional electrocatalyst for aqueous metal/air batteries. <i>Catalysis Science and Technology</i> , 2016, 6, 434-437.	2.1	59
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1954	N-doped graphene coupled with Co nanoparticles as an efficient electrocatalyst for oxygen reduction in alkaline media. Journal of Power Sources, 2016, 302, 114-125.	4.0	135
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1960	Selective hydrogenation of C=C bond over N-doped reduced graphene oxides supported Pd catalyst. Applied Catalysis B: Environmental, 2016, 180, 607-613.	10.8	152
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1963	Controlled Fabrication of Hierarchically Structured Nitrogen-Doped Carbon Nanotubes as a Highly Active Bifunctional Oxygen Electrocatalyst. <i>Advanced Functional Materials</i> , 2017, 27, 1605717.	7.8	80
1964	NiSe ₂ pyramids deposited on N-doped graphene encapsulated Ni foam for high-performance water oxidation. <i>Journal of Materials Chemistry A</i> , 2017, 5, 3981-3986.	5.2	67
1965	Double-Layer Graphene Outperforming Monolayer as Catalyst on Silicon Photocathode for Hydrogen Production. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 3570-3580.	4.0	20
1966	An ultrasensitive electrochemical immunosensor based on the synergistic effect of quaternary Cu ₂ SnZnS ₄ NCs and cyclodextrin-functionalized graphene. <i>Analyst</i> , The, 2017, 142, 780-786.	1.7	9
1967	The recent development of efficient Earth-abundant transition-metal nanocatalysts. <i>Chemical Society Reviews</i> , 2017, 46, 816-854.	18.7	458
1968	A novel composite of W ₁₈ O ₄₉ nanorods on reduced graphene oxide sheets based on in situ synthesis and catalytic performance for oxygen reduction reaction. <i>RSC Advances</i> , 2017, 7, 2051-2057.	1.7	16
1969	Microscopic Evidence for Strong Interaction between Pd and Graphene Oxide that Results in Metal-Decoration-Induced Reduction of Graphene Oxide. <i>Advanced Materials</i> , 2017, 29, 1605929.	11.1	32
1970	IrNi nanoparticle-decorated flower-shaped NiCo ₂ O ₄ nanostructures: controllable synthesis and enhanced electrochemical activity for oxygen evolution reaction. <i>Science China Materials</i> , 2017, 60, 119-130.	3.5	32
1971	Highly dispersed iron nitride nanoparticles embedded in N doped carbon as a high performance electrocatalyst for oxygen reduction reaction. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 2996-3005.	3.8	34
1972	Nitrogen-doped graphene aerogels-supported cobaltic oxide nanocrystals as high-performance bi-functional electrocatalysts for oxygen reduction and evolution reactions. <i>Journal of Electroanalytical Chemistry</i> , 2017, 787, 46-54.	1.9	24
1973	Recycling PM2.5 carbon nanoparticles generated by diesel vehicles for supercapacitors and oxygen reduction reaction. <i>Nano Energy</i> , 2017, 33, 229-237.	8.2	55
1974	Fe-Cluster Pushing Electrons to N-Doped Graphitic Layers with Fe ₃ C(Fe) Hybrid Nanostructure to Enhance O ₂ Reduction Catalysis of Zn-Air Batteries. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 4587-4596.	4.0	117
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1977	A Thin NiFe Hydroxide Film Formed by Stepwise Electrodeposition Strategy with Significantly Improved Catalytic Water Oxidation Efficiency. <i>Advanced Energy Materials</i> , 2017, 7, 1602547.	10.2	183
1978	Controllable Synthesis and Bi-functional Electrocatalytic Performance towards Oxygen Electrode Reactions of Co ₃ O ₄ /N-RGO Composites. <i>Electrochimica Acta</i> , 2017, 226, 104-112.	2.6	23
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1984	High Performance Electrocatalytic Reaction of Hydrogen and Oxygen on Ruthenium Nanoclusters. ACS Applied Materials & Interfaces, 2017, 9, 3785-3791.	4.0	108
1985	Unraveling Oxygen Evolution Reaction on Carbon-Based Electrocatalysts: Effect of Oxygen Doping on Adsorption of Oxygenated Intermediates. ACS Energy Letters, 2017, 2, 294-300.	8.8	145
1986	Graphene-based Composites for Electrochemical Energy Storage. Springer Theses, 2017, , .	0.0	10
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1988	MOF Template-Directed Fabrication of Hierarchically Structured Electrocatalysts for Efficient Oxygen Evolution Reaction. Advanced Energy Materials, 2017, 7, 1602643.	10.2	281
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1999	The development of cobalt phosphate for bifunctional oxygen electrocatalysis in alkaline solution. <i>Electrochimica Acta</i> , 2017, 227, 310-316.	2.6	38
2000	Rational design and synthesis of sandwich-like iron nitride-graphene composites as efficient catalysts for oxygen reduction reaction. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 202-211.	3.8	10
2001	Synthesis of efficient electrocatalyst for oxygen reduction reaction by using poly(m-phenylenediamine) as the interlayer spacer and the sources of N-doped carbon and MnO. <i>Synthetic Metals</i> , 2017, 224, 92-98.	2.1	8
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2003	Co ₃ O ₄ /Co-N-C modified ketjenblack carbon as an advanced electrocatalyst for Al-air batteries. <i>Journal of Power Sources</i> , 2017, 343, 30-38.	4.0	99
2004	Silver/graphene nanocomposites as catalysts for the reduction of <i>p</i> -nitrophenol to <i>p</i> -aminophenol: Materials preparation and reaction kinetics studies. <i>Canadian Journal of Chemical Engineering</i> , 2017, 95, 1297-1304.	0.9	16
2005	Reduced graphene oxide intercalated Co ₂ C or Co ₄ N nanoparticles as an efficient and durable fuel cell catalyst for oxygen reduction. <i>Journal of Materials Chemistry A</i> , 2017, 5, 2972-2980.	5.2	85
2006	Metal-Organic Frameworks Derived Cobalt Phosphide Architecture Encapsulated into B/N Co-Doped Graphene Nanotubes for All pH Value Electrochemical Hydrogen Evolution. <i>Advanced Energy Materials</i> , 2017, 7, 1601671.	10.2	336
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2011	Bioinspired Cobalt-Citrate Metal-Organic Framework as an Efficient Electrocatalyst for Water Oxidation. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 7193-7201.	4.0	206
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2013	Electrodeposition-Solvothermal Access to Ternary Mixed Metal Ni-Co-Fe Sulfides for Highly Efficient Electrocatalytic Water Oxidation in Alkaline Media. <i>Electrochimica Acta</i> , 2017, 230, 151-159.	2.6	54
2014	A Facile Synthesis of Highly Stable Modified Carbon Nanotubes as Efficient Oxygen Reduction Reaction Catalysts. <i>ChemistrySelect</i> , 2017, 2, 1932-1938.	0.7	0
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2017	Nickel-cobalt oxides supported on Co/N decorated graphene as an excellent bifunctional oxygen catalyst. <i>Journal of Materials Chemistry A</i> , 2017, 5, 5594-5600.	5.2	119
2018	Trivalent cerium-preponderant CeO ₂ /graphene sandwich-structured nanocomposite with greatly enhanced catalytic activity for the oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , 2017, 5, 6656-6663.	5.2	66
2019	Cobalt-Doped Iron Sulfide as an Electrocatalyst for Hydrogen Evolution. <i>Journal of the Electrochemical Society</i> , 2017, 164, F276-F282.	1.3	46
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2022	Topochemical Reaction of Exfoliated Layered Cobalt(II) Hydroxide for the Synthesis of Ultrapure Co ₃ O ₄ as an Oxygen Reduction Catalyst. <i>European Journal of Inorganic Chemistry</i> , 2017, 2017, 2184-2189.	1.0	12
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2024	Pudding-typed cobalt sulfides/nitrogen and sulfur dual-doped hollow carbon spheres as a highly efficient and stable oxygen reduction electrocatalyst. <i>Journal of Power Sources</i> , 2017, 348, 183-192.	4.0	62
2025	Highly selective and active CO ₂ reduction electrocatalysts based on cobalt phthalocyanine/carbon nanotube hybrid structures. <i>Nature Communications</i> , 2017, 8, 14675.	5.8	618
2026	Architecture of 3D ZnCo ₂ O ₄ marigold flowers: Influence of annealing on cold emission and photocatalytic behavior. <i>Materials Chemistry and Physics</i> , 2017, 194, 55-64.	2.0	39
2027	Co ₃ O ₄ nanoparticles anchored on nitrogen-doped reduced graphene oxide as a multifunctional catalyst for H ₂ O ₂ reduction, oxygen reduction and evolution reaction. <i>Scientific Reports</i> , 2017, 7, 43638.	1.6	104
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2030	Tuning/exploiting Strong Metal-Support Interaction (SMSI) in Heterogeneous Catalysis. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2017, 74, 154-186.	2.7	238
2031	Fabrication of Co ₃ O ₄ nanoparticles in thin porous carbon shells from metal-organic frameworks for enhanced electrochemical performance. <i>RSC Advances</i> , 2017, 7, 13340-13346.	1.7	55
2032	The plasma-assisted formation of Ag@Co ₃ O ₄ core-shell hybrid nanocrystals for oxygen reduction reaction. <i>Electrochimica Acta</i> , 2017, 233, 123-133.	2.6	33
2033	Two-Dimensional (2D) Nanomaterials towards Electrochemical Nanoarchitectonics in Energy-Related Applications. <i>Bulletin of the Chemical Society of Japan</i> , 2017, 90, 627-648.	2.0	369

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2036	Phthalocyanine tethered iron phthalocyanine on graphitized carbon black as superior electrocatalyst for oxygen reduction reaction. <i>Nano Energy</i> , 2017, 34, 338-343.	8.2	113
2037	Roles of Fe ^N and Fe ₃ C@C Species in Fe ^N /C Electrocatalysts for Oxygen Reduction Reaction. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 9567-9575.	4.0	151
2038	A Facile Synthesis of Nitrogen-Doped Highly Porous Carbon Nanoplatelets: Efficient Catalysts for Oxygen Electroreduction. <i>Scientific Reports</i> , 2017, 7, 43366.	1.6	31
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2040	Microstructure, morphology and electrochemical properties of Co nanoflake water oxidation electrocatalyst at micro- and nanoscale. <i>RSC Advances</i> , 2017, 7, 12923-12930.	1.7	67
2041	Co-porphyrin-decorated carbon nanotubes as catalysts for oxygen reduction reactions: an approach for fuel cell improvement. <i>Journal of Materials Chemistry A</i> , 2017, 5, 6263-6276.	5.2	121
2042	Zn-MOF-74 Derived N-Doped Mesoporous Carbon as pH-Universal Electrocatalyst for Oxygen Reduction Reaction. <i>Advanced Functional Materials</i> , 2017, 27, 1606190.	7.8	231
2043	Cu ₂ ZnSnS ₄ -AuAg Heterodimers and Their Enhanced Catalysis for Oxygen Reduction Reaction. <i>Journal of Physical Chemistry C</i> , 2017, 121, 6712-6720.	1.5	12
2044	Nitrogen doped graphene anchored cobalt oxides efficiently bi-functionally catalyze both oxygen reduction reaction and oxygen evolution reaction. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 5899-5907.	3.8	49
2045	Thermal decomposition of metal complex precursor as route to the synthesis of Co ₃ O ₄ nanoparticles: Antibacterial activity and mechanism. <i>Journal of Alloys and Compounds</i> , 2017, 704, 296-302.	2.8	77
2046	Strengthened Synergistic Effect of Metallic M _x P _y (M = Co, Ni) T ₂ ETQq0 0 0 rgBT /Overlock 10 T Reactions. <i>Small</i> , 2017, 13, 1603718.	5.2	48
2047	X-ray Spectroscopic Interrogation of Transition-Metal-Mediated Homogeneous Catalysis: Primer and Case Studies. <i>ACS Catalysis</i> , 2017, 7, 1776-1791.	5.5	55
2048	The role of pre-defined microporosity in catalytic site formation for the oxygen reduction reaction in iron- and nitrogen-doped carbon materials. <i>Journal of Materials Chemistry A</i> , 2017, 5, 4199-4206.	5.2	30
2049	Colorimetric Biosensor for Detection of Cancer Biomarker by Au Nanoparticle-Decorated Bi ₂ Se ₃ Nanosheets. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 6931-6940.	4.0	131
2050	High efficiency platinum nanoparticles based on carbon quantum dot and its application for oxygen reduction reaction. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 11605-11613.	3.8	21
2051	Hollow Nitrogen-Doped Carbon Spheres with Fe ₃ O ₄ Nanoparticles Encapsulated as a Highly Active Oxygen-Reduction Catalyst. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 10610-10617.	4.0	128

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2053	Nitrogen-Doped Co ₃ O ₄ Mesoporous Nanowire Arrays as an Additive-Free Air-Cathode for Flexible Solid-State Zinc-Air Batteries. <i>Advanced Materials</i> , 2017, 29, 1602868.	11.1	428
2054	Ultrasensitive Iron-Triggered Nanosized Fe-CoOOH Integrated with Graphene for Highly Efficient Oxygen Evolution. <i>Advanced Energy Materials</i> , 2017, 7, 1602148.	10.2	216
2055	Iron-cobalt bimetal oxide nanorods as efficient and robust water oxidation catalysts. <i>Dalton Transactions</i> , 2017, 46, 10602-10610.	1.6	22
2056	Electrocatalytic activity in sensing of nitrite by films produced by electropolymerization of [Fe(Br-ph-tpy) ₂] ²⁺ . <i>Journal of Coordination Chemistry</i> , 2017, 70, 1137-1145.	0.8	3
2057	Hollow-structured conjugated porous polymer derived Iron/Nitrogen-codoped hierarchical porous carbons as highly efficient electrocatalysts. <i>Journal of Colloid and Interface Science</i> , 2017, 497, 108-116.	5.0	28
2058	In situ growth of Pt ₃ Ni nanoparticles on an A-site deficient perovskite with enhanced activity for the oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , 2017, 5, 6399-6404.	5.2	70
2059	Facile synthesis of FeCo@NC core-shell nanospheres supported on graphene as an efficient bifunctional oxygen electrocatalyst. <i>Nano Research</i> , 2017, 10, 2332-2343.	5.8	85
2060	Synthesis and Characterization of ZrO ₂ /C as Electrocatalyst for Oxygen Reduction to H ₂ O ₂ . <i>Electrocatalysis</i> , 2017, 8, 189-195.	1.5	25
2061	A general approach for the direct fabrication of metal oxide-based electrocatalysts for efficient bifunctional oxygen electrodes. <i>Sustainable Energy and Fuels</i> , 2017, 1, 823-831.	2.5	24
2062	Porous Pt/Ag nanoparticles with excellent multifunctional enzyme mimic activities and antibacterial effects. <i>Nano Research</i> , 2017, 10, 2056-2069.	5.8	99
2063	Tiny crystalline grain nanocrystal NiCo ₂ O ₄ /N-doped graphene composite for efficient oxygen reduction reaction. <i>Journal of Power Sources</i> , 2017, 345, 41-49.	4.0	25
2064	Nickel-Foam-Supported Co ₃ O ₄ Nanosheets/PPy Nanowire Heterostructure for Non-Enzymatic Glucose Sensing. <i>ChemElectroChem</i> , 2017, 4, 1135-1140.	1.7	28
2065	Enhanced oxygen evolution reaction by Co-O-C bonds in rationally designed Co ₃ O ₄ /graphene nanocomposites. <i>Nano Energy</i> , 2017, 33, 445-452.	8.2	131
2066	In situ segregation of cobalt nanoparticles on VN nanosheets via nitriding of Co ₂ V ₂ O ₇ nanosheets as efficient oxygen evolution reaction electrocatalysts. <i>Nano Energy</i> , 2017, 34, 1-7.	8.2	119
2068	Valence- and element-dependent water oxidation behaviors: in situ X-ray diffraction, absorption and electrochemical impedance spectroscopies. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 8681-8693.	1.3	80
2069	Cations in Octahedral Sites: A Descriptor for Oxygen Electrocatalysis on Transition-Metal Spinels. <i>Advanced Materials</i> , 2017, 29, 1606800.	11.1	525
2070	Two-Dimensional Metal Oxide Nanomaterials for Next-Generation Rechargeable Batteries. <i>Advanced Materials</i> , 2017, 29, 1700176.	11.1	317

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2072	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.	2.6	34
2073	Layer-by-layer self-assembly of tricobalt tetroxide-polymer nanocomposite toward high-performance humidity-sensing. <i>Journal of Alloys and Compounds</i> , 2017, 711, 652-658.	2.8	33
2074	Enhanced electrocatalytic activity of Pt decorated spinels (M_3O_4 , $M = Mn, Fe, Co$)/C for oxygen reduction reaction in PEM fuel cell and their evaluation by hydrodynamic techniques. <i>Journal of Electroanalytical Chemistry</i> , 2017, 794, 164-174.	1.9	19
2075	Cobalt-zinc nitride on nitrogen doped carbon black nano hybrids as a non-noble metal electrocatalyst for oxygen reduction reaction. <i>Nanoscale</i> , 2017, 9, 6259-6263.	2.8	55
2076	Chitosan, EDTA and Cobalt Salts Derived Metal-N-C Sub-Micrometer Spheres for High-Performance Oxygen Reduction. <i>Journal of the Electrochemical Society</i> , 2017, 164, H389-H395.	1.3	2
2077	Au/Ni ₁₂ P ₅ core/shell single-crystal nanoparticles as oxygen evolution reaction catalyst. <i>Nano Research</i> , 2017, 10, 3103-3112.	5.8	48
2078	NH ₃ Post-Treatment Induces High Activity of Co-Based Electrocatalysts Supported on Carbon Nanotubes for the Oxygen Evolution Reaction. <i>ChemElectroChem</i> , 2017, 4, 2091-2098.	1.7	7
2079	Phase-transfer synthesis of $\text{La-Co}(\text{OH})_2$ and its conversion to CoO for efficient electrocatalytic water oxidation. <i>Science Bulletin</i> , 2017, 62, 626-632.	4.3	54
2080	Iron phosphide nanocrystals decorated in situ on heteroatom-doped mesoporous carbon nanosheets used for an efficient oxygen reduction reaction in both alkaline and acidic media. <i>RSC Advances</i> , 2017, 7, 22263-22269.	1.7	26
2081	Electrospun Porous Perovskite $\text{La}_{0.6}\text{Sr}_{0.4}\text{Co}_1\text{Fe}_x$ Nanofibers for Efficient Oxygen Evolution Reaction. <i>Advanced Materials Interfaces</i> , 2017, 4, 1700146.	1.9	37
2082	Embedded Porous Carbon Framework onto 1D Nanotubes for Efficient Oxygen Reduction Reaction in Alkaline and Acidic Media. <i>Advanced Materials</i> , 2017, 29, 1606534.	11.1	342
2083	In Situ Formation of Hierarchical Porous Fe,Co-N-Doped Carbon as a Highly Efficient Electrocatalyst for Oxygen Reduction. <i>ChemElectroChem</i> , 2017, 4, 2005-2011.	1.7	8
2084	Interconnected Hierarchically Porous Fe, N-Codoped Carbon Nanofibers as Efficient Oxygen Reduction Catalysts for Zn-Air Batteries. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 16178-16186.	4.0	94
2085	Significant enhancement of visible light photocatalytic activity of the hybrid $\text{Bi}_{12}\text{-PIL/rGO}$ in the presence of $\text{Ru}(\text{bpy})_3^{2+}$ for DDT dehalogenation. <i>RSC Advances</i> , 2017, 7, 19197-19204.	1.7	11
2086	Synergistic effect induced ultrafine $\text{SnO}_2/\text{graphene}$ nanocomposite as an advanced lithium/sodium-ion batteries anode. <i>Journal of Materials Chemistry A</i> , 2017, 5, 10027-10038.	5.2	155
2087	TCNQ-induced in-situ electrochemical deposition for the synthesis of silver nanodendrites as efficient bifunctional electrocatalysts. <i>Electrochimica Acta</i> , 2017, 239, 45-55.	2.6	20
2088	In situ hybridization of CoO_x nanoparticles on N-doped graphene through one step mineralization of co-responsive hydrogels. <i>Dalton Transactions</i> , 2017, 46, 6163-6167.	1.6	11

