

CITATION REPORT

List of articles citing

Non-precious Co₃O₄ nano-rod electrocatalyst for oxygen reduction reaction in anion-exchange membrane fuel cells

DOI: 10.1039/c1ee01431e

Energy and Environmental Science, 2012, 5, 5333-5339.

Source: <https://exaly.com/paper-pdf/53287098/citation-report.pdf>

Version: 2024-04-24

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

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

#	Paper	IF	Citations
472	Coupling effect between cobalt oxides and carbon for oxygen reduction reaction. 2012 , 5, 2315-8		43
471	A template-free route to a Fe ₃ O ₄ @Co ₃ O ₄ yolk-shell nanostructure as a noble-metal free electrocatalyst for ORR in alkaline media. 2012 , 22, 19132		112
470	Oxygen reduction electrocatalyst based on strongly coupled cobalt oxide nanocrystals and carbon nanotubes. 2012 , 134, 15849-57		694
469	Interlayer-free electrodes for IT-SOFCs by applying Co ₃ O ₄ as sintering aid. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 11946-11954	6.7	23
468	Oxygen Reduction Reaction Activity of La-Based Perovskite Oxides in Alkaline Medium: A Thin-Film Rotating Ring-Disk Electrode Study. 2012 , 116, 5827-5834		228
467	Recent Progress in Non-Precious Catalysts for Metal-Air Batteries. 2012 , 2, 816-829		570
466	MFe ₂ O ₄ and MFe@Oxide Core-Shell Nanoparticles Anchored on N-Doped Graphene Sheets for Synergistically Enhancing Lithium Storage Performance and Electrocatalytic Activity for Oxygen Reduction Reactions. 2013 , 30, 893-904		17
465	Surface structure dependent electrocatalytic activity of Co ₃ O ₄ anchored on graphene sheets toward oxygen reduction reaction. <i>Scientific Reports</i> , 2013 , 3, 2300	4.9	235
464	Surface dealloyed PtCo nanoparticles supported on carbon nanotube: facile synthesis and promising application for anion exchange membrane direct crude glycerol fuel cell. 2013 , 15, 1133		65
463	Surface Electronic Structure and Mechanical Characteristics of Copper-Cobalt Oxide Thin Film Coatings: Soft X-ray Synchrotron Radiation Spectroscopic Analyses and Modeling. 2013 , 117, 16457-16467		31
462	Nanoporous PdNi alloys as highly active and methanol-tolerant electrocatalysts towards oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 13542	13	96
461	Enhanced electrochemical catalytic activity by copper oxide grown on nitrogen-doped reduced graphene oxide. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 13179	13	87
460	Highly selective liquid-phase aerobic oxidation of vanillyl alcohol to vanillin on cobalt oxide (Co ₃ O ₄) nanoparticles. <i>New Journal of Chemistry</i> , 2013 , 37, 2669	3.6	47
459	Noncovalent hybrid of CoMn ₂ O ₄ spinel nanocrystals and poly (diallyldimethylammonium chloride) functionalized carbon nanotubes as efficient electrocatalysts for oxygen reduction reaction. <i>Carbon</i> , 2013 , 65, 277-286	10.4	70
458	Synergistic Photoelectrochemical Synthesis of Formate from CO ₂ on {121} Hierarchical Co ₃ O ₄ . 2013 , 117, 26432-26440		54
457	Carbon supported MnOx@Co ₃ O ₄ as cathode catalyst for oxygen reduction reaction in alkaline media. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 13611-13616	6.7	51
456	Impact of 1 mmol dm ⁻³ concentrations of small molecules containing nitrogen-based cationic groups on the oxygen reduction reaction on polycrystalline platinum in aqueous KOH (1 mol dm ⁻³). 2013 , 15, 18992-9000		14

455	Direct growth of flower-like manganese oxide on reduced graphene oxide towards efficient oxygen reduction reaction. 2013 , 49, 6334-6		95
454	Graphene sheets fabricated from disposable paper cups as a catalyst support material for fuel cells. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 183-187	13	33
453	Co ₃ O ₄ /ZnO nanocomposites for gas-sensing applications. <i>Applied Surface Science</i> , 2013 , 265, 379-384	6.7	75
452	An overview on non-platinum cathode catalysts for direct methanol fuel cell. 2013 , 103, 212-220		94
451	Recent progress in graphene-based nanomaterials as advanced electrocatalysts towards oxygen reduction reaction. 2013 , 5, 1753-67		312
450	Pt-WxC nano-composites as an efficient electrochemical catalyst for oxygen reduction reaction. 2013 , 2, 28-39		51
449	Flowerlike Co ₃ O ₄ microspheres loaded with copper nanoparticle as an efficient bifunctional catalyst for lithium-air batteries. 2013 , 28, 13-16		100
448	Facile hydrothermal synthesis of urchin-like NiCo ₂ O ₄ spheres as efficient electrocatalysts for oxygen reduction reaction. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 6657-6662	6.7	127
447	Morphology dependent oxygen reduction activity of titanium carbide: bulk vs. nanowires. 2013 , 15, 8744-51		45
446	Silver supported on Co ₃ O ₄ modified carbon as electrocatalyst for oxygen reduction reaction in alkaline media. 2013 , 31, 108-111		52
445	Chemical interaction and imaging of single Co ₃ O ₄ /graphene sheets studied by scanning transmission X-ray microscopy and X-ray absorption spectroscopy. <i>Energy and Environmental Science</i> , 2013 , 6, 926	35.4	152
444	Enzymeless multi-sugar fuel cells with high power output based on 3D graphene-Co ₃ O ₄ hybrid electrodes. 2013 , 15, 9170-6		39
443	Activity and stability of the Ni(OH) ₂ MnOx/C composite for oxygen reduction reaction in alkaline solution. <i>Electrochimica Acta</i> , 2013 , 91, 314-322	6.7	35
442	Solar absorptance of copper-cobalt oxide thin film coatings with nano-size, grain-like morphology: Optimization and synchrotron radiation XPS studies. <i>Applied Surface Science</i> , 2013 , 275, 127-135	6.7	132
441	The Oxidation of Cobalt Nanoparticles into Kirkendall-Hollowed CoO and Co ₃ O ₄ : The Diffusion Mechanisms and Atomic Structural Transformations. 2013 , 117, 14303-14312		112
440	PREPARATION OF FLOWER-LIKE Co ₃ O ₄ /Fe ₃ O ₄ MAGNETIC MICROSPHERES FOR PHOTODEGRADATION OF RhB UNDER UV LIGHT. 2013 , 06, 1350052		3
439	Preparation Method of Co ₃ O ₄ Nanoparticles Using Degreasing Cotton and Their Electrochemical Performances in Supercapacitors. 2014 , 2014, 1-9		4
438	New Cu _x S _y /nanoporous carbon composites as efficient oxygen reduction catalysts in alkaline medium. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 20164-20176	13	31

437	Unification of catalytic water oxidation and oxygen reduction reactions: amorphous beat crystalline cobalt iron oxides. 2014 , 136, 17530-6		465
436	Palladium-Based Anion-Exchange Membrane Fuel Cell Using KOH-Doped Polybenzimidazole as the Electrolyte. 2014 , 79, 400-405		17
435	Hierarchical Fe ₃ O ₄ @Co ₃ O ₄ core-shell microspheres: Preparation and acetone sensing properties. 2014 , 199, 346-353		84
434	Preparation of highly active and stable polyaniline-cobalt-carbon nanotube electrocatalyst for oxygen reduction reaction in polymer electrolyte membrane fuel cell. <i>Electrochimica Acta</i> , 2014 , 119, 144-154	6.7	38
433	Graphene/Co ₃ O ₄ nanocomposite as an efficient bifunctional catalyst for lithium-air batteries. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 7188-7196	13	173
432	Design hierarchical electrodes with highly conductive NiCo ₂ S ₄ nanotube arrays grown on carbon fiber paper for high-performance pseudocapacitors. 2014 , 14, 831-8		915
431	Few-layer borocarbonitride nanosheets: platinum-free catalyst for the oxygen reduction reaction. 2014 , 9, 838-43		23
430	Spinel MFe ₂ O ₄ (M = Co, Ni) nanoparticles coated on multi-walled carbon nanotubes as electrocatalysts for LiO ₂ batteries. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 10257	13	53
429	Synergistic Catalytic Effect of MoS ₂ Nanoparticles Supported on Gold Nanoparticle Films for a Highly Efficient Oxygen Reduction Reaction. 2014 , 6, 1877-1881		42
428	Synthesis of nanoporous carbon-cobalt-oxide hybrid electrocatalysts by thermal conversion of metal-organic frameworks. 2014 , 20, 4217-21		226
427	One-step conversion from metal-organic frameworks to Co ₃ O ₄ @N-doped carbon nanocomposites towards highly efficient oxygen reduction catalysts. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 8184	13	121
426	Nanostructured Manganese Oxide Supported onto Particulate Glassy Carbon as an Active and Stable Oxygen Reduction Catalyst in Alkaline-Based Fuel Cells. <i>Journal of the Electrochemical Society</i> , 2014 , 161, D3105-D3112	3.9	15
425	Oxygen electrocatalysts in metal-air batteries: from aqueous to nonaqueous electrolytes. <i>Chemical Society Reviews</i> , 2014 , 43, 7746-86	58.5	1073
424	Cobalt nanoparticles embedded in N-doped carbon as an efficient bifunctional electrocatalyst for oxygen reduction and evolution reactions. 2014 , 6, 15080-9		421
423	A novel CoN electrocatalyst with high activity and stability toward oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 62-65	13	50
422	Conversion of polystyrene foam to a high-performance doped carbon catalyst with ultrahigh surface area and hierarchical porous structures for oxygen reduction. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 12240-12246	13	48
421	Self-healing catalysts: Co(3)O(4) nanorods for Fischer-Tropsch synthesis. 2014 , 50, 4575-8		14
420	One-step replication and enhanced catalytic activity for cathodic oxygen reduction of the mesostructured Co ₃ O ₄ /carbon composites. 2014 , 43, 4163-8		21

