Electrocatalysis for the oxygen evolution reaction: rece perspectives

Chemical Society Reviews

46, 337-365

DOI: 10.1039/c6cs00328a

Citation Report

#	Article	IF	Citations
6	Enhancing Water Oxidation Catalysis on a Synergistic Phosphorylated NiFe Hydroxide by Adjusting Catalyst Wettability. ACS Catalysis, 2017, 7, 2535-2541.	5.5	292
7	Facile synthesis of 3D porous Co₃V₂O₈ nanoroses and 2D NiCo₂V₂O₈ nanoplates for high performance supercapacitors and their electrocatalytic oxygen evolution reaction properties. Dalton Transactions, 2017, 46, 3295-3302.	1.6	68
8	Valence- and element-dependent water oxidation behaviors: in situ X-ray diffraction, absorption and electrochemical impedance spectroscopies. Physical Chemistry Chemical Physics, 2017, 19, 8681-8693.	1.3	80
9	Hierarchical porous Fe₃O₄/Co₃S₄ nanosheets as an efficient electrocatalyst for the oxygen evolution reaction. Journal of Materials Chemistry A, 2017, 5, 9210-9216.	5.2	143
10	Highly stable and efficient non-precious metal electrocatalysts of tantalum dioxyfluoride used for the oxygen evolution reaction. Journal of Materials Chemistry A, 2017, 5, 8287-8291.	5.2	29
11	Layered Double Hydroxide Nanosheets with Multiple Vacancies Obtained by Dry Exfoliation as Highly Efficient Oxygen Evolution Electrocatalysts. Angewandte Chemie, 2017, 129, 5961-5965.	1.6	84
12	Layered Double Hydroxide Nanosheets with Multiple Vacancies Obtained by Dry Exfoliation as Highly Efficient Oxygen Evolution Electrocatalysts. Angewandte Chemie - International Edition, 2017, 56, 5867-5871.	7.2	808
13	Cobalt nickel boride as an active electrocatalyst for water splitting. Journal of Materials Chemistry A, 2017, 5, 12379-12384.	5.2	214
14	Anodically Grown Binder-Free Nickel Hexacyanoferrate Film: Toward Efficient Water Reduction and Hexacyanoferrate Film Based Full Device for Overall Water Splitting. ACS Applied Materials & Interfaces, 2017, 9, 18015-18021.	4.0	56
15	Oxygen evolution reaction over Fe site of BaZr x Fe 1-x O 3-Î´ perovskite oxides. Electrochimica Acta, 2017, 241, 433-439.	2.6	67
16	Visible-light driven photocatalytic oxygen evolution reaction from new poly(phenylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 342 Td (cy	2.0	16
17	Layered Fe-Substituted LiNiO₂ Electrocatalysts for High-Efficiency Oxygen Evolution Reaction. ACS Energy Letters, 2017, 2, 1654-1660.	8.8	46
18	Einzelatomâ€Elektrokatalysatoren. Angewandte Chemie, 2017, 129, 14132-14148.	1.6	99
19	Singleâ€Atom Electrocatalysts. Angewandte Chemie - International Edition, 2017, 56, 13944-13960.	7.2	1,040
20	Electroanalytical Assessment of the Effect of Ni:Fe Stoichiometry and Architectural Expression on the Bifunctional Activity of Nanoscale Ni_yFe_{1â€“y}Ox. Langmuir, 2017, 33, 9390-9397.	1.6	11
21	Amorphous Metallic NiFeP: A Conductive Bulk Material Achieving High Activity for Oxygen Evolution Reaction in Both Alkaline and Acidic Media. Advanced Materials, 2017, 29, 1606570.	11.1	441
22	An Exceptionally Facile Synthesis of Highly Efficient Oxygen Evolution Electrodes for Zincâ€Oxygen Batteries. ChemElectroChem, 2017, 4, 2190-2195.	1.7	15
23	Coordination polymer derived cobalt embedded in nitrogen-doped carbon nanotubes for efficient electrocatalysis of oxygen evolution reaction. Journal of Solid State Chemistry, 2017, 253, 227-230.	1.4	24

#	Article	IF	Citations
24	A NiCo₂O₄@Niâ€“Coâ€“Ci coreâ€“shell nanowire array as an efficient electrocatalyst for water oxidation at near-neutral pH. Chemical Communications, 2017, 53, 7812-7815.	2.2	49
25	Bifunctional 2D-on-2D MoO₃nanobelt/Ni(OH)₂nanosheets for supercapacitor-driven electrochromic energy storage. Journal of Materials Chemistry A, 2017, 5, 8343-8351.	5.2	106
26	Photoelectrode nanomaterials for photoelectrochemical water splitting. International Journal of Hydrogen Energy, 2017, 42, 11078-11109.	3.8	129
27	In Situ Coupling Strategy for the Preparation of FeCo Alloys and Co₄N Hybrid for Highly Efficient Oxygen Evolution. Advanced Materials, 2017, 29, 1704091.	11.1	165
28	A review of electrocatalyst characterization by transmission electron microscopy. Journal of Energy Chemistry, 2017, 26, 1117-1135.	7.1	32
29	Ultraflexible and tailorable all-solid-state supercapacitors using polyacrylamide-based hydrogel electrolyte with high ionic conductivity. Nanoscale, 2017, 9, 18474-18481.	2.8	79
30	3D nickel-cobalt diselenide nanonetwork for highly efficient oxygen evolution. Science Bulletin, 2017, 62, 1373-1379.	4.3	69
31	Electrocatalytic Metalâ€“Organic Frameworks for Energy Applications. ChemSusChem, 2017, 10, 4374-4392.	3.6	182
32	Two-dimensional ultrathin arrays of CoP: Electronic modulation toward high performance overall water splitting. Nano Energy, 2017, 41, 583-590.	8.2	207
33	Facile synthesis of Cu doped cobalt hydroxide (Cuâ€“Co(OH)₂) nano-sheets for efficient electrocatalytic oxygen evolution. Journal of Materials Chemistry A, 2017, 5, 22568-22575.	5.2	108
34	CoSe_x nanocrystalline-dotted CoCo layered double hydroxide nanosheets: a synergetic engineering process for enhanced electrocatalytic water oxidation. Nanoscale, 2017, 9, 16256-16263.	2.8	38
35	Insights into the Performance of Co_xNi_{1â€“x}TiO₃ Solid Solutions as Photocatalysts for Sun-Driven Water Oxidation. ACS Applied Materials & Interfaces, 2017, 9, 40290-40297.	4.0	23
36	Acid-etched layered double hydroxides with rich defects for enhancing the oxygen evolution reaction. Chemical Communications, 2017, 53, 11778-11781.	2.2	180
37	Amorphous Phosphorus-Incorporated Cobalt Molybdenum Sulfide on Carbon Cloth: An Efficient and Stable Electrocatalyst for Enhanced Overall Water Splitting over Entire pH Values. ACS Applied Materials & Interfaces, 2017, 9, 37739-37749.	4.0	122
38	Firstâ€Row Transition Metal Based Catalysts for the Oxygen Evolution Reaction under Alkaline Conditions: Basic Principles and Recent Advances. Small, 2017, 13, 1701931.	5.2	352
39	Dealloying-directed synthesis of efficient mesoporous CoFe-based catalysts towards the oxygen evolution reaction and overall water splitting. Nanoscale, 2017, 9, 16467-16475.	2.8	67
40	Rational design of carbon-based oxygen electrocatalysts for zincâ€“air batteries. Current Opinion in Electrochemistry, 2017, 4, 45-59.	2.5	38
41	Ternary NiCoFe Layered Double Hydroxide Nanosheets Synthesized by Cation Exchange Reaction for Oxygen Evolution Reaction. Electrochimica Acta, 2017, 257, 118-127.	2.6	114

#	Article	IF	Citations
42	Hierarchically Porous Co3C/Co-N-C/G Modified Graphitic Carbon: A Trifunctional Corrosion-Resistant Electrode for Oxygen Reduction, Hydrogen Evolution and Oxygen Evolution Reactions. Electrochimica Acta, 2017, 257, 40-48.	2.6	58
43	Metallic Cobalt@Nitrogen-Doped Carbon Nanocomposites: Carbon-Shell Regulation toward Efficient Bi-Functional Electrocatalysis. ACS Applied Materials & Interfaces, 2017, 9, 37721-37730.	4.0	59
44	Hierarchical Porous NC@CuCo Nitride Nanosheet Networks: Highly Efficient Bifunctional Electrocatalyst for Overall Water Splitting and Selective Electrooxidation of Benzyl Alcohol. Advanced Functional Materials, 2017, 27, 1704169.	7.8	267
45	Stability and catalytic properties of nanostructured carbons in electrochemical environments. Journal of Catalysis, 2017, 355, 156-166.	3.1	13
46	Nitrogen-doped oxidized carbon fiber as metal-free electrode towards highly efficient water oxidation. International Journal of Hydrogen Energy, 2017, 42, 28287-28297.	3.8	13
47	Pyridinium functionalized coordination containers as highly efficient electrocatalysts for sustainable oxygen evolution. Journal of Materials Chemistry A, 2017, 5, 23559-23565.	5.2	16
48	Rational Design Rules for Molecular Water Oxidation Catalysts based on Scaling Relationships. Chemistry - A European Journal, 2017, 23, 16413-16418.	1.7	57
49	Hydrothermal Synthesis of Highly Dispersed Co₃O₄Nanoparticles on Biomass-Derived Nitrogen-Doped Hierarchically Porous Carbon Networks as an Efficient Bifunctional Electrocatalyst for Oxygen Reduction and Evolution Reactions. ACS Applied Materials & Interfaces, 2017, 9, 30662-30669.	4.0	99
50	High-Valence-State NiO/Co₃O₄ Nanoparticles on Nitrogen-Doped Carbon for Oxygen Evolution at Low Overpotential. ACS Energy Letters, 2017, 2, 2177-2182.	8.8	200
51	Rational Design of Cobaltâ€“Iron Selenides for Highly Efficient Electrochemical Water Oxidation. ACS Applied Materials & Interfaces, 2017, 9, 33833-33840.	4.0	140
52	Maximizing the utilization of Feâ€“N_xC/CN_x centres for an air-cathode material and practical demonstration of metalâ€“air batteries. Journal of Materials Chemistry A, 2017, 5, 20252-20262.	5.2	46
53	Insight of synergistic effect of different active metal ions in layered double hydroxides on their electrochemical behaviors. Electrochimica Acta, 2017, 253, 302-310.	2.6	67
54	Developing bifunctional electrocatalyst for overall water splitting using three-dimensional porous CoP3 nanospheres integrated on carbon cloth. Journal of Alloys and Compounds, 2017, 729, 203-209.	2.8	39
55	Formation of Niâ€“Fe Mixed Diselenide Nanocages as a Superior Oxygen Evolution Electrocatalyst. Advanced Materials, 2017, 29, 1703870.	11.1	428
56	Identifying the electrocatalytic sites of nickel disulfide in alkaline hydrogen evolution reaction. Nano Energy, 2017, 41, 148-153.	8.2	168
57	Flexible Znâ€“ and Liâ€“air batteries: recent advances, challenges, and future perspectives. Energy and Environmental Science, 2017, 10, 2056-2080.	15.6	477
58	Atomic-layer-deposited ultrathin Co₉S₈ on carbon nanotubes: an efficient bifunctional electrocatalyst for oxygen evolution/reduction reactions and rechargeable Znâ€“air batteries. Journal of Materials Chemistry A, 2017, 5, 21353-21361.	5.2	97
59	Synergetic Metals on Carbocatalyst Shungite. Chemistry - A European Journal, 2017, 23, 18232-18238.	1.7	12

#	Article	IF	Citations
60	Threeâ€Dimensional Hierarchical Architectures Derived from Surfaceâ€Mounted Metalâ€“Organic Framework Membranes for Enhanced Electrocatalysis. Angewandte Chemie - International Edition, 2017, 56, 13781-13785.	7.2	193
61	Epitaxial encapsulation of homodispersed CeO₂ in a cobaltâ€“porphyrin network derived thin film for the highly efficient oxygen evolution reaction. Journal of Materials Chemistry A, 2017, 5, 20126-20130.	5.2	36
62	Porous Structured Niâ€“Feâ€“P Nanocubes Derived from a Prussian Blue Analogue as an Electrocatalyst for Efficient Overall Water Splitting. ACS Applied Materials & Interfaces, 2017, 9, 26134-26142.	4.0	220
63	When In Situ Techniques Meet Nickel-Based Electrocatalyst in Hydrogen Evolution Reaction. CheM, 2017, 3, 19-21.	5.8	5
64	A New Dimension for Low-Dimensional Carbon Nanostructures. CheM, 2017, 3, 21-24.	5.8	2
65	Hierarchical Nanostructures: Design for Sustainable Water Splitting. Advanced Energy Materials, 2017, 7, 1700559.	10.2	247
66	Surface configuration and wettability of nickel(oxy)hydroxides: a first-principles investigation. Physical Chemistry Chemical Physics, 2017, 19, 22659-22669.	1.3	31
67	Recent advances in air electrodes for Znâ€“air batteries: electrocatalysis and structural design. Materials Horizons, 2017, 4, 945-976.	6.4	263
68	Costâ€Effective Alkaline Water Electrolysis Based on Nitrogenâ€•and Phosphorusâ€Doped Selfâ€Supportive Electrocatalysts. Advanced Materials, 2017, 29, 1702095.	11.1	175
69	Bifunctional Transition Metal Hydroxysulfides: Roomâ€Temperature Sulfurization and Their Applications in Znâ€“Air Batteries. Advanced Materials, 2017, 29, 1702327.	11.1	334
70	In Situ Electrochemical Production of Ultrathin Nickel Nanosheets for Hydrogen Evolution Electrocatalysis. CheM, 2017, 3, 122-133.	5.8	214
71	Electrocatalytic water oxidation by Cu(<scp>ii</scp>) ions in a neutral borate buffer solution. Chemical Communications, 2017, 53, 9324-9327.	2.2	29
72	Electrocatalysts Derived from Metalâ€“Organic Frameworks for Oxygen Reduction and Evolution Reactions in Aqueous Media. Small, 2017, 13, 1701143.	5.2	150
73	Frontiers of water oxidation: the quest for true catalysts. Chemical Society Reviews, 2017, 46, 6124-6147.	18.7	198
74	Bimetallic iron cobalt oxide self-supported on Ni-Foam: An efficient bifunctional electrocatalyst for oxygen and hydrogen evolution reaction. Electrochimica Acta, 2017, 249, 253-262.	2.6	124
75	Facile synthesis of bicontinuous Ni3Fe alloy for efficient electrocatalytic oxygen evolution reaction. Journal of Alloys and Compounds, 2017, 726, 875-884.	2.8	49
76	Spinels: Controlled Preparation, Oxygen Reduction/Evolution Reaction Application, and Beyond. Chemical Reviews, 2017, 117, 10121-10211.	23.0	1,157
77	Ultrathin BiOX (X = Cl, Br, I) Nanosheets as Al-air Battery Catalysts. Electrochimica Acta, 2017, 249, 413-420.	2.6	11

#	Article	IF	Citations
78	Amorphous Coâ€“Feâ€“P nanospheres for efficient water oxidation. Journal of Materials Chemistry A, 2017, 5, 25378-25384.	5.2	100
79	Carbon fiber paper supported interlayer space enlarged Ni2Fe-LDHs improved OER electrocatalytic activity. Electrochimica Acta, 2017, 258, 554-560.	2.6	43
80	Rapidly engineering the electronic properties and morphological structure of NiSe nanowires for the oxygen evolution reaction. Journal of Materials Chemistry A, 2017, 5, 25494-25500.	5.2	73
81	Interface Engineering of Ni₃N@Fe₃N Heterostructure Supported on Carbon Fiber for Enhanced Water Oxidation. Industrial & Engineering Chemistry Research, 2017, 56, 14245-14251.	1.8	35
82	Carbon cloth supported cobalt phosphide as multifunctional catalysts for efficient overall water splitting and zincâ€“air batteries. Nanoscale, 2017, 9, 18977-18982.	2.8	92
83	â€œCujuâ€•Structured Iron Diselenide-Derived Oxide: A Highly Efficient Electrocatalyst for Water Oxidation. ACS Applied Materials & Interfaces, 2017, 9, 40351-40359.	4.0	61
84	Increasing Gas Bubble Escape Rate for Water Splitting with Nonwoven Stainless Steel Fabrics. ACS Applied Materials & Interfaces, 2017, 9, 40281-40289.	4.0	56
85	Nanosheets of NiCo₂O₄/NiO as Efficient and Stable Electrocatalyst for Oxygen Evolution Reaction. ACS Omega, 2017, 2, 7559-7567.	1.6	89
86	Strategies for Efficient Charge Separation and Transfer in Artificial Photosynthesis of Solar Fuels. ChemSusChem, 2017, 10, 4277-4305.	3.6	75
87	Sugar Blowingâ€Induced Porous Cobalt Phosphide/Nitrogenâ€Doped Carbon Nanostructures with Enhanced Electrochemical Oxidation Performance toward Water and Other Small Molecules. Small, 2017, 13, 1700796.	5.2	65
88	Designing N-doped carbon nanotubes and Feâ€“Fe₃C nanostructures co-embedded in B-doped mesoporous carbon as an enduring cathode electrocatalyst for metalâ€“air batteries. Journal of Materials Chemistry A, 2017, 5, 16843-16853.	5.2	83
89	Nitrogen-enriched polydopamine analogue-derived defect-rich porous carbon as a bifunctional metal-free electrocatalyst for highly efficient overall water splitting. Journal of Materials Chemistry A, 2017, 5, 17064-17072.	5.2	66
90	Porphyrinic Metalâ€“Organic Framework-Templated Feâ€“Niâ€“P/Reduced Graphene Oxide for Efficient Electrocatalytic Oxygen Evolution. ACS Applied Materials & Interfaces, 2017, 9, 23852-23858.	4.0	115
91	Ultrathin nickel boron oxide nanosheets assembled vertically on graphene: a new hybrid 2D material for enhanced photo/electro-catalysis. Materials Horizons, 2017, 4, 885-894.	6.4	108
92	Layered double hydroxides toward high-performance supercapacitors. Journal of Materials Chemistry A, 2017, 5, 15460-15485.	5.2	326
93	Simultaneous modulation of surface composition, oxygen vacancies and assembly in hierarchical Co₃O₄ mesoporous nanostructures for lithium storage and electrocatalytic oxygen evolution. Nanoscale, 2017, 9, 14431-14441.	2.8	77
94	A Porous Cobalt (II) Metalâ€“Organic Framework with Highly Efficient Electrocatalytic Activity for the Oxygen Evolution Reaction. Polymers, 2017, 9, 676.	2.0	27
95	Atomically Dispersed Metal Sites in MOFâ€Based Materials for Electrocatalytic and Photocatalytic Energy Conversion. Angewandte Chemie - International Edition, 2018, 57, 9604-9633.	7.2	452