#	ARTICLE	IF	CITATIONS
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2090	Hierarchical nitrogen-enriched porous carbon materials derived from Schiff-base networks supported FeCo ₂ O ₄ nanoparticles for efficient water oxidation. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 10802-10812.	3.8	35
2091	The role of iron nitrides in the Fe-N-C catalysis system towards the oxygen reduction reaction. <i>Nanoscale</i> , 2017, 9, 7641-7649.	2.8	96
2092	Ultrathin Co ₃ O ₄ nanofilm as an efficient bifunctional catalyst for oxygen evolution and reduction reaction in rechargeable zinc-air batteries. <i>Nanoscale</i> , 2017, 9, 8623-8630.	2.8	90
2093	In situ growth of ultrathin Ni-Fe LDH nanosheets for high performance oxygen evolution reaction. <i>Inorganic Chemistry Frontiers</i> , 2017, 4, 1173-1181.	3.0	57
2094	Surface-rough Fe-N/C composite wrapped on carbon nanotubes as efficient electrocatalyst for oxygen reduction reaction. <i>Nanotechnology</i> , 2017, 28, 225401.	1.3	14
2095	Hierarchically porous nitrogen-doped carbon nanotubes derived from core-shell ZnO@zeolitic imidazolate framework nanorods for highly efficient oxygen reduction reactions. <i>Journal of Materials Chemistry A</i> , 2017, 5, 12322-12329.	5.2	93
2096	Metal-Organic Framework-Derived Non-Precious Metal Nanocatalysts for Oxygen Reduction Reaction. <i>Advanced Energy Materials</i> , 2017, 7, 1700363.	10.2	297
2097	A promising N-doped carbon-metal oxide hybrid electrocatalyst derived from crustacean shells: Oxygen reduction and oxygen evolution. <i>Applied Catalysis B: Environmental</i> , 2017, 214, 137-147.	10.8	45
2098	In situ synthesis of ultrasmall SnO ₂ quantum dots on nitrogen-doped reduced graphene oxide composite as high performance anode material for lithium-ion batteries. <i>Journal of Alloys and Compounds</i> , 2017, 727, 1-7.	2.8	22
2099	Co ₃ O ₄ @Co Nanoparticles Embedded Porous N-Rich Carbon Matrix for Efficient Oxygen Reduction. <i>Particle and Particle Systems Characterization</i> , 2017, 34, 1700074.	1.2	11
2100	Metal-Air Batteries: Will They Be the Future Electrochemical Energy Storage Device of Choice?. <i>ACS Energy Letters</i> , 2017, 2, 1370-1377.	8.8	709
2101	A hybrid composite catalyst of Fe ₃ O ₄ nanoparticles-based carbon for electrochemical reduction of oxygen. <i>New Journal of Chemistry</i> , 2017, 41, 4959-4965.	1.4	13
2102	In situ growth of cobalt sulfide hollow nanospheres embedded in nitrogen and sulfur co-doped graphene nanoholes as a highly active electrocatalyst for oxygen reduction and evolution. <i>Journal of Materials Chemistry A</i> , 2017, 5, 12354-12360.	5.2	93
2103	ZIF-derived graphene coated/Co ₉ S ₈ nanoparticles embedded in nitrogen doped porous carbon polyhedrons as advanced catalysts for oxygen reduction reaction. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 12978-12988.	3.8	35
2104	Electrocatalytic oxygen evolution reaction for energy conversion and storage: A comprehensive review. <i>Nano Energy</i> , 2017, 37, 136-157.	8.2	1,257
2105	Palladium aerogel as a high-performance electrocatalyst for ethanol electro-oxidation in alkaline media. <i>Journal of Materials Chemistry A</i> , 2017, 5, 10244-10249.	5.2	62
2106	Green Fabrication of Co ₃ O ₄ Nanoparticle-Decorated Reduced Graphene Oxide Sheets: Evaluation of Biocompatibility on Human Mesenchymal Stem Cells for Biomedical Applications. <i>Journal of Inorganic and Organometallic Polymers and Materials</i> , 2017, 27, 1110-1116.	1.9	10

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2108	Phase-Selective Syntheses of Cobalt Telluride Nanofleeces for Efficient Oxygen Evolution Catalysts. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 7769-7773.	7.2	157
2109	CoV ₂ O ₆ @V ₂ O ₅ Coupled with Porous N-Doped Reduced Graphene Oxide Composite as a Highly Efficient Electrocatalyst for Oxygen Evolution. <i>ACS Energy Letters</i> , 2017, 2, 1327-1333.	8.8	84
2110	Modifying Commercial Carbon with Trace Amounts of ZIF to Prepare Derivatives with Superior ORR Activities. <i>Advanced Materials</i> , 2017, 29, 1701354.	11.1	94
2111	Phase-Selective Syntheses of Cobalt Telluride Nanofleeces for Efficient Oxygen Evolution Catalysts. <i>Angewandte Chemie</i> , 2017, 129, 7877-7881.	1.6	24
2112	Cobalt-nitrogen-activated carbon as catalyst in acetylene hydrochlorination. <i>Catalysis Communications</i> , 2017, 98, 22-25.	1.6	23
2113	A gigantically increased ratio of electrical to thermal conductivity and synergistically enhanced thermoelectric properties in interface-controlled TiO ₂ @RGO nanocomposites. <i>Nanoscale</i> , 2017, 9, 7830-7838.	2.8	34
2114	Catechol adsorption on graphene nanoplatelets: isotherm, flat to vertical phase transition and desorption kinetics. <i>Chemical Science</i> , 2017, 8, 4771-4778.	3.7	27
2115	Partial-sacrificial-template Synthesis of Fe/Ni Phosphides on Ni Foam: a Strongly Stabilized and Efficient Catalyst for Electrochemical Water Splitting. <i>Electrochimica Acta</i> , 2017, 242, 260-267.	2.6	61
2116	Anchoring of a Carboxyl-Functionalized Norbornadiene Derivative to an Atomically Defined Cobalt Oxide Surface. <i>Journal of Physical Chemistry C</i> , 2017, 121, 11508-11518.	1.5	13
2117	Phase-controllable synthesis of cobalt hydroxide for electrocatalytic oxygen evolution. <i>Dalton Transactions</i> , 2017, 46, 10545-10548.	1.6	70
2118	Graphene Oxide Based Electrochemical System for Energy Generation. <i>Nanostructure Science and Technology</i> , 2017, , 331-346.	0.1	1
2119	Holey two-dimensional transition metal oxide nanosheets for efficient energy storage. <i>Nature Communications</i> , 2017, 8, 15139.	5.8	343
2120	Electrosynthesis of Bifunctional WS ₃ /Reduced Graphene Oxide Hybrid for Hydrogen Evolution Reaction and Oxygen Reduction Reaction Electrocatalysis. <i>Chemistry - A European Journal</i> , 2017, 23, 8510-8519.	1.7	20
2121	Co ₃ O ₄ Quantum Dots As a Highly Efficient Oxygen Evolution Reaction Catalyst for Water Splitting. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 16159-16167.	4.0	104
2122	Co-SrCO ₃ /N-doped carbon: a highly efficient hybrid electrocatalyst for the oxygen reduction reaction and Zn-air batteries. <i>Inorganic Chemistry Frontiers</i> , 2017, 4, 1073-1086.	3.0	17
2123	Raisin bread-like iron sulfides/nitrogen and sulfur dual-doped mesoporous graphitic carbon spheres: a promising electrocatalyst for the oxygen reduction reaction in alkaline and acidic media. <i>Journal of Materials Chemistry A</i> , 2017, 5, 11114-11123.	5.2	55
2124	Bio-inspired iron metal-carbon black based nano-electrocatalyst for the oxygen reduction reaction. <i>Pigment and Resin Technology</i> , 2017, 46, 267-275.	0.5	6

#	ARTICLE	IF	CITATIONS
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2126	One-Step Conversion from Core-Shell Metal-Organic Framework Materials to Cobalt and Nitrogen Codoped Carbon Nanopolyhedra with Hierarchically Porous Structure for Highly Efficient Oxygen Reduction. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 16109-16116.	4.0	117
2127	Self-templating Synthesis of Hollow Co ₃ O ₄ Microtube Arrays for Highly Efficient Water Electrolysis. <i>Angewandte Chemie</i> , 2017, 129, 1344-1348.	1.6	79
2128	Self-templating Synthesis of Hollow Co ₃ O ₄ Microtube Arrays for Highly Efficient Water Electrolysis. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 1324-1328.	7.2	648
2129	Graphene membrane encapsulated Co ₃ O ₄ nanotubes with superior capacity and stability as anode materials for lithium ion batteries. <i>Journal of Sol-Gel Science and Technology</i> , 2017, 82, 75-84.	1.1	10
2130	From biomass chitin to mesoporous nanosheets assembled loofa sponge-like N-doped carbon/g-C ₃ N ₄ 3D network architectures as ultralow-cost bifunctional oxygen catalysts. <i>Microporous and Mesoporous Materials</i> , 2017, 240, 216-226.	2.2	51
2131	Electrospun ZIF-based hierarchical carbon fiber as an efficient electrocatalyst for the oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , 2017, 5, 1211-1220.	5.2	161
2132	Preparation of Sandwich-like NiCo ₂ O ₄ /rGO/NiO Heterostructure on Nickel Foam for High-Performance Supercapacitor Electrodes. <i>Nano-Micro Letters</i> , 2017, 9, 16.	14.4	56
2133	Functionalized Natural Carbon-Supported Nanoparticles as Excellent Catalysts for Hydrocarbon Production. <i>Chemistry - an Asian Journal</i> , 2017, 12, 366-371.	1.7	7
2134	Chrysanthemum flower-like NiCo ₂ O ₄ -nitrogen doped graphene oxide composite: an efficient electrocatalyst for lithium-oxygen and zinc-air batteries. <i>Chemical Communications</i> , 2017, 53, 7836-7839.	2.2	57
2135	A reduced graphene oxide/covalent cobalt porphyrin framework for efficient oxygen reduction reaction. <i>Dalton Transactions</i> , 2017, 46, 9344-9348.	1.6	53
2136	Inorganic semiconductors-graphene composites in photo(electro)catalysis: Synthetic strategies, interaction mechanisms and applications. <i>Journal of Photochemistry and Photobiology C: Photochemistry Reviews</i> , 2017, 33, 132-164.	5.6	54
2137	Nitrogen-Doped Graphene on Transition Metal Substrates as Efficient Bifunctional Catalysts for Oxygen Reduction and Oxygen Evolution Reactions. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 22578-22587.	4.0	128
2138	MOF-Derived Formation of Ni ₂ P-CoP Bimetallic Phosphides with Strong Interfacial Effect toward Electrocatalytic Water Splitting. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 23222-23229.	4.0	276
2139	A 3D hierarchical porous Co ₃ O ₄ nanotube network as an efficient cathode for rechargeable lithium-oxygen batteries. <i>Journal of Materials Chemistry A</i> , 2017, 5, 14673-14681.	5.2	50
2140	Metal-Organic-Framework-Derived Hybrid Carbon Nanocages as a Bifunctional Electrocatalyst for Oxygen Reduction and Evolution. <i>Advanced Materials</i> , 2017, 29, 1700874.	11.1	678
2141	Cobalt-Based Active Species Molecularly Immobilized on Carbon Nanotubes for the Oxygen Reduction Reaction. <i>ChemSusChem</i> , 2017, 10, 3473-3481.	3.6	20
2142	MOF-Based Metal-Doping-Induced Synthesis of Hierarchical Porous Cu ₂ S/C Oxygen Reduction Electrocatalysts for Zn-Air Batteries. <i>Small</i> , 2017, 13, 1700740.	5.2	170

#	ARTICLE	IF	CITATIONS
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2144	Tailoring the Oxygen Reduction Activity of Hemoglobin through Immobilization within Microporous Organic Polymerâ€“Graphene Composite. ACS Applied Materials & Interfaces, 2017, 9, 27918-27926.	4.0	17
2145	Effect of temperature on the activities and stabilities of hydrothermally prepared IrOx nanocatalyst layers for the oxygen evolution reaction. Applied Catalysis B: Environmental, 2017, 218, 287-297.	10.8	78
2146	A Bifunctional Hybrid Electrocatalyst for Oxygen Reduction and Evolution: Cobalt Oxide Nanoparticles Strongly Coupled to B,Nâ€“Decorated Graphene. Angewandte Chemie - International Edition, 2017, 56, 7121-7125.	7.2	395
2147	Interdiffusion Reaction-Assisted Hybridization of Two-Dimensional Metalâ€“Organic Frameworks and Ti ₃ C ₂ T _x Nanosheets for Electrocatalytic Oxygen Evolution. ACS Nano, 2017, 11, 5800-5807.	7.3	557
2148	Highly active and durable nitrogen doped-reduced graphene oxide/double perovskite bifunctional hybrid catalysts. Journal of Materials Chemistry A, 2017, 5, 13019-13031.	5.2	45
2149	Sm ₂ O ₃ embedded in nitrogen doped carbon with mosaic structure: An effective catalyst for oxygen reduction reaction. Energy, 2017, 133, 115-120.	4.5	36
2150	A Bifunctional Hybrid Electrocatalyst for Oxygen Reduction and Evolution: Cobalt Oxide Nanoparticles Strongly Coupled to B,Nâ€“Decorated Graphene. Angewandte Chemie, 2017, 129, 7227-7231.	1.6	59
2151	Colloidal synthesis of iridium-iron nanoparticles for electrocatalytic oxygen evolution. Sustainable Energy and Fuels, 2017, 1, 1199-1203.	2.5	19
2153	Synthesis of Highly Porous Metalâ€“Free Oxygen Reduction Electrocatalysts in a Selfâ€“Sacrificial Bacterial Cellulose Microreactor. Advanced Sustainable Systems, 2017, 1, 1700045.	2.7	9
2154	Atomically Precise Gold and Bimetal Nanoclusters as New Model Catalysts. Studies in Surface Science and Catalysis, 2017, 177, 359-408.	1.5	5
2155	Role of N doping on the electrochemical performances of ZnCo ₂ O ₄ quantum dots/reduced graphene oxide composite nanosheets. Chemical Engineering Journal, 2017, 327, 1000-1010.	6.6	54
2156	Silver chloride enwrapped silver grafted on nitrogen-doped reduced graphene oxide as a highly efficient visible-light-driven photocatalyst. Journal of Colloid and Interface Science, 2017, 505, 421-429.	5.0	21
2157	Effective Synthesis of Highly Oxidized Graphene Oxide That Enables Wafer-scale Nanopatterning: Preformed Acidic Oxidizing Medium Approach. Scientific Reports, 2017, 7, 3908.	1.6	43
2158	Cobalt carbonate hydroxide superstructures for oxygen evolution reactions. Chemical Communications, 2017, 53, 8010-8013.	2.2	74
2159	Direct synthesis of a carbon nanotube interpenetrated doped porous carbon alloy as a durable Pt-free electrocatalyst for the oxygen reduction reaction in an alkaline medium. Sustainable Energy and Fuels, 2017, 1, 1524-1532.	2.5	16
2160	Highly Electrochemically Stable Morphology of Mesoscale Co ₃ O ₄ Flowerlike Oriented Aggregate (FLOA) for Electrocatalytic Water Splitting. Journal of the Electrochemical Society, 2017, 164, H526-H536.	1.3	2
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#	ARTICLE	IF	CITATIONS
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2163	Crosslinked Carbon Nanotube Aerogel Films Decorated with Cobalt Oxides for Flexible Rechargeable Zn-Air Batteries. <i>Small</i> , 2017, 13, 1700518.	5.2	99
2164	Effectively incorporating iron, nitrogen, and sulfur functionalities on carbon surface for a superior electrocatalyst toward oxygen reduction reaction. <i>Electrochemistry Communications</i> , 2017, 81, 34-37.	2.3	20
2165	Mesoporous nanostructured spinel-type MFe_2O_4 (M = Co, Mn, Ni) oxides as efficient bi-functional electrocatalysts towards oxygen reduction and oxygen evolution. <i>Electrochimica Acta</i> , 2017, 245, 829-838.	2.6	102
2166	Iron (II) phthalocyanine nanoclusters - Graphene sandwich composite for oxygen reduction reaction catalysts. <i>Materials and Design</i> , 2017, 130, 366-372.	3.3	15
2167	A rational design for enhanced oxygen reduction: Strongly coupled silver nanoparticles and engineered perovskite nanofibers. <i>Nano Energy</i> , 2017, 38, 392-400.	8.2	60
2168	Chemical synthesis and enhanced electrical properties of bulk poly(3,4-ethylenedioxythiophene)/reduced graphene oxide nanocomposites. <i>Synthetic Metals</i> , 2017, 229, 65-71.	2.1	19
2169	Unprecedented Activity of Bifunctional Electrocatalyst for High Power Density Aqueous Zn-Air Batteries. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 21216-21224.	4.0	64
2170	Gluing Ionic Liquids to Oxide Surfaces: Chemical Anchoring of Functionalized Ionic Liquids by Vapor Deposition onto Cobalt(II) Oxide. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 9072-9076.	7.2	16
2171	Interconnected Copper Cobaltite Nanochains as Efficient Electrocatalysts for Water Oxidation in Alkaline Medium. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 22378-22387.	4.0	56
2172	Lamellar Co_3O_4 nanoparticles recycled from synthetic cobalt carbonate: Core/shell morphology and magnetic properties. <i>Ceramics International</i> , 2017, 43, 10889-10894.	2.5	6
2173	Enhanced thermoelectric performance of reduced graphene oxide incorporated bismuth-antimony-telluride by lattice thermal conductivity reduction. <i>Journal of Alloys and Compounds</i> , 2017, 718, 342-348.	2.8	49
2175	Cobalt Oxide/Reduced Graphene Oxide Composite with Enhanced Electrochemical Supercapacitance Performance. <i>Bulletin of the Chemical Society of Japan</i> , 2017, 90, 955-962.	2.0	72
2177	In Situ Coupling FeM (M = Ni, Co) with Nitrogen-Doped Porous Carbon toward Highly Efficient Trifunctional Electrocatalyst for Overall Water Splitting and Rechargeable Zn-Air Battery. <i>Advanced Sustainable Systems</i> , 2017, 1, 1700020.	2.7	122
2178	Fabrication and Bifunctional Electrocatalytic Performance of Ternary $CoNiMn$ Layered Double Hydroxides/Polypyrrole/Reduced Graphene Oxide Composite for Oxygen Reduction and Evolution Reactions. <i>Electrochimica Acta</i> , 2017, 245, 59-68.	2.6	63
2179	General Oriented Formation of Carbon Nanotubes from Metal-Organic Frameworks. <i>Journal of the American Chemical Society</i> , 2017, 139, 8212-8221.	6.6	777
2180	Stable $1T-MoSe_2$ and Carbon Nanotube Hybridized Flexible Film: Binder-Free and High-Performance Li-Ion Anode. <i>ACS Nano</i> , 2017, 11, 6483-6491.	7.3	135
2181	Directly anchoring Fe_3C nanoclusters and FeN_x sites in ordered mesoporous nitrogen-doped graphitic carbons to boost electrocatalytic oxygen reduction. <i>Carbon</i> , 2017, 121, 143-153.	5.4	71