4 ¹⁹	MOF derived catalysts for electrochemical oxygen reduction. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 14064-14070	13	340
4 ¹⁸	Use of urchin-like Ni(x)Co(3-x)O ₄ hierarchical nanostructures based on non-precious metals as bifunctional electrocatalysts for anion-exchange membrane alkaline alcohol fuel cells. 2014 , 6, 9665-72		69
4 ¹⁷	Fabrication of iron-doped cobalt oxide nanocomposite films by electrodeposition and application as electrocatalyst for oxygen reduction reaction. <i>Applied Surface Science</i> , 2014 , 320, 73-82	6.7	26
4 ¹⁶	Anion-exchange membranes in electrochemical energy systems. <i>Energy and Environmental Science</i> , 2014 , 7, 3135-3191	35.4	1296
4 ¹⁵	Composition-controlled synthesis of carbon-supported Pt-Co alloy nanoparticles and the origin of their ORR activity enhancement. 2014 , 16, 19298-306		71
4 ¹⁴	Nitrogen-doped mesoporous graphene as a synergistic electrocatalyst matrix for high-performance oxygen reduction reaction. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 17654-60	9.5	49
4 ¹³	Silver/Nitrogen-Doped Graphene Interaction and Its Effect on Electrocatalytic Oxygen Reduction. 2014 , 26, 5868-5873		88
4 ¹²	Size-dependent oxygen reduction property of octahedral PtNi nanoparticle electrocatalysts. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 19778-19787	13	52
4 ¹¹	Flexible nitrogen-doped graphene/carbon nanotube/Co ₃ O ₄ paper and its oxygen reduction activity. 2014 , 6, 7534-41		72
4 ¹⁰	Mesoporous Mn ₃ O ₄ @CoO core-shell spheres wrapped by carbon nanotubes: a high performance catalyst for the oxygen reduction reaction and CO oxidation. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 3794	13	73
4 ⁰⁹	Recent progress on graphene-based hybrid electrocatalysts. 2014 , 1, 379-399		277
4 ⁰⁸	The role of electronic interaction in the use of Ag and Mn ₃ O ₄ hybrid nanocrystals covalently coupled with carbon as advanced oxygen reduction electrocatalysts. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 17477-17488	13	81
4 ⁰⁷	Chemical transformations of nanomaterials for energy applications. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 5965-5978	13	44
4 ⁰⁶	A novel stainless steel mesh/cobalt oxide hybrid electrode for efficient catalysis of oxygen reduction in a microbial fuel cell. 2014 , 55, 237-41		57
4 ⁰⁵	Manganese cobaltite/polypyrrole nanocomposite-based air-cathode for sustainable power generation in the single-chambered microbial fuel cells. 2014 , 54, 534-40		67
4 ⁰⁴	Electrocatalytic performance of Ni modified MnOx/C composites toward oxygen reduction reaction and their application in Zn Ni battery. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 3423-3432	6.7	36
4 ⁰³	Preparation and catalytic performance of the Co ₃ O ₄ /AAO composite. 2014 , 115, 222-225		2
4 ⁰²	Template-free synthesis of Cu ₂ O@Co ₃ O ₄ core-shell composites and their application in gas sensing. <i>RSC Advances</i> , 2014 , 4, 24211-24216	3.7	24

401	Magnetic compensation, field-dependent magnetization reversal, and complex magnetic ordering in Co ₂ TiO ₄ . 2015 , 92,		36
400	Well-Combined Magnetically Separable Hybrid Cobalt Ferrite/Nitrogen-Doped Graphene as Efficient Catalyst with Superior Performance for Oxygen Reduction Reaction. 2015 , 11, 5833-43		63
399	Ultrasmall Co ₃ O ₄ Nanocrystals Strongly Enhance Solar Water Splitting on Mesoporous Hematite. <i>Advanced Materials Interfaces</i> , 2015 , 2, 1500358	4.6	24
398	Reduced Graphene Oxide Supported CoO/MnO ₂ Electrocatalysts from Layered Double Hydroxides for Oxygen Reduction Reaction. <i>Electrochimica Acta</i> , 2015 , 173, 575-580	6.7	44
397	Solvothermal synthesis of a dendritic TiN _x O _y nanostructure for oxygen reduction reaction electrocatalysis. <i>RSC Advances</i> , 2015 , 5, 106439-106443	3.7	9
396	Ultrafine CoP Nanoparticles Supported on Carbon Nanotubes as Highly Active Electrocatalyst for Both Oxygen and Hydrogen Evolution in Basic Media. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 28412-9	9.5	162
395	Hierarchical polymorphic MnCO ₃ series induced by cobalt doping via a one-pot hydrothermal route for CO catalytic oxidation. <i>RSC Advances</i> , 2015 , 5, 33615-33622	3.7	15
394	Electrophoretic deposition improves catalytic performance of Co ₃ O ₄ nanoparticles for oxygen reduction/oxygen evolution reactions. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 4274-4283	13	61
393	Oxygen reduction reaction activity of LaMn _{1-x} Co _x O ₃ -graphene nanocomposite for zinc-air battery. <i>Electrochimica Acta</i> , 2015 , 161, 115-123	6.7	90
392	Hierarchical structures of nickel, cobalt-based nanosheets and iron oxyhydroxide nanorods arrays for electrochemical capacitors. <i>Electrochimica Acta</i> , 2015 , 161, 137-143	6.7	41
391	High gas-sensor and supercapacitor performance of porous Co ₃ O ₄ ultrathin nanosheets. <i>RSC Advances</i> , 2015 , 5, 17938-17944	3.7	37
390	Optical high-throughput screening for activity and electrochemical stability of oxygen reducing electrode catalysts for fuel cell applications. 2015 , 17, 164-75		11
389	A hybrid of holey graphene and Mn ₃ O ₄ and its oxygen reduction reaction performance. 2015 , 51, 3911-4		46
388	Enhanced electrochemical performance of hybrid SnO ₂ @MO _x (M = Ni, Co, Mn) core-shell nanostructures grown on flexible carbon fibers as the supercapacitor electrode materials. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 3676-3682	13	74
387	Fog-like fluffy structured N-doped carbon with a superior oxygen reduction reaction performance to a commercial Pt/C catalyst. 2015 , 7, 3780-5		31
386	From Water Oxidation to Reduction: Homologous Ni/Co Based Nanowires as Complementary Water Splitting Electrocatalysts. 2015 , 5, 1402031		372
385	Hierarchical mesoporous/macroporous Co ₃ O ₄ ultrathin nanosheets as free-standing catalysts for rechargeable lithium-oxygen batteries. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 17620-17626	13	47
384	Efficient oxygen reduction reaction using mesoporous Ni-doped Co ₃ O ₄ nanowire array electrocatalysts. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 18372-18379	13	48

383	The addition of ortho-hexagon nano spinel Co_3O_4 to improve the performance of activated carbon air cathode microbial fuel cell. <i>Bioresource Technology</i> , 2015 , 195, 180-7	11	80
382	One dimensionally spinel NiCo_2O_4 nanowire arrays: facile synthesis, water oxidation, and magnetic properties. <i>Electrochimica Acta</i> , 2015 , 174, 1216-1224	6.7	117
381	Binary transition metal nitrides with enhanced activity and durability for the oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 16801-16809	13	87
380	Simple wet-chemical synthesis of alloyed PdAu nanochain networks with improved electrocatalytic properties. <i>Electrochimica Acta</i> , 2015 , 176, 86-95	6.7	30
379	Controlled synthesis of NiCo_2S_4 nanostructured arrays on carbon fiber paper for high-performance pseudocapacitors. 2015 , 16, 71-80		292
378	Reduced Graphene Oxide Composite with Oxidizable Manganese/Cobalt Mixed Oxide for p-Cresol Oxidation by Using Molecular Oxygen. 2015 , 80, 1164-1169		5
377	Efficient and durable oxygen reduction and evolution of a hydrothermally synthesized $\text{La}(\text{Co}_{0.55}\text{Mn}_{0.45})_{0.99}\text{O}_3$ -nanorod/graphene hybrid in alkaline media. 2015 , 7, 9046-54		64
376	NiCo_2O_4 spinel/ordered mesoporous carbons as noble-metal free electrocatalysts for oxygen reduction reaction and the influence of structure of catalyst support on the electrochemical activity of NiCo_2O_4 . 2015 , 288, 1-8		55
375	Template-free synthesis of hierarchical yolk-shell Co and N codoped porous carbon microspheres with enhanced performance for oxygen reduction reaction. 2015 , 288, 128-135		41
374	Nitrogen doped mesoporous carbon derived from copolymer and supporting cobalt oxide for oxygen reduction reaction in alkaline media. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 6072-6084	6.7	23
373	Facile synthesis of three-dimensional hierarchical Co_3O_4 peony-like microspheres and their lithium storage performance. 2015 , 83, 538-548		9
372	Influence of the synergistic effect between Co-N-C and ceria on the catalytic performance for selective oxidation of ethylbenzene. 2015 , 17, 14012-20		87
371	$\text{Li}_x\text{Co}_{3-x}\text{O}_4$ solid solution nanocrystals supported on carbon black as a superior electrocatalyst for oxygen reduction reaction. 2015 , 139, 447-450		13
370	Cobalt Sulfide Nanoparticles Grown on Nitrogen and Sulfur Codoped Graphene Oxide: An Efficient Electrocatalyst for Oxygen Reduction and Evolution Reactions. <i>ACS Catalysis</i> , 2015 , 5, 3625-3637	13.1	506
369	On the nature of magnetic state in the spinel Co_3O_4 . <i>Journal of Physics Condensed Matter</i> , 2015 , 27, 166001	1.8	21
368	Anisotropic radio-chemically pore-filled anion exchange membranes for solid alkaline fuel cell (SAFC). 2015 , 495, 206-215		20
367	Review Recent Progress in Electrocatalysts for Oxygen Reduction Suitable for Alkaline Anion Exchange Membrane Fuel Cells. <i>Journal of the Electrochemical Society</i> , 2015 , 162, F1504-F1539	3.9	119
366	Honeycomb-Like Perovskite Oxide Electrocatalyst for a Hybrid Li-Air Battery. <i>Journal of the Electrochemical Society</i> , 2015 , 162, A2651-A2655	3.9	6

365	Selective construction of junctions on different facets of BiVO ₄ for enhancing photo-activity. <i>New Journal of Chemistry</i> , 2015 , 39, 9918-9925	3.6	24
364	Composition-controlled synthesis of Li _x Co _{3-x} O ₄ solid solution nanocrystals on carbon and their impact on electrocatalytic activity toward oxygen reduction reaction. <i>RSC Advances</i> , 2015 , 5, 90785-90793	3.7	13
363	Transformation of worst weed into N-, S-, and P-tridoped carbon nanorings as metal-free electrocatalysts for the oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 23376-23384	3.4	42
362	Characterization of local electrocatalytic activity of nanosheet-structured ZnCo ₂ O ₄ /carbon nanotubes composite for oxygen reduction reaction with scanning electrochemical microscopy. <i>Electrochimica Acta</i> , 2015 , 178, 767-777	6.7	22
361	Carbon nanotube-supported Cu ₃ N nanocrystals as a highly active catalyst for oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 18983-18990	13	45
360	A bio-inspired Co ₃ O ₄ -polypyrrole-graphene complex as an efficient oxygen reduction catalyst in one-step ball milling. 2015 , 8, 3461-3471		38
359	Nonstoichiometric Oxides as Low-Cost and Highly-Efficient Oxygen Reduction/Evolution Catalysts for Low-Temperature Electrochemical Devices. 2015 , 115, 9869-921		631
358	From supramolecular hydrogels to functional aerogels: a facile strategy to fabricate Fe ₃ O ₄ /N-doped graphene composites. <i>RSC Advances</i> , 2015 , 5, 77296-77302	3.7	10
357	Cobalt/Iron(II,III) oxide hybrid catalysis with enhanced catalytic activities for oxygen reduction in anion exchange membrane fuel cell. 2015 , 277, 147-154		36
356	3D hollow structured Co ₂ FeO ₄ /MWCNT as an efficient non-precious metal electrocatalyst for oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 1601-1608	13	39
355	Nitrogen-doped graphene-supported cobalt carbonitride@oxide core-shell nanoparticles as a non-noble metal electrocatalyst for an oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 1142-1151	13	49
354	Graphene-supported platinum catalyst prepared with ionomer as surfactant for anion exchange membrane fuel cells. 2015 , 275, 506-515		21
353	Composition effects of spinel Mn Co ₃ O ₄ nanoparticles on their electrocatalytic properties in oxygen reduction reaction in alkaline media. 2015 , 273, 735-741		57
352	New copper/GO based material as an efficient oxygen reduction catalyst in an alkaline medium: The role of unique Cu/rGO architecture. 2015 , 163, 424-435		64
351	What Can We Learn in Electrocatalysis, from Nanoparticulated Precious and/or Non-Precious Catalytic Centers Interacting with Their Support?. 2016 , 6, 145		13
350	Pomegranate-Inspired Design of Highly Active and Durable Bifunctional Electrocatalysts for Rechargeable Metal-Air Batteries. 2016 , 55, 4977-82		218
349	Uniform Two-Dimensional Co ₃ O ₄ Porous Sheets: Facile Synthesis and Enhanced Photocatalytic Performance. 2016 , 39, 891-898		42
348	A Hydrogen-Bonded Organic-Framework-Derived Mesoporous N-Doped Carbon for Efficient Electroreduction of Oxygen. 2016 , 3, 1116-1123		21