#	Article	IF	Citations
96	Fe3O4@NiSx/rGO composites with amounts of heterointerfaces and enhanced electrocatalytic properties for oxygen evolution. Applied Surface Science, 2018, 442, 256-263.	3.1	51
97	Bifunctional N-doped graphene Ti and Co nanocomposites for the oxygen reduction and evolution reactions. Renewable Energy, 2018, 125, 182-192.	4.3	51
98	Coreâ€“Shell NiO@Niâ€P Hybrid Nanosheet Array for Synergistically Enhanced Oxygen Evolution Electrocatalysis: Experimental and Theoretical Insights. Chemistry - an Asian Journal, 2018, 13, 944-949.	1.7	9
99	Elaborately assembled core-shell structured metal sulfides as a bifunctional catalyst for highly efficient electrochemical overall water splitting. Nano Energy, 2018, 47, 494-502.	8.2	383
100	NiOOH Exfoliation-Free Nickel Octahedra as Highly Active and Durable Electrocatalysts Toward the Oxygen Evolution Reaction in an Alkaline Electrolyte. ACS Applied Materials & Interfaces, 2018, 10, 10115-10122.	4.0	68
101	Unraveling the Beneficial Electrochemistry of IrO₂/MoO₃ Hybrid as a Highly Stable and Efficient Oxygen Evolution Reaction Catalyst. ACS Sustainable Chemistry and Engineering, 2018, 6, 4854-4862.	3.2	98
102	A structurally versatile nickel phosphite acting as a robust bifunctional electrocatalyst for overall water splitting. Energy and Environmental Science, 2018, 11, 1287-1298.	15.6	205
103	Atomar dispergierte Metallzentren in Metallâ€organischen GerÃ¼ststrukturen fÃ¼r die elektrokatalytische und photokatalytische Energieumwandlung. Angewandte Chemie, 2018, 130, 9750-9780.	1.6	58
104	CoFe Layered Double Hydroxide Supported on Graphitic Carbon Nitrides: An Efficient and Durable Bifunctional Electrocatalyst for Oxygen Evolution and Hydrogen Evolution Reactions. ACS Applied Energy Materials, 2018, 1, 1200-1209.	2.5	106
105	Microwave Reaction: A Facile Economic and Green Method to Synthesize Oxygenâ€Decorated Graphene from Carbon Cloth for Oxygen Electrocatalysis. ChemCatChem, 2018, 10, 2305-2310.	1.8	7
106	Transient Electrocatalytic Water Oxidation in Single-Nanoparticle Collision. Journal of Physical Chemistry C, 2018, 122, 6447-6455.	1.5	17
107	Hierarchical CoTe₂ Nanowire Array: An Effective Oxygen Evolution Catalyst in Alkaline Media. ACS Sustainable Chemistry and Engineering, 2018, 6, 4481-4485.	3.2	44
108	Activating CoOOH Porous Nanosheet Arrays by Partial Iron Substitution for Efficient Oxygen Evolution Reaction. Angewandte Chemie, 2018, 130, 2702-2706.	1.6	50
109	Charge-Transfer-Promoted High Oxygen Evolution Activity of Co@Co₉S₈ Coreâ€“Shell Nanochains. ACS Applied Materials & Interfaces, 2018, 10, 11565-11571.	4.0	46
110	The photo-, electro- and photoelectro-catalytic properties and application prospects of porous coordinate polymers. Journal of Materials Chemistry A, 2018, 6, 6130-6154.	5.2	66
111	Ir-Pd nanoalloys with enhanced surface-microstructure-sensitive catalytic activity for oxygen evolution reaction in acidic and alkaline media. Science China Materials, 2018, 61, 926-938.	3.5	45
112	Earthâ€Abundant Silicon for Facilitating Water Oxidation over Ironâ€Based Perovskite Electrocatalyst. Advanced Materials Interfaces, 2018, 5, 1701693.	1.9	53
113	Cobalt layered double hydroxide nanosheets synthesized in waterâ€“methanol solution as oxygen evolution electrocatalysts. Journal of Materials Chemistry A, 2018, 6, 5999-6006.	5.2	103

#	Article	IF	Citations
114	Syntheses of nickel sulfides from 1,2-bis(diphenylphosphino)ethane nickel(II)dithiolates and their application in the oxygen evolution reaction. International Journal of Hydrogen Energy, 2018, 43, 5985-5995.	3.8	18
115	Trends in activity for the oxygen evolution reaction on transition metal (M = Fe, Co, Ni) phosphide pre-catalysts. Chemical Science, 2018, 9, 3470-3476.	3.7	443
116	Fully printed and integrated electrolyzer cells with additive manufacturing for high-efficiency water splitting. Applied Energy, 2018, 215, 202-210.	5.1	69
117	Microwave-Assisted Template-Free Synthesis of Ni3(BO3)2(NOB) Hierarchical Nanoflowers for Electrocatalytic Oxygen Evolution. Energy & Fuels, 2018, 32, 6224-6233.	2.5	11
118	One-Step Facile Synthesis of Cobalt Phosphides for Hydrogen Evolution Reaction Catalysts in Acidic and Alkaline Medium. ACS Applied Materials & Interfaces, 2018, 10, 15673-15680.	4.0	76
119	Synthesis of mesoporous Co 3 O 4 nanosheet-assembled hollow spheres towards efficient electrocatalytic oxygen evolution. Journal of Alloys and Compounds, 2018, 754, 72-77.	2.8	26
120	A facile surface chemistry approach to bifunctional excellence for perovskite electrocatalysis. Nano Energy, 2018, 49, 117-125.	8.2	55
121	Freestanding Nonâ€Precious Metal Electrocatalysts for Oxygen Evolution and Reduction Reactions. ChemElectroChem, 2018, 5, 1786-1804.	1.7	32
122	Tubular Cu(OH)₂ arrays decorated with nanothorny Coâ€“Ni bimetallic carbonate hydroxide supported on Cu foam: a 3D hierarchical coreâ€“shell efficient electrocatalyst for the oxygen evolution reaction. Journal of Materials Chemistry A, 2018, 6, 10064-10073.	5.2	104
123	Boosting the oxygen evolution reaction in non-precious catalysts by structural and electronicÂengineering. Journal of Materials Chemistry A, 2018, 6, 10253-10263.	5.2	54
124	Identifying Active Sites of Nitrogenâ€Doped Carbon Materials for the CO₂ Reduction Reaction. Advanced Functional Materials, 2018, 28, 1800499.	7.8	244
125	Recent Advances in Carbonâ€Based Bifunctional Oxygen Electrocatalysts for Znâ^'Air Batteries. ChemElectroChem, 2018, 5, 1424-1434.	1.7	129
126	Advantage of semi-ionic bonding in fluorine-doped carbon materials for the oxygen evolution reaction in alkaline media. RSC Advances, 2018, 8, 14152-14156.	1.7	44
127	General Synthetic Strategy for Libraries of Supported Multicomponent Metal Nanoparticles. ACS Nano, 2018, 12, 4594-4604.	7.3	66
128	Tuning Surface Electronic Configuration of NiFe LDHs Nanosheets by Introducing Cation Vacancies (Fe or Ni) as Highly Efficient Electrocatalysts for Oxygen Evolution Reaction. Small, 2018, 14, e1800136.	5.2	341
129	Ultra-thin wrinkled NiOOHâ€“NiCr₂O₄ nanosheets on Ni foam: an advanced catalytic electrode for oxygen evolution reaction. Chemical Communications, 2018, 54, 4987-4990.	2.2	76
130	Multiâ€Anion Intercalated Layered Double Hydroxide Nanosheetâ€Assembled Hollow Nanoprisms with Improved Pseudocapacitive and Electrocatalytic Properties. Chemistry - an Asian Journal, 2018, 13, 1129-1137.	1.7	24
131	Layered Bimetallic Ironâ€“Nickel Alkoxide Microspheres as High-Performance Electrocatalysts for Oxygen Evolution Reaction in Alkaline Media. ACS Sustainable Chemistry and Engineering, 2018, 6, 6117-6125.	3.2	67

#	Article	IF	Citations
132	Novel hydrothermal electrodeposition to fabricate mesoporous film of Ni0.8Fe0.2 nanosheets for high performance oxygen evolution reaction. Applied Catalysis B: Environmental, 2018, 233, 226-233.	10.8	95
133	Hierarchically porous Mo-doped Niâ€“Fe oxide nanowires efficiently catalyzing oxygen/hydrogen evolution reactions. Journal of Materials Chemistry A, 2018, 6, 8430-8440.	5.2	65
134	Co oxide nanostructures for electrocatalytic water-oxidation: effects of dimensionality and related properties. Nanoscale, 2018, 10, 8806-8819.	2.8	56
135	Nickelâ€Borate/Reduced Graphene Oxide Nanohybrid: A Robust and Efficient Electrocatalyst for Oxygen Evolution Reaction in Alkaline and Near Neutral Media. ChemCatChem, 2018, 10, 2826-2832.	1.8	21
136	Enhanced Activity Promoted by CeO_x on a CoO_x Electrocatalyst for the Oxygen Evolution Reaction. ACS Catalysis, 2018, 8, 4257-4265.	5.5	151
137	Application of Siliconâ€Initiated Water Splitting for the Reduction of Organic Substrates. ChemPlusChem, 2018, 83, 375-382.	1.3	20
138	All binder-free electrophoresis deposition synthesis of nickel cobalt hydroxide/ultraphene and activated carbon electrodes for asymmetric supercapacitors. Electrochimica Acta, 2018, 273, 115-126.	2.6	29
139	Iron and cobalt hydroxides: Describing the oxygen evolution reaction activity trend with the amount of electrocatalyst. Electrochimica Acta, 2018, 274, 224-232.	2.6	6
140	Iron doped cobalt sulfide derived boosted electrocatalyst for water oxidation. Applied Surface Science, 2018, 448, 9-15.	3.1	56
141	Oxygen Sponges for Electrocatalysis: Oxygen Reduction/Evolution on Nonstoichiometric, Mixed Metal Oxides. Chemistry of Materials, 2018, 30, 2860-2872.	3.2	56
142	Cation-Controlled Electrocatalytical Activity of Transition-Metal Disulfides. ACS Catalysis, 2018, 8, 2774-2781.	5.5	58
143	In situ growth of NiTe nanosheet film on nickel foam as electrocatalyst for oxygen evolution reaction. Electrochemistry Communications, 2018, 88, 29-33.	2.3	63
144	Recent developments of metallic nanoparticle-graphene nanocatalysts. Progress in Materials Science, 2018, 94, 306-383.	16.0	102
145	Ironâ€Doped Nickel Phosphide Nanosheets Inâ€…Situ Grown on Nickel Submicrowires as Efficient Electrocatalysts for Oxygen Evolution Reaction. ChemCatChem, 2018, 10, 2248-2253.	1.8	24
146	High efficiency oxygen evolution reaction enabled by 3D network composed of nitrogen-doped graphitic carbon-coated metal/metal oxide heterojunctions. Electrochimica Acta, 2018, 265, 620-628.	2.6	23
147	Anion-Containing Noble-Metal-Free Bifunctional Electrocatalysts for Overall Water Splitting. ACS Catalysis, 2018, 8, 3688-3707.	5.5	245
148	Trimetallic NiFeMo for Overall Electrochemical Water Splitting with a Low Cell Voltage. ACS Energy Letters, 2018, 3, 546-554.	8.8	205
149	Hierarchical Fe-doped Ni₃Se₄ ultrathin nanosheets as an efficient electrocatalyst for oxygen evolution reaction. Nanoscale, 2018, 10, 5163-5170.	2.8	156

#	Article	IF	Citations
150	A novel strategy for preparing layered double hydroxide/exfoliated carbon nanostructures composites as superior electrochemical catalysts with respect to oxygen evolution and methanol oxidation. Journal of Alloys and Compounds, 2018, 744, 347-356.	2.8	13
151	In Situ Synthesis of Efficient Water Oxidation Catalysts in Laser-Induced Graphene. ACS Energy Letters, 2018, 3, 677-683.	8.8	91
152	A wafer-scale 1 nm Ni(OH)₂ nanosheet with superior electrocatalytic activity for the oxygen evolution reaction. Nanoscale, 2018, 10, 5054-5059.	2.8	31
153	Controlled hydrothermal synthesis of graphene supported NiCo2O4 coral-like nanostructures: An efficient electrocatalyst for overall water splitting. Applied Surface Science, 2018, 449, 203-212.	3.1	37
154	One-pot synthesis of ironâ€“nickelâ€“selenide nanorods for efficient and durable electrochemical oxygen evolution. Inorganic Chemistry Frontiers, 2018, 5, 814-818.	3.0	32
155	A review of anion-regulated multi-anion transition metal compounds for oxygen evolution electrocatalysis. Inorganic Chemistry Frontiers, 2018, 5, 521-534.	3.0	123
156	Recent Progress on Multimetal Oxide Catalysts for the Oxygen Evolution Reaction. Advanced Energy Materials, 2018, 8, 1702774.	10.2	615
157	Nickel Ditelluride Nanosheet Arrays: A Highly Efficient Electrocatalyst for the Oxygen Evolution Reaction. ChemElectroChem, 2018, 5, 1153-1158.	1.7	51
158	Oxygen Evolution Activity of Coâ€“Ni Nanochain Alloys: Promotion by Electron Injection. Chemistry - A European Journal, 2018, 24, 3707-3711.	1.7	12
159	Highly Active Trimetallic NiFeCr Layered Double Hydroxide Electrocatalysts for Oxygen Evolution Reaction. Advanced Energy Materials, 2018, 8, 1703189.	10.2	509
160	Ce-Doped NiFe-Layered Double Hydroxide Ultrathin Nanosheets/Nanocarbon Hierarchical Nanocomposite as an Efficient Oxygen Evolution Catalyst. ACS Applied Materials & Interfaces, 2018, 10, 6336-6345.	4.0	276
161	Comprehensive Understanding of the Spatial Configurations of CeO₂ in NiO for the Electrocatalytic Oxygen Evolution Reaction: Embedded or Surfaceâ€Loaded. Advanced Functional Materials, 2018, 28, 1706056.	7.8	141
162	Microwave assisted synthesis of carbon dots in ionic liquid as metal free catalyst for highly selective production of hydrogen peroxide. Carbon, 2018, 130, 544-552.	5.4	94
163	A facile co-precipitation synthesis of robust FeCo phosphate electrocatalysts for efficient oxygen evolution. Electrochimica Acta, 2018, 264, 244-250.	2.6	36
164	Activating CoOOH Porous Nanosheet Arrays by Partial Iron Substitution for Efficient Oxygen Evolution Reaction. Angewandte Chemie - International Edition, 2018, 57, 2672-2676.	7.2	474
165	Co₃O₄ and Fe_xCo_{3â€“x}O₄ Nanoparticles/Films Synthesized in a Vapor-Fed Flame Aerosol Reactor for Oxygen Evolution. ACS Applied Energy Materials, 2018, 1, 655-665.	2.5	20
166	One-Step Synthesis of Co3O4 Thin Film by Reactive Spray Deposition Technology for Efficient Electrochemical Water Splitting. MRS Advances, 2018, 3, 185-189.	0.5	2
167	Noble Metalâ€Free Nanocatalysts with Vacancies for Electrochemical Water Splitting. Small, 2018, 14, e1703323.	5.2	250

#	Article	IF	Citations
168	POM & MOFâ€based Electrocatalysts for Energyâ€related Reactions. ChemCatChem, 2018, 10, 1703-1730.	1.8	107
169	Facile Synthesis of Mesoporous and Thin-Walled Niâ€“Co Sulfide Nanotubes as Efficient Electrocatalysts for Oxygen Evolution Reaction. ACS Applied Energy Materials, 2018, 1, 495-502.	2.5	28
170	Ultrathin Co₃O₄ Nanomeshes for the Oxygen Evolution Reaction. ACS Catalysis, 2018, 8, 1913-1920.	5.5	435
171	Crystalâ€Planeâ€Dependent Activity of Spinel Co₃O₄ Towards Water Splitting and the Oxygen Reduction Reaction. ChemElectroChem, 2018, 5, 1080-1086.	1.7	47
172	Co,N-codoped nanotube/graphene 1D/2D heterostructure for efficient oxygen reduction and hydrogen evolution reactions. Journal of Materials Chemistry A, 2018, 6, 3926-3932.	5.2	136
173	Ultrathin Porous NiFeV Ternary Layer Hydroxide Nanosheets as a Highly Efficient Bifunctional Electrocatalyst for Overall Water Splitting. Small, 2018, 14, 1703257.	5.2	279
174	Polymer Brushes Ionic Liquid as a Catalyst for Oxygen Reduction and Oxygen Evolution Reactions. ACS Catalysis, 2018, 8, 869-875.	5.5	38
175	N, P Coâ€doped Hierarchical Porous Graphene as a Metalâ€Free Bifunctional Air Cathode for Znâ^'Air Batteries. ChemElectroChem, 2018, 5, 1811-1816.	1.7	19
176	Tunable Electrodeposition of Ni Electrocatalysts onto Si Microwires Array for Photoelectrochemical Water Oxidation. Particle and Particle Systems Characterization, 2018, 35, 1700321.	1.2	10
177	Nickel metalâ€“organic framework implanted on graphene and incubated to be ultrasmall nickel phosphide nanocrystals acts as a highly efficient water splitting electrocatalyst. Journal of Materials Chemistry A, 2018, 6, 1682-1691.	5.2	168
178	Measuring Proton Currents of Bioinspired Materials with Metallic Contacts. ACS Applied Materials & Interfaces, 2018, 10, 1933-1938.	4.0	17
179	Improved electrocatalytic oxygen evolution reaction properties using PVP modified direct growth Co-based metal oxides electrocatalysts on nickel foam. Electrochimica Acta, 2018, 263, 362-372.	2.6	26
181	Oriented Growth of ZIFâ€67 to Derive 2D Porous CoPO Nanosheets for Electrochemicalâ€/Photovoltageâ€Driven Overall Water Splitting. Advanced Functional Materials, 2018, 28, 1706120.	7.8	171
182	Fabrication of strong bifunctional electrocatalytically active hybrid Cuâ€“Cu₂O nanoparticles in a carbon matrix. Catalysis Science and Technology, 2018, 8, 1414-1422.	2.1	42
183	Cobalt and Iron Oxides Coâ€supported on Carbon Nanotubes as an Efficient Bifunctional Catalyst for Enhanced Electrocatalytic Activity in Oxygen Reduction and Oxygen Evolution Reactions. ChemistrySelect, 2018, 3, 207-213.	0.7	14
184	Selenization of NiMn-layered double hydroxide with enhanced electrocatalytic activity for oxygen evolution. Dalton Transactions, 2018, 47, 7492-7497.	1.6	11
185	Anionâ€Regulated Hydroxysulfide Monoliths as OER/ORR/HER Electrocatalysts and their Applications in Selfâ€Powered Electrochemical Water Splitting. Small Methods, 2018, 2, 1800055.	4.6	91
186	Electrocatalytic and pseudocapacitive properties of cobalt (hydro)oxide films on sintered metal fiber filter. Materials for Renewable and Sustainable Energy, 2018, 7, 1.	1.5	3

#	Article	IF	Citations
187	Defect-enriched iron fluoride-oxide nanoporous thin films bifunctional catalyst for water splitting. Nature Communications, 2018, 9, 1809.	5.8	188
188	Colloidal Synthesis of Moâ€“Ni Alloy Nanoparticles as Bifunctional Electrocatalysts for Efficient Overall Water Splitting. Advanced Materials Interfaces, 2018, 5, 1800359.	1.9	42
189	NiMn layered double hydroxide nanosheets/NiCo2O4 nanowires with surface rich high valence state metal oxide as an efficient electrocatalyst for oxygen evolution reaction. Journal of Power Sources, 2018, 392, 23-32.	4.0	123
190	The Flexibility of an Amorphous Cobalt Hydroxide Nanomaterial Promotes the Electrocatalysis of Oxygen Evolution Reaction. Small, 2018, 14, e1703514.	5.2	121
191	MOF-directed templating synthesis of hollow nickel-cobalt sulfide with enhanced electrocatalytic activity for oxygen evolution. International Journal of Hydrogen Energy, 2018, 43, 8815-8823.	3.8	43
192	Theoretical Insight into M₁TPyPâ€“M₂ (M₁, M₂ = Fe, Co) MOFs: Correlation between Electronic Structure and Catalytic Activity Extending to Potentiality in Capturing Flue Gases. Journal of Physical Chemistry C, 2018, 122, 9899-9908.	1.5	11
193	Metalâ€“organic framework-derived Zn_{0.975}Co_{0.025}S/CoS₂ embedded in N,S-codoped carbon nanotube/nanopolyhedra as an efficient electrocatalyst for overall water splitting. Journal of Materials Chemistry A, 2018, 6, 10441-10446.	5.2	69
194	Unconventional noble metal-free catalysts for oxygen evolution in aqueous systems. Journal of Materials Chemistry A, 2018, 6, 8147-8158.	5.2	66
195	A metal-vacancy-solid-solution NiAlP nanowall array bifunctional electrocatalyst for exceptional all-pH overall water splitting. Journal of Materials Chemistry A, 2018, 6, 9420-9427.	5.2	74
196	Strongly coupling of Co9S8/Zn-Co-S heterostructures rooted in carbon nanocages towards efficient oxygen evolution reaction. Journal of Catalysis, 2018, 361, 322-330.	3.1	68
197	Study of cobalt boride-derived electrocatalysts for overall water splitting. International Journal of Hydrogen Energy, 2018, 43, 6076-6087.	3.8	86
198	Surface engineering of FeCo-based electrocatalysts supported on carbon paper by incorporating non-noble metals for water oxidation. New Journal of Chemistry, 2018, 42, 7254-7261.	1.4	21
199	Phosphorus and Aluminum Codoped Porous NiO Nanosheets as Highly Efficient Electrocatalysts for Overall Water Splitting. ACS Energy Letters, 2018, 3, 892-898.	8.8	130
200	Preparation of electrocatalysts using a thiolâ€“amine solution processing method. Dalton Transactions, 2018, 47, 5137-5143.	1.6	5
201	MOF-derived nanohybrids for electrocatalysis and energy storage: current status and perspectives. Chemical Communications, 2018, 54, 5268-5288.	2.2	237
203	Metallophthalocyanine-based redox active metalâ€“organic conjugated microporous polymers for OER catalysis. Chemical Communications, 2018, 54, 4465-4468.	2.2	64
204	Defect-rich carbon fiber electrocatalysts with porous graphene skin for flexible solid-state zincâ€“air batteries. Energy Storage Materials, 2018, 15, 124-130.	9.5	162
205	CoMn₂O₄ embedded in MnOOH nanorods as a bifunctional catalyst for oxygen reduction and oxygen evolution reactions. Chemical Communications, 2018, 54, 4005-4008.	2.2	33