#	ARTICLE	IF	CITATIONS
2182	Nitrogen-doped microporous carbon: An efficient oxygen reduction catalyst for Zn-air batteries. <i>Journal of Power Sources</i> , 2017, 359, 71-79.	4.0	61
2183	O ₂ -functionalized oxygen-deficient Co ₃ O ₄ nanorods as high performance supercapacitor electrodes and electrocatalysts towards water splitting. <i>Nano Energy</i> , 2017, 38, 155-166.	8.2	294
2184	A Composite of Pyrrole-Doped Carbon Black Modified with Co ₃ O ₄ for Efficient Electrochemical Oxygen Reduction Reaction. <i>ChemElectroChem</i> , 2017, 4, 2260-2268.	1.7	11
2185	In situ directional formation of Co@CoO _x -embedded 1D carbon nanotubes as an efficient oxygen electrocatalyst for ultra-high rate Zn-air batteries. <i>Journal of Materials Chemistry A</i> , 2017, 5, 13994-14002.	5.2	74
2186	Achieving excellent activity and stability for oxygen reduction electrocatalysis by hollow mesoporous iron-nitrogen-doped graphitic carbon spheres. <i>Journal of Materials Chemistry A</i> , 2017, 5, 12243-12251.	5.2	48
2187	Facile fabrication of N/S-doped carbon nanotubes with Fe ₃ O ₄ nanocrystals enched for lasting synergy as efficient oxygen reduction catalysts. <i>Journal of Materials Chemistry A</i> , 2017, 5, 13189-13195.	5.2	50
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#	ARTICLE	IF	CITATIONS
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#	ARTICLE	IF	CITATIONS
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#	ARTICLE	IF	CITATIONS
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2256	Cobalt nanoparticles/nitrogen-doped graphene with high nitrogen doping efficiency as noble metal-free electrocatalysts for oxygen reduction reaction. <i>Journal of Colloid and Interface Science</i> , 2017, 490, 576-586.	5.0	26
2257	A Robust Hybrid Zn-Battery with Ultralong Cycle Life. <i>Nano Letters</i> , 2017, 17, 156-163.	4.5	138
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2278	Reactivity-Controlled Preparation of Ultralarge Graphene Oxide by Chemical Expansion of Graphite. <i>Chemistry of Materials</i> , 2017, 29, 564-572.	3.2	93
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#	ARTICLE	IF	CITATIONS
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#	ARTICLE	IF	CITATIONS
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#	ARTICLE	IF	CITATIONS
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#	ARTICLE	IF	CITATIONS
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#	ARTICLE	IF	CITATIONS
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2454	Fe/N/C Nanotubes with Atomic Fe Sites: A Highly Active Cathode Catalyst for Alkaline Polymer Electrolyte Fuel Cells. <i>ACS Catalysis</i> , 2017, 7, 6485-6492.	5.5	141
2455	Topotactic transition of γ -Co(OH) ₂ to β -Co(OH) ₂ anchored on CoO nanoparticles during electrochemical water oxidation: synergistic electrocatalytic effects. <i>Chemical Communications</i> , 2017, 53, 9809-9812.	2.2	48
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2457	A combination of CoO and Co nanoparticles supported on electrospun carbon nanofibers as highly stable air electrodes. <i>Journal of Power Sources</i> , 2017, 364, 101-109.	4.0	60
2458	Co,N,S-Codoped Three-Dimensional Graphene as Efficient Bi-Functional Electrocatalyst for Oxygen Reduction/Hydrogen Evolution Reaction. <i>Journal of the Electrochemical Society</i> , 2017, 164, F1110-F1114.	1.3	7
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2466	Activating cobalt(II) oxide nanorods for efficient electrocatalysis by strain engineering. <i>Nature Communications</i> , 2017, 8, 1509.	5.8	361
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#	ARTICLE	IF	CITATIONS
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2473	Electronic Structure Reconfiguration toward Pyrite NiS ₂ via Engineered Heteroatom Defect Boosting Overall Water Splitting. <i>ACS Nano</i> , 2017, 11, 11574-11583.	7.3	310
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2480	Study of iron oxide nanoparticle phases in graphene aerogels for oxygen reduction reaction. <i>New Journal of Chemistry</i> , 2017, 41, 15180-15186.	1.4	15
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2482	Sugar Blowing-Induced Porous Cobalt Phosphide/Nitrogen-Doped Carbon Nanostructures with Enhanced Electrochemical Oxidation Performance toward Water and Other Small Molecules. <i>Small</i> , 2017, 13, 1700796.	5.2	65
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2486	Thermal decomposition synthesis, characterization and electrochemical hydrogen storage characteristics of Co ₃ O ₄ @CeO ₂ porous nanocomposite. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 20071-20081.	3.8	38
2487	Pt-free NiCo electrocatalysts for oxygen evolution by seawater splitting. <i>Electrochimica Acta</i> , 2017, 247, 381-391.	2.6	39
2488	The physics and chemistry of graphene-on-surfaces. <i>Chemical Society Reviews</i> , 2017, 46, 4417-4449.	18.7	309
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2491	Evolution of dealloyed PdBi ₂ nanoparticles as electrocatalysts with enhanced activity and remarkable durability in hydrogen evolution reactions. <i>Journal of Materials Chemistry A</i> , 2017, 5, 15950-15960.	5.2	52
2492	Nonprecious Electrocatalysts for Li-Air and Zn-Air batteries: Fundamentals and recent advances. <i>IEEE Nanotechnology Magazine</i> , 2017, 11, 29-55.	0.9	16
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2498	Bifunctional Iron-Nickel Nitride Nanoparticles as Flexible and Robust Electrode for Overall Water Splitting. <i>Electrochimica Acta</i> , 2017, 247, 666-673.	2.6	92
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2510	CoS nanosheet arrays grown on nickel foam as an excellent OER catalyst. <i>Journal of Alloys and Compounds</i> , 2017, 723, 772-778.	2.8	78
2511	Proton conductive Pt-Co nanoparticles anchoring on citric acid functionalized graphene for efficient oxygen reduction reaction. <i>Journal of Power Sources</i> , 2017, 360, 528-537.	4.0	12
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2522	Co-N-Doped Mesoporous Carbon Hollow Spheres as Highly Efficient Electrocatalysts for Oxygen Reduction Reaction. <i>Small</i> , 2017, 13, 1602507.	5.2	143
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#	ARTICLE	IF	CITATIONS
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2528	Synthesis of aerogels: from molecular routes to 3-dimensional nanoparticle assembly. <i>Nanoscale Horizons</i> , 2017, 2, 6-30.	4.1	113
2529	Bimetallic Cobalt-Based Phosphide Zeolitic Imidazolate Framework: CoP _x Phase-Dependent Electrical Conductivity and Hydrogen Atom Adsorption Energy for Efficient Overall Water Splitting. <i>Advanced Energy Materials</i> , 2017, 7, 1601555.	10.2	340
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2532	Graphene foam supported multilevel network-like NiCo ₂ S ₄ nanoarchitectures for robust lithium storage and efficient ORR catalysis. <i>New Journal of Chemistry</i> , 2017, 41, 115-125.	1.4	25
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2534	Cobalt Nanoparticle-Embedded Porous Carbon Nanofibers with Inherent N- and F-Doping as Binder-Free Bifunctional Catalysts for Oxygen Reduction and Evolution Reactions. <i>ChemPhysChem</i> , 2017, 18, 223-229.	1.0	28
2535	Iron and nickel doped CoSe ₂ as efficient non precious metal catalysts for oxygen reduction. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 236-242.	3.8	29
2536	Hydrogen Bubble-Assisted Electrodeposition of Metal Nanoparticles from Protic Ionic Liquids for Electrocatalysis. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 85-89.	3.2	26
2537	A Prussian blue route to nitrogen-doped graphene aerogels as efficient electrocatalysts for oxygen reduction with enhanced active site accessibility. <i>Nano Research</i> , 2017, 10, 1213-1222.	5.8	73
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2540	Preparation of graphene-nickel nanoparticles hybrid by spray pyrolysis using nickel oleate precursor and its application as a ferrofluid. <i>Inorganic and Nano-Metal Chemistry</i> , 2017, 47, 558-564.	0.9	1
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2545	Colloidal nanocrystals for electrochemical reduction reactions. <i>Journal of Colloid and Interface Science</i> , 2017, 485, 308-327.	5.0	17
2546	Core-shell LaPO ₄ /g-C ₃ N ₄ nanowires for highly active and selective CO ₂ reduction. <i>Applied Catalysis B: Environmental</i> , 2017, 201, 629-635.	10.8	109
2547	Ni ₃ Fe Doped Carbon Sheets as a Bifunctional Electrocatalyst for Air Cathodes. <i>Advanced Energy Materials</i> , 2017, 7, 1601172.	10.2	369
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2551	High oxygen reduction reaction activity of C-N/Ag hybrid composites for Zn-air battery. <i>Journal of Alloys and Compounds</i> , 2017, 694, 419-428.	2.8	31
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2558	The recent progress and future of oxygen reduction reaction catalysis: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 69, 401-414.	8.2	300
2559	Investigation and modification of carbon buckypaper as an electrocatalyst support for oxygen reduction. <i>Journal of Applied Electrochemistry</i> , 2017, 47, 105-115.	1.5	4
2560	In situ confined synthesis of molybdenum oxide decorated nickel-iron alloy nanosheets from MoO ₄ ²⁻ intercalated layered double hydroxides for the oxygen evolution reaction. <i>Journal of Materials Chemistry A</i> , 2017, 5, 87-91.	5.2	157
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#	ARTICLE	IF	CITATIONS
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2564	Highly efficient electrocatalysts with CoO/CoFe ₂ O ₄ composites embedded within N-doped porous carbon materials prepared by hard-template method for oxygen reduction reaction. <i>RSC Advances</i> , 2017, 7, 56375-56381.	1.7	8
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2566	Three-dimensional Co ₃ O ₄ @MWNTs nanocomposite with enhanced electrochemical performance for nonenzymatic glucose biosensors and biofuel cells. <i>Royal Society Open Science</i> , 2017, 4, 170991.	1.1	15
2567	Electrochemical performances of graphene nanoribbons interlacing hollow NiCo oxide nanocages. <i>Journal of Nanoparticle Research</i> , 2017, 19, 1.	0.8	5
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2569	Hybrid Bioelectrocatalytic Reduction of Oxygen at Anthracene-modified Multi-walled Carbon Nanotubes Decorated with Ni ₉₀ Pd ₁₀ Nanoparticles. <i>Electrochimica Acta</i> , 2017, 251, 195-202.	2.6	4
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2571	Post Iron Decoration of Mesoporous Nitrogen-Doped Carbon Spheres for Efficient Electrochemical Oxygen Reduction. <i>Advanced Energy Materials</i> , 2017, 7, 1701154.	10.2	65
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2574	A Unique 3D Nitrogen-Doped Carbon Composite as High-Performance Oxygen Reduction Catalyst. <i>Materials</i> , 2017, 10, 921.	1.3	14
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2576	SiRNA Delivery with PEGylated Graphene Oxide Nanosheets for Combined Photothermal and Genetherapy for Pancreatic Cancer. <i>Theranostics</i> , 2017, 7, 1133-1148.	4.6	165
2577	Highly Effective Dual Transition Metal Macrocyclic Based Electrocatalyst with Macro-/Mesoporous Structures for Oxygen Reduction Reaction. <i>Catalysts</i> , 2017, 7, 201.	1.6	13
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2583	Electrocatalytic activity towards oxygen reduction reaction of laminar nanocomposite LaNb ₂ O ₇ /Co ^{III} TMPyP prepared via the exfoliation/restacking method. Micro and Nano Letters, 2017, 12, 731-734.	0.6	4
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#	ARTICLE	IF	CITATIONS
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2866	Covalent Triazine Framework Anchored with Co ₃ O ₄ Nanoparticles for Efficient Oxygen Reduction. <i>ChemElectroChem</i> , 2018, 5, 717-721.	1.7	13
2867	Well-Defined Cobalt Catalyst with N-Doped Carbon Layers Enwrapping: The Correlation between Surface Atomic Structure and Electrocatalytic Property. <i>Small</i> , 2018, 14, 1702074.	5.2	56
2868	Exploration of the Active Center Structure of Nitrogen-Doped Graphene for Control over the Growth of Co ₃ O ₄ for a High-Performance Supercapacitor. <i>ACS Applied Energy Materials</i> , 2018, 1, 143-153.	2.5	63
2869	NiCo Alloy Nanoparticles Decorated on N-Doped Carbon Nanofibers as Highly Active and Durable Oxygen Electrocatalyst. <i>Advanced Functional Materials</i> , 2018, 28, 1705094.	7.8	405
2870	Tailored Porous ZnCo ₂ O ₄ Nanofibrous Electrocatalysts for Lithium ^{Oxygen} Batteries. <i>Advanced Materials Interfaces</i> , 2018, 5, 1701234.	1.9	9
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#	ARTICLE	IF	CITATIONS
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2874	Recent Progress on MOF-Derived Heteroatom-Doped Carbon-Based Electrocatalysts for Oxygen Reduction Reaction. <i>Advanced Science</i> , 2018, 5, 1700515.	5.6	306
2875	Electrocatalysis of oxygen reduction on heteroatom-doped nanocarbons and transition metal-nitrogen-carbon catalysts for alkaline membrane fuel cells. <i>Journal of Materials Chemistry A</i> , 2018, 6, 776-804.	5.2	357
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2877	Benchmarking the Oxygen Reduction Electroactivity of First-Row Transition-Metal Oxide Clusters on Carbon Nanotubes. <i>ChemElectroChem</i> , 2018, 5, 1862-1867.	1.7	10
2878	Preparation and Electrochemical Properties of NiCo ₂ O ₄ Nanospinel Supported on Graphene Derivatives as Earth-Abundant Oxygen Bifunctional Catalysts. <i>ChemPhysChem</i> , 2018, 19, 319-326.	1.0	5
2879	Enhancement of oxygen reduction reaction performance: The characteristic role of Fe N coordinations. <i>Electrochimica Acta</i> , 2018, 260, 264-273.	2.6	27
2880	Fe@C ₂ N: A highly-efficient indirect-contact oxygen reduction catalyst. <i>Nano Energy</i> , 2018, 44, 304-310.	8.2	118
2881	Reversible Structural Evolution of NiCoO _x H _y during the Oxygen Evolution Reaction and Identification of the Catalytically Active Phase. <i>ACS Catalysis</i> , 2018, 8, 1238-1247.	5.5	153
2882	High-Performance Transition Metal Phosphide Alloy Catalyst for Oxygen Evolution Reaction. <i>ACS Nano</i> , 2018, 12, 158-167.	7.3	321
2883	Towards a better understanding of the synergistic effect in the electro-peroxone process using a three electrode system. <i>Chemical Engineering Journal</i> , 2018, 337, 733-740.	6.6	26
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2885	Highly efficient oxygen evolution electrocatalysts prepared by using reduction-engraved ferrites on graphene oxide. <i>Inorganic Chemistry Frontiers</i> , 2018, 5, 310-318.	3.0	24
2886	In-situ synthesized TiC@CNT as high-performance catalysts for oxygen reduction reaction. <i>Carbon</i> , 2018, 126, 566-573.	5.4	23
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2888	Co/CoP embedded in a hairy nitrogen-doped carbon polyhedron as an advanced tri-functional electrocatalyst. <i>Materials Horizons</i> , 2018, 5, 108-115.	6.4	184
2889	Remarkably enhanced water splitting activity of nickel foam due to simple immersion in a ferric nitrate solution. <i>Nano Research</i> , 2018, 11, 3959-3971.	5.8	88
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#	ARTICLE	IF	CITATIONS
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2899	Visible light laser-induced graphene from phenolic resin: A new approach for directly writing graphene-based electrochemical devices on various substrates. <i>Carbon</i> , 2018, 127, 287-296.	5.4	163
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2905	Von der Präzisionssynthese von Blockcopolymeren zu Eigenschaften und Anwendungen von funktionellen Nanopartikeln. <i>Angewandte Chemie</i> , 2018, 130, 2066-2093.	1.6	14
2906	Reduced graphene oxide-supported Pd@Au bimetallic nano electrocatalyst for enhanced oxygen reduction reaction in alkaline media. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 4125-4135.	3.8	42
2907	AgBr-wrapped Ag chelated on nitrogen-doped reduced graphene oxide for water purification under visible light. <i>Applied Catalysis B: Environmental</i> , 2018, 220, 118-125.	10.8	51
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#	ARTICLE	IF	CITATIONS
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2911	Die facettenreiche Reaktivität heterogener Einzelatomkatalysatoren. <i>Angewandte Chemie</i> , 2018, 130, 15538-15552.	1.6	36
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2925	Incorporation of Cu-N _x cofactors into graphene encapsulated Co as biomimetic electrocatalysts for efficient oxygen reduction. <i>Nanoscale</i> , 2018, 10, 21076-21086.	2.8	47
2926	Enhanced oxygen reduction on graphene via Y ₅ Si ₃ electride substrate: A first-principles study. <i>Chinese Journal of Chemical Physics</i> , 2018, 31, 649-654.	0.6	6