347	Platinfreie Nanomaterialien für die Sauerstoffreduktion. 2016 , 128, 2698-2726		78
346	Earth-Abundant Nanomaterials for Oxygen Reduction. 2016 , 55, 2650-76		760
345	CoO-CeO/C as a Highly Active Electrocatalyst for Oxygen Reduction Reaction in Al-Air Batteries. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 34422-34430	9.5	115
344	Enhanced energy density of a supercapacitor using 2D CoMoO ultrathin nanosheets and asymmetric configuration. <i>Nanotechnology</i> , 2016 , 27, 505401	3.4	15
343	Enhanced Photoelectrocatalytic Reduction of Oxygen Using Au@TiO Plasmonic Film. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 34970-34977	9.5	47
342	Interaction Induced High Catalytic Activities of CoO Nanoparticles Grown on Nitrogen-Doped Hollow Graphene Microspheres for Oxygen Reduction and Evolution Reactions. <i>Scientific Reports</i> , 2016 , 6, 27081	4.9	69
341	High catalytic activity of Co ₃ O ₄ nanoparticles encapsulated in a graphene supported carbon matrix for oxygen reduction reaction. <i>RSC Advances</i> , 2016 , 6, 50349-50357	3.7	11
340	In-situ constructing hybrid oxygen electrode of porous Co ₃ O ₄ nanowire array on La _{0.8} Sr _{0.2} MnO ₃ for steam electrolysis. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 5428-5436	6.7	4
339	In situ hydrothermal fabrication of a MnO ₂ @CoMoO ₄ @Ni nanohybrid electrode and ultrahigh energy density of ASCs. <i>RSC Advances</i> , 2016 , 6, 46508-46515	3.7	7
338	Self-assembled ultrathin NiCo ₂ S ₄ nanoflakes grown on Ni foam as high-performance flexible electrodes for hydrogen evolution reaction in alkaline solution. 2016 , 24, 139-147		233
337	Facile and Scalable Ultrafine Cobalt Oxide/Reduced Graphene Oxide Nanocomposites for High Energy Asymmetric Supercapacitors. <i>ChemistrySelect</i> , 2016 , 1, 3455-3467	1.8	39
336	Potential of porous Co ₃ O ₄ nanorods as cathode catalyst for oxygen reduction reaction in microbial fuel cells. <i>Bioresource Technology</i> , 2016 , 220, 537-542	11	48
335	Electrochemical performances of asymmetric super capacitor fabricated by one-dimensional CoMoO ₄ nanostructure. 2016 , 664, 23-28		23
334	Nitrogen-doped Multi-walled Carbon Nanotubes-MnCo ₂ O ₄ microsphere as electrocatalyst for efficient oxygen reduction reaction. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 15199-15207	6.7	44
333	Nanocubic-Co ₃ O ₄ coupled with nitrogen-doped carbon nanofiber network: A synergistic binder-free catalyst toward oxygen reduction reactions. 2016 , 1, 15-19		25
332	Transition-Metal (Co, Ni, and Fe)-Based Electrocatalysts for the Water Oxidation Reaction. 2016 , 28, 9266-9291		1075
331	Construction of a Hierarchical NiCo ₂ S ₄ @PPy Core-Shell Heterostructure Nanotube Array on Ni Foam for a High-Performance Asymmetric Supercapacitor. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 24525-35	9.5	327
330	Spectroscopic studies of Co ₂ TiO ₄ and Co ₃ O ₄ two-phase composites. 2016 , 253, 2270-2282		17

329	Structural Thermal Stability of Graphene Oxide-Doped Copper/Cobalt Oxide Coatings as a Solar Selective Surface. 2016 , 32, 1179-1191		18
328	Co ₃ O ₄ Nanoparticles-Modified MnO ₂ Nanorods Supported on Reduced Graphene Oxide as Cathode Catalyst for Oxygen Reduction Reaction in Alkaline Media. 2016 , 11, 1650-126		18
327	Bimetallic PtAu superlattice arrays: Highly electroactive and durable catalyst for oxygen reduction and methanol oxidation reactions. 2016 , 330, 140-148		39
326	In Situ Coupling of Strung Co ₄ N and Intertwined N-C Fibers toward Free-Standing Bifunctional Cathode for Robust, Efficient, and Flexible Zn-Air Batteries. 2016 , 138, 10226-31		710
325	Non-precious Mn _{1.5} Co _{1.5} O ₄ /FeNx/C nanocomposite as a synergistic catalyst for oxygen reduction in alkaline media. <i>RSC Advances</i> , 2016 , 6, 69167-69176	3-7	4
324	Facile synthesis ultrathin mesoporous Co ₃ O ₄ nanosheets for high-energy asymmetric supercapacitor. <i>Journal of Alloys and Compounds</i> , 2016 , 686, 969-975	5-7	73
323	Co ₃ O ₄ Hollow Polyhedrons as Bifunctional Electrocatalysts for Reduction and Evolution Reactions of Oxygen. 2016 , 33, 887-895		38
322	Nanohybrids of RGO nanosheets and 2-dimensional porous Co ₃ O ₄ nanoflakes working as highly efficient counter electrodes for dye-sensitized solar cells. <i>Journal of Materials Chemistry C</i> , 2016 , 4, 10323-10328	7-10	28
321	Voltammetric Studies of the Mechanism of the Oxygen Reduction in Alkaline Media at the Spinel Co ₃ O ₄ and NiCo ₂ O ₄ . <i>Journal of the Electrochemical Society</i> , 2016 , 163, H884-H890	3-9	16
320	Mesoporous cobalto-cobaltic oxide modified glassy carbon electrode for simultaneous detection of hydroquinone and catechol. 2016 , 782, 225-232		28
319	Pomegranate-Inspired Design of Highly Active and Durable Bifunctional Electrocatalysts for Rechargeable Metal-Air Batteries. 2016 , 128, 5061-5066		19
318	Morphology Controlled Solution-Based Synthesis of Cu ₂ O Crystals for the Facets-Dependent Catalytic Reduction of Highly Toxic Aqueous Cr(VI). 2016 , 16, 3688-3698		52
317	Hollow-spherical Co/N-C nanoparticle as an efficient electrocatalyst used in air cathode microbial fuel cell. 2016 , 86, 129-134		64
316	X ₂₀ CoCrW _{Mo} 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	35-4	66
315	O/W interface-assisted hydrothermal synthesis of NiCo ₂ S ₄ hollow spheres for high-performance supercapacitors. 2016 , 294, 1325-1332		11
314	Hollow-Structured Carbon-Supported Nickel Cobaltite Nanoparticles as an Efficient Bifunctional Electrocatalyst for the Oxygen Reduction and Evolution Reactions. 2016 , 8, 736-742		55
313	S-doped carbon aerogels/GO composites as oxygen reduction catalysts. 2016 , 25, 236-245		42
312	Flower-like nickel cobalt sulfide microspheres modified with nickel sulfide as Pt-free counter electrode for dye-sensitized solar cells. 2016 , 304, 266-272		88

311	The excellent performance and mechanism of activated carbon air cathode doped with different type of cobalt for microbial fuel cells. 2016 , 176, 173-180		23
310	Crystal-facet dependent CO oxidation, preferential oxidation of CO in H ₂ -rich, water-gas shift reactions, and supercapacitor application over Co ₃ O ₄ nanostructures. 2016 , 519, 56-67		22
309	Nanostructured nickel-cobalt sulfide grown on nickel foam directly as supercapacitor electrodes with high specific capacitance. 2016 , 173, 317-324		37
308	Coralloid and hierarchical Co ₃ O ₄ nanostructures used as supercapacitors with good cycling stability. 2016 , 20, 1303-1309		19
307	NiCo-selenide as a novel catalyst for water oxidation. <i>Journal of Materials Science</i> , 2016 , 51, 3724-3734	4-3	23
306	Hydrothermal synthesis and enhanced xylene-sensing properties of pompon-like Cr-doped Co ₃ O ₄ hierarchical nanostructures. <i>RSC Advances</i> , 2016 , 6, 22889-22895	3-7	21
305	Stainless steel grid mesh-supported CVD made Co ₃ O ₄ thin films for catalytic oxidation of VOCs of olefins type at low temperature. 2016 , 35, 253-261		22
304	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	13	129
303	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	2-7	8
302	An effective three-dimensional ordered mesoporous CuCo ₂ O ₄ as electrocatalyst for Li-O ₂ batteries. 2016 , 289, 17-22		32
301	A "copolymer-co-morphology" conception for shape-controlled synthesis of Prussian blue analogues and as-derived spinel oxides. 2016 , 8, 2333-42		47
300	A transparent cobalt sulfide/reduced graphene oxide nanostructure counter electrode for high efficient dye-sensitized solar cells. <i>Electrochimica Acta</i> , 2016 , 187, 210-217	6-7	31
299	PtCo/CoO _x nanocomposites: Bifunctional electrocatalysts for oxygen reduction and evolution reactions synthesized via tandem laser ablation synthesis in solution-galvanic replacement reactions. 2016 , 182, 286-296		78
298	Comparison of the Spinel Co ₃ O ₄ and NiCo ₂ O ₄ as Bifunctional Oxygen Catalysts in Alkaline Media. <i>Electrochimica Acta</i> , 2016 , 188, 286-293	6-7	60
297	Ce _{1-x} Co _x O _y nanocatalysts: synthesis, characterization and environmental application. <i>Catalysis Science and Technology</i> , 2016 , 6, 2101-2111	5-5	22
296	Oxygen reduction on chemically heterogeneous iron-containing nanoporous carbon: The effects of specific surface functionalities. 2016 , 221, 137-149		12
295	Synergistic electrocatalytic activity of a spinel ZnCo ₂ O ₄ /reduced graphene oxide hybrid towards oxygen reduction reaction. 2016 , 20, 285-291		19
294	Co ₃ O ₄ @WCNT composites for H ₂ S gas sensor application. 2016 , 222, 166-172		60