#	Article	IF	Citations
206	Regulating the Charge and Spin Ordering of Two-Dimensional Ultrathin Solids for Electrocatalytic Water Splitting. CheM, 2018, 4, 1263-1283.	5.8	219
207	Investigation on energy storage and conversion properties of multifunctional PANI-MWCNT composite. International Journal of Hydrogen Energy, 2018, 43, 7128-7139.	3.8	47
208	Graphdiyne: a superior carbon additive to boost the activity of water oxidation catalysts. Nanoscale Horizons, 2018, 3, 317-326.	4.1	116
209	Emerging Two-Dimensional Nanomaterials for Electrocatalysis. Chemical Reviews, 2018, 118, 6337-6408.	23.0	1,552
210	Nitrogen and sulfur co-doped porous carbon derived from bio-waste as a promising electrocatalyst for zinc-air battery. Energy, 2018, 143, 43-55.	4.5	98
211	Computational modelling of water oxidation catalysts. Current Opinion in Electrochemistry, 2018, 7, 22-30.	2.5	35
212	Facile and Controllable Oneâ€Pot Synthesis of Hierarchical Co₉S₈ Hollow Microspheres as Highâ€Performance Electroactive Materials for Energy Storage and Conversion. ChemElectroChem, 2018, 5, 137-143.	1.7	15
213	In Situ Antisolvent Approach to Hydrangeaâ€like HCo₃O₄â€NC@CoNiâ€LDH Core@Shell Superstructures for Highly Efficient Water Electrolysis. Chemistry - A European Journal, 2018, 24, 400-408.	1.7	21
214	In Situ Exfoliated, Nâ€Doped, and Edgeâ€Rich Ultrathin Layered Double Hydroxides Nanosheets for Oxygen Evolution Reaction. Advanced Functional Materials, 2018, 28, 1703363.	7.8	320
215	Unraveling Geometrical Site Confinement in Highly Efficient Ironâ€Doped Electrocatalysts toward Oxygen Evolution Reaction. Advanced Energy Materials, 2018, 8, 1701686.	10.2	125
216	Homogeneous electrocatalytic water oxidation at neutral pH by a robust trinuclear copper(<scp>ii</scp>)-substituted polyoxometalate. Chemical Communications, 2018, 54, 354-357.	2.2	52
217	Electrochemically Inert gâ€C₃N₄ Promotes Water Oxidation Catalysis. Advanced Functional Materials, 2018, 28, 1705583.	7.8	84
218	Applications of Phosphorene and Black Phosphorus in Energy Conversion and Storage Devices. Advanced Energy Materials, 2018, 8, 1702093.	10.2	385
219	A New Member of Electrocatalysts Based on Nickel Metaphosphate Nanocrystals for Efficient Water Oxidation. Advanced Materials, 2018, 30, 1705045.	11.1	149
220	Engineering the Surface Structure of Binary/Ternary Ferrite Nanoparticles as Highâ€Performance Electrocatalysts for the Oxygen Evolution Reaction. ChemCatChem, 2018, 10, 1075-1083.	1.8	19
221	An enhanced electrochemical energy conversion behavior of thermally treated thin film of 1-dimensional CoTe synthesized from aqueous solution at room temperature. Electrochimica Acta, 2018, 260, 365-371.	2.6	29
222	Template-free synthesis of coral-like nitrogen-doped carbon dots/Ni3S2/Ni foam composites as highly efficient electrodes for water splitting. Carbon, 2018, 129, 335-341.	5.4	55
223	Thermally oxidized porous NiO as an efficient oxygen evolution reaction (OER) electrocatalyst for electrochemical water splitting application. Journal of Industrial and Engineering Chemistry, 2018, 60, 493-497.	2.9	145

#	Article	IF	Citations
224	Mixed NiO/NiCo₂O₄ Nanocrystals Grown from the Skeleton of a 3D Porous Nickel Network as Efficient Electrocatalysts for Oxygen Evolution Reactions. ACS Applied Materials & Interfaces, 2018, 10, 417-426.	4.0	83
225	The Key Ru^V=O Intermediate of Site-Isolated Mononuclear Water Oxidation Catalyst Detected by in Situ X-ray Absorption Spectroscopy. Journal of the American Chemical Society, 2018, 140, 451-458.	6.6	83
226	Synthesis of 3D Hexagram-Like Cobaltâ€“Manganese Sulfides Nanosheets Grown on Nickel Foam: A Bifunctional Electrocatalyst for Overall Water Splitting. Nano-Micro Letters, 2018, 10, 6.	14.4	94
227	Rational design of electrocatalysts and photo(electro)catalysts for nitrogen reduction to ammonia (NH₃) under ambient conditions. Energy and Environmental Science, 2018, 11, 45-56.	15.6	1,217
228	Facile and controllable synthesis at an ionic layer level of high-performance NiFe-based nanofilm electrocatalysts for the oxygen evolution reaction in alkaline electrolyte. Electrochemistry Communications, 2018, 86, 38-42.	2.3	10
229	A low temperature hydrothermal synthesis of delafossite CuCoO₂ as an efficient electrocatalyst for the oxygen evolution reaction in alkaline solutions. Inorganic Chemistry Frontiers, 2018, 5, 183-188.	3.0	58
230	Hierarchical CoNiSe2 nano-architecture as a high-performance electrocatalyst for water splitting. Nano Research, 2018, 11, 1331-1344.	5.8	153
231	Catalyst Electronic Surface Structure Under Gas and Liquid Environments. , 2018, , 615-631.		7
232	Recent Progress on Layered Double Hydroxides and Their Derivatives for Electrocatalytic Water Splitting. Advanced Science, 2018, 5, 1800064.	5.6	515
233	Construction of an efficient hole migration pathway on hematite for efficient photoelectrochemical water oxidation. Journal of Materials Chemistry A, 2018, 6, 23478-23485.	5.2	73
234	CoO-modified Co₄N as a heterostructured electrocatalyst for highly efficient overall water splitting in neutral media. Journal of Materials Chemistry A, 2018, 6, 24767-24772.	5.2	105
235	CoO_x(OH)_y/C nanocomposites in situ derived from Na₄Co₃(PO₄)₂P₂O₇ as sustainable electrocatalysts for water splitting. Dalton Transactions, 2018, 47, 15703-15713.	1.6	24
236	Electrochemically activated Cu₂O/Co₃O₄ nanocomposites on defective carbon nanotubes for the hydrogen evolution reaction. New Journal of Chemistry, 2018, 42, 19400-19406.	1.4	14
237	Morphology and electronic structure modulation induced by fluorine doping in nickel-based heterostructures for robust bifunctional electrocatalysis. Nanoscale, 2018, 10, 20384-20392.	2.8	61
238	Ultra-fast pyrolysis of ferrocene to form Fe/C heterostructures as robust oxygen evolution electrocatalysts. Journal of Materials Chemistry A, 2018, 6, 21577-21584.	5.2	50
239	IrOOH nanosheets as acid stable electrocatalysts for the oxygen evolution reaction. Journal of Materials Chemistry A, 2018, 6, 21558-21566.	5.2	72
240	Hollow cobalt phosphide octahedral pre-catalysts with exceptionally high intrinsic catalytic activity for electro-oxidation of water and methanol. Journal of Materials Chemistry A, 2018, 6, 20646-20652.	5.2	95
241	Active site engineering by surface sulfurization for a highly efficient oxygen evolution reaction: a case study of Co₃O₄ electrocatalysts. Journal of Materials Chemistry A, 2018, 6, 22497-22502.	5.2	54

#	Article	IF	Citations
242	Active site engineering of Fe- and Ni-sites for highly efficient electrochemical overall water splitting. Journal of Materials Chemistry A, 2018, 6, 21445-21451.	5.2	68
243	N-Doped carbon shelled bimetallic phosphates for efficient electrochemical overall water splitting. Nanoscale, 2018, 10, 22787-22791.	2.8	29
244	An in situ generated amorphous CoFePi and crystalline Ni(PO₃)₂ heterojunction as an efficient electrocatalyst for oxygen evolution. Journal of Materials Chemistry A, 2018, 6, 24920-24927.	5.2	70
245	A comparative study of NiCo₂O₄ catalyst supported on Ni foam and from solution residuals fabricated by a hydrothermal approach for electrochemical oxygen evolution reaction. Chemical Communications, 2018, 54, 13151-13154.	2.2	59
246	Identification of Stabilizing High-Valent Active Sites by Operando High-Energy Resolution Fluorescence-Detected X-ray Absorption Spectroscopy for High-Efficiency Water Oxidation. Journal of the American Chemical Society, 2018, 140, 17263-17270.	6.6	92
247	Homogeneous Metal Nitrate Hydroxide Nanoarrays Grown on Nickel Foam for Efficient Electrocatalytic Oxygen Evolution. Small, 2018, 14, e1803783.	5.2	50
248	Recent advances in energy chemistry of precious-metal-free catalysts for oxygen electrocatalysis. Chinese Chemical Letters, 2018, 29, 1757-1767.	4.8	63
249	Spiky Nickel Electrodes for Electrochemical Oxygen Evolution Catalysis by Femtosecond Laser Structuring. International Journal of Electrochemistry, 2018, 2018, 1-12.	2.4	10
250	Recent Advances of Cobalt-Based Electrocatalysts for Oxygen Electrode Reactions and Hydrogen Evolution Reaction. Catalysts, 2018, 8, 559.	1.6	107
251	Understanding Synergism of Cobalt Metal and Copper Oxide toward Highly Efficient Electrocatalytic Oxygen Evolution. ACS Catalysis, 2018, 8, 12030-12040.	5.5	60
252	Comparative study of catalytic activities among transition metal-doped IrO2 nanoparticles. Scientific Reports, 2018, 8, 16777.	1.6	36
253	Activating P2-NaxCoO2 for efficient water oxidation catalysis via controlled chemical oxidation. Materials Today Chemistry, 2018, 10, 206-212.	1.7	7
254	Dissolution Stability: The Major Challenge in the Regenerative Fuel Cells Bifunctional Catalysis. Journal of the Electrochemical Society, 2018, 165, F1376-F1384.	1.3	33
255	Singleâ€Atom to Singleâ€Atom Grafting of Pt₁ onto Feï£¿N₄ Center: Pt₁@Feï£¿Nï£¿C Multifunctional Electrocatalyst with Significantly Enhanced Properties. Advanced Energy Materials, 2018, 8, 1701345.	10.2	371
256	Catalyst-Doped Anodic TiO2 Nanotubes: Binder-Free Electrodes for (Photo)Electrochemical Reactions. Catalysts, 2018, 8, 555.	1.6	30
257	Ab Initio Thermodynamics of Iridium Surface Oxidation and Oxygen Evolution Reaction. Journal of Physical Chemistry C, 2018, 122, 29350-29358.	1.5	28
258	In Situ Creation of Surface-Enhanced Raman Scattering Active Auâ€“AuO_x Nanostructures through Electrochemical Process for Pigment Detection. ACS Omega, 2018, 3, 16576-16584.	1.6	15
259	Synthesis, Thermal Stability and Electrocatalytic Activities of meso-tetrakis (5-bromothiophen-2-yl) Porphyrin and Its Cobalt and Copper Complexes. International Journal of Electrochemical Science, 2018, 13, 10233-10246.	0.5	7

#	Article	IF	Citations
260	Facile Synthesis of Gold-Supported Thin Film of Cobalt Oxide via AACVD for Enhanced Electrocatalytic Activity in Oxygen Evolution Reaction. ECS Journal of Solid State Science and Technology, 2018, 7, P711-P718.	0.9	9
261	Sulfur-Doped Dicobalt Phosphide Outperforming Precious Metals as a Bifunctional Electrocatalyst for Alkaline Water Electrolysis. Chemistry of Materials, 2018, 30, 8861-8870.	3.2	71
262	Ostwald Ripening Driven Exfoliation to Ultrathin Layered Double Hydroxides Nanosheets for Enhanced Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2018, 10, 44518-44526.	4.0	53
263	Direct Observation of Structural Evolution of Metal Chalcogenide in Electrocatalytic Water Oxidation. ACS Nano, 2018, 12, 12369-12379.	7.3	366
264	Effects of Metal Combinations on the Electrocatalytic Properties of Transition-Metal-Based Layered Double Hydroxides for Water Oxidation: A Perspective with Insights. ACS Omega, 2018, 3, 16529-16541.	1.6	42
265	Burgeoning Prospects of Spent Lithiumâ€Ion Batteries in Multifarious Applications. Advanced Energy Materials, 2018, 8, 1802303.	10.2	186
266	Highâ€Performance Liâ€CO₂ Batteries Based on Metalâ€Free Carbon Quantum Dot/Holey Graphene Composite Catalysts. Advanced Functional Materials, 2018, 28, 1804630.	7.8	121
267	Iodine-free nanocomposite gel electrolytes for quasi-solid-state dye-sensitized solar cells. Journal of Power Sources, 2018, 403, 157-166.	4.0	16
268	A three-dimensional nickelâ€“chromium layered double hydroxide micro/nanosheet array as an efficient and stable bifunctional electrocatalyst for overall water splitting. Nanoscale, 2018, 10, 19484-19491.	2.8	181
269	Bimetal Prussian Blue as a Continuously Variable Platform for Investigating the Compositionâ€“Activity Relationship of Phosphides-Based Electrocatalysts for Water Oxidation. ACS Applied Materials & Interfaces, 2018, 10, 35904-35910.	4.0	28
270	Synthesis of transition metal sulfide and reduced graphene oxide hybrids as efficient electrocatalysts for oxygen evolution reactions. Royal Society Open Science, 2018, 5, 180927.	1.1	14
271	Oxygenâ€Doped Nickel Iron Phosphide Nanocube Arrays Grown on Ni Foam for Oxygen Evolution Electrocatalysis. Small, 2018, 14, e1802204.	5.2	161
272	One-pot synthesis of graphene- cobalt hydroxide composite nanosheets (Co/G NSs) for electrocatalytic water oxidation. Scientific Reports, 2018, 8, 13772.	1.6	9
273	Niâ€“Coâ€“Sâ€“Se Alloy Nanocrystals: Influence of the Composition on Their in Situ Transformation and Electrocatalytic Activity for the Oxygen Evolution Reaction. ACS Applied Nano Materials, 2018, 1, 5753-5762.	2.4	26
274	High valence chromium regulated cobalt-iron-hydroxide for enhanced water oxidation. Journal of Power Sources, 2018, 402, 381-387.	4.0	60
275	Metal Complexes as Molecular Electrocatalysts for Water Oxidation: A Mini-Review. International Journal of Electrochemical Science, 2018, , 4601-4612.	0.5	7
276	Electrochemical Energy Conversion and Storage with Zeolitic Imidazolate Framework Derived Materials: A Perspective. ChemElectroChem, 2018, 5, 3571-3588.	1.7	46
277	Hollow Porous Heterometallic Phosphide Nanocubes for Enhanced Electrochemical Water Splitting. Small, 2018, 14, e1802442.	5.2	166

#	Article	IF	Citations
278	Integration of Znâ€“Ag and Znâ€“Air Batteries: A Hybrid Battery with the Advantages of Both. ACS Applied Materials & Interfaces, 2018, 10, 36873-36881.	4.0	70
279	Open hollow Coâ€“Pt clusters embedded in carbon nanoflake arrays for highly efficient alkaline water splitting. Journal of Materials Chemistry A, 2018, 6, 20214-20223.	5.2	42
281	The CoMo-LDH ultrathin nanosheet as a highly active and bifunctional electrocatalyst for overall water splitting. Inorganic Chemistry Frontiers, 2018, 5, 2964-2970.	3.0	76
282	Electrocatalytic Properties of (100)-, (110)-, and (111)-Oriented NiO Thin Films toward the Oxygen Evolution Reaction. Journal of Physical Chemistry C, 2018, 122, 22252-22263.	1.5	33
283	Bimetallic Hofmann-Type Metalâ€“Organic Framework Nanoparticles for Efficient Electrocatalysis of Oxygen Evolution Reaction. ACS Applied Energy Materials, 0, , .	2.5	22
284	Cobalt-doped MnO2 ultrathin nanosheets with abundant oxygen vacancies supported on functionalized carbon nanofibers for efficient oxygen evolution. Nano Energy, 2018, 54, 129-137.	8.2	182
285	Ce-Directed Double-Layered Nanosheet Architecture of NiFe-Based Hydroxide as Highly Efficient Water Oxidation Electrocatalyst. ACS Sustainable Chemistry and Engineering, 2018, 6, 15411-15418.	3.2	32
286	2D Metal Organic Frameworkâ€Graphitic Carbon Nanocomposites as Precursors for Highâ€Performance O₂â€Evolution Electrocatalysts. Advanced Energy Materials, 2018, 8, 1802404.	10.2	43
287	Computational Investigation of the Oxygen Evolution Reaction Catalyzed by Nickel (Oxy)hydroxide Complexes. Journal of Physical Chemistry C, 2018, 122, 25785-25795.	1.5	8
288	Engineering Mesoporous NiO with Enriched Electrophilic Ni3+ and Oâ^' toward Efficient Oxygen Evolution. Catalysts, 2018, 8, 310.	1.6	25
289	Promise and Challenge of Phosphorus in Science, Technology, and Application. Advanced Functional Materials, 2018, 28, 1803471.	7.8	65
290	Ï€â€Conjugated Organicâ€“Inorganic Hybrid Photoanodes: Revealing the Photochemical Behavior through In Situ Xâ€Ray Absorption Spectroscopy. Chemistry - A European Journal, 2018, 24, 18419-18423.	1.7	1
291	Influences of core morphology on electrocapacitive performance of NiCo2O4-based core/shell electrodes. Thin Solid Films, 2018, 667, 69-75.	0.8	11
292	Defining Nafion Ionomer Roles for Enhancing Alkaline Oxygen Evolution Electrocatalysis. ACS Catalysis, 2018, 8, 11688-11698.	5.5	75
293	gâ€C₃N₄/CeO₂/Fe₃O₄ Ternary Composite as an Efficient Bifunctional Catalyst for Overall Water Splitting. ChemCatChem, 2018, 10, 5587-5592.	1.8	37
294	Catalyst or Precatalyst? The Effect of Oxidation on Transition Metal Carbide, Pnictide, and Chalcogenide Oxygen Evolution Catalysts. ACS Energy Letters, 2018, 3, 2956-2966.	8.8	309
295	Interfacial Interaction between FeOOH and Niâ€“Fe LDH to Modulate the Local Electronic Structure for Enhanced OER Electrocatalysis. ACS Catalysis, 2018, 8, 11342-11351.	5.5	414
296	Constructing NiCo/Fe₃O₄ Heteroparticles within MOF-74 for Efficient Oxygen Evolution Reactions. Journal of the American Chemical Society, 2018, 140, 15336-15341.	6.6	310