#	ARTICLE	IF	CITATIONS
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2930	The Effects of Acidic, Alkaline, and Neutral Anolytes on Electrochemical Seawater Deoxygenation. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 2280.	1.3	1
2931	First-principles computational approach for innovative design of highly functional electrocatalysts in fuel cells. <i>Current Opinion in Electrochemistry</i> , 2018, 12, 225-232.	2.5	4
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2934	In situ synthesis of V ₂ O ₃ nanorods anchored on reduced graphene oxide as high-performance lithium ion battery anode. <i>ChemistrySelect</i> , 2018, 3, 12108-12112.	0.7	13
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2942	Activation of Reduced-Graphene-Oxide Supported Pt Nanoparticles by Aligning with WO ₃ -Nanowires toward Oxygen Reduction in Acid Medium: Diagnosis with Rotating-Ring-Disk Voltammetry and Double-Potential-Step Chronocoulometry. <i>Journal of the Electrochemical Society</i> , 2018, 165, J3384-J3391.	1.3	13
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#	ARTICLE	IF	CITATIONS
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2954	N-doped carbon nanofibers aerogels derived from aramid as efficient electrocatalysts for oxygen reduction reaction in alkaline and acidic media. <i>Journal of Electroanalytical Chemistry</i> , 2018, 829, 177-183.	1.9	31
2955	Multiscale Structural Engineering of Ni-Doped CoO Nanosheets for Zinc-Air Batteries with High Power Density. <i>Advanced Materials</i> , 2018, 30, e1804653.	11.1	131
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2961	Turning Carbon Atoms into Highly Active Oxygen Reduction Reaction Electrocatalytic Sites in Nitrogen-Doped Graphene-Coated Co@Ag. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 14033-14041.	3.2	10
2962	Enhanced electromagnetic wave absorption induced by void spaces in hollow nanoparticles. <i>Nanoscale</i> , 2018, 10, 18742-18748.	2.8	88
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2965	The Multifaceted Reactivity of Single-Atom Heterogeneous Catalysts. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 15316-15329.	7.2	261
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2971	Ultrastable Graphene-Encapsulated 3 nm Nanoparticles by In Situ Chemical Vapor Deposition. <i>Advanced Materials</i> , 2018, 30, e1805023.	11.1	24
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2977	A Self-Templating Redox-Mediated Synthesis of Hollow Phosphated Manganese Oxide Nanospheres as Noble-Metal-like Oxygen Electrocatalysts. <i>Chemistry of Materials</i> , 2018, 30, 8270-8279.	3.2	31
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3002	High-density active sites porous Fe/N/C electrocatalyst boosting the performance of proton exchange membrane fuel cells. Journal of Power Sources, 2018, 401, 287-295.	4.0	44
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3005	Lithium Electrochemical Tuning for Electrocatalysis. <i>Advanced Materials</i> , 2018, 30, e1800978.	11.1	51
3006	The Marriage of the FeN ₄ Moiety and MXene Boosts Oxygen Reduction Catalysis: Fe 3d Electron Delocalization Matters. <i>Advanced Materials</i> , 2018, 30, e1803220.	11.1	289
3007	Coordination-Assisted Polymerization of Mesoporous Cobalt Sulfide/Heteroatom (N,S)-Doped Double-Layered Carbon Tubes as an Efficient Bifunctional Oxygen Electrocatalyst. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 33124-33134.	4.0	66
3008	Sulfonated Nanobamboo Fiber-Reinforced Quaternary Ammonia Poly(ether ether ketone) Membranes for Alkaline Polymer Electrolyte Fuel Cells. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 33581-33588.	4.0	24
3009	In situ synthesis of mesoporous Co ₃ O ₄ nanorods anchored on reduced graphene oxide nanosheets as supercapacitor electrodes. <i>Chemical Physics Letters</i> , 2018, 710, 188-192.	1.2	22
3010	Two-Dimensional Mn-Co LDH/Graphene Composite towards High-Performance Water Splitting. <i>Catalysts</i> , 2018, 8, 350.	1.6	27
3011	Atomically-defined model catalysts in ultrahigh vacuum and in liquid electrolytes: particle size-dependent CO adsorption on Pt nanoparticles on ordered Co ₃ O ₄ (111) films. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 23702-23716.	1.3	13
3012	Octahedral Co ₃ O ₄ particles with high electrochemical surface area as electrocatalyst for water splitting. <i>Electrochimica Acta</i> , 2018, 288, 82-90.	2.6	34
3013	Effect of methane concentration on oxygen reduction reaction of carbon films in alkaline solution. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 18194-18201.	3.8	4
3014	Three-dimensionally mesoporous dual (Co, Fe) metal oxide/CNTs composite as electrocatalysts for air cathodes in Li-O ₂ batteries. <i>Ceramics International</i> , 2018, 44, 21942-21949.	2.3	10
3015	Zeolitic Imidazolate Framework-Mediated Synthesis of Co ₃ O ₄ Nanoparticles Encapsulated in N-Doped Graphitic Carbon as an Efficient Catalyst for Selective Oxidation of Hydrocarbons. <i>ACS Applied Nano Materials</i> , 2018, 1, 4836-4851.	2.4	27
3016	Emerging core-shell nanostructured catalysts of transition metal encapsulated by two-dimensional carbon materials for electrochemical applications. <i>Nano Today</i> , 2018, 22, 100-131.	6.2	86
3017	Selective Reduction-Oxidation Strategy to the Conductivity-Enhancing Ag-Decorated Co-Based 2D Hydroxides as Efficient Electrocatalyst in Oxygen Evolution Reaction. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 13420-13426.	3.2	27
3018	Simple synthesis of nitrogen-doped carbon spheres as a highly efficient metal-free electrocatalyst for the oxygen reduction reaction. <i>Chinese Journal of Catalysis</i> , 2018, 39, 1138-1145.	6.9	11
3019	Nanocarbons as platforms for developing novel catalytic composites: overview and prospects. <i>Applied Catalysis A: General</i> , 2018, 562, 94-105.	2.2	40
3020	Surface activation of graphene nanoribbons for oxygen reduction reaction by nitrogen doping and defect engineering: An ab initio study. <i>Carbon</i> , 2018, 137, 349-357.	5.4	16
3021	Efficient ORR electrocatalytic activity of peanut shell-based graphitic carbon microstructures. <i>Journal of Materials Chemistry A</i> , 2018, 6, 12018-12028.	5.2	81

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3023	Nitrogen-doped carbon layer coated CeNiO _x as electrocatalyst for oxygen reduction reaction. Journal of Alloys and Compounds, 2018, 761, 8-14.	2.8	9
3024	SiO ₂ -protected shell mediated templating synthesis of Fe-N-doped carbon nanofibers and their enhanced oxygen reduction reaction performance. Energy and Environmental Science, 2018, 11, 2208-2215.	15.6	196
3025	Co ₃ O ₄ Nanosheet Arrays on Ni Foam as Electrocatalyst for Oxygen Evolution Reaction. Electroanalysis, 2018, 9, 653-661.	1.5	23
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3033	Metal-Organic Framework-Derived CoWP@C Composite Nanowire Electrocatalyst for Efficient Water Splitting. ACS Energy Letters, 2018, 3, 1434-1442.	8.8	141
3034	Structural Engineering of 3D Carbon Materials from Transition Metal Ion-Exchanged Y Zeolite Templates. Chemistry of Materials, 2018, 30, 3779-3788.	3.2	28
3035	Sunlight-driven water-splitting using two-dimensional carbon based semiconductors. Journal of Materials Chemistry A, 2018, 6, 12876-12931.	5.2	215
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3037	Elucidation of role of graphene in catalytic designs for electroreduction of oxygen. Current Opinion in Electrochemistry, 2018, 9, 257-264.	2.5	35
3038	Boron and nitrogen co-doped graphene aerogels: Facile preparation, tunable doping contents and bifunctional oxygen electrocatalysis. Carbon, 2018, 137, 458-466.	5.4	82
3039	Promoting Oxygen Evolution Reactions through Introduction of Oxygen Vacancies to Benchmark NiFe-OOH Catalysts. ACS Energy Letters, 2018, 3, 1515-1520.	8.8	249

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3041	Efficient Co@CoP core-shell nanochains catalyst for the oxygen evolution reaction. <i>Inorganic Chemistry Frontiers</i> , 2018, 5, 1844-1848.	3.0	9
3042	Scalable synthesis of porous hollow CoSe ₂ @MoSe ₂ /carbon microspheres for highly efficient hydrogen evolution reaction in acidic and alkaline media. <i>Journal of Materials Chemistry A</i> , 2018, 6, 12701-12707.	5.2	106
3043	Pod-like structured Co/CoOx nitrogen-doped carbon fibers as efficient oxygen reduction reaction electrocatalysts for Zn-air battery. <i>Applied Surface Science</i> , 2018, 456, 959-966.	3.1	50
3044	Facile synthesis of a BiFeO ₃ /nitrogen-doped graphene nanocomposite system with enhanced photocatalytic activity. <i>Journal of Physics and Chemistry of Solids</i> , 2018, 121, 8-16.	1.9	27
3045	Toward Two-Dimensional Conjugated Covalent Organic Radical Frameworks. <i>Angewandte Chemie</i> , 2018, 130, 8139-8143.	1.6	22
3046	Post-formation Copper-Nitrogen Species on Carbon Black: Their Chemical Structures and Active Sites for Oxygen Reduction Reaction. <i>Chemistry - A European Journal</i> , 2018, 24, 9968-9975.	1.7	37
3047	Ultra-thin CoO films grown on different oxide substrates: Size and support effects and chemical stability. <i>Journal of Alloys and Compounds</i> , 2018, 758, 5-13.	2.8	3
3048	Role of flower-like ultrathin Co ₃ O ₄ nanosheets in water splitting and non-aqueous Li-O ₂ batteries. <i>Nanoscale</i> , 2018, 10, 10221-10231.	2.8	60
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3050	Dicyandiamide and iron-tannin framework derived nitrogen-doped carbon nanosheets with encapsulated iron carbide nanoparticles as advanced pH-universal oxygen reduction catalysts. <i>Journal of Colloid and Interface Science</i> , 2018, 530, 196-201.	5.0	32
3051	Ultrafine Pt Nanoparticle-Decorated Pyrite-Type CoS ₂ Nanosheet Arrays Coated on Carbon Cloth as a Bifunctional Electrode for Overall Water Splitting. <i>Advanced Energy Materials</i> , 2018, 8, 1800935.	10.2	286
3052	Ionic Liquid Originated Synthesis of N-Doped Graphene for Hydrogen Evolution Reaction. <i>ChemistrySelect</i> , 2018, 3, 6814-6820.	0.7	6
3053	Nanomaterials as Catalysts. , 2018, , 45-82.		15
3054	A 3D electrode of core@shell branched nanowire TiN@Ni _{0.27} Co _{2.73} O ₄ arrays for enhanced oxygen evolution reaction. <i>Applied Materials Today</i> , 2018, 12, 276-282.	2.3	9
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3056	Activation of Surface Oxygen Sites in a Cobalt-Based Perovskite Model Catalyst for CO Oxidation. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 4146-4154.	2.1	67
3057	Sustainable Synthesis of Co@NC Core Shell Nanostructures from Metal Organic Frameworks via Mechanochemical Coordination Self-Assembly: An Efficient Electrocatalyst for Oxygen Reduction Reaction. <i>Small</i> , 2018, 14, e1800441.	5.2	150

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3059	Powerful amorphous mixed metal catalyst for efficient water-oxidation. <i>Materials Today Energy</i> , 2018, 9, 247-253.	2.5	8
3060	In Situ Growth of NiFe Alloy Nanoparticles Embedded into N-Doped Bamboo-like Carbon Nanotubes as a Bifunctional Electrocatalyst for Zn-Air Batteries. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 26178-26187.	4.0	94
3061	Recent progress in single-atom electrocatalysts: concept, synthesis, and applications in clean energy conversion. <i>Journal of Materials Chemistry A</i> , 2018, 6, 14025-14042.	5.2	224
3062	Recent advancements in the development of bifunctional electrocatalysts for oxygen electrodes in unitized regenerative fuel cells (URFCs). <i>Progress in Materials Science</i> , 2018, 98, 108-167.	16.0	37
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3065	Host-guest electrocatalyst with cage-confined cuprous sulfide nanoparticles in etched chalcogenide semiconductor zeolite for highly efficient oxygen reduction reaction. <i>Electrochimica Acta</i> , 2018, 282, 877-885.	2.6	15
3066	High performance of yolk-shell structured MnO@nitrogen doped carbon microspheres as lithium ion battery anode materials and their in operando X-ray diffraction study. <i>Electrochimica Acta</i> , 2018, 282, 719-727.	2.6	25
3067	Fe Vacancies Induced Surface FeO ₆ in Nanoarchitectures of N-Doped Graphene Protected FeOOH: Effective Active Sites for pH-Universal Electrocatalytic Oxygen Reduction. <i>Advanced Functional Materials</i> , 2018, 28, 1803330.	7.8	51
3069	Controllable 1D and 2D Cobalt Oxide and Cobalt Selenide Nanostructures as Highly Efficient Electrocatalysts for the Oxygen Evolution Reaction. <i>Chemistry - an Asian Journal</i> , 2018, 13, 2700-2707.	1.7	20
3070	Fully Ordered and Trace Au-Doped Intermetallic PdFe Catalyst with Extra High Activity and Durability toward Oxygen Reduction Reaction. <i>ChemistrySelect</i> , 2018, 3, 6399-6405.	0.7	6
3071	General self-template synthesis of transition-metal oxide microspheres and their excellent charge storage properties. <i>Electrochimica Acta</i> , 2018, 283, 190-196.	2.6	16
3072	Ultrasonic assisted coating of multiwalled carbon nanotubes with NiFe-layered double hydroxide for improved electrocatalytic oxygen reduction. <i>Journal of Electroanalytical Chemistry</i> , 2018, 823, 499-504.	1.9	28
3073	Novel Nanomaterials as Electrocatalysts for Fuel Cells. , 2018, , 169-204.		5
3074	Application of Nanomaterials Prepared by Thermolysis of Metal Chelates. <i>Springer Series on Polymer and Composite Materials</i> , 2018, , 459-541.	0.5	1
3075	Oxygen vacancies induced ferromagnetic behaviors in Co ₃ O ₄ : An experimental and first-principles study. <i>Thin Solid Films</i> , 2018, 660, 287-293.	0.8	9
3076	Low-cost CoFe ₂ O ₄ /biomass carbon hybrid from metal-enriched sulfate reducing bacteria as an electrocatalyst for water oxidation. <i>RSC Advances</i> , 2018, 8, 22799-22805.	1.7	8

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3078	Polyoxometalate-based materials for advanced electrochemical energy conversion and storage. <i>Chemical Engineering Journal</i> , 2018, 351, 441-461.	6.6	93
3079	Periodic density functional theory study of maghemite (001) surface. Structure and electronic properties. <i>Surface Science</i> , 2018, 677, 239-253.	0.8	8
3080	Single-Doped and Multidoped Transition-Metal (Mn, Fe, Co, and Ni) ZnO and Their Electrocatalytic Activities for Oxygen Reduction Reaction. <i>Inorganic Chemistry</i> , 2018, 57, 9977-9987.	1.9	57
3081	Facile synthesis of highly active fluorinated ultrathin graphitic carbon nitride for photocatalytic H ₂ evolution using a novel NaF etching strategy. <i>RSC Advances</i> , 2018, 8, 27021-27026.	1.7	4
3082	Charge transfer dynamical processes at graphene-transition metal oxides/electrolyte interface for energy storage: Insights from in-situ Raman spectroelectrochemistry. <i>AIP Advances</i> , 2018, 8, .	0.6	18
3083	Three-Dimensional Heteroatom-Doped Nanocarbon for Metal-Free Oxygen Reduction Electrocatalysis: A Review. <i>Catalysts</i> , 2018, 8, 301.	1.6	31
3084	Synergistic effect of three-dimensional cobalt diselenide/carbon nanotube arrays composites for enhanced hydrogen evolution reaction. <i>Electrochimica Acta</i> , 2018, 285, 254-261.	2.6	30
3085	FeS as a promising cathode catalyst for direct borohydride fuel cells. <i>Journal of Alloys and Compounds</i> , 2018, 769, 136-140.	2.8	11
3086	One-Pot Synthesis of Co ₃ O ₄ /Ag Nanoparticles Supported on N-Doped Graphene as Efficient Bifunctional Oxygen Catalysts for Flexible Rechargeable Zinc-Air Batteries. <i>Chemistry - A European Journal</i> , 2018, 24, 14816-14823.	1.7	49
3087	More active sites exposed few-layer MoSe ₂ supported on nitrogen-doped carbon as highly efficient and durable electrocatalysts for water splitting. <i>Electrochimica Acta</i> , 2018, 285, 103-110.	2.6	18
3088	Influence of Surface Charges/Chemistry on the Catalysis of Perovskite Complexes. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 28502-28508.	4.0	4
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3091	Pulsed Electrodeposition of Co ₃ O ₄ Nanocrystals on One-Dimensional ZnO Scaffolds for Enhanced Electrochemical Water Oxidation. <i>ChemPlusChem</i> , 2018, 83, 934-940.	1.3	16
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3093	Nonprecious Nanoalloys Embedded in N-Enriched Mesoporous Carbons Derived from a Dual-MOF as Highly Active Catalyst towards Oxygen Reduction Reaction. <i>ChemistrySelect</i> , 2018, 3, 7913-7920.	0.7	11
3094	Interfacial Chemistry of Low-Dimensional Systems for Applications in Nanocatalysis. <i>European Journal of Inorganic Chemistry</i> , 2018, 2018, 4311-4321.	1.0	6
3095	Laser-induced graphene synthesis of Co ₃ O ₄ in graphene for oxygen electrocatalysis and metal-air batteries. <i>Carbon</i> , 2018, 139, 880-887.	5.4	91