293	One-pot hydrothermal synthesis of Zinc ferrite/reduced graphene oxide as an efficient electrocatalyst for oxygen reduction reaction. <i>Journal of Colloid and Interface Science</i> , 2017 , 485, 175-182	9.3	30
292	Capacitive Performance of Graphene-based Asymmetric Supercapacitor. <i>Electrochimica Acta</i> , 2017 , 229, 173-182	6.7	23
291	Microwave-assisted synthesis and prototype oxygen reduction electrocatalyst application of N-doped carbon-coated FeO nanorods. <i>Nanotechnology</i> , 2017 , 28, 095707	3.4	21
290	A Highly Efficient Co ₃ O ₄ Nanoparticle-Incorporated Mesoporous Beta Composite as a Synergistic Catalyst for Oxygen Reduction. 2017 , 4, 1279-1286		6
289	Anchoring of ultrafine Co ₃ O ₄ nanoparticles on MWCNTs using supercritical fluid processing and its performance evaluation towards electrocatalytic oxygen reduction reaction. <i>Catalysis Science and Technology</i> , 2017 , 7, 1227-1234	5.5	23
288	Nitrogen-Doped Co O Mesoporous Nanowire Arrays as an Additive-Free Air-Cathode for Flexible Solid-State Zinc-Air Batteries. 2017 , 29, 1602868		353
287	A general approach for the direct fabrication of metal oxide-based electrocatalysts for efficient bifunctional oxygen electrodes. 2017 , 1, 823-831		23
286	Tiny crystalline grain nanocrystal NiCo ₂ O ₄ /N-doped graphene composite for efficient oxygen reduction reaction. 2017 , 345, 41-49		20
285	Enhanced activity and stability of Co ₃ O ₄ -decorated nitrogen-doped carbon hollow sphere catalysts for microbial fuel cells. <i>Catalysis Science and Technology</i> , 2017 , 7, 1315-1323	5.5	30
284	Uniform ordered mesoporous ZnCo ₂ O ₄ nanospheres for super-sensitive enzyme-free H ₂ O ₂ biosensing and glucose biofuel cell applications. 2017 , 10, 2482-2494		27
283	Preparation and properties of an amorphous MnO ₂ /CNTs-OH catalyst with high dispersion and durability for magnesium-air fuel cells. 2017 , 298, 241-249		38
282	"Wiring" Fe-N -Embedded Porous Carbon Framework onto 1D Nanotubes for Efficient Oxygen Reduction Reaction in Alkaline and Acidic Media. 2017 , 29, 1606534		280
281	High-performance all-solid-state asymmetrical supercapacitors based on petal-like NiCo ₂ S ₄ /Polyaniline nanosheets. <i>Chemical Engineering Journal</i> , 2017 , 325, 134-143	14.7	171
280	Co ₃ O ₄ @Co Nanoparticles Embedded Porous N-Rich Carbon Matrix for Efficient Oxygen Reduction. 2017 , 34, 1700074		11
279	Ruthenium Oxide Incorporated One-Dimensional Cobalt Oxide Composite Nanowires as Lithium Oxygen Battery Cathode Catalysts. 2017 , 9, 3554-3562		19
278	Simple Fabrication of Titanium Dioxide/N-Doped Carbon Hybrid Material as Non-Precious Metal Electrocatalyst for the Oxygen Reduction Reaction. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 18782-18789	8.5	18
277	A Nitrogen Doping Method for CoS ₂ Electrocatalysts with Enhanced Water Oxidation Performance. <i>ACS Catalysis</i> , 2017 , 7, 4214-4220	13.1	132
276	Modulation of the microstructure of the Ag/C-based alkaline cathode via the ionomer content for a bipolar membrane fuel cell. 2017 , 354, 92-99		12

275	Cobalt-nitrogen-activated carbon as catalyst in acetylene hydrochlorination. 2017 , 98, 22-25		18
274	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	9.5	89
273	High oxygen reduction activity on a metal-organic framework derived carbon combined with high degree of graphitization and pyridinic-N dopants. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 789-795	13	123
272	Axially oriented tubercle vein and X-crossed sheet of N-Co ₃ O ₄ @C hierarchical mesoarchitectures as potential heterogeneous catalysts for methanol oxidation reaction. <i>Chemical Engineering Journal</i> , 2017 , 313, 83-98	14.7	69
271	Functionalized Natural Carbon-Supported Nanoparticles as Excellent Catalysts for Hydrocarbon Production. 2017 , 12, 366-371		7
270	Recent advances in the rational design of electrocatalysts towards the oxygen reduction reaction. 2017 , 38, 951-969		39
269	N and P co-functionalized three-dimensional porous carbon networks as efficient metal-free electrocatalysts for oxygen reduction reaction. <i>Carbon</i> , 2017 , 122, 64-73	10.4	114
268	Electrocatalytic activity of silver decorated ceria microspheres for the oxygen reduction reaction and their application in aluminium-air batteries. 2017 , 53, 7921-7924		35
267	A bottom-up, template-free route to mesoporous N-doped carbons for efficient oxygen electroreduction. <i>Journal of Materials Science</i> , 2017 , 52, 9794-9805	4.3	7
266	A Composite of Pyrrole-Doped Carbon Black Modified with Co ₃ O ₄ for Efficient Electrochemical Oxygen Reduction Reaction. 2017 , 4, 2260-2268		10
265	Cobalt super-microparticles anchored on nitrogen-doped graphene for aniline oxidation based on sulfate radicals. 2017 , 601-602, 99-108		27
264	Key factors improving oxygen reduction reaction activity in cobalt nanoparticles modified carbon nanotubes. 2017 , 217, 303-312		46
263	Facile synthesis of novel CuCo ₂ S ₄ nanospheres for coaxial fiber supercapacitors. <i>RSC Advances</i> , 2017 , 7, 29933-29937	3.7	25
262	Effect of the redox properties of support oxide over cobalt-based catalysts in high temperature water-gas shift reaction. 2017 , 433, 145-152		21
261	Cobalt oxide nanocubes interleaved reduced graphene oxide as an efficient electrocatalyst for oxygen reduction reaction in alkaline medium. <i>Electrochimica Acta</i> , 2017 , 237, 61-68	6.7	42
260	Pyrolysis of Self-Assembled Iron Porphyrin on Carbon Black as Core/Shell Structured Electrocatalysts for Highly Efficient Oxygen Reduction in Both Alkaline and Acidic Medium. <i>Advanced Functional Materials</i> , 2017 , 27, 1604356	15.6	94
259	Major Role of Surface Area in Perovskite Electrocatalysts for Alkaline Systems. 2017 , 4, 468-471		6
258	Direct fabrication of lamellar self-supporting Co ₃ O ₄ /N/C peroxydisulfate activation catalysts for effective aniline degradation. <i>Chemical Engineering Journal</i> , 2017 , 313, 1088-1098	14.7	74

257	Ultrafine Co-doped ZnO nanoparticles on reduced graphene oxide as an efficient electrocatalyst for oxygen reduction reaction. <i>Electrochimica Acta</i> , 2017 , 224, 561-570	6.7	31
256	Tuning the Electronic Bandgap: An Efficient Way To Improve the Electrocatalytic Activity of Carbon-Supported Co O Nanocrystals for Oxygen Reduction Reactions. 2017 , 23, 2599-2609		32
255	Facile synthesis of Tremelliform Co _{0.85} Se nanosheets for supercapacitor. <i>Journal of Alloys and Compounds</i> , 2017 , 697, 124-131	5.7	29
254	Co ₃ O ₄ nanoparticles/MWCNTs composites: a potential scaffold for hydrazine and glucose electrochemical detection. <i>RSC Advances</i> , 2017 , 7, 50087-50096	3.7	13
253	Co/Al ₂ O ₃ -rGO nanocomposite as cathode electrocatalyst for superior oxygen reduction in microbial fuel cell applications: The effect of nanocomposite composition. <i>Electrochimica Acta</i> , 2017 , 254, 1-13	6.7	36
252	Growth of NiCo ₂ S ₄ nanotubes on carbon nanofibers for high performance flexible supercapacitors. 2017 , 804, 212-219		54
251	Vacancy-assisted oxygen reduction reaction on cobalt-based catalysts in direct borohydride fuel cell revealed by in-situ XAFS and XRD. <i>Electrochimica Acta</i> , 2017 , 254, 72-78	6.7	12
250	Nanohybrid of Co ₃ O ₄ and histidine-functionalized graphene quantum dots for electrochemical detection of hydroquinone. <i>Electrochimica Acta</i> , 2017 , 255, 323-334	6.7	37
249	Neutron diffraction study of the inverse spinels Co ₂ TiO ₄ and Co ₂ SnO ₄ . 2017 , 96,		20
248	Formation of Micron-Sized Nickel Cobalt Sulfide Solid Spheres with High Tap Density for Enhancing Pseudocapacitive Properties. <i>ACS Sustainable Chemistry and Engineering</i> , 2017 , 5, 9945-9954	8.3	34
247	Hydrothermal Synthesis of Highly Dispersed CoO Nanoparticles on Biomass-Derived Nitrogen-Doped Hierarchically Porous Carbon Networks as an Efficient Bifunctional Electrocatalyst for Oxygen Reduction and Evolution Reactions. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 30662-30669	9.5	83
246	3D hierarchical network NiCo ₂ S ₄ nanoflakes grown on Ni foam as efficient bifunctional electrocatalysts for both hydrogen and oxygen evolution reaction in alkaline solution. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 25267-25276	6.7	45
245	A New Concept of an Air-Electrode Catalyst for Li ₂ O ₂ Decomposition Using MnO ₂ Nanosheets on Rechargeable Li-O ₂ Batteries. <i>Electrochimica Acta</i> , 2017 , 252, 192-199	6.7	7
244	Porous rod-shaped Co ₃ O ₄ derived from Co-MOF-74 as high-performance anode materials for lithium ion batteries. <i>Inorganic Chemistry Communication</i> , 2017 , 84, 241-245	3.1	27
243	Photoelectrocatalytic Reduction of CO ₂ into C ₁ Products by Using Modified-Semiconductor-Based Catalyst Systems. 2017 , 6, 1519-1530		10
242	Spinels: Controlled Preparation, Oxygen Reduction/Evolution Reaction Application, and Beyond. 2017 , 117, 10121-10211		789
241	Out-of-plane Fe ^{II} moiety modified Fe ^{II} co-doped porous carbons as high-performance electrocatalysts for the oxygen reduction reaction. <i>Catalysis Science and Technology</i> , 2017 , 7, 4017-4023	5.5	23
240	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	13.1	108