#	Article	IF	Citations
298	Ultrathin 2D Cobalt Zeoliteâ€Imidazole Framework Nanosheets for Electrocatalytic Oxygen Evolution. Advanced Science, 2018, 5, 1801029.	5.6	92
299	An Efficient Family of Misfitâ€Layered Calcium Cobalt Oxide Catalyst for Oxygen Evolution Reaction. Advanced Materials Interfaces, 2018, 5, 1801281.	1.9	16
300	Rational Design of Dodecahedral MnCo₂O_{4.5} Hollowedâ€Out Nanocages as Efficient Bifunctional Electrocatalysts for Oxygen Reduction and Evolution. Advanced Energy Materials, 2018, 8, 1802390.	10.2	63
301	Electrocatalytic Water Oxidation at Quinone-on-Carbon: A Model System Study. Journal of the American Chemical Society, 2018, 140, 14717-14724.	6.6	48
302	Plasmaâ€Triggered Synergy of Exfoliation, Phase Transformation, and Surface Engineering in Cobalt Diselenide for Enhanced Water Oxidation. Angewandte Chemie - International Edition, 2018, 57, 16421-16425.	7.2	120
303	Ï€â€Conjugated Molecule Boosts Metalâ€“Organic Frameworks as Efficient Oxygen Evolution Reaction Catalysts. Small, 2018, 14, e1803576.	5.2	94
304	Activating the MoS₂ Basal Plane by Controllable Fabrication of Pores for an Enhanced Hydrogen Evolution Reaction. Chemistry - A European Journal, 2018, 24, 19075-19080.	1.7	17
305	Direct chemical synthesis of ultrathin holey iron doped cobalt oxide nanosheets on nickel foam for oxygen evolution reaction. Nano Energy, 2018, 54, 238-250.	8.2	114
306	Twoâ€Dimensional Layered Hydroxide Nanoporous Nanohybrids Pillared with Zeroâ€Dimensional Polyoxovanadate Nanoclusters for Enhanced Water Oxidation Catalysis. Small, 2018, 14, e1703481.	5.2	33
307	Scalable Dealloying Route to Mesoporous Ternary CoNiFe Layered Double Hydroxides for Efficient Oxygen Evolution. ACS Sustainable Chemistry and Engineering, 2018, 6, 16096-16104.	3.2	59
308	Ultrathin Nitrogenâ€Doped Holey Carbon@Graphene Bifunctional Electrocatalyst for Oxygen Reduction and Evolution Reactions in Alkaline and Acidic Media. Angewandte Chemie, 2018, 130, 16749-16753.	1.6	49
309	Ultrathin Nitrogenâ€Doped Holey Carbon@Graphene Bifunctional Electrocatalyst for Oxygen Reduction and Evolution Reactions in Alkaline and Acidic Media. Angewandte Chemie - International Edition, 2018, 57, 16511-16515.	7.2	261
310	Plasmaâ€Triggered Synergy of Exfoliation, Phase Transformation, and Surface Engineering in Cobalt Diselenide for Enhanced Water Oxidation. Angewandte Chemie, 2018, 130, 16659-16663.	1.6	31
311	Chalcogenides and Carbon Nanostructures: Great Applications for PEM Fuel Cells. , 0, , .		2
312	Two-dimensional titanium oxide nanosheets rich in titanium vacancies as an efficient cocatalyst for photocatalytic water oxidation. Journal of Catalysis, 2018, 367, 296-305.	3.1	24
313	Engineering Ni(OH)₂ Nanosheet on CoMoO₄ Nanoplate Array as Efficient Electrocatalyst for Oxygen Evolution Reaction. ACS Sustainable Chemistry and Engineering, 2018, 6, 16086-16095.	3.2	64
314	A Porous FeCuNi-Based Electrocatalyst Supported by Nickel Foam for Oxygen Evolution Reaction in Alkaline Conditions. Journal of the Electrochemical Society, 2018, 165, F1127-F1132.	1.3	7
315	Dynamic Migration of Surface Fluorine Anions on Cobaltâ€Based Materials to Achieve Enhanced Oxygen Evolution Catalysis. Angewandte Chemie, 2018, 130, 15697-15701.	1.6	11

#	Article	IF	Citations
316	Oxidative Deposition of Manganese Oxide Nanosheets on Nitrogen-Functionalized Carbon Nanotubes Applied in the Alkaline Oxygen Evolution Reaction. ACS Omega, 2018, 3, 11216-11226.	1.6	31
317	Recent advances in nanostructured metal nitrides for water splitting. Journal of Materials Chemistry A, 2018, 6, 19912-19933.	5.2	392
318	A hierarchical CoTe₂â€“MnTe₂ hybrid nanowire array enables high activity for oxygen evolution reactions. Chemical Communications, 2018, 54, 10993-10996.	2.2	125
319	Tunable nano-interfaces between MnO_x and layered double hydroxides boost oxygen evolving electrocatalysis. Journal of Materials Chemistry A, 2018, 6, 21918-21926.	5.2	29
320	Cobaltâ€Based Metalâ€“Organic Framework Nanoarrays as Bifunctional Oxygen Electrocatalysts for Rechargeable Znâ€Air Batteries. Chemistry - A European Journal, 2018, 24, 18413-18418.	1.7	60
321	An active oxygen reduction electrocatalyst derived from bio-inspired tannic acid-Fe assembly. Materials Research Express, 2018, 5, 095505.	0.8	1
322	Metal-organic frameworks and their derivatives as bifunctional electrocatalysts. Coordination Chemistry Reviews, 2018, 376, 430-448.	9.5	175
323	An Operando-Raman study on oxygen evolution of manganese oxides: Roles of phase composition and amorphization. Journal of Catalysis, 2018, 367, 53-61.	3.1	33
324	Grafting Cobalt Diselenide on Defective Graphene for Enhanced Oxygen Evolution Reaction. IScience, 2018, 7, 145-153.	1.9	39
325	Emerging Materials in Heterogeneous Electrocatalysis Involving Oxygen for Energy Harvesting. ACS Applied Materials & Interfaces, 2018, 10, 33737-33767.	4.0	52
326	MOF-derived Mn doped porous CoP nanosheets as efficient and stable bifunctional electrocatalysts for water splitting. Dalton Transactions, 2018, 47, 14679-14685.	1.6	98
327	Structural engineering of transition metal-based nanostructured electrocatalysts for efficient water splitting. Frontiers of Chemical Science and Engineering, 2018, 12, 838-854.	2.3	40
328	In situ formation of consubstantial NiCo2S4 nanorod arrays toward self-standing electrode for high activity supercapacitors and overall water splitting. Journal of Power Sources, 2018, 402, 116-123.	4.0	70
329	Rice-shape nanocrystalline Ni5P4: A promising bifunctional electrocatalyst for hydrogen evolution reaction and oxygen evolution reaction. Inorganic Chemistry Communication, 2018, 97, 98-102.	1.8	23
330	Phase and Morphology Transformation of MnO₂ Induced by Ionic Liquids toward Efficient Water Oxidation. ACS Catalysis, 2018, 8, 10137-10147.	5.5	102
331	Mixed-Node Metalâ€“Organic Frameworks as Efficient Electrocatalysts for Oxygen Evolution Reaction. ACS Energy Letters, 2018, 3, 2520-2526.	8.8	252
333	Coupling FeSe₂ with CoSe: an effective strategy to create stable and efficient electrocatalysts for water oxidation. Chemical Communications, 2018, 54, 11140-11143.	2.2	57
334	Layered Double Hydroxideâ€Based Catalysts: Recent Advances in Preparation, Structure, and Applications. Advanced Functional Materials, 2018, 28, 1802943.	7.8	317

#	Article	IF	Citations
335	A Universal Strategy to Design Superior Waterâ€Splitting Electrocatalysts Based on Fast In Situ Reconstruction of Amorphous Nanofilm Precursors. Advanced Materials, 2018, 30, e1804333.	11.1	108
336	Alkaline Water Electrolysis by NiZn-Double Hydroxide-Derived Porous Nickel Selenide-Nitrogen-Doped Graphene Composite. ACS Applied Energy Materials, 0, , .	2.5	8
337	Synthesis of urchin-like Co₃O₄spheres for application in oxygen evolution reaction. Nanotechnology, 2018, 29, 485403.	1.3	13
338	Dynamic Migration of Surface Fluorine Anions on Cobaltâ€Based Materials to Achieve Enhanced Oxygen Evolution Catalysis. Angewandte Chemie - International Edition, 2018, 57, 15471-15475.	7.2	178
339	Metalâ€“Oxygen Hybridization Determined Activity in Spinel-Based Oxygen Evolution Catalysts: A Case Study of ZnFe_{2â€“x}Cr_xO₄. Chemistry of Materials, 2018, 30, 6839-6848.	3.2	65
340	Self-Supported Hydrous Iridiumâ€“Nickel Oxide Two-Dimensional Nanoframes for High Activity Oxygen Evolution Electrocatalysts. ACS Catalysis, 2018, 8, 10498-10520.	5.5	103
341	Fe₂O₃â€Nâ€doped Honeycombâ€like Porous Carbon Derived from Nature Silk Sericin as Electrocatalysts for Oxygen Evolution Reaction. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2018, 644, 1103-1107.	0.6	11
342	Modulating Electronic Structure of Metalâ€Organic Framework for Efficient Electrocatalytic Oxygen Evolution. Advanced Energy Materials, 2018, 8, 1801564.	10.2	240
343	A Facile Strategy to Construct Amorphous Spinelâ€Based Electrocatalysts with Massive Oxygen Vacancies Using Ionic Liquid Dopant. Advanced Energy Materials, 2018, 8, 1800980.	10.2	156
344	Recent Advances in Materials and Design of Electrochemically Rechargeable Zincâ€“Air Batteries. Small, 2018, 14, e1801929.	5.2	192
345	Solid solution nitride/carbon nanotube hybrids enhance electrocatalysis of oxygen in zinc-air batteries. Energy Storage Materials, 2018, 15, 380-387.	9.5	32
346	Synthesis and electrochemical analysis of novel IrO2 nanoparticle catalysts supported on carbon nanotube for oxygen evolution reaction. International Journal of Hydrogen Energy, 2018, 43, 18095-18104.	3.8	48
347	3D N-doped carbon framework with embedded CoS nanoparticles as highly active and durable oxygen reduction and evolution electrocatalyst. Nanotechnology, 2018, 29, 465402.	1.3	13
348	Graphitic carbon nitride-carbon nanofiber as oxygen catalyst in anion-exchange membrane water electrolyzer and rechargeable metalâ€“air cells. Applied Catalysis B: Environmental, 2018, 237, 140-148.	10.8	62
349	NiSeâ€Ni_{0.85}Se Heterostructure Nanoflake Arrays on Carbon Paper as Efficient Electrocatalysts for Overall Water Splitting. Small, 2018, 14, e1800763.	5.2	185
350	Facet effect of Co3O4 nanocrystals on visible-light driven water oxidation. Applied Catalysis B: Environmental, 2018, 237, 74-84.	10.8	88
351	Polyrhodanine/NiFe2 O4 nanocomposite: A novel electrocatalyst for hydrazine oxidation reaction. International Journal of Hydrogen Energy, 2018, 43, 11244-11252.	3.8	21
352	Cobalt carbonate hydroxide mesostructure with high surface area for enhanced electrocatalytic oxygen evolution. International Journal of Hydrogen Energy, 2018, 43, 9635-9643.	3.8	24

#	Article	IF	Citations
353	Synergy between Fe and Ni in the optimal performance of (Ni,Fe)OOH catalysts for the oxygen evolution reaction. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 5872-5877.	3.3	380
354	Transition Metal Oxides as Electrocatalysts for the Oxygen Evolution Reaction in Alkaline Solutions: An Application-Inspired Renaissance. Journal of the American Chemical Society, 2018, 140, 7748-7759.	6.6	1,157
355	Electrochemical oxygen evolution reaction catalyzed by a novel nickelâ€“cobalt-fluoride catalyst. Chemical Communications, 2018, 54, 6204-6207.	2.2	77
356	Twoâ€Step Synthesis of Cobalt Iron Alloy Nanoparticles Embedded in Nitrogenâ€Doped Carbon Nanosheets/Carbon Nanotubes for the Oxygen Evolution Reaction. ChemSusChem, 2018, 11, 2358-2366.	3.6	41
357	Metal phosphonate coordination networks and frameworks as precursors of electrocatalysts for the hydrogen and oxygen evolution reactions. Journal of Nanoparticle Research, 2018, 20, 1.	0.8	17
358	Borate-ion intercalated Ni Fe layered double hydroxide to simultaneously boost mass transport and charge transfer for catalysis of water oxidation. Journal of Colloid and Interface Science, 2018, 528, 36-44.	5.0	50
359	Electronic and Defective Engineering of Electrospun CaMnO₃ Nanotubes for Enhanced Oxygen Electrocatalysis in Rechargeable Zincâ€“Air Batteries. Advanced Energy Materials, 2018, 8, 1800612.	10.2	234
360	Ultrathin Amorphous Ironâ€“Nickel Boride Nanosheets for Highly Efficient Electrocatalytic Oxygen Production. Chemistry - A European Journal, 2018, 24, 18502-18511.	1.7	82
361	Mesoporous Hollow Nitrogen-Doped Carbon Nanospheres with Embedded MnFe₂O₄/Fe Hybrid Nanoparticles as Efficient Bifunctional Oxygen Electrocatalysts in Alkaline Media. ACS Applied Materials & Interfaces, 2018, 10, 20440-20447.	4.0	73
362	Surface Polarons Reducing Overpotentials in the Oxygen Evolution Reaction. ACS Catalysis, 2018, 8, 5847-5851.	5.5	37
363	Efficient Co@CoP_x coreâ€“shell nanochains catalyst for the oxygen evolution reaction. Inorganic Chemistry Frontiers, 2018, 5, 1844-1848.	3.0	9
364	Recent Advances in Novel Nanostructuring Methods of Perovskite Electrocatalysts for Energyâ€Related Applications. Small Methods, 2018, 2, 1800071.	4.6	285
365	Immobilization of an Amphiphilic Molecular Cobalt Catalyst on Carbon Black for Ligand-Assisted Water Oxidation. Inorganic Chemistry, 2018, 57, 9748-9756.	1.9	18
366	Enhancing Oxygen Evolution Electrocatalysis via the Intimate Hydroxideâ€“Oxide Interface. ACS Nano, 2018, 12, 6245-6251.	7.3	123
367	Water oxidation: From mechanisms to limitations. Current Opinion in Electrochemistry, 2018, 9, 278-284.	2.5	46
368	Engineering Morphologies of Cobalt Pyrophosphates Nanostructures toward Greatly Enhanced Electrocatalytic Performance of Oxygen Evolution Reaction. Small, 2018, 14, e1801068.	5.2	45
369	Facile, Room Temperature, Electroless Deposited (Fe_{1â^'}_x_,Mn_x)OOH Nanosheets as Advanced Catalysts: The Role of Mn Incorporation. Small, 2018, 14, e1801226.	5.2	54
370	A 3D electrode of core@shell branched nanowire TiN@Ni0.27Co2.73O4 arrays for enhanced oxygen evolution reaction. Applied Materials Today, 2018, 12, 276-282.	2.3	9

#	Article	IF	Citations
371	Binary Transition-Metal Oxide Hollow Nanoparticles for Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2018, 10, 24715-24724.	4.0	60
372	Solvent-induced surface hydroxylation of a layered perovskite Sr₃FeCoO_{7â^Î´} for enhanced oxygen evolution catalysis. Journal of Materials Chemistry A, 2018, 6, 14240-14245.	5.2	15
373	Orienting Active Crystal Planes of New Class Lacunaris Fe₂PO₅ Polyhedrons for Robust Water Oxidation in Alkaline and Neutral Media. Advanced Functional Materials, 2018, 28, 1801397.	7.8	30
374	Constructing self-standing and non-precious metal heterogeneous nanowire arrays as high-performance oxygen evolution electrocatalysts: Beyond the electronegativity effect of the substrate. Journal of Power Sources, 2018, 396, 421-428.	4.0	12
375	Improving Electrocatalysts for Oxygen Evolution Using Ni_xFe_{3â€“x}O₄/Ni Hybrid Nanostructures Formed by Solvothermal Synthesis. ACS Energy Letters, 2018, 3, 1698-1707.	8.8	132
376	Facile synthesis of silver nanowire-zeolitic imidazolate framework 67 composites as high-performance bifunctional oxygen catalysts. Nanoscale, 2018, 10, 15755-15762.	2.8	44
377	Mass production of Nickel@Carbon nanoparticles attached on single-walled carbon nanotube networks as highly efficient water splitting electrocatalyst. International Journal of Hydrogen Energy, 2018, 43, 15687-15692.	3.8	12
378	Surface Sulfurization of NiCo-Layered Double Hydroxide Nanosheets Enable Superior and Durable Oxygen Evolution Electrocatalysis. ACS Applied Energy Materials, 2018, 1, 4040-4049.	2.5	71
379	A Polyimide Nanolayer as a Metalâ€Free and Durable Organic Electrode Toward Highly Efficient Oxygen Evolution. Angewandte Chemie - International Edition, 2018, 57, 12563-12566.	7.2	36
380	Hierarchical NiMo Phosphide Nanosheets Strongly Anchored on Carbon Nanotubes as Robust Electrocatalysts for Overall Water Splitting. ACS Applied Materials & Interfaces, 2018, 10, 29647-29655.	4.0	82
381	1D/1D Hierarchical Nickel Sulfide/Phosphide Nanostructures for Electrocatalytic Water Oxidation. ACS Energy Letters, 2018, 3, 2021-2029.	8.8	93
382	Construction of Single-Crystalline Prussian Blue Analog Hollow Nanostructures with Tailorable Topologies. CheM, 2018, 4, 1967-1982.	5.8	145
383	Beneficial effect of Fe addition on the catalytic activity of electrodeposited MnOx films in the water oxidation reaction. Electrochimica Acta, 2018, 284, 294-302.	2.6	13
384	One step synthesis of Fe4.4Ni17.6Se16 coupled NiSe foam as self-supported, highly efficient and durable oxygen evolution electrode. Materials Today Chemistry, 2018, 9, 133-139.	1.7	10
385	Cobalt Sulfide/Nickel Sulfide Heterostructure Directly Grown on Nickel Foam: An Efficient and Durable Electrocatalyst for Overall Water Splitting Application. ACS Applied Materials & Interfaces, 2018, 10, 27712-27722.	4.0	269
386	Phase Exploration and Identification of Multinary Transition-Metal Selenides as High-Efficiency Oxygen Evolution Electrocatalysts through Combinatorial Electrodeposition. ACS Catalysis, 2018, 8, 8273-8289.	5.5	76
387	Direct Chemical Synthesis of Lithium Sub-Stochiometric Olivine Li_{0.7}Co_{0.75}Fe_{0.25}PO₄ Coated with Reduced Graphene Oxide as Oxygen Evolution Reaction Electrocatalyst. ACS Catalysis, 2018, 8, 8715-8725.	5.5	19
388	Review of electrical energy storage technologies, materials and systems: challenges and prospects for large-scale grid storage. Energy and Environmental Science, 2018, 11, 2696-2767.	15.6	1,467