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3097	Mn ₃ O ₄ /N-Doped Graphite Catalysts from Wastewater for the Degradation of Methylene Blue. <i>Chemistry - A European Journal</i> , 2018, 24, 14554-14559.	1.7	9
3098	Tuning the Electrocatalytic Performance of Ionic Liquid Modified Pt Catalysts for the Oxygen Reduction Reaction via Cationic Chain Engineering. <i>ACS Catalysis</i> , 2018, 8, 8244-8254.	5.5	82
3099	A nickel nanoparticle/nafion-graphene oxide modified screen-printed electrode for amperometric determination of chemical oxygen demand. <i>Mikrochimica Acta</i> , 2018, 185, 385.	2.5	21
3100	Enhanced exfoliation efficiency of graphite into few-layer graphene via reduction of graphite edge. <i>Carbon</i> , 2018, 138, 390-396.	5.4	11
3101	Cobalt and Nitrogen Co-Doped Graphene-Carbon Nanotube Aerogel as an Efficient Bifunctional Electrocatalyst for Oxygen Reduction and Evolution Reactions. <i>Catalysts</i> , 2018, 8, 275.	1.6	24
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3103	Bioinspired fiber-like porous Cu/N/C electrocatalyst facilitating electron transportation toward oxygen reaction for metal-air batteries. <i>Nanoscale</i> , 2018, 10, 15819-15825.	2.8	30
3104	Morphology controlled synthesis of SmMn ₂ O ₅ nanocrystals via a surfactant-free route for Zn-air batteries. <i>Journal of Power Sources</i> , 2018, 396, 754-763.	4.0	25
3105	Cu ₂ O and rGO Hybridizing for Enhancement of Low-Concentration NO ₂ Sensing at Room Temperature. <i>Industrial & Engineering Chemistry Research</i> , 2018, 57, 10086-10094.	1.8	33
3106	Boosting Oxygen Reduction Catalysis with N-doped Carbon Coated Co ₉ S ₈ Microtubes. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 25415-25421.	4.0	89
3107	Electronic Band Structure and Electrocatalytic Performance of Cu ₃ N Nanocrystals. <i>ACS Applied Nano Materials</i> , 2018, 1, 3673-3681.	2.4	27
3108	Green Synthesis of Three-Dimensional Hybrid N-Doped ORR Electro-Catalysts Derived from Apricot Sap. <i>Materials</i> , 2018, 11, 205.	1.3	8
3109	Effect of Fluoride on the Morphology and Electrochemical Property of Co ₃ O ₄ Nanostructures for Hydrazine Detection. <i>Materials</i> , 2018, 11, 207.	1.3	22
3110	Carbon Nitride Decorated Ball-Flower like Co ₃ O ₄ Hybrid Composite: Hydrothermal Synthesis and Ethanol Gas Sensing Application. <i>Nanomaterials</i> , 2018, 8, 132.	1.9	55
3111	Comprehensive Analysis of Trends and Emerging Technologies in All Types of Fuel Cells Based on a Computational Method. <i>Sustainability</i> , 2018, 10, 458.	1.6	32
3112	Highly Dispersive MoP Nanoparticles Anchored on Reduced Graphene Oxide Nanosheets for an Efficient Hydrogen Evolution Reaction Electrocatalyst. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 26258-26263.	4.0	60
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3115	Multi-Level Architecture Optimization of MOF-Templated Co-Based Nanoparticles Embedded in Hollow N-Doped Carbon Polyhedra for Efficient OER and ORR. <i>ACS Catalysis</i> , 2018, 8, 7879-7888.	5.5	394
3116	Highly efficient AuNi-Cu ₂ O electrocatalysts for the oxygen reduction and evolution reactions: Important role of interaction between Au and Ni engineered by leaching of Cu ₂ O. <i>Electrochimica Acta</i> , 2018, 283, 1411-1417.	2.6	17
3117	Non-Noble Metal Oxides and their Application as Bifunctional Catalyst in Reversible Fuel Cells and Rechargeable Air Batteries. <i>ChemCatChem</i> , 2018, 10, 4162-4171.	1.8	35
3118	Recent Development of Zeolitic Imidazolate Frameworks (ZIFs) Derived Porous Carbon Based Materials as Electrocatalysts. <i>Advanced Energy Materials</i> , 2018, 8, 1801257.	10.2	242
3119	All-Solid-State Supercapacitors Based on Flexible Co ₃ O ₄ Nanoflowers/rGO Nanocomposites. <i>Journal of Electronic Materials</i> , 2018, 47, 5987-5992.	1.0	12
3120	Transition metal oxide nanocatalysts for oxygen reduction reaction. <i>Materials Science for Energy Technologies</i> , 2018, 1, 117-128.	1.0	101
3121	Synthesis of Highly Efficient Bifunctional Ag/Co ₃ O ₄ Catalyst for Oxygen Reduction and Oxygen Evolution Reactions in Alkaline Medium. <i>ACS Omega</i> , 2018, 3, 7745-7756.	1.6	53
3122	Organometallic Precursor-Derived SnO ₂ /Sn-Reduced Graphene Oxide Sandwiched Nanocomposite Anode with Superior Lithium Storage Capacity. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 26170-26177.	4.0	32
3123	Surface-modulated palladium-nickel icosahedra as high-performance non-platinum oxygen reduction electrocatalysts. <i>Science Advances</i> , 2018, 4, eaap8817.	4.7	94
3124	N-doped and Fe-, N-codoped carbon: tuning of porous structures for highly efficient oxygen reduction reaction. <i>Journal of Materials Science</i> , 2018, 53, 15246-15256.	1.7	12
3125	Synergistic Amplification of Water Oxidation Catalysis on Pt by a Thin-Film Conducting Polymer Composite. <i>ACS Applied Energy Materials</i> , 2018, 1, 4235-4246.	2.5	8
3126	Quasi-single-crystalline CoO hexagrams with abundant defects for highly efficient electrocatalytic water oxidation. <i>Chemical Science</i> , 2018, 9, 6961-6968.	3.7	56
3127	One-step room-temperature exfoliation of graphite to 100% few-layer graphene with high quality and large size. <i>Journal of Materials Chemistry C</i> , 2018, 6, 8343-8348.	2.7	14
3128	Heteroatom-doped nanoporous carbon from recyclable <i>Pueraria lobata</i> and its dual activities for oxygen reduction and hydrogen evolution reactions. <i>RSC Advances</i> , 2018, 8, 24392-24398.	1.7	0
3129	Dehalogenated carbon-hosted cobalt-nitrogen complexes for high-performance electrochemical reduction of oxygen. <i>Carbon</i> , 2018, 139, 725-731.	5.4	3
3130	Carbon Nanomaterials in Analytical Chemistry. <i>Analytical Sciences</i> , 2018, 34, 257-257.	0.8	4
3131	Study of the effect of variation in temperature and pH on the adsorption process of natural Gardenia yellow dye into TiO ₂ mesoporous for dye sensitized solar cells using the statistical physics formalism: Physicochemical and thermodynamic investigation. <i>Microporous and Mesoporous Materials</i> , 2018, 270, 82-92.	2.2	17

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3133	Ultrafast microwave-assisted synthesis of nitrogen-doped carbons as electrocatalysts for oxygen reduction reaction. <i>Nanotechnology</i> , 2018, 29, 305708.	1.3	8
3134	Surfactant-Assisted Fabrication of Cubic Cobalt Oxide Hybrid Hollow Spheres as Catalysts for the Oxygen Reduction Reaction. <i>ChemElectroChem</i> , 2018, 5, 2192-2198.	1.7	8
3135	Progress in graphene-based materials as superior media for sensing, sorption, and separation of gaseous pollutants. <i>Coordination Chemistry Reviews</i> , 2018, 368, 93-114.	9.5	69
3136	Porous and three dimensional titanium nitride supported platinum as an electrocatalyst for oxygen reduction reaction. <i>Electrochemistry Communications</i> , 2018, 91, 31-35.	2.3	46
3137	Synthesis of metal-organic frameworks derived nanocomposites for superoxide anion radical sensing and cell monitoring upon oxidative stress. <i>Journal of Electroanalytical Chemistry</i> , 2018, 820, 51-59.	1.9	14
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#	ARTICLE	IF	CITATIONS
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#	ARTICLE	IF	CITATIONS
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3273	Cu(II) Ions Induced Structural Transformation of Cobalt Selenides for Remarkable Enhancement in Oxygen/Hydrogen Electrocatalysis. <i>ACS Catalysis</i> , 2019, 9, 10761-10772.	5.5	110
3274	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.	7.8	94
3275	Ultrastable Co _x Si _y O _z Nanowires by Glancing Angle Deposition with Magnetron Sputtering as Novel Electrocatalyst for Water Oxidation. <i>ChemCatChem</i> , 2019, 11, 6111-6115.	1.8	8

#	ARTICLE	IF	CITATIONS
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3277	Promoting Oxygen Evolution Reaction of Co ₃ O ₄ , CoS, Tj ETQq1 1.0.784314.rgBT /Ov	5.2	68
3278	Oxygen Vacancy-Rich In-Doped CoO/CoP Heterostructure as an Effective Air Cathode for Rechargeable Zn-Air Batteries. <i>Small</i> , 2019, 15, e1904210.	5.2	142
3279	A novel support for platinum electrocatalyst based on mesoporous carbon embedded with bimetallic SnTi oxide as a bifunctional electrocatalyst. <i>Journal of Electroanalytical Chemistry</i> , 2019, 850, 113435.	1.9	5
3280	Fe azaphthalocyanine unimolecular layers (Fe AzULs) on carbon nanotubes for realizing highly active oxygen reduction reaction (ORR) catalytic electrodes. <i>NPG Asia Materials</i> , 2019, 11, .	3.8	30
3281	Hydrogen oxidation reaction on modified platinum model electrodes in alkaline media. <i>Electrochimica Acta</i> , 2019, 327, 135016.	2.6	17
3282	Bifunctional atomic iron-based catalyst for oxygen electrode reactions. <i>Journal of Catalysis</i> , 2019, 378, 353-362.	3.1	41
3283	Noble Metal-Free Nanoporous High-Entropy Alloys as Highly Efficient Electrocatalysts for Oxygen Evolution Reaction. , 2019, 1, 526-533.		229
3284	Ion Immobilized Bifunctional Electrocatalyst for Oxygen Reduction and Evolution Reaction. <i>ACS Applied Energy Materials</i> , 2019, 2, 7811-7822.	2.5	9
3285	Cost-effective Co ₃ O ₄ nanospheres on nitrogen-doped graphene used as highly efficient catalyst for oxygen reduction reaction. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 30348-30356.	3.8	15
3286	Metal-organic frameworks: a promising platform for constructing non-noble electrocatalysts for the oxygen-reduction reaction. <i>Journal of Materials Chemistry A</i> , 2019, 7, 1964-1988.	5.2	165
3287	Optimization of Glass Edge Sealing Process Using Microwaves for Fabrication of Vacuum Glazing. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 874.	1.3	6
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3290	Structure-dependence of electrical conductivity and electrocatalytic properties of Sr ₂ Mn ₂ O ₆ and CaSrMn ₂ O ₆ . <i>Journal of Chemical Sciences</i> , 2019, 131, 1.	0.7	7
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#	ARTICLE	IF	CITATIONS
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3295	Enhanced activity of mesoporous SrCo _{0.8} Fe _{0.1} Nb _{0.1} O _{3-δ} perovskite electrocatalyst by H ₂ O ₂ treatment for oxygen evolution reaction. <i>Journal of Electroanalytical Chemistry</i> , 2019, 854, 113556.	1.9	7
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3297	Supported Transition Metal Phosphides: Activity Survey for HER, ORR, OER, and Corrosion Resistance in Acid and Alkaline Electrolytes. <i>ACS Catalysis</i> , 2019, 9, 11515-11529.	5.5	245
3298	Porous Fe, Co, and N-co-doped carbon nanofibers as high-efficiency oxygen reduction catalysts. <i>Journal of Nanoparticle Research</i> , 2019, 21, 1.	0.8	15
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3304	Atomic Layer Deposition of Pd Nanoparticles on N-Doped Electrospun Carbon Nanofibers: Optimization of ORR Activity of Pd-Based Nanocatalysts by Tuning Their Nanoparticle Size and Loading. <i>ChemNanoMat</i> , 2019, 5, 1540-1546.	1.5	6
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3306	Facile spray drying approach to synthesize Sb ₂ Se ₃ /rGO composite anode for lithium-ion battery. <i>Journal of Nanoparticle Research</i> , 2019, 21, 1.	0.8	19
3307	Fe/Co-based nanoparticles encapsulated in heteroatom-doped carbon electrocatalysts for oxygen reduction reaction. <i>Science China Materials</i> , 2019, 62, 1626-1641.	3.5	20
3308	Facile mass production of self-supported two-dimensional transition metal oxides for catalytic applications. <i>Chemical Communications</i> , 2019, 55, 11406-11409.	2.2	10
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3311	Construction of a sp ³ /sp ² Carbon Interface in 3D N-Doped Nanocarbons for the Oxygen Reduction Reaction. <i>Angewandte Chemie</i> , 2019, 131, 15233-15241.	1.6	49

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3313	A study of synergistic effect on oxygen reduction activity and capacitive performance of NiCo ₂ O ₄ /rGO hybrid catalyst for rechargeable metal-air batteries and supercapacitor applications. <i>Composites Part B: Engineering</i> , 2019, 176, 107327.	5.9	29
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3326	An assembly of carbon dots and carbon sheets from plant biomass for excellent oxygen reduction reaction. <i>Sustainable Energy and Fuels</i> , 2019, 3, 3172-3181.	2.5	9
3327	Melatonin alleviates cigarette smoke-induced endothelial cell pyroptosis through inhibiting ROS/NLRP3 axis. <i>Biochemical and Biophysical Research Communications</i> , 2019, 519, 402-408.	1.0	49
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3329	Functional molecule guided evolution of MnO _x nanostructure patterns on N-graphene and their oxygen reduction activity. <i>RSC Advances</i> , 2019, 9, 27945-27952.	1.7	4

#	ARTICLE	IF	CITATIONS
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3331	Controlled Synthesis of Porous Co ₃ O ₄ Nanostructures for Efficient Electrochemical Sensing of Glucose. <i>Journal of Nanomaterials</i> , 2019, 2019, 1-7.	1.5	9
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3334	Zeolitic-imidazolate-framework-derived Co@Co ₃ O ₄ embedded into iron, nitrogen, sulfur Co-doped reduced graphene oxide as efficient electrocatalysts for overall water splitting and zinc-air batteries. <i>Electrochimica Acta</i> , 2019, 323, 134821.	2.6	33
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3336	Two-dimensional Cobalt Oxy-hydrate Sulfide Nanosheets with Modified t _{2g} Orbital State of CoO ₆ x Octahedron for Efficient Overall Water Splitting. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 17325-17334.	3.2	15
3337	Two-Dimensional Closed Conjugated Covalent Organic Polymers for Oxygen Reduction Reaction. <i>Frontiers in Materials</i> , 2019, 6, .	1.2	3
3338	Influence of carbon doping concentration on photoelectrochemical activity of TiO ₂ nanotube arrays under water oxidation. <i>Catalysis Science and Technology</i> , 2019, 9, 688-694.	2.1	17
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3342	Observing Single Hollow Porous Carbon Catalyst Collisions for Oxygen Reduction at Gold Nanoband Electrode. <i>ChemPhysChem</i> , 2019, 20, 529-532.	1.0	2
3343	Facile synthesis of hollow Co ₃ O ₄ -embedded carbon/reduced graphene oxides nanocomposites for use as efficient electrocatalysts in oxygen evolution reaction. <i>Electrochimica Acta</i> , 2019, 300, 123-130.	2.6	60
3344	One-Step Photochemical Synthesis of Transition Metal-Graphene Hybrid for Electrocatalysis. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 4112-4118.	3.2	6
3345	Metal-organic frameworks-based catalysts for electrochemical oxygen evolution. <i>Materials Horizons</i> , 2019, 6, 684-702.	6.4	149
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3351	Highly Efficient Hybrid Ni/Nitrogenated Graphene Electrocatalysts for Hydrogen Evolution Reaction. <i>ACS Omega</i> , 2019, 4, 2206-2216.	1.6	19
3352	An efficient carbon-based ORR catalyst from low-temperature etching of ZIF-67 with ultra-small cobalt nanoparticles and high yield. <i>Journal of Materials Chemistry A</i> , 2019, 7, 3544-3551.	5.2	112
3353	Cobalt- and nitrogen-codoped porous carbon catalyst made from core-shell type hybrid metal-organic framework (ZIF-L@ZIF-67) and its efficient oxygen reduction reaction (ORR) activity. <i>Applied Catalysis B: Environmental</i> , 2019, 246, 322-329.	10.8	227
3354	Area-selective atomic layer deposition of cobalt oxide to generate patterned cobalt films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2019, 37, .	0.9	15
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3358	Facile Synthesis and Characterization of MOF-Derived Porous Co ₃ O ₄ Composite for Oxygen Evolution Reaction. <i>ChemistrySelect</i> , 2019, 4, 1131-1137.	0.7	19
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3360	Trace sulfur promoted Fe, N-codoped carbon black as electrocatalyst for oxygen reduction reaction. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 3625-3635.	3.8	15
3361	Nitrogen-Doped Graphene Oxide Electrocatalysts for the Oxygen Reduction Reaction. <i>ACS Applied Nano Materials</i> , 2019, 2, 1675-1682.	2.4	69
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3363	Solvent-free assembly of Co/Fe-containing MOFs derived N-doped mesoporous carbon nanosheets for ORR and HER. <i>Carbon</i> , 2019, 146, 671-679.	5.4	117
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#	ARTICLE	IF	CITATIONS
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3369	Synthesis of high crystalline nickel-iron hydroxide-like compound as an efficient electrocatalyst for oxygen evolution reaction. <i>International Journal of Energy Research</i> , 2019, 43, 1460-1467.	2.2	24
3370	Synthesis of hydrous cobalt phosphate electro-catalysts by a facile hydrothermal method for enhanced oxygen evolution reaction: effect of urea variation. <i>CrystEngComm</i> , 2019, 21, 884-893.	1.3	37
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3388	The mechanistic role of a support-catalyst interface in electrocatalytic water reduction by Co_3O_4 supported nanocarbon florets. <i>Nanoscale</i> , 2019, 11, 13532-13540.	2.8	16
3389	The application of CeO_2 -based materials in electrocatalysis. <i>Journal of Materials Chemistry A</i> , 2019, 7, 17675-17702.	5.2	128
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3401	Catalysis of Oxygen Reduction Reaction on Atomically Dispersed Copper- and Nitrogen-Codoped Graphene. <i>ACS Applied Energy Materials</i> , 2019, 2, 4755-4762.	2.5	33

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3404	Transition metal electrocatalysts encapsulated into N-doped carbon nanotubes on reduced graphene oxide nanosheets: efficient water splitting through synergistic effects. <i>Journal of Materials Chemistry A</i> , 2019, 7, 15145-15155.	5.2	75
3405	Hierarchical nanotubes constructed from CoSe ₂ nanorods with an oxygen-rich surface for an efficient oxygen evolution reaction. <i>Journal of Materials Chemistry A</i> , 2019, 7, 15073-15078.	5.2	47
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3418	Observation of Different Charge Transport Processes and Origin of Magnetism in rGO and rGO-ZnSe Composite. <i>Journal of Physical Chemistry C</i> , 2019, 123, 15441-15450.	1.5	13
3419	Silver Phosphate/Graphene Oxide Aerogel Microspheres with Radially Oriented Microchannels for Highly Efficient and Continuous Removal of Pollutants from Wastewaters. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 11228-11240.	3.2	23