239	Mesoporous bouquet-like Co ₃ O ₄ nanostructure for the effective heterogeneous activation of peroxymonosulfate. 2017 , 80, 720-727		41
238	Different types of nitrogen species in nitrogen-doped carbon material: The formation mechanism and catalytic role on oxygen reduction reaction. <i>Electrochimica Acta</i> , 2017 , 245, 957-966	6.7	34
237	Two 3D structured Co-Ni bimetallic oxides as cathode catalysts for high-performance alkaline direct methanol fuel cells. 2017 , 361, 160-169		19
236	Mesoporous Co ₃ O ₄ nanoflakes as an efficient and non-precious cathode catalyst for oxygen reduction reaction in air-cathode microbial fuel cells. 2017 , 78, 329-336		17
235	Co ₃ O ₄ nanoparticles assembled on polypyrrole/graphene oxide for electrochemical reduction of oxygen in alkaline media. 2017 , 38, 1281-1290		11
234	Au/Co ₃ O ₄ /CeO ₂ heterostructures: Morphology controlling, junction formation and enhanced catalysis performance. 2017 , 53, 317-324		11
233	Facile synthesis of MnO-rGO hybrid materials for the high-performance electrocatalytic reduction of oxygen. <i>Journal of Colloid and Interface Science</i> , 2017 , 488, 251-257	9.3	31
232	Truncated NiCo ₂ S ₄ cubo-hexa-octahedral nanostructures for high-performance supercapacitor. 2017 , 189, 21-24		10
231	Three-dimensional CoO@MWNTs nanocomposite with enhanced electrochemical performance for nonenzymatic glucose biosensors and biofuel cells. 2017 , 4, 170991		12
230	Active Species of Sulfated Metal Oxide Catalyst for Propane Dehydrogenation. 2017 , 60, 223-231		8
229	Recent Progress on the Development of Metal-Air Batteries. 2017 , 1, 1700036		62
228	Co ₃ O ₄ @CoS Core-Shell Nanosheets on Carbon Cloth for High Performance Supercapacitor Electrodes. <i>Materials</i> , 2017 , 10,	3.5	32
227	Anisotropic N-Graphene-diffused CoO nanocrystals with dense upper-zone top-on-plane exposure facets as effective ORR electrocatalysts. <i>Scientific Reports</i> , 2018 , 8, 3740	4.9	47
226	Novel mesoporous MnCoO nanorods as oxygen reduction catalyst at neutral pH in microbial fuel cells. <i>Bioresource Technology</i> , 2018 , 254, 1-6	11	18
225	Facile synthesis of cobalt oxide as electrocatalyst for the oxygen reduction reaction in microbial fuel cells. <i>Chemical Engineering Journal</i> , 2018 , 342, 395-400	14.7	21
224	A bifunctional NiCo ₂ S ₄ /reduced graphene oxide@polyaniline nanocomposite as a highly-efficient electrode for glucose and rutin detection. <i>New Journal of Chemistry</i> , 2018 , 42, 9398-9409	3.6	19
223	Visible Light Harvesting and Spatial Charge Separation over the Creative Ni/CdS/Co ₃ O ₄ Photocatalyst. 2018 , 122, 10430-10441		57
222	Oxygen Vacancy-Determined Highly Efficient Oxygen Reduction in NiCoO/Hollow Carbon Spheres. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 16410-16417	9.5	88

221	Formation of Hollow Metal Oxide Nanoparticles for ORR. 2018 , 103-119		
220	Nano-perovskite oxide prepared via inverse microemulsion mediated synthesis for catalyst of lithium-air batteries. <i>Electrochimica Acta</i> , 2018 , 275, 248-255	6.7	16
219	Strategy for Enhancing Interfacial Effect of Bifunctional Electrocatalyst: Infiltration of Cobalt Nanooxide on Perovskite. <i>Advanced Materials Interfaces</i> , 2018 , 5, 1800123	4.6	13
218	Facile Controlled Growth of Podetium-Like MnO ₂ Crystals and the Catalytic Effect of MnO ₂ /N-Doped Graphene on the Oxygen Reduction Reaction. 2018 , 2018, 1315-1321		3
217	Green synthesis of nano-Co ₃ O ₄ by Microbial Induced Precipitation (MIP) process using <i>Bacillus pasteurii</i> and its application as supercapacitor. 2018 , 14, 302-311		11
216	AgPO electrocatalyst for oxygen reduction reaction: enhancement from positive charge.. <i>RSC Advances</i> , 2018 , 8, 5382-5387	3.7	3
215	Recent progress and perspectives of bifunctional oxygen reduction/evolution catalyst development for regenerative anion exchange membrane fuel cells. 2018 , 47, 172-198		98
214	Enhanced triethylamine-sensing properties of P-N heterojunction Co ₃ O ₄ /In ₂ O ₃ hollow microtubes derived from metal-organic frameworks. 2018 , 262, 739-749		99
213	Steel: The Resurrection of a Forgotten Water-Splitting Catalyst. 2018 , 3, 574-591		86
212	Nitrogen-doped graphene-supported molybdenum dioxide electrocatalysts for oxygen reduction reaction. <i>Journal of Materials Science</i> , 2018 , 53, 6124-6134	4.3	7
211	Development of Highly Active Bifunctional Electrocatalyst Using CoO on Carbon Nanotubes for Oxygen Reduction and Oxygen Evolution. <i>Scientific Reports</i> , 2018 , 8, 2543	4.9	74
210	Beyond catalysis and membranes: visualizing and solving the challenge of electrode water accumulation and flooding in AEMFCs. <i>Energy and Environmental Science</i> , 2018 , 11, 551-558	35.4	162
209	La _{0.1} Ca _{0.9} MnO ₃ /Co ₃ O ₄ for oxygen reduction and evolution reactions (ORER) in alkaline electrolyte. 2018 , 22, 1697-1710		9
208	Applying Co ₃ O ₄ @nanoporous Carbon to Nonenzymatic Glucose Biofuel Cell and Biosensor. 2018 , 30, 525-532		21
207	Co- and defect-rich carbon nanofiber films as a highly efficient electrocatalyst for oxygen reduction. <i>Applied Surface Science</i> , 2018 , 435, 1159-1167	6.7	9
206	Hierarchically Designed 3D Holey CN Aerogels as Bifunctional Oxygen Electrodes for Flexible and Rechargeable Zn-Air Batteries. 2018 , 12, 596-608		125
205	Improvement of O adsorption for β -MnO as an oxygen reduction catalyst by Zr doping.. <i>RSC Advances</i> , 2018 , 8, 2963-2970	3.7	21
204	Hierarchical Co ₃ O ₄ decorated PPy nanocasting core-shell nanospheres as a high performance electrocatalysts for methanol oxidation. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 2742-2753	6.7	20

203	CoP nanoparticles anchored on N,P-dual-doped graphene-like carbon as a catalyst for water splitting in non-acidic media. 2018 , 10, 2603-2612		78
202	Hierarchical NiCo ₂ S ₄ @CoMoO ₄ core-shell heterostructures nanowire arrays as advanced electrodes for flexible all-solid-state asymmetric supercapacitors. <i>Applied Surface Science</i> , 2018 , 453, 73-82	6.7	161
201	System Design and Performance in Alkaline Direct Ethanol Fuel Cells. 2018 , 217-247		1
200	Rational design of NiCo ₂ S ₄ nanoparticles @ N-doped CNT for hybrid supercapacitor. <i>Applied Surface Science</i> , 2018 , 447, 165-172	6.7	40
199	Solution combustion synthesis of mixed-phase Mn-based oxides nanoparticles and their electrocatalytic performances for Al-air batteries. <i>Journal of Alloys and Compounds</i> , 2018 , 748, 375-381	5.7	9
198	Anion Exchange Membrane Fuel Cells. 2018 ,		5
197	Anion exchange membrane fuel cells: Current status and remaining challenges. 2018 , 375, 170-184		486
196	3D Hierarchical CoreShell Nanostructured Arrays on Carbon Fibers as Catalysts for Direct Urea Fuel Cells. 2018 , 8, 1702207		138
195	Electrochemically Synthesis of Nickel Cobalt Sulfide for High-Performance Flexible Asymmetric Supercapacitors. 2018 , 5, 1700375		115
194	Benchmarking the Oxygen Reduction Electroactivity of First-Row Transition-Metal Oxide Clusters on Carbon Nanotubes. 2018 , 5, 1862-1867		7
193	Hierarchical Core-Shell Nickel Cobaltite Chestnut-like Structures as Bifunctional Electrocatalyst for Rechargeable Metal-Air Batteries. 2018 , 11, 406-414		21
192	In-situ synthesized TiC@CNT as high-performance catalysts for oxygen reduction reaction. <i>Carbon</i> , 2018 , 126, 566-573	10.4	18
191	Electrochemical fabrication of shape-controlled Cu ₂ O with spheres, octahedrons and truncated octahedrons and their electrocatalysis for ORR. <i>New Journal of Chemistry</i> , 2018 , 42, 458-464	3.6	28
190	3D flower-like hierarchical NiCo ₂ O ₄ architecture on carbon cloth fibers as an anode catalyst for high-performance, durable direct urea fuel cells. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 23019-23027	13	32
189	. 2018 ,		7
188	Lanthanum Manganite-based Air Electrode Catalysts and Their Application to Lithium-air Batteries: Effects of Carbon Support Oxidation. 2018 , 86, 265-271		2
187	Recent Advances of Cobalt-Based Electrocatalysts for Oxygen Electrode Reactions and Hydrogen Evolution Reaction. 2018 , 8, 559		66
186	Role of dilution on the electronic structure and magnetic ordering of spinel cobaltites. 2018 , 98,		12

185	High-Stability Platinum Nano-Electrocatalyst Synthesized by Cyclic Voltammetry for Oxygen Reduction Reaction. 2018 , 47, 6995-7001		3
184	Investigation on the Catalytic Performance of Reduced-Graphene-Oxide-Interpolated FeS ₂ and FeS for Oxygen Reduction Reaction. <i>ChemistrySelect</i> , 2018 , 3, 10418-10427	1.8	11
183	Zn-Air Batteries. 2018 , 265-291		1
182	Restricting Growth of NiFe Nanoparticles on Heteroatom-Doped Carbon Nanotube/Graphene Nanosheets as Air-Electrode Electrocatalyst for Zn-Air Battery. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 38093-38100	9.5	55
181	Highly efficient overall water splitting driven by all-inorganic perovskite solar cells and promoted by bifunctional bimetallic phosphide nanowire arrays. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 20076-20082	13.8	33
180	Confined Pyrolysis within a Nanochannel to Form a Highly Efficient Single Iron Site Catalyst for Zn-Air Batteries. 2018 , 3, 2383-2389		58
179	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	9.5	50
178	Three-dimensionally mesoporous dual (Co, Fe) metal oxide/CNTs composite as electrocatalysts for air cathodes in Li-O ₂ batteries. 2018 , 44, 21942-21949		7
177	Recent trends on the application of PGM-free catalysts at the cathode of anion exchange membrane fuel cells. 2018 , 9, 240-256		50
176	Role of flower-like ultrathin CoO nanosheets in water splitting and non-aqueous Li-O batteries. 2018 , 10, 10221-10231		46
175	Enhanced oxygen evolution activity of Co ₃ Ni _x O ₄ compared to Co ₃ O ₄ by low Ni doping. 2018 , 823, 482-491		13
174	Rapid inkjet printing of high catalytic activity Co ₃ O ₄ /N-rGO layers for oxygen reduction reaction. 2018 , 563, 9-17		13
173	Synthesis and structural analysis of mesoporous magnesium hydroxide nanoparticles as efficient catalyst. 2018 , 65, 1495-1503		5
172	Flexible Mn-decorated NiCo ₂ S ₄ core-shell nanowire arrays for a high performance hybrid supercapacitor electrode with a long cycle life. 2018 , 20, 4735-4744		42
171	One-step electrodeposition of a hierarchically structured S-doped NiCo film as a highly-efficient electrocatalyst for the hydrogen evolution reaction. 2018 , 10, 15238-15248		35
170	Flexible hybrid yarn-shaped supercapacitors based on porous nickel cobalt sulfide nanosheet array layers on gold metalized cotton yarns. <i>Journal of Colloid and Interface Science</i> , 2018 , 532, 527-535	9.3	21
169	Biochar modification significantly promotes the activity of Co ₃ O ₄ towards heterogeneous activation of peroxymonosulfate. <i>Chemical Engineering Journal</i> , 2018 , 354, 856-865	14.7	133
168	Configurations of Microbial Fuel Cells. 2018 , 25-45		6