#	Article	IF	Citations
389	Efficient and Stable NiCo₂O₄/VN Nanoparticle Catalyst for Electrochemical Water Oxidation. ACS Sustainable Chemistry and Engineering, 2018, 6, 11473-11479.	3.2	41
390	Host-Guest Engineering of Layered Double Hydroxides towards Efficient Oxygen Evolution Reaction: Recent Advances and Perspectives. Catalysts, 2018, 8, 214.	1.6	21
391	Heterolayered 2D nanohybrids of uniformly stacked transition metal dichalcogenideâ€“transition metal oxide monolayers with improved energy-related functionalities. Journal of Materials Chemistry A, 2018, 6, 15237-15244.	5.2	33
392	Nickel-Doped Sodium Cobaltite 2D Nanomaterials: Synthesis and Electrocatalytic Properties. Chemistry of Materials, 2018, 30, 4986-4994.	3.2	17
393	Engineering Two-Dimensional Mass-Transport Channels of the MoS₂ Nanocatalyst toward Improved Hydrogen Evolution Performance. ACS Applied Materials & Interfaces, 2018, 10, 25409-25414.	4.0	23
394	Potassium vanadates with stable structure and fast ion diffusion channel as cathode for rechargeable aqueous zinc-ion batteries. Nano Energy, 2018, 51, 579-587.	8.2	425
395	Tailored transition metal-doped nickel phosphide nanoparticles for the electrochemical oxygen evolution reaction (OER). Chemical Communications, 2018, 54, 8630-8633.	2.2	73
396	Performance-Enhanced Activated Carbon Electrodes for Supercapacitors Combining Both Graphene-Modified Current Collectors and Graphene Conductive Additive. Materials, 2018, 11, 799.	1.3	11
397	Nickel oxideâ€“polypyrrole nanocomposite electrode materials for electrocatalytic water oxidation. Catalysis Science and Technology, 2018, 8, 4030-4043.	2.1	20
398	NiO hollow microspheres as efficient bifunctional electrocatalysts for Overall Water-Splitting. International Journal of Hydrogen Energy, 2018, 43, 21665-21674.	3.8	72
399	Electronic modulation of carbon-encapsulated NiSe composites via Fe doping for synergistic oxygen evolution. Chemical Communications, 2018, 54, 9075-9078.	2.2	26
400	Role of cobaltâ€“iron (oxy)hydroxide (CoFeO_x) as oxygen evolution catalyst on hematite photoanodes. Energy and Environmental Science, 2018, 11, 2972-2984.	15.6	120
401	Cobalt/Iron(Oxides) Heterostructures for Efficient Oxygen Evolution and Benzyl Alcohol Oxidation Reactions. ACS Energy Letters, 2018, 3, 1854-1860.	8.8	86
402	Ultrasonication-assisted synthesis of ternary-component Ni₃Al_xFe_{1â^'x}-layered double hydroxide nanoparticles for the oxygen evolution reaction in a neutral solution. New Journal of Chemistry, 2018, 42, 13963-13970.	1.4	19
403	Investigation on the electrode design of hybrid Zn-Co3O4/air batteries for performance improvements. Electrochimica Acta, 2018, 283, 1028-1036.	2.6	42
404	Boosting the oxygen evolution reaction performance of CoS₂ microspheres by subtle ionic liquid modification. Chemical Communications, 2018, 54, 8765-8768.	2.2	49
405	MnO_x/IrO_x as Selective Oxygen Evolution Electrocatalyst in Acidic Chloride Solution. Journal of the American Chemical Society, 2018, 140, 10270-10281.	6.6	245
406	Cobalt Oxide Materials for Oxygen Evolution Catalysis via Singleâ€Source Precursor Chemistry. Chemistry - A European Journal, 2018, 24, 13890-13896.	1.7	7

#	Article	IF	Citations
407	Oxygen evolution catalytic performance of quantum dot nickel-iron double hydroxide/reduced graphene oxide composites. Materials Letters, 2018, 231, 24-27.	1.3	16
408	Exploiting Sunâ€™s Energy Effectively as a Source of Renewable Energy. Resonance, 2018, 23, 355-369.	0.2	0
409	A multilayer assembly of two mixed-valence Mn16-containing polyanions and study of their electrocatalytic activities towards water oxidation. Dalton Transactions, 2018, 47, 7282-7289.	1.6	11
410	DFT study on water oxidation on nitrogen-doped ceria oxide. Applied Surface Science, 2018, 452, 423-428.	3.1	17
411	Crystal Structure-dependent Thermal Stability and Catalytic Performance of AuRu3 Solid-solution Alloy Nanoparticles. Chemistry Letters, 2018, 47, 559-561.	0.7	8
412	Molybdenum and Niobium Codoped B-Site-Ordered Double Perovskite Catalyst for Efficient Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2018, 10, 16939-16942.	4.0	39
413	Nanocomposites Based on CoSe₂-Decorated FeSe₂ Nanoparticles Supported on Reduced Graphene Oxide as High-Performance Electrocatalysts toward Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2018, 10, 19258-19270.	4.0	147
414	Effect of Intrinsic Properties of Anions on the Electrocatalytic Activity of NiCo₂O₄ and NiCo₂O_xS_{4â€“x} Grown by Chemical Bath Deposition. ACS Omega, 2018, 3, 9066-9074.	1.6	17
415	Boosting the electrochemical water oxidation reaction of hierarchical nanoarrays through NiFe-oxides/Ag heterointerfaces. Chemical Communications, 2018, 54, 10187-10190.	2.2	18
416	Single Co Atoms Anchored in Porous N-Doped Carbon for Efficient Zincâ“Air Battery Cathodes. ACS Catalysis, 2018, 8, 8961-8969.	5.5	364
417	Graphite-graphene architecture stabilizing ultrafine Co3O4 nanoparticles for superior oxygen evolution. Carbon, 2018, 140, 17-23.	5.4	20
418	Low Loading of Rh_xP and RuP on N, P Codoped Carbon as Two Trifunctional Electrocatalysts for the Oxygen and Hydrogen Electrode Reactions. Advanced Energy Materials, 2018, 8, 1801478.	10.2	173
419	Study of the Active Sites in Porous Nickel Oxide Nanosheets by Manganese Modulation for Enhanced Oxygen Evolution Catalysis. ACS Energy Letters, 2018, 3, 2150-2158.	8.8	131
420	Surface Modified Carbon Cloth via Nitrogen Plasma for Supercapacitor Applications. Journal of the Electrochemical Society, 2018, 165, A2446-A2450.	1.3	32
421	Multi-Tasking POM Systems. Frontiers in Chemistry, 2018, 6, 365.	1.8	22
422	Heteroatom-doped carbon nanospheres derived from cuttlefish ink: A bifunctional electrocatalyst for oxygen reduction and evolution. International Journal of Hydrogen Energy, 2018, 43, 17708-17717.	3.8	27
423	Electrocatalysts based on metal@carbon core@shell nanocomposites: AnÂoverview. Green Energy and Environment, 2018, 3, 335-351.	4.7	75
424	FeCo/FeCoP_xO_y(OH)_z as Bifunctional Electrodeposited-Film Electrodes for Overall Water Splitting. ACS Applied Energy Materials, 0, , .	2.5	3

#	Article	IF	Citations
425	Recent developments in metal phosphide and sulfide electrocatalysts for oxygen evolution reaction. Chinese Journal of Catalysis, 2018, 39, 1575-1593.	6.9	205
426	Rotating ring-disk electrode as a quantitative tool for the investigation of the oxygen evolution reaction. Electrochimica Acta, 2018, 286, 304-312.	2.6	25
427	Operando Spectroscopic Identification of Active Sites in NiFe Prussian Blue Analogues as Electrocatalysts: Activation of Oxygen Atoms for Oxygen Evolution Reaction. Journal of the American Chemical Society, 2018, 140, 11286-11292.	6.6	328
428	Layered franckeite and teallite intrinsic heterostructures: shear exfoliation and electrocatalysis. Journal of Materials Chemistry A, 2018, 6, 16590-16599.	5.2	18
429	A Review of Preciousâ€Metalâ€Free Bifunctional Oxygen Electrocatalysts: Rational Design and Applications in Znâ^'Air Batteries. Advanced Functional Materials, 2018, 28, 1803329.	7.8	524
430	A Polyimide Nanolayer as a Metalâ€Free and Durable Organic Electrode Toward Highly Efficient Oxygen Evolution. Angewandte Chemie, 2018, 130, 12743-12746.	1.6	9
431	Freeâ€Sustaining Threeâ€Dimensional S235 Steelâ€Based Porous Electrocatalyst for Highly Efficient and Durable Oxygen Evolution. ChemSusChem, 2018, 11, 3661-3671.	3.6	24
432	Coupling of Nickel Boride and Ni(OH)₂ Nanosheets with Hierarchical Interconnected Conductive Porous Structure Synergizes the Oxygen Evolution Reaction. ChemCatChem, 2018, 10, 4555-4561.	1.8	23
433	Electrochemical oxygen evolution reaction efficiently boosted by thermal-driving coreâ€“shell structure formation in nanostructured FeNi/S, N-doped carbon hybrid catalyst. Nanoscale, 2018, 10, 16911-16918.	2.8	70
434	Reactive template-induced coreâ€“shell FeCo@C microspheres as multifunctional electrocatalysts for rechargeable zincâ€“air batteries. Nanoscale, 2018, 10, 17021-17029.	2.8	51
435	In Situ Grown Bimetallic MOFâ€Based Composite as Highly Efficient Bifunctional Electrocatalyst for Overall Water Splitting with Ultrastability at High Current Densities. Advanced Energy Materials, 2018, 8, 1801065.	10.2	239
436	Ultrathin porous nanosheet-assembled hollow cobalt nickel oxide microspheres with optimized compositions for efficient oxygen evolution reaction. Inorganic Chemistry Frontiers, 2018, 5, 1886-1893.	3.0	21
437	Direct Growth of CoFe₂ Alloy Strongly Coupling and Oxygenâ€Vacancyâ€Rich CoFe₂O₄ Porous Hollow Nanofibers: an Efficient Electrocatalyst for Oxygen Evolution Reaction. Energy Technology, 2018, 6, 2350-2357.	1.8	17
438	Structural properties of tungsten-doped cobalt molybdate and its application in electrochemical oxygen evolution reaction. Journal of Materials Science: Materials in Electronics, 2018, 29, 13103-13111.	1.1	28
439	Emerging opportunities for electrochemical processing to enable sustainable chemical manufacturing. Current Opinion in Chemical Engineering, 2018, 20, 159-167.	3.8	66
440	Formation of Tiâ€“Fe mixed sulfide nanoboxes for enhanced electrocatalytic oxygen evolution. Journal of Materials Chemistry A, 2018, 6, 21891-21895.	5.2	27
441	MOF-derived metal/carbon materials as oxygen evolution reaction catalysts. Inorganic Chemistry Communication, 2018, 94, 57-74.	1.8	52
442	Monitoring the Hydrothermal Growth of Cobalt Spinel Water Oxidation Catalysts: From Preparative History to Catalytic Activity. Chemistry - A European Journal, 2018, 24, 18424-18435.	1.7	13

#	Article	IF	Citations
443	Hierarchical cobalt sulfide with vertical in-plane edge structure for enhanced electrocatalytic oxygen evolution reaction. Electrochimica Acta, 2018, 281, 348-356.	2.6	28
444	Electrochemical Hydrogen Evolution Reaction Efficiently Catalyzed by Ru₂P Nanoparticles. ChemSusChem, 2018, 11, 2724-2729.	3.6	93
445	Nanostructured FeNi₃ Incorporated with Carbon Doped with Multiple Nonmetal Elements for the Oxygen Evolution Reaction. ChemSusChem, 2018, 11, 2703-2709.	3.6	75
446	Porous Organic Polymer-Derived Carbon Composite as a Bimodal Catalyst for Oxygen Evolution Reaction and Nitrophenol Reduction. ACS Omega, 2018, 3, 6251-6258.	1.6	36
447	Cobalt Nanoparticles/Black Phosphorus Nanosheets: An Efficient Catalyst for Electrochemical Oxygen Evolution. Advanced Science, 2018, 5, 1800575.	5.6	102
448	Photoelectrocatalytic Materials for Solar Water Splitting. Advanced Energy Materials, 2018, 8, 1800210.	10.2	364
449	Self-Supported Earth-Abundant Nanoarrays as Efficient and Robust Electrocatalysts for Energy-Related Reactions. ACS Catalysis, 2018, 8, 6707-6732.	5.5	320
450	AÂsurface-modified antiperovskite asÂan electrocatalyst for water oxidation. Nature Communications, 2018, 9, 2326.	5.8	87
451	A hierarchical nickelâ€“carbon structure templated by metalâ€“organic frameworks for efficient overall water splitting. Energy and Environmental Science, 2018, 11, 2363-2371.	15.6	240
452	Three-dimensional NiCu layered double hydroxide nanosheets array on carbon cloth for enhanced oxygen evolution. Electrochimica Acta, 2018, 282, 735-742.	2.6	57
453	Faradaic efficiency of porous electrodeposits: an application to Î²-Ni(OH)2 films. Journal of Solid State Electrochemistry, 2018, 22, 3025-3033.	1.2	1
454	Chemical-assisted hydrogen electrocatalytic evolution reaction (CAHER). Journal of Materials Chemistry A, 2018, 6, 13538-13548.	5.2	98
455	Role of Boron and Phosphorus in Enhanced Electrocatalytic Oxygen Evolution by Nickel Borides and Nickel Phosphides. ChemElectroChem, 2019, 6, 235-240.	1.7	62
456	Rational synthesis of CaCo2O4 nanoplate as an earth-abundant electrocatalyst for oxygen evolution reaction. Journal of Energy Chemistry, 2019, 31, 125-131.	7.1	12
457	Secondaryâ€Component Incorporated Hollow MOFs and Derivatives for Catalytic and Energyâ€Related Applications. Advanced Materials, 2019, 31, e1800743.	11.1	129
458	Inâ€situâ€Methoden zur Charakterisierung elektrochemischer NiFeâ€Sauerstoffentwicklungskatalysatoren. Angewandte Chemie, 2019, 131, 1264-1277.	1.6	21
459	Application of In Situ Techniques for the Characterization of NiFeâ€Based Oxygen Evolution Reaction (OER) Electrocatalysts. Angewandte Chemie - International Edition, 2019, 58, 1252-1265.	7.2	443
460	In situ encapsulated nickel-copper nanoparticles in metal-organic frameworks for oxygen evolution reaction. Journal of Alloys and Compounds, 2019, 770, 236-242.	2.8	43

#	Article	IF	Citations
461	Fe-doped Co3O4@C nanoparticles derived from layered double hydroxide used as efficient electrocatalyst for oxygen evolution reaction. Journal of Energy Chemistry, 2019, 32, 63-70.	7.1	47
462	High Pt utilization efficiency of electrocatalysts for oxygen reduction reaction in alkaline media. Catalysis Today, 2019, 332, 101-108.	2.2	28
463	Recent Approaches to Design Electrocatalysts Based on Metalâ€“Organic Frameworks and Their Derivatives. Chemistry - an Asian Journal, 2019, 14, 3474-3501.	1.7	34
464	Carbon materials as additives to the OER catalysts: RRDE study of carbon corrosion at high anodic potentials. Electrochimica Acta, 2019, 321, 134657.	2.6	53
465	Synthesis of low- and high-index faceted metal (Pt, Pd, Ru, Ir, Rh) nanoparticles for improved activity and stability in electrocatalysis. Nanoscale, 2019, 11, 18995-19011.	2.8	110
466	Synthesis and identifying the active site of Cu2Se@CoSe nano-composite for enhanced electrocatalytic oxygen evolution. Electrochimica Acta, 2019, 320, 134589.	2.6	21
467	Operando Scanning Transmission X-ray Microscopy of Co(OH)2 Oxygen Evolution Electrocatalysts. Microscopy and Microanalysis, 2019, 25, 2094-2095.	0.2	0
468	Print-Light-Synthesis of Ni and NiFe-Nanoscale Catalysts for Oxygen Evolution. ACS Applied Energy Materials, 2019, 2, 6322-6331.	2.5	15
469	Novel one-step synthesis of core@shell ironâ€“nickel alloy nanoparticles coated by carbon layers for efficient oxygen evolution reaction electrocatalysis. Journal of Power Sources, 2019, 438, 226988.	4.0	40
470	Oneâ€Step Synthesis of NiFe Layered Double Hydroxide Nanosheet Array/Nâ€Doped Graphite Foam Electrodes for Oxygen Evolution Reactions. ChemistryOpen, 2019, 8, 1027-1032.	0.9	21
471	Upscaling high activity oxygen evolution catalysts based on CoFe2O4 nanoparticles supported on nickel foam for power-to-gas electrochemical conversion with energy efficiencies above 80%. Applied Catalysis B: Environmental, 2019, 259, 118055.	10.8	35
472	Carbon Derived from Soft Pyrolysis of a Covalent Organic Framework as a Support for Small-Sized RuO₂ Showing Exceptionally Low Overpotential for Oxygen Evolution Reaction. ACS Omega, 2019, 4, 13465-13473.	1.6	33
473	Surface chemical state evaluation of CoSe₂ catalysts for the oxygen evolution reaction. Chemical Communications, 2019, 55, 10928-10931.	2.2	46
474	Coreâ€“shell-type ZIF-8@ZIF-67@POM hybrids as efficient electrocatalysts for the oxygen evolution reaction. Inorganic Chemistry Frontiers, 2019, 6, 2514-2520.	3.0	113
475	Hierarchical Assembly of Prussian Blue Derivatives for Superior Oxygen Evolution Reaction. Advanced Functional Materials, 2019, 29, 1904955.	7.8	65
476	A Cobaltâ€“Iron Double-Atom Catalyst for the Oxygen Evolution Reaction. Journal of the American Chemical Society, 2019, 141, 14190-14199.	6.6	401
477	Self-supported nickel iron oxide nanospindles with high hydrophilicity for efficient oxygen evolution. Chemical Communications, 2019, 55, 10860-10863.	2.2	50
478	Engineering Surface Structure of Spinel Oxides via High-Valent Vanadium Doping for Remarkably Enhanced Electrocatalytic Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2019, 11, 33012-33021.	4.0	70

#	Article	IF	Citations
479	Hybrid Ni(OH)₂/FeOOH@NiFe Nanosheet Catalysts toward Highly Efficient Oxygen Evolution Reaction with Ultralong Stability over 1000 Hours. ACS Sustainable Chemistry and Engineering, 2019, 7, 14601-14610.	3.2	39
480	A biomimetic nanoleaf electrocatalyst for robust oxygen evolution reaction. Applied Catalysis B: Environmental, 2019, 259, 118017.	10.8	46
481	Bi-metallic MOFs possessing hierarchical synergistic effects as high performance electrocatalysts for overall water splitting at high current densities. Applied Catalysis B: Environmental, 2019, 258, 118023.	10.8	114
482	Strain Regulation to Optimize the Acidic Water Oxidation Performance of Atomicâ€Layer IrO_x. Advanced Materials, 2019, 31, e1903616.	11.1	121
483	Hydrogen Bubble Templating of Fractal Ni Catalysts for Water Oxidation in Alkaline Media. ACS Applied Energy Materials, 2019, 2, 5734-5743.	2.5	20
484	Beyond Density Functional Theory: The Multiconfigurational Approach To Model Heterogeneous Catalysis. ACS Catalysis, 2019, 9, 8481-8502.	5.5	75
485	Adsorption of Acetate on Au(111): An inâ€situ Scanning Tunnelling Microscopy Study and Implications on Formic Acid Electrooxidation. ChemPhysChem, 2019, 20, 2989-2996.	1.0	10
486	Fe/Ni bimetal organic framework as efficient oxygen evolution catalyst with low overpotential. Journal of Colloid and Interface Science, 2019, 555, 541-547.	5.0	88
487	Micropore-Boosted Layered Double Hydroxide Catalysts: EIS Analysis in Structure and Activity for Effective Oxygen Evolution Reactions. ACS Applied Materials & Interfaces, 2019, 11, 30887-30893.	4.0	26
488	Liâ€Breathing Air Batteries Catalyzed by MnNiFe/Laserâ€Induced Graphene Catalysts. Advanced Materials Interfaces, 2019, 6, 1901035.	1.9	26
489	Recent advances of nanoporous metal-based catalyst: synthesis, application and perspectives. Journal of Iron and Steel Research International, 2019, 26, 779-795.	1.4	9
490	A unique amorphous cobalt-phosphide-boride bifunctional electrocatalyst for enhanced alkaline water-splitting. Applied Catalysis B: Environmental, 2019, 259, 118051.	10.8	112
491	A template-directed bifunctional NiS_x/nitrogen-doped mesoporous carbon electrocatalyst for rechargeable Znâ€“air batteries. Journal of Materials Chemistry A, 2019, 7, 19889-19897.	5.2	43
492	In Situ Generation of Bifunctional Fe-Doped MoS₂ Nanocanopies for Efficient Electrocatalytic Water Splitting. Inorganic Chemistry, 2019, 58, 11202-11209.	1.9	84
493	HfN Nanoparticles: An Unexplored Catalyst for the Electrocatalytic Oxygen Evolution Reaction. Angewandte Chemie, 2019, 131, 15610-15616.	1.6	9
494	HfN Nanoparticles: An Unexplored Catalyst for the Electrocatalytic Oxygen Evolution Reaction. Angewandte Chemie - International Edition, 2019, 58, 15464-15470.	7.2	31
495	In Situ Transformation of Prussianâ€Blue Analogueâ€Derived Bimetallic Carbide Nanocubes by Water Oxidation: Applications for Energy Storage and Conversion. Chemistry - A European Journal, 2020, 26, 4052-4062.	1.7	23
496	Potentiostatic deposition of CoNi2Se4 nanostructures on nickel foam as efficient battery-type electrodes for supercapacitors. Journal of Electroanalytical Chemistry, 2019, 850, 113371.	1.9	14