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#	ARTICLE	IF	CITATIONS
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#	ARTICLE	IF	CITATIONS
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3533	Prussian blue analogues-derived bimetallic iron-cobalt selenides for efficient overall water splitting. <i>Journal of Colloid and Interface Science</i> , 2019, 548, 48-55.	5.0	52
3534	Renewable Soybean Pulp-Derived N-Doped Carbon Materials for Efficient Chemoselective Hydrogenation of Halogenated Nitrobenzenes. <i>ChemistrySelect</i> , 2019, 4, 4083-4091.	0.7	6
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3536	Pure nitrogen-doped graphene aerogel with rich micropores yields high ORR performance. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2019, 242, 1-5.	1.7	23
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3538	Electrocatalytic activity of new Mn ₃ O ₄ @oxidized graphene flakes nanocomposites toward oxygen reduction reaction. <i>Journal of Materials Science</i> , 2019, 54, 8919-8940.	1.7	26
3539	Graphene based adsorbents for remediation of noxious pollutants from wastewater. <i>Environment International</i> , 2019, 127, 160-180.	4.8	367
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3544	2D MOF induced accessible and exclusive Co single sites for an efficient <i>in situ</i> -silylation of alcohols with silanes. <i>Chemical Communications</i> , 2019, 55, 6563-6566.	2.2	34
3545	Facile synthesis of polyacrylonitrile-based N/S-codoped porous carbon as an efficient oxygen reduction electrocatalyst for zinc-air batteries. <i>Journal of Materials Chemistry A</i> , 2019, 7, 11223-11233.	5.2	39
3546	Metal-containing Ionic Liquid/Polyacrylonitrile-derived Carbon Nanofibers for Oxygen Reduction Reaction and Flexible Zn-Air Battery. <i>Chemistry - an Asian Journal</i> , 2019, 14, 2008-2017.	1.7	18
3547	Synergistic Mn-Co catalyst outperforms Pt on high-rate oxygen reduction for alkaline polymer electrolyte fuel cells. <i>Nature Communications</i> , 2019, 10, 1506.	5.8	212
3548	Amorphous CoFe Double Hydroxides Decorated with N-Doped CNTs for Efficient Electrochemical Oxygen Evolution. <i>ChemSusChem</i> , 2019, 12, 2679-2688.	3.6	26

#	ARTICLE	IF	CITATIONS
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3550	Three-dimensional layered double hydroxides on carbon nanofibers: The engineered mass transfer channels and active sites towards oxygen evolution reaction. <i>Applied Surface Science</i> , 2019, 485, 41-47.	3.1	22
3551	Review of Metal Catalysts for Oxygen Reduction Reaction: From Nanoscale Engineering to Atomic Design. <i>CheM</i> , 2019, 5, 1486-1511.	5.8	544
3552	A strong coupled 2D metal-organic framework and ternary layered double hydroxide hierarchical nanocomposite as an excellent electrocatalyst for the oxygen evolution reaction. <i>Electrochimica Acta</i> , 2019, 307, 275-284.	2.6	49
3553	In-situ embedding zeolitic imidazolate framework derived Co-N-C bifunctional catalysts in carbon nanotube networks for flexible Zn-air batteries. <i>Journal of Energy Chemistry</i> , 2019, 38, 170-176.	7.1	55
3554	Enhancing the Catalytic Activity of Co_3O_4 Nanosheets for Li-O_2 Batteries by the Incorporation of Oxygen Vacancy with Hydrazine Hydrate Reduction. <i>Inorganic Chemistry</i> , 2019, 58, 4989-4996.	1.9	45
3555	Nitrogen-Doped Carbon Nano-Onions as a Metal-Free Electrocatalyst. <i>Electrocatalysis</i> , 2019, 10, 222-231.	1.5	16
3556	Cobalt-nitrogen-doped graphdiyne as an efficient bifunctional catalyst for oxygen reduction and hydrogen evolution reactions. <i>Carbon</i> , 2019, 147, 9-18.	5.4	76
3557	Amorphous film of cerium doped cobalt oxide as a highly efficient electrocatalyst for oxygen evolution reaction. <i>Journal of Materials Chemistry A</i> , 2019, 7, 7526-7532.	5.2	72
3558	Biomass Derived Graphene-Like Carbons for Electrocatalytic Oxygen Reduction Reaction. <i>ChemNanoMat</i> , 2019, 5, 682-689.	1.5	39
3559	Bottom-up synthesis of MOF-derived hollow N-doped carbon materials for enhanced ORR performance. <i>Carbon</i> , 2019, 146, 248-256.	5.4	177
3560	Spherical Murray-Type Assembly of Co-N-C Nanoparticles as a High-Performance Trifunctional Electrocatalyst. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 9925-9933.	4.0	49
3561	Applied potential-dependent performance of the nickel cobalt oxysulfide nanotube/nickel molybdenum oxide nanosheet core-shell structure in energy storage and oxygen evolution. <i>Journal of Materials Chemistry A</i> , 2019, 7, 4626-4639.	5.2	59
3562	Probing the Active Sites of Carbon-Encapsulated Cobalt Nanoparticles for Oxygen Reduction. <i>Small Methods</i> , 2019, 3, 1800439.	4.6	33
3563	Urchin-like ternary cobalt phosphosulfide as high-efficiency and stable bifunctional electrocatalyst for overall water splitting. <i>Journal of Catalysis</i> , 2019, 371, 126-134.	3.1	32
3564	Adsorption and On-Site Transformation of Transition Metal Cations on Ni-Doped AlOOH Nanoflowers for OER Electrocatalysis. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 5953-5962.	3.2	14
3565	Electrochemical impacts of sheet-like hafnium phosphide and hafnium disulfide catalysts bonded with reduced graphene oxide sheets for bifunctional oxygen reactions in alkaline electrolytes. <i>RSC Advances</i> , 2019, 9, 2599-2607.	1.7	17
3566	Biomass-derived porous carbon supported Co-CoO yolk-shell nanoparticles as enhanced multifunctional electrocatalysts. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 6525-6534.	3.8	33

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3568	Interior engineering of seaweed-derived N-doped versatile carbonaceous beads with Co _x O _y for universal organic pollutant degradation. <i>RSC Advances</i> , 2019, 9, 5009-5024.	1.7	14
3569	Highly Active Oxygen Evolution on Carbon Fiber Paper Coated with Atomic-Layer-Deposited Cobalt Oxide. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 10608-10615.	4.0	12
3570	Electrocatalytic oxygen reduction reaction activity of KOH etched carbon films as metal-free cathodic catalysts for fuel cells. <i>RSC Advances</i> , 2019, 9, 2803-2811.	1.7	5
3571	A new metal-organic open framework enabling facile synthesis of carbon encapsulated transition metal phosphide/sulfide nanoparticle electrocatalysts. <i>Journal of Materials Chemistry A</i> , 2019, 7, 7168-7178.	5.2	50
3572	A Low-Cost and Facile Method for the Preparation of Fe/N-C Based Hybrids with Superior Catalytic Performance toward Oxygen Reduction Reaction. <i>Advanced Materials Interfaces</i> , 2019, 6, 1900273.	1.9	25
3573	Two-Dimensional Materials on the Rocks: Positive and Negative Role of Dopants and Impurities in Electrochemistry. <i>ACS Nano</i> , 2019, 13, 2681-2728.	7.3	62
3574	Nitrogen and sulfur-codoped porous carbon derived from a BSA/ionic liquid polymer complex: multifunctional electrode materials for water splitting and supercapacitors. <i>RSC Advances</i> , 2019, 9, 5189-5196.	1.7	8
3575	Efficient and Robust Carbon Dioxide Electroreduction Enabled by Atomically Dispersed Sn ⁺ Sites. <i>Advanced Materials</i> , 2019, 31, e1808135.	11.1	321
3576	Synergistic Effects of Mo ₂ C@Co _x Fe _y Core-Shell Nanoparticles in Electrocatalytic Overall Water Splitting Reaction. <i>Energy Technology</i> , 2019, 7, 1801121.	1.8	7
3577	A Strategy for Increasing the Efficiency of the Oxygen Reduction Reaction in Mn-Doped Cobalt Ferrites. <i>Journal of the American Chemical Society</i> , 2019, 141, 4412-4421.	6.6	90
3578	Less active CeO ₂ regulating bifunctional oxygen electrocatalytic activity of Co ₃ O ₄ @N-doped carbon for Zn-air batteries. <i>Journal of Materials Chemistry A</i> , 2019, 7, 6753-6765.	5.2	87
3579	Surface modification of Pt nanoparticles with other metals boosting the alkaline hydrogen oxidation reaction. <i>Chemical Communications</i> , 2019, 55, 3101-3104.	2.2	28
3580	Recent Progress on Germanene and Functionalized Germanene: Preparation, Characterizations, Applications, and Challenges. <i>Small</i> , 2019, 15, e1805147.	5.2	100
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3582	Cobalt oxide nanocrystals anchored on graphene sheets for electrochemical determination of chloramphenicol. <i>Microchemical Journal</i> , 2019, 146, 881-887.	2.3	59
3583	Cocatalysts for Selective Photoreduction of CO ₂ into Solar Fuels. <i>Chemical Reviews</i> , 2019, 119, 3962-4179.	23.0	1,591
3584	A review of studies using graphenes in energy conversion, energy storage and heat transfer development. <i>Energy Conversion and Management</i> , 2019, 184, 581-599.	4.4	115

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3586	Defects-Induced In-Plane Heterophase in Cobalt Oxide Nanosheets for Oxygen Evolution Reaction. <i>Small</i> , 2019, 15, e1904903.	5.2	69
3587	Coupling low platinum and tungsten carbide supported on ZIFs-Derived porous carbon for efficient hydrogen evolution. <i>Electrochimica Acta</i> , 2019, 328, 135077.	2.6	5
3588	Electrospun Cu-Deposited Flexible Fibers as an Efficient Oxygen Evolution Reaction Electrocatalyst. <i>ChemPhysChem</i> , 2019, 20, 2899-2899.	1.0	2
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3591	Engineering the coupling interface of rhombic dodecahedral NiCoP/C@FeOOH nanocages toward enhanced water oxidation. <i>Nanoscale</i> , 2019, 11, 19959-19968.	2.8	48
3592	Monitoring compositional changes in Ni(OH) ₂ electrocatalysts employed in the oxygen evolution reaction. <i>Analyst</i> , 2019, 144, 7318-7325.	1.7	20
3593	Amorphous FeNi-bimetallic infinite coordination polymers as advanced electrocatalysts for the oxygen evolution reaction. <i>Chemical Communications</i> , 2019, 55, 12567-12570.	2.2	24
3594	Recent advances in two-dimensional materials and their nanocomposites in sustainable energy conversion applications. <i>Nanoscale</i> , 2019, 11, 21622-21678.	2.8	201
3595	N,C-codoped hierarchical porous carbon spheres embedded with cobalt nanoparticles as efficient bifunctional oxygen electrocatalysts for rechargeable zinc-air batteries. <i>Nanoscale</i> , 2019, 11, 21302-21310.	2.8	31
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3597	Multi-walled carbon nanotube and carbide-derived carbon supported metal phthalocyanines as cathode catalysts for microbial fuel cell applications. <i>Sustainable Energy and Fuels</i> , 2019, 3, 3525-3537.	2.5	40
3598	ZIF-67-derived Co ₃ O ₄ @carbon protected by oxygen-buffering CeO ₂ as an efficient catalyst for boosting oxygen reduction/evolution reactions. <i>Journal of Materials Chemistry A</i> , 2019, 7, 25853-25864.	5.2	155
3599	Enhancing Oxygen Electroreduction Activity of Single-Site Fe-N-C Catalysts by a Metal Support. <i>Journal of Physical Chemistry C</i> , 2019, 123, 30335-30340.	1.5	6
3600	In Situ Electrochemical Activation of a Codoped Heterogeneous System as a Highly Efficient Catalyst for the Oxygen Evolution Reaction in Alkaline Water Electrolysis. <i>ACS Applied Energy Materials</i> , 2019, 2, 8809-8817.	2.5	11
3601	Carbon-Based Nanomaterials as Sustainable Noble-Metal-Free Electrocatalysts. <i>Frontiers in Chemistry</i> , 2019, 7, 759.	1.8	29
3602	Use of palladium nanoparticles dispersed on GNS - modified with 10 wt% CoMoO ₄ as efficient bifunctional electrocatalysts. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 31312-31322.	3.8	5

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3604	Designing of Ferromagnetic 3D Hierarchical Core-Shell $\text{Fe}_3\text{O}_4 @ \text{NiO}/\text{Co}_3\text{O}_4$ Microspheres Derived from a MOF Precursor: As an Efficient Catalyst for $\text{C}\text{-C}$ Cross Coupling Reaction. <i>ChemistrySelect</i> , 2019, 4, 12455-12463.	0.7	3
3605	Spin-orbit coupling and crystal-field distortions for a low-spin d^3 state in BaCoO_3 . <i>Physical Review B</i> , 2019, 100, .	1.1	49
3606	Octahedral spinel electrocatalysts for alkaline fuel cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 24425-24432.	3.3	60
3607	X-ray tracking of structural changes during a subnanosecond solid-solid phase transition in cobalt nanoparticles. <i>Physical Review B</i> , 2019, 100, .	1.1	2
3608	The Cobalt Oxide-Based Composite Nanomaterial Synthesis and Its Biomedical and Engineering Applications. , 0, .		3
3609	Noble metal-free two dimensional carbon-based electrocatalysts for water splitting. <i>BMC Materials</i> , 2019, 1, .	6.8	21
3610	Preparation of Nanostructured Co_3O_4 and Ru-Doped Co_3O_4 and Their Applicability in Liquefied Petroleum Gas Sensing. <i>Journal of Materials Engineering and Performance</i> , 2019, 28, 7592-7601.	1.2	4
3611	Mixed Platinum-Nickel Catalysts of Oxygen Reduction. <i>Russian Journal of Electrochemistry</i> , 2019, 55, 1092-1097.	0.3	4
3612	Nitrogen-Doped Ketjenblack Carbon Supported Co_3O_4 Nanoparticles as a Synergistic Electrocatalyst for Oxygen Reduction Reaction. <i>Frontiers in Chemistry</i> , 2019, 7, 766.	1.8	20
3613	Carbon nanofibers@NiSe core/sheath nanostructures as efficient electrocatalysts for integrating highly selective methanol conversion and less-energy intensive hydrogen production. <i>Journal of Materials Chemistry A</i> , 2019, 7, 25878-25886.	5.2	57
3614	Efficient tri-metallic oxides $\text{NiCo}_2\text{O}_4/\text{CuO}$ for the oxygen evolution reaction. <i>RSC Advances</i> , 2019, 9, 42387-42394.	1.7	9
3615	Copper-promoted nitrogen-doped carbon derived from zeolitic imidazole frameworks for oxygen reduction reaction. <i>Applied Surface Science</i> , 2019, 464, 344-350.	3.1	38
3616	Sonochemical reduction method for synthesis of TiO_2/Pd nanocomposites and investigation of anode and cathode catalyst for ethanol oxidation and oxygen reduction reaction in alkaline medium. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 30705-30718.	3.8	10
3617	Doped porous carbon nanostructures with N Co O catalytic active sites for efficient electrocatalytic oxygen reduction reaction. <i>Applied Surface Science</i> , 2019, 463, 386-394.	3.1	16
3618	Facile fabrication of electroactive microporous Co_3O_4 through microwave plasma etching for supercapacitors. <i>Journal of Alloys and Compounds</i> , 2019, 771, 156-161.	2.8	41
3619	3-D $\text{CdS}@ \text{NiCo}$ layered double hydroxide core-shell photoelectrocatalyst used for efficient overall water splitting. <i>Applied Catalysis B: Environmental</i> , 2019, 241, 28-40.	10.8	70
3620	Co_2N nanoparticles embedded N-doped mesoporous carbon as efficient electrocatalysts for oxygen reduction reaction. <i>Applied Surface Science</i> , 2019, 473, 555-563.	3.1	23

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3622	Cobalt vanadate nanoparticles as bifunctional oxygen electrocatalysts for rechargeable seawater batteries. <i>Journal of Industrial and Engineering Chemistry</i> , 2019, 72, 250-254.	2.9	19
3623	Cobalt Phosphide Nanowire Arrays on Conductive Substrate as an Efficient Bifunctional Catalyst for Overall Water Splitting. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 2360-2369.	3.2	37
3624	Exceptional Performance of Hierarchical Ni-Fe (hydr)oxide@NiCu Electrocatalysts for Water Splitting. <i>Advanced Materials</i> , 2019, 31, e1806769.	11.1	124
3625	Defect-Rich 2D Material Networks for Advanced Oxygen Evolution Catalysts. <i>ACS Energy Letters</i> , 2019, 4, 328-336.	8.8	148
3626	Sustainable and Atomically Dispersed Iron Electrocatalysts Derived from Nitrogen- and Phosphorus-Modified Woody Biomass for Efficient Oxygen Reduction. <i>Advanced Materials Interfaces</i> , 2019, 6, 1801623.	1.9	22
3627	An Isolated Zinc-Cobalt Atomic Pair for Highly Active and Durable Oxygen Reduction. <i>Angewandte Chemie</i> , 2019, 131, 2648-2652.	1.6	116
3628	An Isolated Zinc-Cobalt Atomic Pair for Highly Active and Durable Oxygen Reduction. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 2622-2626.	7.2	494
3629	Non-covalent pre-organization of molecular precursors: A facile approach for engineering structures and activities of pyrolyzed Co-N electrocatalysts. <i>Carbon</i> , 2019, 144, 312-320.	5.4	28
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3631	Progress and perspective on two-dimensional unilamellar metal oxide nanosheets and tailored nanostructures from them for electrochemical energy storage. <i>Energy Storage Materials</i> , 2019, 19, 281-298.	9.5	34
3632	Two-dimensional materials as catalysts for solar fuels: hydrogen evolution reaction and CO ₂ reduction. <i>Journal of Materials Chemistry A</i> , 2019, 7, 430-454.	5.2	125
3633	Designed synthesis of cobalt nanoparticles embedded carbon nanocages as bifunctional electrocatalysts for oxygen evolution and reduction. <i>Carbon</i> , 2019, 144, 492-499.	5.4	31
3634	A 2D MOF derived core-shell structured nanocomposite as effective electrocatalyst for oxygen reduction reaction. <i>Journal of Electroanalytical Chemistry</i> , 2019, 833, 454-461.	1.9	8
3635	Laser Synthesized Bi-functional Hybrid Catalyst Oxygen-defective Co ₃ O ₄ /N-Graphene for Oxygen Electrode Reactions. <i>Chemistry Letters</i> , 2019, 48, 118-121.	0.7	6
3636	Pt nanoparticles embedded metal-organic framework nanosheets: A synergistic strategy towards bifunctional oxygen electrocatalysis. <i>Applied Catalysis B: Environmental</i> , 2019, 245, 389-398.	10.8	66
3637	Alveolate porous carbon aerogels supported Co ₉ S ₈ derived from a novel hybrid hydrogel for bifunctional oxygen electrocatalysis. <i>Carbon</i> , 2019, 144, 557-566.	5.4	177
3638	Breathing-Mimicking Electrocatalysis for Oxygen Evolution and Reduction. <i>Joule</i> , 2019, 3, 557-569.	11.7	132