167	Atomically dispersed Fe ^{Nix} active sites within hierarchical mesoporous carbon as efficient electrocatalysts for the oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 20132-20138	13	25
166	Highly dispersive NiCoS nanoparticles anchored on nitrogen-doped carbon nanofibers for efficient hydrogen evolution reaction. <i>Journal of Colloid and Interface Science</i> , 2019 , 555, 294-303	9.3	25
165	Hierarchical NiCoS@Nickel-Cobalt Layered Double Hydroxide Nanotube Arrays on Metallic Cotton Yarns for Flexible Supercapacitors. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 30384-30390	9.5	55
164	A review of transition metal-based bifunctional oxygen electrocatalysts. 2019 , 66, 829-865		38
163	Investigation of facile strategy for eliminating internal cracks of pultruded carbon fiber composites. 2019 , 6, 125605		
162	MOF-Derived Ni-Doped CoS ₂ Grown on Carbon Fiber Paper for Efficient Oxygen Evolution Reaction. 2019 , 6, 1206-1212		25
161	Facet-Dependent Activity of Co ₃ O ₄ Catalyst for C ₃ H ₈ Combustion. 2019 , 11, 5570-5579		16
160	Uniform generation of NiCoS with 3D honeycomb-like network structure on carbon cloth as advanced electrode materials for flexible supercapacitors. <i>Journal of Colloid and Interface Science</i> , 2019 , 556, 743-752	9.3	47
159	High-Performance Polymer Fiber Membrane Based Direct Methanol Fuel Cell System with Non-Platinum Catalysts. <i>ACS Sustainable Chemistry and Engineering</i> , 2019 , 7, 17145-17153	8.3	9
158	Recent Progresses in Oxygen Reduction Reaction Electrocatalysts for Electrochemical Energy Applications. 2019 , 2, 518-538		103
157	Greener synthesis of zinc oxide nanoparticles using <i>Trianthema portulacastrum</i> extract and evaluation of its photocatalytic and biological applications. 2019 , 192, 147-157		86
156	Tuning the Bifunctional Oxygen Electrocatalytic Properties of Core-Shell CoO@NiFe LDH Catalysts for Zn-Air Batteries: Effects of Interfacial Cation Valences. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 21506-21514	9.5	71
155	Oxygen Reduction Reaction Activity of Mesostructured Cobalt-Based Metal Oxides Studied with the Cavity-Microelectrode Technique. 2019 , 6, 3460-3467		7
154	Co ₃ O ₄ Nanoparticles Anchored on Nitrogen-Doped Partially Exfoliated Multiwall Carbon Nanotubes as an Enhanced Oxygen Electrocatalyst for the Rechargeable and Flexible Solid-State Zn/Air Battery. 2019 , 2, 4428-4438		33
153	A new approach for the synthesis of electrocatalytically active CoFe ₂ O ₄ catalyst for oxygen reduction reaction. 2019 , 847, 113183		7
152	Functionalized Carbon Black Supported Silver (Ag/C) Catalysts in Cathode Electrode for Alkaline Anion Exchange Membrane Fuel Cells. 2019 , 6, 711-721		6
151	Electrospun Carbon Nanofiber Sprinkled with Co ₃ O ₄ as an Efficient Electrocatalyst for Oxygen Reduction Reaction in Alkaline Medium. <i>ChemistrySelect</i> , 2019 , 4, 5160-5167	1.8	5
150	Improved performance of microbial fuel cell by using conductive ink printed cathode containing Co ₃ O ₄ or Fe ₃ O ₄ . <i>Electrochimica Acta</i> , 2019 , 310, 173-183	6.7	44

149	Photoactive Zn-air batteries using spinel-type cobalt oxide as a bifunctional photocatalyst at the air cathode. 2019 , 55, 5855-5858		22
148	Hybrid Porous Catalysts Derived from Metal-Organic Framework for Oxygen Reduction Reaction in an Anion Exchange Membrane Fuel Cell. <i>ACS Sustainable Chemistry and Engineering</i> , 2019 , 7, 9143-9152	8.3	12
147	Synthesis of cobalt and nitrogen co-doped carbon nanotubes and its ORR activity as the catalyst used in hydrogen fuel cells. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 25180-25187	6.7	30
146	Ultrasmall Co ₂ P ₂ O ₇ nanocrystals anchored on nitrogen-doped graphene as efficient electrocatalysts for the oxygen reduction reaction. <i>New Journal of Chemistry</i> , 2019 , 43, 6492-6499	3.6	10
145	Geometric Occupancy and Oxidation State Requirements of Cations in Cobalt Oxides for Oxygen Reduction Reaction. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 12525-12534	9.5	25
144	Cobalt oxide-based nanoarchitectures for electrochemical energy applications. 2019 , 103, 596-677		97
143	Cobalt Oxide Porous Nanocubes-Based Electrochemical Immunobiosensing of Hepatitis B Virus DNA in Blood Serum and Urine Samples. 2019 , 91, 5824-5833		27
142	Flowerlike Ag-Supported Ce-Doped Mn ₃ O ₄ Nanosheet Heterostructure for a Highly Efficient Oxygen Reduction Reaction: Roles of Metal Oxides in Ag Surface States. <i>ACS Catalysis</i> , 2019 , 9, 3498-3510	13.1	42
141	A high-performance flexible supercapacitor based on hierarchical Co ₃ O ₄ -SnO ₂ @SnO ₂ nanostructures. <i>Electrochimica Acta</i> , 2019 , 307, 341-350	6.7	21
140	A Simple and Scalable Route to Synthesize Co ₃ O ₄ @Co ₂ O ₃ Core-Shell Microspheres, A High-Performance Catalyst to Hydrolyze Ammonia Borane for Hydrogen Production. 2019 , 15, e1805460		42
139	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	3.7	2
138	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	13	57
137	Clarifying the controversial catalytic active sites of Co ₃ O ₄ for the oxygen evolution reaction. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 23191-23198	13	49
136	Bioinspired Transition-Metal Complexes as Electrocatalysts for the Oxygen Reduction Reaction. 2019 , 25, 3726-3739		68
135	MOFs-derived ultrathin holey Co ₃ O ₄ nanosheets for enhanced visible light CO ₂ reduction. 2019 , 244, 996-1003		128
134	Improved bi-functional ORR and OER catalytic activity of reduced graphene oxide supported ZnCo ₂ O ₄ microsphere. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 1565-1578	6.7	40
133	Basicity-dependent properties of anion conducting membranes consisting of iminium cations for alkaline fuel cells. 2019 , 57, 503-510		6
132	Ternary nickel-cobalt selenide nanosheet arrays with enhanced electrochemical performance for hybrid supercapacitors. <i>Journal of Alloys and Compounds</i> , 2019 , 778, 848-857	5.7	24

131	Metal-Organic Frameworks (MOFs) and MOF-Derived Materials for Energy Storage and Conversion. 2019 , 2, 29-104		152
130	Sulfur, Nitrogen and Fluorine Triple-Doped Metal-Free Carbon Electrocatalysts for the Oxygen Reduction Reaction. 2019 , 6, 741-747		18
129	Engineering an Earth-Abundant Element-Based Bifunctional Electrocatalyst for Highly Efficient and Durable Overall Water Splitting. <i>Advanced Functional Materials</i> , 2019 , 29, 1807031	15.6	89
128	High performance fiber-shaped all-solid-state symmetric supercapacitor based on mesoporous CuCo ₂ S ₄ nanosheets. <i>Journal of Materials Science: Materials in Electronics</i> , 2019 , 30, 667-676	2.1	8
127	A novel inorganic-conductive polymer core-sheath nanowire arrays as bendable electrode for advanced electrochemical energy storage. <i>Chemical Engineering Journal</i> , 2019 , 358, 1464-1470	14.7	15
126	Pristine Transition-Metal-Based Metal-Organic Frameworks for Electrocatalysis. 2019 , 6, 1273-1299		41
125	Photoelectrocatalytic oxidation of methanol over RuO ₂ MnO ₂ Co ₃ O ₄ supported porous anatase under visible light irradiation. 2019 , 224, 196-205		2
124	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	6.7	9
123	Electrospun Ionomeric Fibers with Anion Conducting Properties. <i>Advanced Functional Materials</i> , 2020 , 30, 1901733	15.6	15
122	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. 2020 , 355, 286-294		10
121	Carbon stabilised saponite supported transition metal-alloy catalysts for chemical CO ₂ utilisation via reverse water-gas shift reaction. 2020 , 261, 118241		32
120	Multifunctional Transition Metal-Based Phosphides in Energy-Related Electrocatalysis. 2020 , 10, 1902104		174
119	CO gas sensing performance of electrospun Co ₃ O ₄ nanostructures at low operating temperature. 2020 , 303, 127193		25
118	Iron-nitrogen doped carbon with exclusive presence of Fe _x N active sites as an efficient ORR electrocatalyst for Zn-air battery. 2020 , 268, 118405		42
117	Investigation of the effect of phase transformations on the magnetic and electrical properties of Co/Co ₃ O ₄ nanowires. <i>Journal of Magnetism and Magnetic Materials</i> , 2020 , 497, 166079	2.8	2
116	Photo-generated reactive oxygen species assisted tandem amine homocoupling and amine-alcohol cross-coupling reaction on mesoporous spinel cobalt oxide. 2020 , 268, 118386		11
115	Cobalt(II) and Nickel(II) Complexes of a PNN Type Ligand as Photoenhanced Electrocatalysts for the Hydrogen Evolution Reaction. 2020 , 59, 1038-1045		10
114	A nitrogen and fluorine enriched Fe/FeC@C oxygen reduction reaction electrocatalyst for anion/proton exchange membrane fuel cells. 2020 , 12, 2542-2554		26