#	Article	IF	Citations
497	Ni³⁺-Induced Hole States Enhance the Oxygen Evolution Reaction Activity of Ni_xCo_{3â€“x}O₄ Electrocatalysts. Chemistry of Materials, 2019, 31, 7618-7625.	3.2	76
498	Electrolyte-Dependent Oxygen Evolution Reactions in Alkaline Media: Electrical Double Layer and Interfacial Interactions. ACS Applied Materials & Interfaces, 2019, 11, 33748-33758.	4.0	59
499	In situ growth of Fe(<scp>ii</scp>)-MOF-74 nanoarrays on nickel foam as an efficient electrocatalytic electrode for water oxidation: a mechanistic study on valence engineering. Chemical Communications, 2019, 55, 11307-11310.	2.2	23
500	Metal-Containing Ceramic Composite with in Situ Grown Carbon Nanotube as a Cathode Catalyst for Anion Exchange Membrane Fuel Cell and Rechargeable Zincâ€“Air Battery. ACS Applied Energy Materials, 2019, 2, 6078-6086.	2.5	18
501	Optimization of oxygen evolution dynamics on RuO₂via controlling of spontaneous dissociation equilibrium. Materials Chemistry Frontiers, 2019, 3, 1779-1785.	3.2	7
502	Amorphous multinary phyllosilicate catalysts for electrochemical water oxidation. Journal of Materials Chemistry A, 2019, 7, 18380-18387.	5.2	21
503	Dual Doping Induced Interfacial Engineering of Fe₂N/Fe₃N Hybrids with Favorable dâ€Band towards Efficient Overall Water Splitting. ChemCatChem, 2019, 11, 6051-6060.	1.8	92
504	Evidence of two-state reactivity in water oxidation catalyzed by polyoxometalate-based complex [Mn3(H2O)3(SbW9O33)2]12â^'. Journal of Catalysis, 2019, 376, 146-149.	3.1	13
505	Anionic Effects on Metal Pair of Se-Doped Nickel Diphosphide for Hydrogen Evolution Reaction. ACS Sustainable Chemistry and Engineering, 2019, 7, 14247-14255.	3.2	30
506	Cerium Phosphate as a Novel Cocatalyst Promoting NiCo₂O₄ Nanowire Arrays for Efficient and Robust Electrocatalytic Oxygen Evolution. ACS Applied Energy Materials, 2019, 2, 5769-5776.	2.5	39
507	Multifunctional Highâ€Performance Electrocatalytic Properties of Nb₂O₅ Incorporated Carbon Nanofibers as Pt Support Catalyst. Advanced Materials Interfaces, 2019, 6, 1900565.	1.9	33
508	A hierarchically-assembled Feâ€“MoS₂/Ni₃S₂/nickel foam electrocatalyst for efficient water splitting. Dalton Transactions, 2019, 48, 12186-12192.	1.6	40
509	In situ autologous growth of self-supporting NiFe-based nanosheets on nickel foam as an efficient electrocatalyst for the oxygen evolution reaction. RSC Advances, 2019, 9, 21679-21684.	1.7	18
510	Zn-Co electrocatalysts in lithium-O2 batteries: temperature and rotating cathode effects on the electrodeposition. Journal of Solid State Electrochemistry, 2019, 23, 2533-2540.	1.2	5
511	Insights into the Electrochemical Oxygen Evolution Reaction with ab Initio Calculations and Microkinetic Modeling: Beyond the Limiting Potential Volcano. Journal of Physical Chemistry C, 2019, 123, 18960-18977.	1.5	138
512	Urchin-like Ni@N-doped carbon composites with Ni nanoparticles encapsulated in N-doped carbon nantubes as high-efficient electrocatalyst for oxygen evolution reaction. Journal of Solid State Chemistry, 2019, 278, 120843.	1.4	17
513	Creation of controllable cationic and anionic defects in tunnel manganese oxide nanowires for enhanced oxygen evolution reaction. Polyhedron, 2019, 171, 32-40.	1.0	5
514	Cobalt-Coordinated Sulfur-Doped Graphitic Carbon Nitride on Reduced Graphene Oxide: An Efficient Metalâ€“(N,S)â€“C-Class Bifunctional Electrocatalyst for Overall Water Splitting in Alkaline Media. ACS Sustainable Chemistry and Engineering, 2019, 7, 15373-15384.	3.2	57

#	Article	IF	Citations
515	Crâ€Dopant Induced Breaking of Scaling Relations in CoFe Layered Double Hydroxides for Improvement of Oxygen Evolution Reaction. Small, 2019, 15, e1902373.	5.2	111
516	Nanowires assembled from iron manganite nanoparticles: Synthesis, characterization, and investigation of electrocatalytic properties for water oxidation reaction. Journal of Materials Research, 2019, 34, 3231-3239.	1.2	7
517	Hydratedâ€Metalâ€Halideâ€Based Deepâ€Eutecticâ€Solventâ€Mediated NiFe Layered Double Hydroxide: An Excellent Electrocatalyst for Urea Electrolysis and Water Splitting. Chemistry - an Asian Journal, 2019, 14, 2995-3002.	1.7	19
518	Effect of the Solvent on the Oxygen Evolution Reaction at the TiO₂â€“Water Interface. Journal of Physical Chemistry C, 2019, 123, 18467-18474.	1.5	25
519	Spontaneous Delithiation under Operando Condition Triggers Formation of an Amorphous Active Layer in Spinel Cobalt Oxides Electrocatalyst toward Oxygen Evolution. ACS Catalysis, 2019, 9, 7389-7397.	5.5	52
520	Interfacial effects in supported catalysts for electrocatalysis. Journal of Materials Chemistry A, 2019, 7, 23432-23450.	5.2	94
521	Investigation of the electrocatalytic performance for oxygen evolution reaction of Fe-doped lanthanum nickelate deposited on pyrolytic graphite sheets. International Journal of Hydrogen Energy, 2019, 44, 21659-21672.	3.8	13
522	Nanostructured Co-based bifunctional electrocatalysts for energy conversion and storage: current status and perspectives. Journal of Materials Chemistry A, 2019, 7, 18674-18707.	5.2	277
523	Co and Fe Codoped WO_{2.72} as Alkalineâ€Solutionâ€Available Oxygen Evolution Reaction Catalyst to Construct Photovoltaic Water Splitting System with Solarâ€Toâ€Hydrogen Efficiency of 16.9%. Advanced Science, 2019, 6, 1900465.	5.6	72
524	Bifunctional NiCo2Se4 and CoNi2Se4 nanostructures: Efficient electrodes for battery-type supercapacitors and electrocatalysts for the oxygen evolution reaction. Journal of Industrial and Engineering Chemistry, 2019, 79, 370-382.	2.9	41
525	Ternary Phase Diagram-Facilitated Rapid Screening of Double Perovskites As Electrocatalysts for the Oxygen Evolution Reaction. Chemistry of Materials, 2019, 31, 5919-5926.	3.2	26
526	MOF-derived cobalt oxides nanoparticles anchored on CoMoO4 as a highly active electrocatalyst for oxygen evolution reaction. Journal of Alloys and Compounds, 2019, 806, 1097-1104.	2.8	41
527	Facile Synthesis and Characterization of Pd@Ir_nL</sub> (n = 1â€“4) Coreâ€“Shell Nanocubes for Highly Efficient Oxygen Evolution in Acidic Media. Chemistry of Materials, 2019, 31, 5867-5875.	3.2	65
528	Amorphous N-Doped Cobalt Borophosphate Nanoparticles as Robust and Durable Electrocatalyst for Water Oxidation. ACS Sustainable Chemistry and Engineering, 2019, 7, 13981-13988.	3.2	20
529	Interfacing Manganese Oxide and Cobalt in Porous Graphitic Carbon Polyhedrons Boosts Oxygen Electrocatalysis for Znâ€“Air Batteries. Advanced Materials, 2019, 31, e1902339.	11.1	363
530	An earth-abundant, amorphous cobalt-iron-borate (Co-Fe-Bi) prepared on Ni foam as highly efficient and durable electrocatalysts for oxygen evolution. Applied Surface Science, 2019, 495, 143462.	3.1	12
531	Electrochemical Cyclingâ€Induced Amorphization of Cobalt(II,III) Oxide for Stable High Surface Area Oxygen Evolution Electrocatalysts. ChemElectroChem, 2019, 6, 4031-4039.	1.7	23
532	Recent advances in methods and technologies for enhancing bubble detachment during electrochemical water splitting. Renewable and Sustainable Energy Reviews, 2019, 114, 109300.	8.2	197

#	Article	IF	Citations
533	An advanced FeCoNi nitro-sulfide hierarchical structure from deep eutectic solvents for enhanced oxygen evolution reaction. Chemical Communications, 2019, 55, 10174-10177.	2.2	23
534	A mesoporous C,N-co doped Co-based phosphate ultrathin nanosheet derived from a phosphonate-based-MOF as an efficient electrocatalyst for water oxidation. Catalysis Science and Technology, 2019, 9, 4718-4724.	2.1	22
535	Nitrogen-doped metal-free carbon catalysts for (electro)chemical CO₂ conversion and valorisation. Dalton Transactions, 2019, 48, 13508-13528.	1.6	71
536	Electrochemical Synthesis of Cation Vacancy-Enriched Ultrathin Bimetallic Oxyhydroxide Nanoplatelets for Enhanced Water Oxidation. ACS Applied Materials & Interfaces, 2019, 11, 25958-25966.	4.0	25
537	Tunable pH-dependent oxygen evolution activity of strontium cobaltite thin films for electrochemical water splitting. Physical Chemistry Chemical Physics, 2019, 21, 16230-16239.	1.3	13
538	Flower-like NiFe Oxide Nanosheets on Ni Foam as Efficient Bifunctional Electrocatalysts for the Overall Water Splitting. International Journal of Electrochemical Science, 2019, , 4878-4890.	0.5	5
539	Amorphous Cobalt Boride Nanosheets Directly Grown on Nickel Foam: Controllable Alternately Dipping Deposition for Efficient Oxygen Evolution. ChemElectroChem, 2019, 6, 3684-3689.	1.7	43
540	2D Metalâ€“Organic Framework Derived CuCo Alloy Nanoparticles Encapsulated by Nitrogenâ€Doped Carbonaceous Nanoleaves for Efficient Bifunctional Oxygen Electrocatalyst and Zincâ€“Air Batteries. Chemistry - A European Journal, 2019, 25, 12780-12788.	1.7	38
541	Recent Progress on Surface Reconstruction of Earthâ€Abundant Electrocatalysts for Water Oxidation. Small, 2019, 15, e1901980.	5.2	158
542	Ag2S-CoS hetero-nanowires terminated with stepped surfaces for improved oxygen evolution reaction. Catalysis Communications, 2019, 129, 105749.	1.6	12
543	Hetero-N-Coordinated Co Single Sites with High Turnover Frequency for Efficient Electrocatalytic Oxygen Evolution in an Acidic Medium. ACS Energy Letters, 2019, 4, 1816-1822.	8.8	92
544	Design of Multiâ€Metallicâ€Based Electrocatalysts for Enhanced Water Oxidation. ChemPhysChem, 2019, 20, 2936-2945.	1.0	48
545	Improving catalytic activity of metal telluride by hybridization: An efficient Ni3Te2-CoTe composite electrocatalyst for oxygen evolution reaction. Applied Surface Science, 2019, 490, 516-521.	3.1	38
546	A review of transition metalâ€based bifunctional oxygen electrocatalysts. Journal of the Chinese Chemical Society, 2019, 66, 829-865.	0.8	82
547	Organicâ€“Inorganic Cobalt-Phosphonate-Derived Hollow Cobalt Phosphate Spherical Hybrids for Highly Efficient Oxygen Evolution. ACS Sustainable Chemistry and Engineering, 2019, 7, 13559-13568.	3.2	58
548	Zn Doped FeCo Layered Double Hydroxide Nanoneedle Arrays with Partial Amorphous Phase for Efficient Oxygen Evolution Reaction. ACS Sustainable Chemistry and Engineering, 2019, 7, 13105-13114.	3.2	85
549	Co₃O₄ Nanoparticles with Ultrasmall Size and Abundant Oxygen Vacancies for Boosting Oxygen Involved Reactions. Advanced Functional Materials, 2019, 29, 1903444.	7.8	108
550	C-GeM: Coarse-Grained Electron Model for Predicting the Electrostatic Potential in Molecules. Journal of Physical Chemistry Letters, 2019, 10, 6820-6826.	2.1	20

#	Article	IF	Citations
551	Electrochemical Synergies of Heterostructured Fe2O3-MnO Catalyst for Oxygen Evolution Reaction in Alkaline Water Splitting. Nanomaterials, 2019, 9, 1486.	1.9	42
552	Water Oxidation Catalysts for Artificial Photosynthesis. Advanced Materials, 2019, 31, e1902069.	11.1	215
553	Nanoengineering Carbon Spheres as Nanoreactors for Sustainable Energy Applications. Advanced Materials, 2019, 31, e1903886.	11.1	251
554	Unveiling the Activity Origin of Electrocatalytic Oxygen Evolution over Isolated Ni Atoms Supported on a Nâ€Doped Carbon Matrix. Advanced Materials, 2019, 31, e1904548.	11.1	256
555	Sulfurâ€Induced Interface Engineering of Hybrid NiCo₂O₄@NiMo₂S₄ Structure for Overall Water Splitting and Flexible Hybrid Energy Storage. Advanced Materials Interfaces, 2019, 6, 1901308.	1.9	130
556	The Aurivillius Compound CoBi₂O₂F₄ â€“ an Efficient Catalyst for Electrolytic Water Oxidation after Liquid Exfoliation. ChemCatChem, 2019, 11, 6105-6110.	1.8	12
557	Ultrastable Co x Si y O z Nanowires by Glancing Angle Deposition with Magnetron Sputtering as Novel Electrocatalyst for Water Oxidation. ChemCatChem, 2019, 11, 6111-6115.	1.8	8
558	Amorphous Oxide Nanostructures for Advanced Electrocatalysis. Chemistry - A European Journal, 2020, 26, 3943-3960.	1.7	74
559	Electrolyte Effects on the Electrocatalytic Performance of Iridiumâ€Based Nanoparticles for Oxygen Evolution in Rotating Disc Electrodes. ChemPhysChem, 2019, 20, 2956-2963.	1.0	44
560	Phosphorus Incorporation into Co₉S₈ Nanocages for Highly Efficient Oxygen Evolution Catalysis. Small, 2019, 15, e1904507.	5.2	75
561	Identification of Key Reversible Intermediates in Selfâ€Reconstructed Nickelâ€Based Hybrid Electrocatalysts for Oxygen Evolution. Angewandte Chemie - International Edition, 2019, 58, 17458-17464.	7.2	255
562	Selective Hydrogenation of Furfural in a Proton Exchange Membrane Reactor Using Hybrid Pd/Pd Black on Alumina. ChemElectroChem, 2019, 6, 5563-5570.	1.7	15
563	Exploring the Influence of Halogen Coordination Effect of Stable Bimetallic MOFs on Oxygen Evolution Reaction. Chemistry - A European Journal, 2019, 25, 15830-15836.	1.7	27
564	Enhancing Oxygen Evolution Reaction through Modulating Electronic Structure of Trimetallic Electrocatalysts Derived from Metalâ€“Organic Frameworks. Small, 2019, 15, e1901940.	5.2	163
565	Ultrafine cobaltâ€“ruthenium alloy on nitrogen and phosphorus co-doped graphene for electrocatalytic water splitting. Journal of the Taiwan Institute of Chemical Engineers, 2019, 104, 75-81.	2.7	12
566	Sulphur doped iron cobalt oxide nanocaterpillars: An electrode for supercapattery with ultrahigh energy density and oxygen evolution reaction. Electrochimica Acta, 2019, 328, 135076.	2.6	20
567	Mixed-metal MOF-derived Co-doped Ni3C/Ni NPs embedded in carbon matrix as an efficient electrocatalyst for oxygen evolution reaction. International Journal of Hydrogen Energy, 2019, 44, 24572-24579.	3.8	63
568	Hydrogen from photo-electrocatalytic water splitting. , 2019, , 419-486.		17

#	Article	IF	Citations
569	ZIF-67-derived Co, Ni and S co-doped N-enriched porous carbon polyhedron as an efficient electrocatalyst for oxygen evolution reaction (OER). International Journal of Hydrogen Energy, 2019, 44, 27465-27471.	3.8	48
570	In-situ electrodeposited flower-like NiFeO H /rGO on nickel foam for oxygen evolution reaction. Journal of Fuel Chemistry and Technology, 2019, 47, 1083-1089.	0.9	2
571	Hollow Cobalt Phosphide with N-Doped Carbon Skeleton as Bifunctional Electrocatalyst for Overall Water Splitting. Inorganic Chemistry, 2019, 58, 14652-14659.	1.9	38
572	Single Nanoparticle Activities in Ensemble: A Study on Pd Cluster Nanoportals for Electrochemical Oxygen Evolution Reaction. Journal of Physical Chemistry C, 2019, 123, 26124-26135.	1.5	13
573	Hollow Co₃O₄/CeO₂ Heterostructures in Situ Embedded in N-Doped Carbon Nanofibers Enable Outstanding Oxygen Evolution. ACS Sustainable Chemistry and Engineering, 2019, 7, 17950-17957.	3.2	112
574	Binder-Free Growth of Nickel-Doped Iron Sulfide on Nickel Foam via Electrochemical Deposition for Electrocatalytic Water Splitting. ACS Sustainable Chemistry and Engineering, 2019, 7, 18015-18026.	3.2	65
575	Engineering the Atomic Layer of RuO₂ on PdO Nanosheets Boosts Oxygen Evolution Catalysis. ACS Applied Materials & Interfaces, 2019, 11, 42298-42304.	4.0	38
576	Cation-Substitution-Tuned Oxygen Electrocatalyst of Spinel Cobaltite MCo₂O₄ (M = Fe, Co, and Ni) Hexagonal Nanoplates for Rechargeable Zn-Air Batteries. Journal of the Electrochemical Society, 2019, 166, A3448-A3455.	1.3	8
577	Steigerung der Wasseroxidation durch Inâ€situâ€Elektrokonversion eines Mangangallids: Ein intermetallischer VorlÃuferansatz. Angewandte Chemie, 2019, 131, 16722-16727.	1.6	13
578	Nanostructured Carbon Based Heterogeneous Electrocatalysts for Oxygen Evolution Reaction in Alkaline Media. ChemCatChem, 2019, 11, 5855-5874.	1.8	70
579	Ultrasmall Co@Co(OH)₂ Nanoclusters Embedded in Nâ€Enriched Mesoporous Carbon Networks as Efficient Electrocatalysts for Water Oxidation. ChemSusChem, 2019, 12, 5117-5125.	3.6	26
580	Electrochemically accessing ultrathin Co (oxy)-hydroxide nanosheets and operando identifying their active phase for the oxygen evolution reaction. Energy and Environmental Science, 2019, 12, 739-746.	15.6	163
581	Public expenditure on Non-Communicable Diseases & Injuries in India: A budget-based analysis. PLoS ONE, 2019, 14, e0222086.	1.1	18
582	Crystalline Ni(OH)₂/Amorphous NiMoO_x Mixedâ€Catalyst with Ptâ€Like Performance for Hydrogen Production. Advanced Energy Materials, 2019, 9, 1902703.	10.2	141
583	One-pot preparation of Ni3S2@3-D graphene free-standing electrode by simple Q-CVD method for efficient oxygen evolution reaction. International Journal of Hydrogen Energy, 2019, 44, 30806-30819.	3.8	17
584	Metal (MÂ= Ru, Pd and Co) embedded in C2N with enhanced lithium storage properties. Materials Today Energy, 2019, 14, 100359.	2.5	13
585	Universal scaling relations for the rational design of molecular water oxidation catalysts with near-zero overpotential. Nature Communications, 2019, 10, 4993.	5.8	151
586	Electronic structure regulation on layered double hydroxides for oxygen evolution reaction. Chinese Journal of Catalysis, 2019, 40, 1822-1840.	6.9	48