#	ARTICLE	IF	CITATIONS
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3640	Iron oxide and phosphide encapsulated within N,P-doped microporous carbon nanofibers as advanced tri-functional electrocatalyst toward oxygen reduction/evolution and hydrogen evolution reactions and zinc-air batteries. <i>Journal of Power Sources</i> , 2019, 413, 367-375.	4.0	118
3641	Identification of single-atom active sites in carbon-based cobalt catalysts during electrocatalytic hydrogen evolution. <i>Nature Catalysis</i> , 2019, 2, 134-141.	16.1	629
3642	Facile Dynamic Synthesis of Homodispersed Ni ₃ S ₂ Nanosheets as a High-Efficient Bifunctional Electrocatalyst for Water Splitting. <i>ChemCatChem</i> , 2019, 11, 1320-1327.	1.8	21
3643	Remarkable Oxygen-Evolution Activity of a Perovskite Oxide from the Ca ₂ Sr ₂ Fe ₂ O ₆ Series. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 2060-2063.	7.2	53
3644	Synthesis, characterization and electrochemical properties of cadmium sulfide - Reduced graphene oxide nanocomposites. <i>Results in Physics</i> , 2019, 12, 878-885.	2.0	16
3645	In situ growth of Fe ₂ O ₃ @Co ₃ O ₄ core-shell wormlike nanoarrays for a highly efficient photoelectrochemical water oxidation reaction. <i>Nanoscale</i> , 2019, 11, 1111-1122.	2.8	29
3646	Well-dispersed CoO embedded in 3D N-S-doped carbon framework through morphology-retaining pyrolysis as efficient oxygen reduction and evolution electrocatalyst. <i>Electrochimica Acta</i> , 2019, 295, 624-631.	2.6	21
3647	Dual Modulation via Electrochemical Reduction Activation on Electrocatalysts for Enhanced Oxygen Evolution Reaction. <i>ACS Energy Letters</i> , 2019, 4, 423-429.	8.8	55
3648	Co-CoO-Co ₃ O ₄ /N-doped carbon derived from metal-organic framework: The addition of carbon black for boosting oxygen electrocatalysis and Zn-Air battery. <i>Electrochimica Acta</i> , 2019, 295, 966-977.	2.6	72
3649	NiCo-DH nanodots anchored on amorphous NiCo-Sulfide sheets as efficient electrocatalysts for oxygen evolution reaction. <i>Electrochimica Acta</i> , 2019, 295, 1085-1092.	2.6	46
3650	Sp ² -carbon dominant carbonaceous materials for energy conversion and storage. <i>Materials Science and Engineering Reports</i> , 2019, 137, 1-37.	14.8	25
3651	Surface Engineering of Nanomaterials for Photo-Electrochemical Water Splitting. <i>Small</i> , 2019, 15, e1803746.	5.2	72
3652	Nitrogen-doped Carbon-Co Nanohybrids: A Precious Metal Free Cathode that Exceeds 1.0 W cm ⁻² Peak Power and 100 h Life in Anion-Exchange Membrane Fuel Cells. <i>Angewandte Chemie</i> , 2019, 131, 1058-1063.		32
3653	Nitrogen-doped Carbon-Co Nanohybrids: A Precious Metal Free Cathode that Exceeds 1.0 W cm ⁻² Peak Power and 100 h Life in Anion-Exchange Membrane Fuel Cells. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 1046-1051.		117
3654	Metal-Organic Frameworks (MOFs) and MOF-Derived Materials for Energy Storage and Conversion. <i>Electrochemical Energy Reviews</i> , 2019, 2, 29-104.	13.1	274
3655	In situ growth of Co ₃ O ₄ on nitrogen-doped hollow carbon nanospheres as air electrode for lithium-air batteries. <i>Journal of Alloys and Compounds</i> , 2019, 777, 944-953.	2.8	28
3656	Sulfur, Nitrogen and Fluorine Triple-Doped Metal-Free Carbon Electrocatalysts for the Oxygen Reduction Reaction. <i>ChemElectroChem</i> , 2019, 6, 741-747.	1.7	33

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3658	Metal-defected spinel $Mn_xCo_{3-x}O_4$ with octahedral Mn-enriched surface for highly efficient oxygen reduction reaction. <i>Applied Catalysis B: Environmental</i> , 2019, 244, 536-545.	10.8	140
3659	Co/CoOx nanoparticles inlaid onto nitrogen-doped carbon-graphene as a trifunctional electrocatalyst. <i>Electrochimica Acta</i> , 2019, 296, 830-841.	2.6	93
3660	Porous nitrogen/halogen dual-doped nanocarbons derived from imidazolium functionalized cationic metal-organic frameworks for highly efficient oxygen reduction reaction. <i>Science China Materials</i> , 2019, 62, 671-680.	3.5	30
3661	A new photocatalyst based on $Co(CO_3)_{0.5}(OH) \cdot 0.11H_2O/Bi_2WO_6$ nanocomposites for high-efficiency cocatalyst-free O_2 evolution. <i>Chemical Engineering Journal</i> , 2019, 359, 924-932.	6.6	59
3662	Designed formation of $NiCo_2O_4$ with different morphologies self-assembled from nanoparticles for asymmetric supercapacitors and electrocatalysts for oxygen evolution reaction. <i>Electrochimica Acta</i> , 2019, 296, 719-729.	2.6	86
3663	Dendritic core-shell $Ni@Ni(Fe)OOH$ metal/metal oxyhydroxide electrode for efficient oxygen evolution reaction. <i>Applied Surface Science</i> , 2019, 469, 731-738.	3.1	34
3664	Fe-N ₄ complex embedded free-standing carbon fabric catalysts for higher performance ORR both in alkaline & acidic media. <i>Nano Energy</i> , 2019, 56, 524-530.	8.2	88
3665	In-Situ Stress Measurements during Cobalt Electrodeposition. <i>Journal of the Electrochemical Society</i> , 2019, 166, D3246-D3253.	1.3	13
3666	Atomic layer deposition of cobalt oxide on oxide substrates and low temperature reduction to form ultrathin cobalt metal films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2019, 37, .	0.9	12
3667	Ultrafine Pd nanoparticles supported on zeolite-templated mesocellular graphene network via framework aluminum mediation: An advanced oxygen reduction electrocatalyst. <i>Applied Catalysis B: Environmental</i> , 2019, 244, 957-964.	10.8	26
3668	Increase of Co 3d projected electronic density of states in $AgCoO_2$ enabled an efficient electrocatalyst toward oxygen evolution reaction. <i>Nano Energy</i> , 2019, 57, 753-760.	8.2	40
3669	Plasmonic-Enhanced Oxygen Reduction Reaction of Silver/Graphene Electrocatalysts. <i>Nano Letters</i> , 2019, 19, 1371-1378.	4.5	74
3670	Remarkable Oxygen Evolution Activity of a Perovskite Oxide from the $Ca_{2-x}Sr_xFe_2O_{6-\delta}$ Series. <i>Angewandte Chemie</i> , 2019, 131, 2082-2085.	1.6	17
3671	Biomolecule-derived N/S co-doped CNT-graphene hybrids exhibiting excellent electrochemical activities. <i>Journal of Power Sources</i> , 2019, 413, 408-417.	4.0	72
3672	Earth abundant materials beyond transition metal dichalcogenides: A focus on electrocatalyzing hydrogen evolution reaction. <i>Nano Energy</i> , 2019, 58, 244-276.	8.2	298
3673	Encoding Metal Cation Arrangements in Metal-Organic Frameworks for Programming the Composition of Electrocatalytically Active Multimetal Oxides. <i>Journal of the American Chemical Society</i> , 2019, 141, 1766-1774.	6.6	32
3674	A flexible non-precious metal Fe-N/C catalyst for highly efficient oxygen reduction reaction. <i>Nanotechnology</i> , 2019, 30, 144001.	1.3	9

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3675	Nitrogen-doped Hollow Co ₃ O ₄ Nanofibers for both Solid-state pH Sensing and Improved Non-enzymatic Glucose Sensing. <i>Electroanalysis</i> , 2019, 31, 678-687.	1.5	14
3676	Cobalt Nanoparticles Confined in Carbon Cages Derived from Zeolitic Imidazolate Frameworks as Efficient Oxygen Electrocatalysts for Zinc-Air Batteries. <i>Batteries and Supercaps</i> , 2019, 2, 355-363.	2.4	16
3677	Biomorphic Co ₂ Ni ₂ C/CoO Composite Derived from Natural Chloroplasts as Efficient Electrocatalyst for Oxygen Reduction Reaction. <i>Small</i> , 2019, 15, e1804855.	5.2	72
3678	Bimetallic Nickel Cobalt Sulfide as Efficient Electrocatalyst for Zn-Air Battery and Water Splitting. <i>Nano-Micro Letters</i> , 2019, 11, 2.	14.4	179
3679	Synthesis of color-tunable CdTe/CdS:Mn core-shell nanocrystal emitters. <i>Physica B: Condensed Matter</i> , 2019, 557, 23-26.	1.3	9
3680	Laser-Induced Graphene Hybrid Catalysts for Rechargeable Zn-Air Batteries. <i>ACS Applied Energy Materials</i> , 2019, 2, 1460-1468.	2.5	55
3681	Green synthesis of NiFe LDH/Ni foam at room temperature for highly efficient electrocatalytic oxygen evolution reaction. <i>Science China Materials</i> , 2019, 62, 681-689.	3.5	70
3682	Tuning the electronic and structural properties of Gd-TiO ₂ -GO nanocomposites for enhancing photodegradation of IC dye: The role of Gd ³⁺ ion. <i>Applied Catalysis B: Environmental</i> , 2019, 243, 106-120.	10.8	60
3683	Co ₃ O ₄ nanoparticles on porous bio-carbon substrate as catalyst for oxygen reduction reaction. <i>Microporous and Mesoporous Materials</i> , 2019, 277, 45-51.	2.2	53
3684	Ag@Fe ₂ O ₃ -graphene oxide nanocomposite as a novel redox probe for electrochemical immunosensor for alpha-fetoprotein detection. <i>Journal of Solid State Electrochemistry</i> , 2019, 23, 335-343.	1.2	11
3685	(003)-Facet-exposed Ni ₃ S ₂ nanoporous thin films on nickel foil for efficient water splitting. <i>Applied Catalysis B: Environmental</i> , 2019, 243, 693-702.	10.8	129
3686	Heterostructures Based on 2D Materials: A Versatile Platform for Efficient Catalysis. <i>Advanced Materials</i> , 2019, 31, e1804828.	11.1	142
3687	Heterogeneous atoms-doped titanium carbide as a precious metal-free electrocatalyst for oxygen reduction reaction. <i>Electrochimica Acta</i> , 2019, 295, 384-392.	2.6	19
3688	Janus electrode with simultaneous management on gas and liquid transport for boosting oxygen reduction reaction. <i>Nano Research</i> , 2019, 12, 177-182.	5.8	43
3689	Hierarchical catalytic electrodes of cobalt-embedded carbon nanotube/carbon flakes arrays for flexible solid-state zinc-air batteries. <i>Carbon</i> , 2019, 142, 379-387.	5.4	111
3690	High-temperature (HT) LiCoO ₂ recycled from spent lithium ion batteries as catalyst for oxygen evolution reaction. <i>Materials Research Bulletin</i> , 2019, 110, 97-101.	2.7	26
3691	Recent Progress in Electrically Rechargeable Zinc-Air Batteries. <i>Advanced Materials</i> , 2019, 31, e1805230.	11.1	398
3692	Cobalt, Nitrogen-Doped Porous Carbon Nanosheet-Assembled Flowers from Metal-Coordinated Covalent Organic Polymers for Efficient Oxygen Reduction. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 1384-1393.	4.0	56

#	ARTICLE	IF	CITATIONS
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3694	Recent advances in metalloporphyrins for environmental and energy applications. <i>Chemosphere</i> , 2019, 219, 617-635.	4.2	40
3695	Well-defined gradient Fe/Zn bimetal organic framework cylinders derived highly efficient iron- and nitrogen- codoped hierarchically porous carbon electrocatalysts towards oxygen reduction. <i>Nano Energy</i> , 2019, 57, 108-117.	8.2	89
3696	Graphitic Carbon Nitride Impregnated Niobium oxide (g-C ₃ N ₄ /Nb ₂ O ₅) Type (II) Heterojunctions and its Synergetic Solar-Driven Hydrogen Generation. <i>ACS Applied Energy Materials</i> , 2019, 2, 607-615.	2.5	64
3697	Aluminum and Nitrogen Codoped Graphene: Highly Active and Durable Electrocatalyst for Oxygen Reduction Reaction. <i>ACS Catalysis</i> , 2019, 9, 610-619.	5.5	56
3698	Alcohol Oxidation and Hydrogen Evolution. <i>Interface Science and Technology</i> , 2019, 27, 253-301.	1.6	16
3699	Heterogeneous cobalt phosphides nanoparticles anchored on carbon cloth realizing the efficient hydrogen generation reaction. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 531-539.	3.8	12
3700	Oxygen Electrocatalysis at Mn ^{III} –O _x /C Hybrid Heterojunction: An Electronic Synergy or Cooperative Catalysis?. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 706-713.	4.0	7
3701	MnO ₂ Mediated Synthesis of Mn ₃ O ₄ @CaMn ₇ O ₁₂ Core@Shell Nanorods for Electrocatalytic Oxygen Reduction Reaction. <i>ChemElectroChem</i> , 2019, 6, 618-622.	1.7	3
3702	Robust fused aromatic pyrazine-based two-dimensional network for stably cocooning iron nanoparticles as an oxygen reduction electrocatalyst. <i>Nano Energy</i> , 2019, 56, 581-587.	8.2	35
3703	Increased activity of nitrogen-doped graphene-like carbon sheets modified by iron doping for oxygen reduction. <i>Journal of Colloid and Interface Science</i> , 2019, 536, 42-52.	5.0	32
3704	Fabricating hierarchically porous and Fe ₃ C-embedded nitrogen-rich carbon nanofibers as exceptional electrocatalysts for oxygen reduction. <i>Carbon</i> , 2019, 142, 115-122.	5.4	57
3705	Insights into Ni-Fe couple in perovskite electrocatalysts for highly efficient electrochemical oxygen evolution. <i>Electrochimica Acta</i> , 2019, 293, 240-246.	2.6	30
3706	Tunable oxidation state of Co in CoO _x @N-doped graphene derived from PANI/Co ₃ O ₄ and the enhanced oxygen reduction catalysis. <i>Applied Surface Science</i> , 2019, 465, 665-671.	3.1	12
3707	Size Controllable Metal Nanoparticles Anchored on Nitrogen Doped Carbon for Electrocatalytic Energy Conversion. <i>ChemElectroChem</i> , 2019, 6, 1508-1513.	1.7	4
3708	Non-noble Iron Group (Fe, Co, Ni)-Based Oxide Electrocatalysts for Aqueous Zinc–Air Batteries: Recent Progress, Challenges, and Perspectives. <i>Organometallics</i> , 2019, 38, 1186-1199.	1.1	51
3709	Interface engineering of Co ₃ O ₄ loaded CaFe ₂ O ₄ /Fe ₂ O ₃ heterojunction for photoelectrochemical water oxidation. <i>Applied Surface Science</i> , 2019, 466, 92-98.	3.1	30
3710	Electrocatalytic activity of LaSr ₃ Fe ₃ O ₁₀ and LaSr ₃ Fe ₃ O ₁₀ -GO towards oxygen reduction reaction in alkaline medium. <i>Journal of Rare Earths</i> , 2019, 37, 282-286.	2.5	12

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3712	Recent Progress on Transition Metal Oxides as Bifunctional Catalysts for Lithium-Air and Zinc-Air Batteries. <i>Batteries and Supercaps</i> , 2019, 2, 336-347.	2.4	173
3713	In-situ formation of hierarchical 1D-3D hybridized carbon nanostructure supported nonnoble transition metals for efficient electrocatalysis of oxygen reaction. <i>Applied Catalysis B: Environmental</i> , 2019, 243, 151-160.	10.8	66
3714	Transforming Co ₃ O ₄ nanosheets into porous N-doped Co O nanosheets with oxygen vacancies for the oxygen evolution reaction. <i>Journal of Energy Chemistry</i> , 2019, 35, 24-29.	7.1	98
3715	Biomorphic composites composed of octahedral Co ₃ O ₄ nanocrystals and mesoporous carbon microtubes templated from cotton for excellent supercapacitor electrodes. <i>Applied Surface Science</i> , 2019, 465, 232-240.	3.1	48
3716	Recent progress on earth abundant electrocatalysts for hydrogen evolution reaction (HER) in alkaline medium to achieve efficient water splitting – A review. <i>Journal of Energy Chemistry</i> , 2019, 34, 111-160.	7.1	323
3717	Three dimensional flower like cobalt sulfide (CoS)/functionalized MWCNT composite catalyst for efficient oxygen evolution reactions. <i>Applied Surface Science</i> , 2019, 466, 830-836.	3.1	62
3718	CADMIUM-DOPED Co ₃ O ₄ THIN FILMS: SYNTHESIS AND CHARACTERIZATION. <i>Surface Review and Letters</i> , 2019, 26, 1850134.	0.5	4
3719	Scalable preparation and stabilization of atomic-thick CoNi layered double hydroxide nanosheets for bifunctional oxygen electrocatalysis and rechargeable zinc-air batteries. <i>Energy Storage Materials</i> , 2019, 16, 24-30.	9.5	52
3720	Electrocatalytic activity of starch/Fe ₃ O ₄ /zeolite bionanocomposite for oxygen reduction reaction. <i>Arabian Journal of Chemistry</i> , 2020, 13, 1297-1308.	2.3	13
3721	A facile synthesis of clay – graphene oxide nanocomposite catalysts for solvent free multicomponent Biginelli reaction. <i>Arabian Journal of Chemistry</i> , 2020, 13, 318-334.	2.3	53
3722	Co ₃ O ₄ modified Ag/g-C ₃ N ₄ composite as a bifunctional cathode for lithium-oxygen battery. <i>Journal of Energy Chemistry</i> , 2020, 41, 185-193.	7.1	48
3723	In situ construction of Co/Co ₃ O ₄ with N-doped porous carbon as a bifunctional electrocatalyst for oxygen reduction and oxygen evolution reactions. <i>Catalysis Today</i> , 2020, 355, 286-294.	2.2	37
3724	Cobalt sulfides as efficient catalyst towards oxygen reduction reactions. <i>Chinese Chemical Letters</i> , 2020, 31, 530-534.	4.8	23
3725	Selective Hydrogenation over Supported Metal Catalysts: From Nanoparticles to Single Atoms. <i>Chemical Reviews</i> , 2020, 120, 683-733.	23.0	871
3726	Co single-atom anchored on Co ₃ O ₄ and nitrogen-doped active carbon toward bifunctional catalyst for zinc-air batteries. <i>Applied Catalysis B: Environmental</i> , 2020, 260, 118188.	10.8	163
3727	A Theory/Experience Description of Support Effects in Carbon-Supported Catalysts. <i>Chemical Reviews</i> , 2020, 120, 1250-1349.	23.0	436
3728	Synergistically enhanced oxygen reduction electrocatalysis by atomically dispersed and nanoscaled Co species in three-dimensional mesoporous Co, N-codoped carbon nanosheets network. <i>Applied Catalysis B: Environmental</i> , 2020, 260, 118207.	10.8	74