113	Controllable Synthesis of Hollow Multishell Structured Co ₃ O ₄ with Improved Rate Performance and Cyclic Stability for Supercapacitors. <i>Chemical Research in Chinese Universities</i> , 2020 , 36, 68-73	2.2	39
112	Improved lithium-O ₂ battery performance enabled by catalysts of yolk-shell Fe ₃ O ₄ @C mixed with Pt-Ru nanoparticles. <i>Applied Surface Science</i> , 2020 , 507, 145103	6.7	4
111	Probing Heteroatomic Dopant-Activity Synergy over CoO/Doped Carbon Nanotube Electrocatalysts for Oxygen Reduction Reaction. 2020 , 59, 403-414		16
110	A Composite Bifunctional Oxygen Electrocatalyst for High-Performance Rechargeable Zinc-Air Batteries. 2020 , 13, 1529-1536		17
109	Electrochemical detection of thiamethoxam in food samples based on CoO Nanoparticle@Graphitic carbon nitride composite. 2020 , 189, 110035		17
108	A direct-write method for preparing a bimetal sulfide/graphene composite as a free-standing electrode for high-performance microsupercapacitors.. <i>RSC Advances</i> , 2020 , 10, 35490-35498	3.7	
107	Anchoring NiCo ₂ O ₄ nanowhiskers in biomass-derived porous carbon as superior oxygen electrocatalyst for rechargeable Zn-air battery. 2020 , 476, 228684		10
106	In situ electrochemical conversion of cobalt oxide@MOF-74 core-shell structure as an efficient and robust electrocatalyst for water oxidation. 2020 , 21, 100820		7
105	Synergistic effects of nanocarbon spheres sheathed on a binderless CoMoO electrode for high-performance asymmetric supercapacitor. 2020 , 49, 14506-14519		10
104	Elucidating the Role of Oxide-Oxide/Carbon Interfaces of CuO-CeO/C in Boosting Electrocatalytic Performance. 2020 , 36, 15141-15152		9
103	MOF-Templated Preparation of Highly Dispersed Co/AlO Composite as the Photothermal Catalyst with High Solar-to-Fuel Efficiency for CO Methanation. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 39304-39317	9.5	19
102	Structure, electrical conductivity and electrochemical behavior of (La _{1-x} Sr _x) ₂ (Ni _{0.9} Mn _{0.1})O ₄ + δ based compounds. 2020 , 290, 121556		2
101	A synergistic approach of Vulcan carbon and CeO ₂ in their composite as an efficient oxygen reduction reaction catalyst. 2020 , 50, 1069-1077		4
100	Total Oxidation of Toluene and Propane over Co ₃ O ₄ Catalysts: Influence of Precipitating pH and Washing. 2020 , 10, 900		3
99	Synthesis and Optimization of Zeolitic Imidazolate Frameworks for the Oxygen Evolution Reaction. 2020 , 26, 14167-14172		5
98	Water Content and Ionic Conductivity of Thin Films of Different Anionic Forms of Anion Conducting Ionomers. 2020 , 124, 23469-23478		10
97	Reduced Graphene Oxide-Supported Co ₃ O ₄ Nanocomposite Bifunctional Electrocatalysts for Glucose/Oxygen Fuel Cells. 2020 , 34, 12984-12994		3
96	Cobalt thin films as water-recombination electrocatalysts. 2020 , 404, 126643		1

95	Ultralow Ru-Induced Bimetal Electrocatalysts with a Ru-Enriched and Mixed-Valence Surface Anchored on a Hollow Carbon Matrix for Oxygen Reduction and Water Splitting. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 51437-51447	9.5	24
94	Advancement of Platinum (Pt)-Free (Non-Pt Precious Metals) and/or Metal-Free (Non-Precious-Metals) Electrocatalysts in Energy Applications: A Review and Perspectives. 2020 , 34, 6634-6695		53
93	Highly Durable Passive Direct Methanol Fuel Cell with Three-Dimensional Ordered Porous NiCo ₂ O ₄ as Cathode Catalyst. 2020 , 7, 2314-2324		0
92	Development of Nanosized Mn ₃ O ₄ -Co ₃ O ₄ on Multiwalled Carbon Nanotubes for Cathode Catalyst in Urea Fuel Cell. <i>Energies</i> , 2020 , 13, 2322	3.1	7
91	Ultrafast and large-scale synthesis of Co ₃ O ₄ quantum dots-C ₃ N ₄ /rGO as an excellent ORR electrocatalyst via a controllable deflagration strategy. <i>Applied Surface Science</i> , 2020 , 525, 146624	6.7	6
90	Microstructure Engineering of Fe/FeC-Decorated Metal-Nitrogen-Carbon Mesoporous Nanospheres via a Self-Template Method for Enhancing Oxygen Reduction Activity. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 28065-28074	9.5	7
89	lonothermal carbonization of biomass to construct sp ² /sp ³ carbon interface in N-doped biochar as efficient oxygen reduction electrocatalysts. <i>Chemical Engineering Journal</i> , 2020 , 400, 125969	14.7	27
88	Enhancement of Bifunctional Effect for LiNO ₃ /glyme Electrolyte by Using Dual Solvent System for Li-O ₂ Batteries. <i>Journal of the Electrochemical Society</i> , 2020 , 167, 020542	3.9	9
87	Photoelectrochemical reduction of CO ₂ over Ru/Mn/Co trimetallic catalysts supported anatase TiO ₂ under visible light irradiation. 2020 , 94, 279-287		2
86	Templated synthesis of cobalt subnanoclusters dispersed N/C nanocages from COFs for highly-efficient oxygen reduction reaction. <i>Chemical Engineering Journal</i> , 2020 , 401, 126149	14.7	19
85	Potential of core-shell NiFe layered double hydroxide@Co ₃ O ₄ nanostructures as cathode catalysts for oxygen reduction reaction in microbial fuel cells. 2020 , 453, 227877		37
84	Alloying effect in silver-based dilute nanoalloy catalysts for oxygen reduction reactions. 2020 , 384, 37-48		11
83	Highly Efficient Oxygen Reduction Reaction Electrocatalysts FeCo ₂ NiC Derived from Two Metallomacrocycles and N-doped Porous Carbon Materials. 2020 , 7, 865-872		6
82	Co ₃ O ₄ hollow microspheres on polypyrrole nanotubes network enabling long-term cyclability sulfur cathode. <i>Applied Surface Science</i> , 2020 , 510, 145529	6.7	19
81	The synergistic effect of iron cobaltite compare to its single oxides as cathode in supercapacitor. 2020 , 44, 183-194		4
80	Cobalt-based oxygen evolution catalyst as active and stable as iridium in acidic media. <i>Electrochimica Acta</i> , 2020 , 344, 136160	6.7	3
79	Recent Advances in Non-Noble Bifunctional Oxygen Electrocatalysts toward Large-Scale Production. <i>Advanced Functional Materials</i> , 2020 , 30, 2000503	15.6	96
78	XAS and XPS analysis of double magnetic transition, canonical spin glass behavior and magnetoresistance in LaMn _{1-x} Co _x O ₃ (0.1 ≤ x ≤ 0.5) system. 2021 , 47, 6753-6763		0

77	Controllable synthesis of Ni _{1-x} Co _x MoO ₄ with tunable morphologies for high-performance asymmetric supercapacitors. <i>Journal of Alloys and Compounds</i> , 2021 , 850, 156734	5.7	15
76	Sustainable recycling of LiCoO cathode scrap on the basis of successive peroxydisulfate activation and recovery of valuable metals. 2021 , 759, 143478		12
75	Noble metal-free NiCo ₂ S ₄ /CN sheet-on-sheet heterostructure for highly efficient visible-light-driven photocatalytic hydrogen evolution. <i>Journal of Alloys and Compounds</i> , 2021 , 853, 157284	5.7	12
74	Oxide-based precious metal-free electrocatalysts for anion exchange membrane fuel cells: from material design to cell applications. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 3151-3179	13	7
73	Osmotic pressure-induced pocket-like spheres with Fe single-atom sites for the oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 13908-13915	13	2
72	Selectivity of Mixed Iron-Cobalt Spinel Deposited on a N,S-Doped Mesoporous Carbon Support in the Oxygen Reduction Reaction in Alkaline Media. <i>Materials</i> , 2021 , 14,	3.5	4
71	Coaxial MWNTs@MnCo ₂ O ₄ wrapped in conducting graphene for enhanced lithium ion storage. <i>Journal of Materials Science</i> , 2021 , 56, 9356-9367	4.3	0
70	Understanding of Neighboring Fe-N ₄ -C and Co-N ₄ -C Dual Active Centers for Oxygen Reduction Reaction. <i>Advanced Functional Materials</i> , 2021 , 31, 2011289	15.6	43
69	Electric conversion treatment of cobalt-containing wastewater. <i>Water Science and Technology</i> , 2021 , 83, 1973-1986	2.2	4
68	Effect of CoO Nanoparticles on Improving Catalytic Behavior of Pd/CoO@MWCNT Composites for Cathodes in Direct Urea Fuel Cells. <i>Nanomaterials</i> , 2021 , 11,	5.4	0
67	CoSe ₂ nanoflakes: An artificial nanoenzyme with excellent peroxidase like activity. <i>Inorganic Chemistry Communication</i> , 2021 , 126, 108461	3.1	5
66	Highly Porous Chitosan-derived Nitrogen-doped Carbon Applicable for High-performance Gas Diffusion Oxygen Electrodes. <i>Chemistry Letters</i> , 2021 , 50, 636-639	1.7	
65	Porous hollow ZnCo ₂ S ₄ nanosheet arrays derived from metal-organic framework as efficient cathode for lithium oxygen batteries. <i>Journal of Alloys and Compounds</i> , 2021 , 860, 157656	5.7	2
64	Flame Spray Pyrolysis CoO/CoO as Highly-Efficient Nanocatalyst for Oxygen Reduction Reaction. <i>Nanomaterials</i> , 2021 , 11,	5.4	9
63	Functional Electrospun Nanocomposites for Efficient Oxygen Reduction Reaction. <i>Chemical Research in Chinese Universities</i> , 2021 , 37, 379-393	2.2	21
62	Synthesis of nanocrystalline Co ₃ O ₄ through solution combustion method: effect of fuel to oxidizer ratio on structural and physical properties. <i>Journal of Materials Science: Materials in Electronics</i> , 2021 , 32, 14919-14931	2.1	1
61	A highly durable CoO/N-doped graphitized-nano-diamond electrocatalyst for oxygen reduction reaction. <i>Nanotechnology</i> , 2021 , 32,	3.4	2
60	Recent progress in cobalt-based carbon materials as oxygen electrocatalysts for zinc-air battery applications. <i>Materials Today Energy</i> , 2021 , 20, 100659	7	16