#	Article	IF	Citations
587	Doping sp-hybridized B atoms in graphyne supported single cobalt atoms for hydrogen evolution electrocatalysis. International Journal of Hydrogen Energy, 2019, 44, 27421-27428.	3.8	23
588	Missing-linker metal-organic frameworks for oxygen evolution reaction. Nature Communications, 2019, 10, 5048.	5.8	422
589	Solidâ€State Conversion Synthesis of Advanced Electrocatalysts for Water Splitting. Chemistry - A European Journal, 2020, 26, 3961-3972.	1.7	8
590	Cu2-xSe@CuO core-shell assembly grew on copper foam for efficient oxygen evolution. International Journal of Hydrogen Energy, 2019, 44, 31979-31986.	3.8	17
591	In Situ Spatially Coherent Identification of Phosphide-Based Catalysts: Crystallographic Latching for Highly Efficient Overall Water Electrolysis. ACS Energy Letters, 2019, 4, 2813-2820.	8.8	75
592	Rational Design of Rhodiumâ€“Iridium Alloy Nanoparticles as Highly Active Catalysts for Acidic Oxygen Evolution. ACS Nano, 2019, 13, 13225-13234.	7.3	151
593	Synthesis and Advanced Electrochemical Characterization of Multifunctional Electrocatalytic Composite for Unitized Regenerative Fuel Cell. ACS Catalysis, 2019, 9, 11468-11483.	5.5	21
594	Glycineâ€Induced Electrodeposition of Nanostructured Cobalt Hydroxide: A Bifunctional Catalyst for Overall Water Splitting. ChemSusChem, 2019, 12, 5300-5309.	3.6	6
595	NiMoFe and NiMoFeP as Complementary Electrocatalysts for Efficient Overall Water Splitting and Their Application in PVâ€Electrolysis with STH 12.3%. Small, 2019, 15, e1905501.	5.2	55
596	Photon-Induced, Timescale, and Electrode Effects Critical for the in Situ X-ray Spectroscopic Analysis of Electrocatalysts: The Water Oxidation Case. Journal of Physical Chemistry C, 2019, 123, 28533-28549.	1.5	24
597	Identification of Catalytic Active Sites in Nitrogen-Doped Carbon for Electrocatalytic Dechlorination of 1,2-Dichloroethane. ACS Catalysis, 2019, 9, 10931-10939.	5.5	46
598	An Algorithm for the Extraction of Tafel Slopes. Journal of Physical Chemistry C, 2019, 123, 30252-30264.	1.5	19
599	The Synergetic Effect of Ni and Fe Bi-metal Single Atom Catalysts on Graphene for Highly Efficient Oxygen Evolution Reaction. Frontiers in Materials, 2019, 6, .	1.2	20
600	Carbon Layer Coated Ni₃S₂/MoS₂ Nanohybrids as Efficient Bifunctional Electrocatalysts for Overall Water Splitting. ChemElectroChem, 2019, 6, 5603-5609.	1.7	22
601	Template-free synthesis of biomass-derived hierarchically mesoporous carbon with ultra-small FeNi nanoparticles for oxygen evolution reaction. International Journal of Hydrogen Energy, 2019, 44, 27806-27815.	3.8	11
602	Amorphous Feâ€“Niâ€“Pâ€“Bâ€“O Nanocages as Efficient Electrocatalysts for Oxygen Evolution Reaction. ACS Nano, 2019, 13, 12969-12979.	7.3	151
603	Theoretical Insight into the Performance of Mn^{II/III}-Monosubstituted Heteropolytungstates as Water Oxidation Catalysts. Inorganic Chemistry, 2019, 58, 15751-15757.	1.9	11
604	Superb water splitting activity of the electrocatalyst Fe3Co(PO4)4 designed with computation aid. Nature Communications, 2019, 10, 5195.	5.8	120

#	Article	IF	Citations
605	Identification of Key Reversible Intermediates in Selfâ€Reconstructed Nickelâ€Based Hybrid Electrocatalysts for Oxygen Evolution. Angewandte Chemie, 2019, 131, 17619-17625.	1.6	45
606	Boosting Water Oxidation through In Situ Electroconversion of Manganese Gallide: An Intermetallic Precursor Approach. Angewandte Chemie - International Edition, 2019, 58, 16569-16574.	7.2	60
607	Mechanistic Aspects of the Electrocatalytic Oxygen Evolution Reaction over Niâ^'Co Oxides. ChemElectroChem, 2019, 6, 5588-5595.	1.7	85
608	Smart Control of Composition for Double Perovskite Electrocatalysts toward Enhanced Oxygen Evolution Reaction. ChemSusChem, 2019, 12, 5111-5116.	3.6	33
609	Novel alkaline water electrolysis with nickel-iron gas diffusion electrode for oxygen evolution. International Journal of Hydrogen Energy, 2019, 44, 29862-29875.	3.8	24
610	2020 roadmap on two-dimensional materials for energy storage and conversion. Chinese Chemical Letters, 2019, 30, 2053-2064.	4.8	140
611	Subnano Amorphous Fe-Based Clusters with High Mass Activity for Efficient Electrocatalytic Oxygen Reduction Reaction. ACS Applied Materials & Interfaces, 2019, 11, 41432-41439.	4.0	18
612	Hybrids of PtRu Nanoclusters and Black Phosphorus Nanosheets for Highly Efficient Alkaline Hydrogen Evolution Reaction. ACS Catalysis, 2019, 9, 10870-10875.	5.5	86
613	Comparison of Water Sampling between Environmental DNA Metabarcoding and Conventional Microscopic Identification: A Case Study in Gwangyang Bay, South Korea. Applied Sciences (Switzerland), 2019, 9, 3272.	1.3	25
614	MOFâ€Derived Niâ€Doped CoS₂ Grown on Carbon Fiber Paper for Efficient Oxygen Evolution Reaction. ChemElectroChem, 2019, 6, 1206-1212.	1.7	42
615	Chromium-ruthenium oxide solid solution electrocatalyst for highly efficient oxygen evolution reaction in acidic media. Nature Communications, 2019, 10, 162.	5.8	396
616	Electrodeposition of Unary Oxide on a Bimetallic Hydroxide as a Highly Active and Stable Catalyst for Water Oxidation. ACS Sustainable Chemistry and Engineering, 2019, 7, 16392-16400.	3.2	35
617	Oxygen Evolution Reaction on 2D Ferromagnetic Fe₃GeTe₂: Boosting the Reactivity by the Selfâ€Reduction of Surface Hydroxyl. Advanced Functional Materials, 2019, 29, 1904782.	7.8	42
618	Versatile Applications of Metal Singleâ€Atom @ 2D Material Nanoplatforms. Advanced Science, 2019, 6, 1901787.	5.6	128
619	From Low- to High-Crystallinity Bimetalâ€“Organic Framework Nanosheet with Highly Exposed Boundaries: An Efficient and Stable Electrocatalyst for Oxygen Evolution Reaction. ACS Sustainable Chemistry and Engineering, 2019, 7, 16629-16639.	3.2	52
620	Iridium on vertical graphene as an all-round catalyst for robust water splitting reactions. Journal of Materials Chemistry A, 2019, 7, 20590-20596.	5.2	61
621	Nanostructure of Cr₂CO₂ MXene Supported Single Metal Atom as an Efficient Bifunctional Electrocatalyst for Overall Water Splitting. ACS Applied Energy Materials, 2019, 2, 6851-6859.	2.5	81
622	Modulating the Electronic Structure of Porous Nanocubes Derived from Trimetallic Metalâ€“Organic Frameworks to Boost Oxygen Evolution Reaction Performance. Chemistry - an Asian Journal, 2019, 14, 3357-3362.	1.7	7

#	Article	IF	Citations
623	Three-Dimensional Hierarchically Ternary Iron Tungsten Nitride Nanosheets with Slight Ratio of Nickel Modulation for Oxygen Evolution Reaction. Nano, 2019, 14, 1950089.	0.5	3
624	Investigate the Role of Different Inherent Minerals in PEM Based Coal Assisted Water Electrolysis Cell. Journal of the Electrochemical Society, 2019, 166, F949-F955.	1.3	16
625	Self-supported CoFe LDH/Co_{0.85}Se nanosheet arrays as efficient electrocatalysts for the oxygen evolution reaction. Catalysis Science and Technology, 2019, 9, 5736-5744.	2.1	37
626	Antimony Chalcogenide van der Waals Nanostructures for Energy Conversion and Storage. ACS Sustainable Chemistry and Engineering, 2019, 7, 15790-15798.	3.2	24
627	Characterization of Long Noncoding RNA and mRNA Profiles in Sepsis-Induced Myocardial Depression. Molecular Therapy - Nucleic Acids, 2019, 17, 852-866.	2.3	36
628	Interface engineering to enhance the oxygen evolution reaction under light irradiation. Applied Physics Letters, 2019, 115, 103901.	1.5	3
629	Iron-incorporated NiS/Ni(OH)2 composite as an efficient electrocatalyst for hydrogen evolution reaction from water in a neutral medium. Applied Catalysis A: General, 2019, 586, 117226.	2.2	39
630	Flower-like Co3O4 microstrips embedded in Co foam as a binder-free electrocatalyst for oxygen evolution reaction. International Journal of Hydrogen Energy, 2019, 44, 24209-24217.	3.8	23
631	Additively manufactured 316L stainless steel: An efficient electrocatalyst. International Journal of Hydrogen Energy, 2019, 44, 24698-24704.	3.8	21
632	Amorphous NiMS (M: Co, Fe or Mn) holey nanosheets derived from crystal phase transition for enhanced oxygen evolution in water splitting. Electrochimica Acta, 2019, 323, 134756.	2.6	35
633	Engineering anion defect in LaFeO2.85Cl0.15 perovskite for boosting oxygen evolution reaction. International Journal of Hydrogen Energy, 2019, 44, 24077-24085.	3.8	26
634	Trifunctional Fishbone-like PtCo/Ir Enables High-Performance Zincâ€“Air Batteries to Drive the Water-Splitting Catalysis. Chemistry of Materials, 2019, 31, 8136-8144.	3.2	55
635	Induction of Concerted Proton-Coupled Electron Transfer during Oxygen Evolution on Hematite Using Lanthanum Oxide as a Solid Proton Acceptor. ACS Catalysis, 2019, 9, 9212-9215.	5.5	27
636	A high-performance oxygen evolution catalyst in neutral-pH for sunlight-driven CO2 reduction. Nature Communications, 2019, 10, 4081.	5.8	57
637	Investigation of mixed-metal (oxy)fluorides as a new class of water oxidation electrocatalysts. Chemical Science, 2019, 10, 9209-9218.	3.7	47
638	Noncovalent phosphorylation of CoCr layered double hydroxide nanosheets with improved electrocatalytic activity for the oxygen evolution reaction. Chemical Communications, 2019, 55, 12076-12079.	2.2	20
639	Cerium and nitrogen doped CoP nanorod arrays for hydrogen evolution in all pH conditions. Sustainable Energy and Fuels, 2019, 3, 3344-3351.	2.5	9
640	Precipitating Metal Nitrate Deposition of Amorphous Metal Oxyhydroxide Electrodes Containing Ni, Fe, and Co for Electrocatalytic Water Oxidation. ACS Catalysis, 2019, 9, 9650-9662.	5.5	43

#	Article	IF	Citations
641	Electrochemically Determined Oâ€“H Bond Dissociation Free Energies of NiO Electrodes Predict Proton-Coupled Electron Transfer Reactivity. Journal of the American Chemical Society, 2019, 141, 14971-14975.	6.6	40
642	N-Doped Mo2C Nanobelts/Graphene Nanosheets Bonded with Hydroxy Nanocellulose as Flexible and Editable Electrode for Hydrogen Evolution Reaction. IScience, 2019, 19, 1090-1100.	1.9	37
643	Evidencing enhanced oxygen and hydrogen evolution reactions using Inâ€“Znâ€“Co ternary transition metal oxide nanostructures: A novel bifunctional electrocatalyst. International Journal of Hydrogen Energy, 2019, 44, 23081-23090.	3.8	20
644	An efficient CoOx-SnOx(Sb doped)/Ti electrocatalyst for the oxygen evolution reaction. Applied Surface Science, 2019, 495, 143596.	3.1	14
645	Cobalt-Boride Nanostructured Thin Films with High Performance and Stability for Alkaline Water Oxidation. ACS Sustainable Chemistry and Engineering, 2019, 7, 16651-16658.	3.2	30
646	Construction of porous nanoscale NiO/NiCo2O4 heterostructure for highly enhanced electrocatalytic oxygen evolution activity. Journal of Catalysis, 2019, 379, 1-9.	3.1	75
647	Phosphate ions-functionalized and wettability-tuned nickel ferrite for boosted oxygen evolution performance. International Journal of Hydrogen Energy, 2019, 44, 26992-27000.	3.8	13
648	Bifunctional Electrocatalytic Activity of Bis(iminothiolato)nickel Monolayer for Overall Water Splitting. Journal of Physical Chemistry C, 2019, 123, 25651-25656.	1.5	17
649	Recent Advances and Prospective in Ruthenium-Based Materials for Electrochemical Water Splitting. ACS Catalysis, 2019, 9, 9973-10011.	5.5	491
650	PdMo bimetallene for oxygen reduction catalysis. Nature, 2019, 574, 81-85.	13.7	935
651	LaNiO3 modified with Ag nanoparticles as an efficient bifunctional electrocatalyst for rechargeable zincâ€“air batteries. Frontiers of Materials Science, 2019, 13, 277-287.	1.1	19
652	Facile Synthesis of 3d Transition-Metal-Doped Î±-Co(OH)₂ Nanomaterials in Waterâ€“Methanol Mediated with Ammonia for Oxygen Evolution Reaction. ACS Omega, 2019, 4, 16612-16618.	1.6	33
653	Electrocatalytic oxygen evolution and photoswitching functions of tungsten-titanium binary oxide nanostructures. Applied Surface Science, 2019, 496, 143652.	3.1	8
654	Multilayer NiMn layered double hydroxide nanosheets covered porous Co3O4 nanowire arrays with hierarchical structure for high-performance supercapacitors. Journal of Power Sources, 2019, 440, 227123.	4.0	76
655	Monolayer Nitrides Doped with Transition Metals as Efficient Catalysts for Water Oxidation: The Singular Role of Nickel. Journal of Physical Chemistry C, 2019, 123, 26289-26298.	1.5	12
656	Morphological and Structural Evolution of Co₃O₄ Nanoparticles Revealed by in Situ Electrochemical Transmission Electron Microscopy during Electrocatalytic Water Oxidation. ACS Nano, 2019, 13, 11372-11381.	7.3	140
657	Valence Engineering via Dual-Cation and Boron Doping in Pyrite Selenide for Highly Efficient Oxygen Evolution. ACS Nano, 2019, 13, 11469-11476.	7.3	68
658	Interface Engineering of MoS₂ for Electrocatalytic Performance Optimization for Hydrogen Generation via Urea Electrolysis. ACS Sustainable Chemistry and Engineering, 2019, 7, 16577-16584.	3.2	70

#	Article	IF	Citations
659	Single-crystal silicon-based electrodes for unbiased solar water splitting: current status and prospects. Chemical Society Reviews, 2019, 48, 2158-2181.	18.7	161
660	Solution-phase phosphorus substitution for enhanced oxygen evolution reaction in Cu₂WS₄. RSC Advances, 2019, 9, 234-239.	1.7	15
661	Morphology-controlled synthesis of CoMoO₄ nanoarchitectures anchored on carbon cloth for high-efficiency oxygen oxidation reaction. RSC Advances, 2019, 9, 1562-1569.	1.7	41
662	Mesoporous cobaltâ€“ironâ€“organic frameworks: a plasma-enhanced oxygen evolution electrocatalyst. Journal of Materials Chemistry A, 2019, 7, 3090-3100.	5.2	79
663	Electrochemical Carbon Dioxide Splitting. ChemElectroChem, 2019, 6, 1587-1604.	1.7	22
664	A simple approach to tailor OER activity of SrxCo0.8Fe0.2O3 perovskite catalysts. Electrochimica Acta, 2019, 300, 85-92.	2.6	60
665	Facile synthesis of Mo2C nanoparticles on N-doped carbon nanotubes with enhanced electrocatalytic activity for hydrogen evolution and oxygen reduction reactions. Journal of Energy Chemistry, 2019, 38, 68-77.	7.1	58
666	Concentrated-acid triggered superfast generation of porous amorphous cobalt oxide toward efficient water oxidation catalysis in alkaline solution. Chemical Communications, 2019, 55, 1797-1800.	2.2	19
667	Constructing organic superacids from superhalogens is a rational route as verified by DFT calculations. Physical Chemistry Chemical Physics, 2019, 21, 2804-2815.	1.3	15
668	Metalâ€“organic frameworks-based catalysts for electrochemical oxygen evolution. Materials Horizons, 2019, 6, 684-702.	6.4	149
669	Atomic layer deposition of Co3O4 nanocrystals on N-doped electrospun carbon nanofibers for oxygen reduction and oxygen evolution reactions. Nanoscale Advances, 2019, 1, 1224-1231.	2.2	22
670	Ag nanoparticle-decorated, ordered mesoporous silica as an efficient electrocatalyst for alkaline water oxidation reaction. Dalton Transactions, 2019, 48, 2220-2227.	1.6	40
671	Coupling pentlandite nanoparticles and dual-doped carbon networks to yield efficient and stable electrocatalysts for acid water oxidation. Journal of Materials Chemistry A, 2019, 7, 461-468.	5.2	54
672	Bimetallic metal-organic framework nanosheets as efficient electrocatalysts for oxygen evolution reaction. Journal of Solid State Chemistry, 2019, 272, 32-37.	1.4	47
673	The electrochemical corrosion of an air thermally-treated carbon fiber cloth electrocatalyst with outstanding oxygen evolution activity under alkaline conditions. Chemical Communications, 2019, 55, 2344-2347.	2.2	10
674	Surfaceâ€Activated Amorphous Iron Borides (Fe_xB) as Efficient Electrocatalysts for Oxygen Evolution Reaction. Advanced Materials Interfaces, 2019, 6, 1801690.	1.9	35
675	Activation of transition metal oxides by in-situ electro-regulated structure-reconstruction for ultra-efficient oxygen evolution. Nano Energy, 2019, 58, 778-785.	8.2	81
676	Self-Assembled Ni₃S₂ Nanosheets with Mesoporous Structure Tightly Held on Ni Foam as a Highly Efficient and Long-Term Electrocatalyst for Water Oxidation. ACS Sustainable Chemistry and Engineering, 2019, 7, 5430-5439.	3.2	48