#	ARTICLE	IF	CITATIONS
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3730	Co ₃ O ₄ nanoparticles anchored in MnO ₂ nanorods as efficient oxygen reduction reaction catalyst for metal-air batteries. <i>Journal of Alloys and Compounds</i> , 2020, 814, 152239.	2.8	28
3731	Facile one step synthesis of Cu-g-C ₃ N ₄ electrocatalyst realized oxygen reduction reaction with excellent methanol crossover impact and durability. <i>Journal of Colloid and Interface Science</i> , 2020, 558, 182-189.	5.0	55
3732	Fabrication and bifunctional electrocatalytic performance of FeNi ₃ /MnFe ₂ O ₄ /nitrogen-doping reduced graphene oxide nanocomposite for oxygen electrocatalytic reactions. <i>Ionics</i> , 2020, 26, 991-1001.	1.2	9
3733	2D Electrocatalysts for Converting Earthâ€Abundant Simple Molecules into Valueâ€Added Commodity Chemicals: Recent Progress and Perspectives. <i>Advanced Materials</i> , 2020, 32, e1904870.	11.1	76
3734	Multifunctional Transition Metalâ€Based Phosphides in Energyâ€Related Electrocatalysis. <i>Advanced Energy Materials</i> , 2020, 10, 1902104.	10.2	322
3735	Nb-doped TiO ₂ support with enhanced durability as a cathode for polymer electrolyte membrane fuel cells. <i>Nanotechnology</i> , 2020, 31, 03LT01.	1.3	5
3736	N, S-codoped graphene loaded Ni-Co bimetal sulfides for enhanced oxygen evolution activity. <i>Applied Surface Science</i> , 2020, 503, 144146.	3.1	41
3737	String of pyrolyzed ZIF-67 particles on carbon fibers for high-performance electrocatalysis. <i>Energy Storage Materials</i> , 2020, 25, 137-144.	9.5	102
3738	Co nanoparticles supported on three-dimensionally N-doped holey graphene aerogels for electrocatalytic oxygen reduction. <i>Journal of Colloid and Interface Science</i> , 2020, 559, 143-151.	5.0	21
3739	Recent developments in graphene based novel structures for efficient and durable fuel cells. <i>Materials Research Bulletin</i> , 2020, 122, 110674.	2.7	36
3740	Characterization of cobalt oxide nanoparticles produced by laser ablation method: Effects of laser fluence. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2020, 115, 113670.	1.3	34
3741	Charge Transfer Modulated Activity of Carbonâ€Based Electrocatalysts. <i>Advanced Energy Materials</i> , 2020, 10, 1901227.	10.2	156
3742	Free chlorine induced phototransformation of graphene oxide in water: Reaction kinetics and product characterization. <i>Chemical Engineering Journal</i> , 2020, 381, 122609.	6.6	21
3743	Advanced carbon nanostructures for future high performance sodium metal anodes. <i>Energy Storage Materials</i> , 2020, 25, 811-826.	9.5	114
3744	LaSr ₂ Mn ₂ O ₇ Ruddlesden-Popper manganites for oxygen reduction and electrochemical capacitors. <i>Journal of Rare Earths</i> , 2020, 38, 763-769.	2.5	6
3745	Nitrogenâ€Doped Carbon Nanomaterials: Synthesis, Characteristics and Applications. <i>Chemistry - an Asian Journal</i> , 2020, 15, 2282-2293.	1.7	100
3746	Nitrogen-doped carbon nanotubeâ€graphene hybrid stabilizes MxN (Mâ€=â€Fe, Co) nanoparticles for efficient oxygen reduction reaction. <i>Applied Catalysis B: Environmental</i> , 2020, 268, 118415.	10.8	46

#	ARTICLE	IF	CITATIONS
3747	Natural nanofiber-based stacked porous nitrogen-doped carbon/NiFe ₂ O ₄ nanohybrid nanosheets. <i>Cellulose</i> , 2020, 27, 1021-1031.	2.4	14
3748	Efficient oxygen reduction activity on layered palladium phosphosulphide and its application in alkaline fuel cells. <i>Journal of Power Sources</i> , 2020, 445, 227280.	4.0	15
3749	Atypical Hybrid Metal-Organic Frameworks (MOFs): A Combinative Process for MOF Growth, Etching, and Structure Transformation. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 1327-1333.	7.2	118
3750	Electronic structure tailoring of BiOBr (0110) nanosheets by cobalt doping for enhanced visible-light photocatalytic activity. <i>Applied Surface Science</i> , 2020, 502, 143895.	3.1	42
3751	Iron-nitrogen doped carbon with exclusive presence of Fe _x N active sites as an efficient ORR electrocatalyst for Zn-air battery. <i>Applied Catalysis B: Environmental</i> , 2020, 268, 118405.	10.8	80
3752	Porous carbon codoped with inherent nitrogen and externally embedded cobalt nanoparticles as a high-performance cathode catalyst for microbial fuel cells. <i>Applied Surface Science</i> , 2020, 505, 144547.	3.1	19
3753	Co ₃ O ₄ /C and Au supported Co ₃ O ₄ /C nanocomposites - Peculiarities of fabrication and application towards oxygen reduction reaction. <i>Materials Chemistry and Physics</i> , 2020, 241, 122332.	2.0	4
3754	Atypical Hybrid Metal-Organic Frameworks (MOFs): A Combinative Process for MOF Growth, Etching, and Structure Transformation. <i>Angewandte Chemie</i> , 2020, 132, 1343-1349.	1.6	32
3755	Pyrolysis derived helically nitrogen-doped carbon nanotubes with uniform cobalt for high performance oxygen reduction. <i>Applied Surface Science</i> , 2020, 504, 144380.	3.1	26
3756	Trimetallic Mn-Fe-Ni Oxide Nanoparticles Supported on Multi-Walled Carbon Nanotubes as High-Performance Bifunctional ORR/OER Electrocatalyst in Alkaline Media. <i>Advanced Functional Materials</i> , 2020, 30, 1905992.	7.8	209
3757	Hybrid Ni/NiO composite with N-doped activated carbon from waste cauliflower leaves: A sustainable bifunctional electrocatalyst for efficient water splitting. <i>Carbon</i> , 2020, 157, 515-524.	5.4	80
3758	Graphene-cobalt based oxygen electrocatalysts. <i>Catalysis Today</i> , 2020, 358, 184-195.	2.2	6
3759	Surface/interface engineering of noble-metals and transition metal-based compounds for electrocatalytic applications. <i>Journal of Materials Science and Technology</i> , 2020, 38, 221-236.	5.6	23
3760	PANI@Co-FeLDHs as highly efficient electrocatalysts for oxygen evolution reaction. <i>Catalysis Communications</i> , 2020, 133, 105826.	1.6	17
3761	Probing the active sites of site-specific nitrogen doping in metal-free graphdiyne for electrochemical oxygen reduction reactions. <i>Science Bulletin</i> , 2020, 65, 45-54.	4.3	52
3762	Designing Advanced Catalysts for Energy Conversion Based on Urea Oxidation Reaction. <i>Small</i> , 2020, 16, e1906133.	5.2	328
3763	Electrocatalytic oxygen reduction over Co@Co ₃ O ₄ /N-doped porous carbon derived from pyrolysis of ZIF-8/67 on cellulose nanofibers. <i>Cellulose</i> , 2020, 27, 2723-2735.	2.4	15
3764	Construction of 3D carbon network with N,B,F-tridoping for efficient oxygen reduction reaction electrocatalysis and high performance zinc air battery. <i>Applied Surface Science</i> , 2020, 507, 145154.	3.1	15

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3766	Ligand-protected atomically precise gold nanoclusters as model catalysts for oxidation reactions. <i>Chemical Communications</i> , 2020, 56, 1163-1174.	2.2	52
3767	Enhancing the electrocatalytic activity of CoO for the oxidation of 5-hydroxymethylfurfural by introducing oxygen vacancies. <i>Green Chemistry</i> , 2020, 22, 843-849.	4.6	126
3768	Top-down synthesis of polyoxometalate-like sub-nanometer molybdenum-oxo clusters as high-performance electrocatalysts. <i>Chemical Science</i> , 2020, 11, 1043-1051.	3.7	21
3769	Remarkably Enhanced Hydrogen Oxidation Reaction Activity of Carbon-supported Pt by Facile Nickel Modification. <i>Chemical Research in Chinese Universities</i> , 2020, 36, 105-109.	1.3	7
3770	Partial sulfuration-induced defect and interface tailoring on bismuth oxide for promoting electrocatalytic CO ₂ reduction. <i>Journal of Materials Chemistry A</i> , 2020, 8, 2472-2480.	5.2	82
3771	Electronic structure modulation of bifunctional oxygen catalysts for rechargeable Zn-air batteries. <i>Journal of Materials Chemistry A</i> , 2020, 8, 1229-1237.	5.2	26
3772	A simple microwave process for the preparation of cobalt oxide nanoparticles supported on carbon nanotubes for electrocatalytic applications. <i>Journal of Solid State Electrochemistry</i> , 2020, 24, 131-136.	1.2	7
3773	Hierarchically porous N-doped carbon encapsulating CoO/MgO as superior cathode catalyst for microbial fuel cell. <i>Chemical Engineering Journal</i> , 2020, 385, 123861.	6.6	61
3774	Ternary nanocomposite of cobalt oxide nanograins and silver nanoparticles grown on reduced graphene oxide conducting platform for high-performance supercapattery electrode material. <i>Journal of Alloys and Compounds</i> , 2020, 821, 153452.	2.8	46
3775	Recent advances in cobalt-based electrocatalysts for hydrogen and oxygen evolution reactions. <i>Journal of Alloys and Compounds</i> , 2020, 821, 153542.	2.8	191
3776	Three-dimensional hybrid of iron-titanium mixed oxide/nitrogen-doped graphene on Ni foam as a superior electrocatalyst for oxygen evolution reaction. <i>Journal of Colloid and Interface Science</i> , 2020, 563, 241-251.	5.0	13
3777	Boosting electrocatalytic oxygen evolution using ultrathin carbon protected iron-cobalt carbonate hydroxide nanoneedle arrays. <i>Journal of Power Sources</i> , 2020, 450, 227639.	4.0	23
3778	Improved chemical water oxidation with Zn in the tetrahedral site of spinel-type ZnCo ₂ O ₄ nanostructure. <i>Materials Today Chemistry</i> , 2020, 15, 100226.	1.7	19
3779	Anchoring Co ₃ O ₄ nanoparticles on MXene for efficient electrocatalytic oxygen evolution. <i>Science Bulletin</i> , 2020, 65, 460-466.	4.3	152
3780	3D Graphene Decorated with g-C ₃ N ₄ /Cu ₃ P Composite: A Noble Metal-free Bifunctional Electrocatalyst for Overall Water Splitting. <i>ChemCatChem</i> , 2020, 12, 1394-1402.	1.8	71
3781	Confined growth of porous nitrogen-doped cobalt oxide nanoarrays as bifunctional oxygen electrocatalysts for rechargeable zinc-air batteries. <i>Energy Storage Materials</i> , 2020, 26, 157-164.	9.5	79
3782	Effect of Graphene Encapsulation of NiMo Alloys on Oxygen Evolution Reaction. <i>ACS Catalysis</i> , 2020, 10, 792-799.	5.5	60

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3784	Advanced nanomaterials for efficient oxygen electrodes in metal-air batteries. , 2020, , 191-222.		0
3785	Interfacial Engineering of W ₂ N/WC Heterostructures Derived from Solid-State Synthesis: A Highly Efficient Trifunctional Electrocatalyst for ORR, OER, and HER. <i>Advanced Materials</i> , 2020, 32, e1905679.	11.1	380
3786	Antiperovskite Intermetallic Nanoparticles for Enhanced Oxygen Reduction. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 1871-1877.	7.2	31
3787	Cube-shaped metal-nitrogen-carbon derived from metal-ammonia complex-impregnated metal-organic framework for highly efficient oxygen reduction reaction. <i>Carbon</i> , 2020, 158, 719-727.	5.4	27
3788	Two-Dimensional Hierarchical Fe-N-C Electrocatalyst for Zn-Air Batteries with Ultrahigh Specific Capacity. , 2020, 2, 35-41.		34
3789	Strain stabilized nickel hydroxide nanoribbons for efficient water splitting. <i>Energy and Environmental Science</i> , 2020, 13, 229-237.	15.6	78
3790	Metal-organic frameworks and their derivatives with graphene composites: preparation and applications in electrocatalysis and photocatalysis. <i>Journal of Materials Chemistry A</i> , 2020, 8, 2934-2961.	5.2	170
3791	Facile loading carbon dots on Co ₃ O ₄ as an enhanced oxygen reduction reaction catalyst. <i>Chemical Physics Letters</i> , 2020, 740, 137058.	1.2	10
3792	Zirconium nitride catalysts surpass platinum for oxygen reduction. <i>Nature Materials</i> , 2020, 19, 282-286.	13.3	293
3793	Ni foam-supported azo linkage cobalt phthalocyanine as an efficient electrocatalyst for oxygen evolution reaction. <i>Journal of Power Sources</i> , 2020, 449, 227516.	4.0	52
3794	Electrocatalyst of two-dimensional CoP nanosheets embedded by carbon nanoparticles for hydrogen generation and urea oxidation in alkaline solution. <i>Applied Surface Science</i> , 2020, 506, 144977.	3.1	48
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3797	Facile and simple deposition of cobalt oxide onto oxidized multiwall carbon nanotubes for electrocatalytic oxygen reduction. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 1391-1402.	1.1	1
3798	Highly Efficient B-Site Exsolution Assisted by Co Doping in Lanthanum Ferrite toward High-Performance Electrocatalysts for Oxygen Evolution and Oxygen Reduction. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 302-310.	3.2	48
3799	Supercapacitor and oxygen evolution reaction performances based on morphology-dependent Co-MOFs. <i>Journal of Solid State Chemistry</i> , 2020, 283, 121128.	1.4	27
3800	Graphene materials in green energy applications: Recent development and future perspective. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 120, 109656.	8.2	100

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3802	Promotion of Nitrogen Reserve and Electronic Regulation in Bamboo-like Carbon Tubules by Cobalt Nanoparticles for Highly Efficient ORR. <i>ACS Applied Energy Materials</i> , 2020, 3, 2323-2330.	2.5	39
3803	Atomically Embedded Ag via Electrodifusion Boosts Oxygen Evolution of CoOOH Nanosheet Arrays. <i>ACS Catalysis</i> , 2020, 10, 562-569.	5.5	93
3804	Atomically Dispersed Mo Supported on Metallic Co ₉ S ₈ Nanoflakes as an Advanced Noble-Metal-Free Bifunctional Water Splitting Catalyst Working in Universal pH Conditions. <i>Advanced Energy Materials</i> , 2020, 10, 1903137.	10.2	162
3805	One-pot synthesis of NiCoP/CNTs composites for lithium ion batteries and hydrogen evolution reaction. <i>Ionics</i> , 2020, 26, 1771-1778.	1.2	14
3806	Aqueous metal-air batteries: Fundamentals and applications. <i>Energy Storage Materials</i> , 2020, 27, 478-505.	9.5	221
3808	Strongly Cooperative Nano-CoO/Co Active Phase in Hierarchically Porous Nitrogen-Doped Carbon Microspheres for Efficient Bifunctional Oxygen Electrocatalysis. <i>ACS Applied Energy Materials</i> , 2020, 3, 1328-1337.	2.5	17
3809	Toward Promising Cathode Catalysts for Nonlithium Metal-Oxygen Batteries. <i>Advanced Energy Materials</i> , 2020, 10, 1901997.	10.2	102
3810	Evolution of phase pure magnetic cobalt ferrite nanoparticles by varying the synthesis conditions of polyol method. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2020, 252, 114451.	1.7	22
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3812	Robust assembly of urchin-like NiCo ₂ O ₄ /CNTs architecture as bifunctional electrocatalyst in Zn-Air batteries. <i>Ceramics International</i> , 2020, 46, 6262-6269.	2.3	11
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#	ARTICLE	IF	CITATIONS
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4075	Gas-phase synthesis of metal (M=Co, Cu, Mn, Ni, Fe) nanoparticles on N-doped carbon nanofibers as excellent oxygen electrocatalyst. <i>Electrochimica Acta</i> , 2020, 337, 135848.	2.6	16
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4081	Stacking faults triggered strain engineering of ZIF-67 derived Ni-Co bimetal phosphide for enhanced overall water splitting. <i>Applied Catalysis B: Environmental</i> , 2020, 272, 118951.	10.8	76
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4089	Engineering Facets and Oxygen Vacancies over Hematite Single Crystal for Intensified Electrocatalytic H_2O_2 Production. <i>Advanced Functional Materials</i> , 2020, 30, 1910539.	7.8	90
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4091	Metal Oxide (Co_3O_4 and Mn_3O_4) Impregnation into S, N-doped Graphene for Oxygen Reduction Reaction (ORR). <i>Materials</i> , 2020, 13, 1562.	1.3	22

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4153	Design of hollow carbon-based materials derived from metal-organic frameworks for electrocatalysis and electrochemical energy storage. <i>Journal of Materials Chemistry A</i> , 2021, 9, 3880-3917.	5.2	117
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4159	Electrodeposition of Ir-Co thin films on copper foam as high-performance electrocatalysts for efficient water splitting in alkaline medium. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 609-621.	3.8	39
4160	Advanced Oxygen Electrocatalysis in Energy Conversion and Storage. <i>Advanced Functional Materials</i> , 2021, 31, 2007602.	7.8	86
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#	ARTICLE	IF	CITATIONS
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