59	A novel detection method for organophosphorus insecticide fenamiphos: Molecularly imprinted electrochemical sensor based on core-shell CoO@MOF-74 nanocomposite. <i>Journal of Colloid and Interface Science</i> , 2021 , 592, 174-185	9.3	168
58	N,O-codoped carbon spheres with uniform mesoporous entangled CoO nanoparticles as a highly efficient electrocatalyst for oxygen reduction in a Zn-air battery. <i>Journal of Colloid and Interface Science</i> , 2021 , 604, 746-756	9.3	3
57	Synthesis of composite material of cobalt oxide (Co ₃ O ₄) with hydroxide functionalized multi-walled carbon nanotubes (MWCNTs) for electrochemical determination of uric acid. <i>Journal of Materials Science: Materials in Electronics</i> , 2021 , 32, 20047-20057	2.1	
56	Morphology control of Ni doped rod like MIL-88A derived FeS ₂ embedded in nitrogen-rich carbon as an efficient electrocatalyst for the oxygen reduction reaction. <i>Journal of Molecular Structure</i> , 2021 , 1237, 130329	3.4	1
55	Facile synthesis and self-assembling of transition metal phosphide nanosheets to microspheres as a high-performance electrocatalyst for full water splitting. <i>Journal of Alloys and Compounds</i> , 2021 , 875, 160049	5.7	10
54	Zn-air battery operated with a 3DOM trimetallic spinel (Mn _{0.5} Ni _{0.5} Co ₂ O ₄) as the oxygen electrode. <i>Electrochimica Acta</i> , 2021 , 391, 138900	6.7	1
53	In Situ Aluminothermic Reduction Induced by Mechanochemical Activation Enhances the Ability of the Spent LiCoO ₂ Cathode to Activate Peroxymonosulfate. <i>ACS Sustainable Chemistry and Engineering</i> ,	8.3	4
52	Theoretical study on W-Co ₃ O ₄ (1 1 1) surface: Acetone adsorption and sensing mechanism. <i>Applied Surface Science</i> , 2021 , 566, 150642	6.7	1
51	Construction of Co _{0.85} Se@nickel nanopores array hybrid electrode for high-performance asymmetric supercapacitors. <i>Chemical Engineering Science</i> , 2022 , 247, 117081	4.4	2
50	Co/N co-doped carbonized wood sponge with 3D porous framework for efficient peroxymonosulfate activation: Performance and internal mechanism. <i>Journal of Hazardous Materials</i> , 2022 , 421, 126735	12.8	15
49	A highly stable aliphatic backbone from visible light-induced RAFT polymerization for anion exchange membranes. <i>Polymer Chemistry</i> ,	4.9	0
48	Electrolytes and General Properties of Glyme-Based Electrolytes for Rechargeable Li ⁺ Air Batteries. 2021 , 461-477		1
47	Electrocatalytic oxygen reduction by a Co/CoO@N-doped carbon composite material derived from the pyrolysis of ZIF-67/poplar flowers.. <i>RSC Advances</i> , 2021 , 11, 2693-2700	3.7	7
46	Adsorption-based membranes for air separation using transition metal oxides. <i>Nanoscale Advances</i> , 2021 , 3, 4502-4512	5.1	0
45	Photothermal effect enables markedly enhanced oxygen reduction and evolution activities for high-performance Zn ²⁺ air batteries. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 19734-19740	13	13
44	Hierarchical Co ₃ O ₄ nanorods anchored on nitrogen doped reduced graphene oxide: a highly efficient bifunctional electrocatalyst for rechargeable Zn ²⁺ air batteries. <i>Catalysis Science and Technology</i> , 2020 , 10, 1444-1457	5.5	9
43	Platinum and Platinum Group Metal-Free Catalysts for Anion Exchange Membrane Fuel Cells. <i>Energies</i> , 2020 , 13, 582	3.1	27
42	Understanding the Synergistic Effects and Structural Evolution of Co(OH) ₂ and Co ₃ O ₄ toward Boosting Electrochemical Charge Storage. <i>Advanced Functional Materials</i> , 2108644	15.6	16

41	Synergy between LiNO ₃ and Tetraglyme-Sulfone Dual-Solvent Electrolyte Solutions in Li-O ₂ Batteries. <i>Journal of the Electrochemical Society</i> , 2020 , 167, 160531	3.9	0
40	Interface engineering of Co ₃ O ₄ /Mn ₂ O ₅ nanosheets for efficient oxygen reduction electrocatalysis. <i>Frontiers of Materials Science</i> , 1	2.5	1
39	Nanostructured Composite Catalyst for Electrochemical Water Splitting: Significantly Improved for Hydrogen Evolution Reaction. <i>Sensor Letters</i> , 2020 , 18, 842-852	0.9	
38	Review of cobalt-based nanocomposites as electrode for supercapacitor application. <i>Ionics</i> , 1	2.7	1
37	Ag and MOFs-derived hollow CoO decorated in the 3D g-CN for creating dual transferring channels of electrons and holes to boost CO photoreduction performance. <i>Journal of Colloid and Interface Science</i> , 2021 ,	9.3	0
36	Interface engineering of metal phosphide on hollow carbons by Dual-template method for High-performance Lithium-sulfur batteries. <i>Chemical Engineering Journal</i> , 2021 , 433, 133549	14.7	1
35	Nickel-cobalt nitride nanoneedle supported on nickel foam as an efficient electrocatalyst for hydrogen generation from ammonia electrolysis. <i>Electrochimica Acta</i> , 2022 , 403, 139700	6.7	1
34	The potential of CoO nanoparticles attached to the surface of MnO nanorods as cathode catalyst for single-chamber microbial fuel cell.. <i>Bioresource Technology</i> , 2021 , 346, 126584	11	0
33	Constructing nickel cobaltate @nickel-manganese layered double hydroxide hybrid composite on carbon cloth for high-performance flexible supercapacitors.. <i>Journal of Colloid and Interface Science</i> , 2021 , 611, 149-160	9.3	3
32	Application of Transition Metal Phosphides to Electrocatalysis: An Overview. <i>Jom</i> , 2022 , 74, 381-395	2.1	0
31	Electrospun Carbon Nanofibers Loaded with Atomic FeN _x /Fe ₂ O ₃ Active Sites for Efficient Oxygen Reduction Reaction in Both Acidic and Alkaline Media. <i>Advanced Materials Interfaces</i> , 2101904	4.6	0
30	Bio-engineered hexagon-shaped Co ₃ O ₄ nanoplates on deoxyribonucleic acid (DNA) scaffold: An efficient electrode material for an asymmetric supercapacitor and electrocatalysis application. <i>Journal of Molecular Structure</i> , 2022 , 1256, 132499	3.4	0
29	Three-dimensional nano-framework CoP/Co ₂ P/Co ₃ O ₄ heterojunction as trifunctional electrocatalyst for metal-air battery and water splitting. <i>New Journal of Chemistry</i> ,	3.6	2
28	Study on the One-Step Synthesis of Oxides by Cationic Membrane Electrolysis of Ni and Co Chloride. <i>ChemistrySelect</i> , 2022 , 7,	1.8	
27	High-performance freestanding supercapacitor electrode based on polypyrrole coated nickel cobalt sulfide nanostructures.. <i>Scientific Reports</i> , 2022 , 12, 4628	4.9	5
26	Nanostructuring Matters: Stabilization of Electrocatalytic Oxygen Evolution Reaction Activity of ZnCoO by Zinc Leaching.. <i>ACS Applied Materials & Interfaces</i> , 2022 ,	9.5	3
25	Boosting electrocatalysis of oxygen reduction and evolution reactions with cost-effective cobalt and nitrogen-doped carbons prepared by simple carbonization of ionic liquids. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	0
24	Efficient Electrochemical Hydrogenation of Nitroaromatics into Arylamines on a CuCo ₂ O ₄ Spinel Cathode in an Alkaline Electrolyte. <i>ACS Catalysis</i> , 2022 , 12, 58-65	13.1	5

23	Structural, Morphological, and Optical Properties of Cobalt Oxide Thin Films. <i>Macromolecular Symposia</i> , 2021 , 400, 2100125	0.8	
22	Antiferromagnetic short-range order and cluster spin-glass state in diluted spinel ZnTiCoO ₂ . <i>Journal of Physics Condensed Matter</i> , 2022 ,	1.8	0
21	Tunable microwave absorption and shielding effectiveness in the nanocomposite of 3D hierarchical flower-like Co ₃ O ₄ and rod-like polyindole. <i>Journal of Magnetism and Magnetic Materials</i> , 2022 , 555, 169363	2.8	0
20	CuCo ₂ S ₄ /MoS ₂ nanocomposite: a novel electrode for high-performance supercapacitors. <i>Journal of Materials Chemistry C</i> ,	7.1	3
19	Water electrolysis: from textbook knowledge to the latest scientific strategies and industrial developments.. <i>Chemical Society Reviews</i> , 2022 ,	58.5	21
18	Simultaneous determination of dihydroxybenzene isomers by Co ₃ O ₄ /CNT-modified glassy carbon electrode. <i>Journal of the Iranian Chemical Society</i> ,	2	
17	The Role of Carbon-Based Materials for Fuel Cells Performance. <i>Carbon</i> , 2022 ,	10.4	2
16	Co-Doped Zeolite@O Nanocomposite as a High-Performance ORR Catalyst for Sustainable Bioelectricity Generation in Air-Cathode Single-Chambered Microbial Fuel Cells. <i>ACS Applied Materials & Interfaces</i> ,	9.5	0
15	Co-doped CeO ₂ /Ni nanorods as a bifunctional oxygen electrocatalyst and its application in rechargeable Zn-air batteries. 2022 , 33, 415404		0
14	Mn-incorporated Co ₃ O ₄ bifunctional electrocatalysts for zinc-air battery application: An experimental and DFT study. 2022 , 121909		2
13	Corrosion Resistance and Catalytic Activity toward the Oxygen Reduction Reaction of CoCrFexNi (0 ≤ x ≤ 0.7) Thin Films.		1
12	Enhancing sustainable bioelectricity generation using facile synthesis of nanostructures of bimetallic Co/Ni at the combined support of halloysite nanotubes and reduced graphene oxide as novel oxygen reduction reaction electrocatalyst in single-chambered microbial fuel cells. 2022 ,		0
11	Construction and application in solid-state asymmetric supercapacitors of gladiolus-like NiSe/CoSe/Ni ₃ Se ₂ hierarchical nanocomposite with synergistic structural advantages. 2022 , 925, 166696		0
10	Magnetic properties of Sn- and Mn-incorporated Co ₂ TiO ₄ from single-step calcination. 2022 , 51, 13022-13031		0
9	Cerium-Doped CoMn ₂ O ₄ Spinels as Highly Efficient Bifunctional Electrocatalysts for ORR/OER Reactions. 2022 , 12, 1122		2
8	Fabrication of NiCo ₂ S ₄ /nickel foam composite electrodes by cyclic voltammetric deposition and their supercapacitor performance. 2023 , 330, 133338		0
7	Anion exchange membrane fuel cell: New insights and advancements.		0
6	Understanding the Effect of Nickel Doping in Cobalt Spinel Oxides on Regulating Spin State to Promote the Performance of the Oxygen Reduction Reaction and Zinc-Air Batteries. 159-168		1

- 5 Designing bifunctional ZIF-67 derivatives decorated N-doped carbon nanotubes as an electrocatalyst for oxygen conversion reaction in rechargeable zinc-air battery. **2022**, 141, 104598 ○
- 4 An Efficient and Precipitant-Free Approach to Selectively Recover Lithium Cobalt Oxide Made for Cathode Materials Using a Microwave-Assisted Deep Eutectic Solvent. ○
- 3 Cathode Materials for Secondary Zinc-Air Batteries. **2023**, 67-156 ○
- 2 Investigating the Performance of a Zinc Oxide Impregnated Polyvinyl Alcohol-Based Low-Cost Cation Exchange Membrane in Microbial Fuel Cells. **2023**, 13, 55 1
- 1 A trifunctional Co_{0.85}Se/NC collaborated electrocatalyst enables a self-powered energy system for uninterrupted H₂ production. **2023**, 11, 8024-8037 ○