#	Article	IF	Citations
677	Hollow capsules of doped carbon incorporating metal@metal sulfide and metal@metal oxide coreâ€“shell nanoparticles derived from metalâ€“organic framework composites for efficient oxygen electrocatalysis. Journal of Materials Chemistry A, 2019, 7, 3624-3631.	5.2	53
678	Revealing High Oxygen Evolution Catalytic Activity of Fluorine-Doped Carbon in Alkaline Media. Materials, 2019, 12, 211.	1.3	7
679	Bifunctional Oxygen Electrocatalysts for Lithiumâ^'Oxygen Batteries. Batteries and Supercaps, 2019, 2, 311-325.	2.4	22
680	Constructing Earthâ€abundant 3D Nanoarrays for Efficient Overall Water Splitting â€“ A Review. ChemCatChem, 2019, 11, 1550-1575.	1.8	108
681	Defect-Rich NiCeO_x Electrocatalyst with Ultrahigh Stability and Low Overpotential for Water Oxidation. ACS Catalysis, 2019, 9, 1605-1611.	5.5	113
682	Polydopamine-assisted construction of cobalt phosphide encapsulated in N-doped carbon porous polyhedrons for enhanced overall water splitting. Carbon, 2019, 145, 694-700.	5.4	82
683	2D transition metalâ€“TCNQ sheets as bifunctional single-atom catalysts for oxygen reduction and evolution reaction (ORR/OER). Journal of Catalysis, 2019, 370, 378-384.	3.1	114
684	Water-Plasma Assisted Synthesis of Oxygen-Enriched Niâ€“Fe Layered Double Hydroxide Nanosheets for Efficient Oxygen Evolution Reaction. ACS Sustainable Chemistry and Engineering, 2019, 7, 4247-4254.	3.2	66
685	One-step synthesis of bifunctional iron-doped manganese oxide nanorods for rechargeable zincâ€“air batteries. Catalysis Science and Technology, 2019, 9, 1245-1254.	2.1	52
686	Niâ€“Co hydroxide nanosheets on plasma-reduced Co-based metalâ€“organic nanocages for electrocatalytic water oxidation. Journal of Materials Chemistry A, 2019, 7, 4950-4959.	5.2	73
687	The durability of the thermally decomposed IrO2-Ta2O5 coated titanium anode in a sulfate solution. Corrosion Science, 2019, 150, 76-90.	3.0	19
688	Copper Containing Molecular Systems in Electrocatalytic Water Oxidationâ€”Trends and Perspectives. Catalysts, 2019, 9, 83.	1.6	22
689	Ni-Doped CuS as an efficient electrocatalyst for the oxygen evolution reaction. Catalysis Science and Technology, 2019, 9, 406-417.	2.1	76
690	Kinetics and mechanisms of catalytic water oxidation. Dalton Transactions, 2019, 48, 779-798.	1.6	42
691	Defect-rich and ultrathin N doped carbon nanosheets as advanced trifunctional metal-free electrocatalysts for the ORR, OER and HER. Energy and Environmental Science, 2019, 12, 322-333.	15.6	1,078
692	High-performance oxygen evolution electrocatalysis by boronized metal sheets with self-functionalized surfaces. Energy and Environmental Science, 2019, 12, 684-692.	15.6	169
693	Vertically aligned MoS₂ nanosheets on graphene for highly stable electrocatalytic hydrogen evolution reactions. Nanoscale, 2019, 11, 2439-2446.	2.8	100
694	Asymmetric electrodes with a transition metal disulfide heterostructure and amorphous bimetallic hydroxide for effective alkaline water electrolysis. Journal of Materials Chemistry A, 2019, 7, 2895-2900.	5.2	31

#	Article	IF	Citations
695	Boosting electrochemical water splitting via ternary NiMoCo hybrid nanowire arrays. Journal of Materials Chemistry A, 2019, 7, 2156-2164.	5.2	163
696	Polyoxometalate-assisted formation of CoSe/MoSe₂ heterostructures with enhanced oxygen evolution activity. Journal of Materials Chemistry A, 2019, 7, 3317-3326.	5.2	94
697	Ni-Based Composites from Chitosan Biopolymer a One-Step Synthesis for Oxygen Evolution Reaction. Catalysts, 2019, 9, 471.	1.6	10
698	Organicâ€“inorganic hybrids of Feâ€“Co polyphenolic network wrapped Fe₃O₄ nanocatalysts for significantly enhanced oxygen evolution. Journal of Materials Chemistry A, 2019, 7, 14302-14308.	5.2	40
699	Amorphous quaternary alloy phosphide hierarchical nanoarrays with pagoda-like structure grown on Ni foam as pH-universal electrocatalyst for hydrogen evolution reaction. Applied Surface Science, 2019, 489, 519-527.	3.1	32
700	Engineering Two-Dimensional Materials and Their Heterostructures as High-Performance Electrocatalysts. Electrochemical Energy Reviews, 2019, 2, 373-394.	13.1	74
701	Facile Fabrication of Amorphous Niâ˜P Supported on a 3D Biocarbon Skeleton as an Efficient Electrocatalyst for the Oxygen Evolution Reaction. ChemElectroChem, 2019, 6, 3071-3076.	1.7	17
702	Amorphous Cobalt Iron Borate Grown on Carbon Paper as a Precatalyst for Water Oxidation. ChemSusChem, 2019, 12, 3524-3531.	3.6	28
703	Superior Oxygen Evolution Reaction Performance of Co₃O₄/NiCo₂O₄/Ni Foam Composite with Hierarchical Structure. ACS Sustainable Chemistry and Engineering, 0, , .	3.2	7
704	Facile synthesis of Bi-functional molybdenum-doped BiVO4/Molybdenum oxide heterojunction as the photocatalyst for water oxidation. Journal of Power Sources, 2019, 434, 226705.	4.0	16
705	The synthesis and electrochemical applications of coreâ€“shell MOFs and their derivatives. Journal of Materials Chemistry A, 2019, 7, 15519-15540.	5.2	126
706	The application of CeO₂-based materials in electrocatalysis. Journal of Materials Chemistry A, 2019, 7, 17675-17702.	5.2	128
707	Ligand-Effect-Induced Oxygen Reduction Reaction Activity Enhancement for Pt/Zr/Pt(111) Surfaces with Tensile Strain Relieved by Stacking Faults. ACS Applied Energy Materials, 2019, 2, 4597-4601.	2.5	13
708	Efficient oxygen evolution on mesoporous IrO_x nanosheets. Catalysis Science and Technology, 2019, 9, 3697-3702.	2.1	51
709	Fluoridated Ironâ€“Nickel Layered Double Hydroxide for Enhanced Performance in the Oxygen Evolution Reaction. ChemSusChem, 2019, 12, 3849-3855.	3.6	73
710	Controllable preparation of nitrogen-doped graphitized carbon from molecular precursor as non-metal oxygen evolution reaction electrocatalyst. Applied Surface Science, 2019, 491, 723-734.	3.1	24
711	Doping of Ni in Î±-Fe₂O₃ Nanoclews To Boost Oxygen Evolution Electrocatalysis. ACS Sustainable Chemistry and Engineering, 0, , .	3.2	10
712	Nanoâ€Microâ€Structured Nickelâ€Cobalt Hydroxide/Ni₂P₂O₇ Assembly on Nickel Foam: An Outstanding Electrocatalyst for Alkaline Oxygen Evolution Reaction. ChemCatChem, 2019, 11, 4256-4261.	1.8	20

#	Article	IF	Citations
713	Chlorine doped graphitic carbon nitride nanorings as an efficient photoresponsive catalyst for water oxidation and organic decomposition. Journal of Materials Science and Technology, 2019, 35, 2288-2296.	5.6	61
714	Facile Synthesis of Monodispersed Î±-Ni(OH)2 Microspheres Assembled by Ultrathin Nanosheets and Its Performance for Oxygen Evolution Reduction. Frontiers in Materials, 2019, 6, .	1.2	30
715	High performance of Coâ€“P/NF electrocatalyst for oxygen evolution reaction. Materials Chemistry and Physics, 2019, 235, 121772.	2.0	15
716	In situ iron coating on nanocatalysts for efficient and durable oxygen evolution reaction. Nano Energy, 2019, 63, 103855.	8.2	26
717	Recent progress made in the mechanism comprehension and design of electrocatalysts for alkaline water splitting. Energy and Environmental Science, 2019, 12, 2620-2645.	15.6	1,052
718	Single-crystalline layered double hydroxides with rich defects and hierarchical structure by mild reduction for enhancing the oxygen evolution reaction. Science China Chemistry, 2019, 62, 1365-1370.	4.2	61
719	Conductive additives for oxide-based OER catalysts: A comparative RRDE study of carbon and silver in alkaline medium. Electrochimica Acta, 2019, 319, 227-236.	2.6	9
720	Nobleâ€Metalâ€Free Colloidalâ€Copper Based Low Overpotential Water Oxidation Electrocatalyst. ChemCatChem, 2019, 11, 6022-6030.	1.8	22
721	Vanadium doping over Ni3S2 nanosheet array for improved overall water splitting. Applied Surface Science, 2019, 489, 815-823.	3.1	50
722	Transition metal electrocatalysts encapsulated into N-doped carbon nanotubes on reduced graphene oxide nanosheets: efficient water splitting through synergistic effects. Journal of Materials Chemistry A, 2019, 7, 15145-15155.	5.2	75
723	Hierarchical nanotubes constructed from CoSe2 nanorods with an oxygen-rich surface for an efficient oxygen evolution reaction. Journal of Materials Chemistry A, 2019, 7, 15073-15078.	5.2	47
724	Ni_{1â^'x}M_xSe₂ (M = Fe, Co, Cu) nanowires as anodes for ammonia-borane electrooxidation and the derived Ni_{1â^'x}M_xSe_{2â^'y}â€“OOH ultrathin nanosheets as efficient electrocatalysts for oxygen evolution. Journal of Materials Chemistry A, 2019, 7, 16372-16386.	5.2	21
725	Small sized Feâ€“Co sulfide nanoclusters anchored on carbon for oxygen evolution. Journal of Materials Chemistry A, 2019, 7, 15851-15861.	5.2	87
726	Naturalâ€Celluloseâ€Nanofibrilâ€Tailored NiFe Nanoparticles for Efficient Oxygen Evolution Reaction. ChemElectroChem, 2019, 6, 3303-3310.	1.7	10
727	Graphyne doped with transition-metal single atoms as effective bifunctional electrocatalysts for water splitting. Applied Surface Science, 2019, 492, 8-15.	3.1	74
728	Enhancing the electrocatalytic activity of NiMoO4 through a post-phosphorization process for oxygen evolution reaction. Catalysis Communications, 2019, 129, 105725.	1.6	14
729	Hard-templated preparation of mesoporous cobalt phosphide as an oxygen evolution electrocatalyst. Electrochemistry Communications, 2019, 104, 106476.	2.3	17
730	CeO2/Co(OH)2 hybrid electrocatalysts for efficient hydrogen and oxygen evolution reaction. Journal of Alloys and Compounds, 2019, 800, 450-455.	2.8	53

#	Article	IF	Citations
731	Niâ€Metalloid (B, Si, P, As, and Te) Alloys as Water Oxidation Electrocatalysts. Advanced Energy Materials, 2019, 9, 1900796.	10.2	93
732	Anchoring CuO Nanoparticles On C, Nâ€Codoped Gâ€C₃N₄ Nanosheets from Melamineâ€Entrapped MOF Gel for Highâ€Efficiency Oxygen Evolution. ChemNanoMat, 2019, 5, 1170-1175.	1.5	8
733	Highly Efficient Oxygen Reduction Reaction Catalyst Derived from Fe/Ni Mixed-Metalâ€“Organic Frameworks for Application of Fuel Cell Cathode. Industrial & Engineering Chemistry Research, 2019, 58, 10224-10237.	1.8	25
734	Novel nickelâ€“cobalt phosphite with face-sharing octahedra derived electrocatalyst for efficient water splitting. Inorganic Chemistry Frontiers, 2019, 6, 2014-2023.	3.0	14
735	Hierarchically Porous Co/Co_xM_y (M = P, N) as an Efficient Mottâ€“Schottky Electrocatalyst for Oxygen Evolution in Rechargeable Znâ€“Air Batteries. Small, 2019, 15, e1901518.	5.2	163
736	Thermal Synthesis of FeNi@Nitrogen-Doped Graphene Dispersed on Nitrogen-Doped Carbon Matrix as an Excellent Electrocatalyst for Oxygen Evolution Reaction. ACS Applied Energy Materials, 2019, 2, 4075-4083.	2.5	34
737	Effect of Ion Diffusion in Cobalt Molybdenum Bimetallic Sulfide toward Electrocatalytic Water Splitting. ACS Applied Materials & Interfaces, 2019, 11, 21634-21644.	4.0	47
738	Selective light absorber-assisted single nickel atom catalysts for ambient sunlight-driven CO2 methanation. Nature Communications, 2019, 10, 2359.	5.8	185
739	Artificial photosynthesis systems for catalytic water oxidation. Advances in Inorganic Chemistry, 2019, 74, 3-59.	0.4	35
740	A new approach for the synthesis of electrocatalytically active CoFe2O4 catalyst for oxygen reduction reaction. Journal of Electroanalytical Chemistry, 2019, 847, 113183.	1.9	12
741	Enhanced Electrocatalytic Oxygen Evolution Activity by Tuning Both the Oxygen Vacancy and Orbital Occupancy of Bâ€Site Metal Cation in NdNiO₃. Advanced Functional Materials, 2019, 29, 1902449.	7.8	72
742	In situ growth of ultrathin NiFe layered double hydroxide nanosheets on reduced oxide graphene as an enhanced oxygen evolution electrocatalyst. Journal of Colloid and Interface Science, 2019, 552, 671-677.	5.0	30
743	Triple-Cation-Based Perovskite Photocathodes with AZO Protective Layer for Hydrogen Production Applications. ACS Applied Materials & Interfaces, 2019, 11, 23198-23206.	4.0	46
744	Electrodeposited mesh-type dimensionally stable anode for oxygen evolution reaction in acidic and alkaline media. Chemical Engineering Science, 2019, 206, 424-431.	1.9	12
745	The oxygen evolution reaction enabled by transition metal phosphide and chalcogenide pre-catalysts with dynamic changes. Chemical Communications, 2019, 55, 8744-8763.	2.2	246
746	Promoted synergy in core-branch CoP@NiFeâ€“OH nanohybrids for efficient electrochemical-/photovoltage-driven overall water splitting. Nano Energy, 2019, 63, 103821.	8.2	82
747	In-situ surface selective removal: An efficient way to prepare water oxidation catalyst. International Journal of Hydrogen Energy, 2019, 44, 14955-14967.	3.8	13
748	Magnetic field enhancing electrocatalysis of Co3O4/NF for oxygen evolution reaction. Journal of Power Sources, 2019, 433, 226704.	4.0	91

#	Article	IF	Citations
749	Anionâ€“Cation Double Doped Co₃O₄ Microtube Architecture to Promote High-Valence Co Species Formation for Enhanced Oxygen Evolution Reaction. ACS Sustainable Chemistry and Engineering, 2019, 7, 11901-11910.	3.2	50
750	Ultrathin nickel-cobalt inorganic-organic hydroxide hybrid nanobelts as highly efficient electrocatalysts for oxygen evolution reaction. Electrochimica Acta, 2019, 318, 966-976.	2.6	17
751	The evaluation of the long-term stability of Î±-MnO2 based OER electrocatalyst in neutral medium by using data processing approach. Journal of Molecular Structure, 2019, 1195, 632-640.	1.8	22
752	Self-supported Co-doped FeNi carbonate hydroxide nanosheet array as a highly efficient electrocatalyst towards the oxygen evolution reaction in an alkaline solution. Nanoscale, 2019, 11, 10595-10602.	2.8	32
753	MnIII-enriched Î±-MnO2 nanowires as efficient bifunctional oxygen catalysts for rechargeable Zn-air batteries. Energy Storage Materials, 2019, 23, 252-260.	9.5	80
754	Highly Conductive Bimetallic Niâ€“Fe Metal Organic Framework as a Novel Electrocatalyst for Water Oxidation. ACS Sustainable Chemistry and Engineering, 2019, 7, 9743-9749.	3.2	123
755	Innovative methods to couple earth-abundant biomass waste with air batteries. Current Opinion in Electrochemistry, 2019, 15, 133-139.	2.5	11
756	Oxygen Isotope Labeling Experiments Reveal Different Reaction Sites for the Oxygen Evolution Reaction on Nickel and Nickel Iron Oxides. Angewandte Chemie, 2019, 131, 10401-10405.	1.6	63
757	Oxygen Isotope Labeling Experiments Reveal Different Reaction Sites for the Oxygen Evolution Reaction on Nickel and Nickel Iron Oxides. Angewandte Chemie - International Edition, 2019, 58, 10295-10299.	7.2	224
758	Efficient electrocatalytic oxygen evolution by Fe3C nanosheets perpendicularly grown on 3D Ni foams. International Journal of Hydrogen Energy, 2019, 44, 16507-16515.	3.8	23
759	Mesoporous spinel NiFe oxide cubes as advanced electrocatalysts for oxygen evolution. International Journal of Hydrogen Energy, 2019, 44, 16368-16377.	3.8	22
760	MXene Boosted CoNi-ZIF-67 as Highly Efficient Electrocatalysts for Oxygen Evolution. Nanomaterials, 2019, 9, 775.	1.9	85
761	Guided Assembly of Microporous/Mesoporous Manganese Phosphates by Bifunctional Organophosphonic Acid Etching and Templating. Advanced Materials, 2019, 31, e1901124.	11.1	15
762	Interface Electronic Coupling in Hierarchical FeLDH(FeCo)/Co(OH)₂ Arrays for Efficient Electrocatalytic Oxygen Evolution. ChemSusChem, 2019, 12, 3592-3601.	3.6	38
763	NiFe/(Ni,Fe)₃S₂ Core/Shell Nanowire Arrays as Outstanding Catalysts for Electrolytic Water Splitting at High Current Densities. Small Methods, 2019, 3, 1900234.	4.6	28
764	Fe₃Câ€Co Nanoparticles Encapsulated in a Hierarchical Structure of Nâ€Doped Carbon as a Multifunctional Electrocatalyst for ORR, OER, and HER. Advanced Functional Materials, 2019, 29, 1901949.	7.8	297
765	First principles calculations of surface dependent electronic structures: a study on Î²-FeOOH and Î³-FeOOH. Physical Chemistry Chemical Physics, 2019, 21, 18486-18494.	1.3	17
766	Perovskite oxides as bifunctional oxygen electrocatalysts for oxygen evolution/reduction reactions â€“ A mini review. Applied Materials Today, 2019, 16, 56-71.	2.3	122

#	Article	IF	Citations
767	In-situ electrochemical self-tuning of amorphous nickel molybdenum phosphate to crystal Ni-rich compound for enhanced overall water splitting. Journal of Power Sources, 2019, 430, 218-227.	4.0	27
768	Synthesis from a layered double hydroxide precursor for a highly efficient oxygen evolution reaction. Inorganic Chemistry Frontiers, 2019, 6, 1793-1798.	3.0	21
769	Hierarchical Co-N microballs with heterostructure exhibiting superior electrochemical properties for water splitting and reduction of I3â^'. Journal of Alloys and Compounds, 2019, 797, 341-347.	2.8	6
770	Arousing the Reactive Fe Sites in Pyrite (FeS₂) via Integration of Electronic Structure Reconfiguration and in Situ Electrochemical Topotactic Transformation for Highly Efficient Oxygen Evolution Reaction. Inorganic Chemistry, 2019, 58, 7615-7627.	1.9	53
771	Recent Studies on Bifunctional Perovskite Electrocatalysts in Oxygen Evolution, Oxygen Reduction, and Hydrogen Evolution Reactions under Alkaline Electrolyte. Israel Journal of Chemistry, 2019, 59, 708-719.	1.0	12
772	Cryogenic ball milling synthesis of Ag3PO4/h-BN nanoparticles with increased performance for photocatalytic oxygen evolution reaction. Ceramics International, 2019, 45, 16682-16687.	2.3	14
773	In situ Surface Chemistry Engineering of Cobalt-Sulfide Nanosheets for Improved Oxygen Evolution Activity. ACS Applied Energy Materials, 2019, 2, 4439-4449.	2.5	49
774	Facile electrochemical synthesis of ultrathin iron oxyhydroxide nanosheets for the oxygen evolution reaction. Chemical Communications, 2019, 55, 8808-8811.	2.2	15
775	Cobalt Nanoparticles Embedded into N-Doped Carbon from Metal Organic Frameworks as Highly Active Electrocatalyst for Oxygen Evolution Reaction. Polymers, 2019, 11, 828.	2.0	36
776	An Amorphous Nickelâ€"Ironâ€Based Electrocatalyst with Unusual Local Structures for Ultrafast Oxygen Evolution Reaction. Advanced Materials, 2019, 31, e1900883.	11.1	243
777	Water oxidation catalysis with well-defined molecular iron complexes. Advances in Inorganic Chemistry, 2019, 74, 151-196.	0.4	9
778	Contribution of carbon support in cost-effective metal oxide/carbon composite catalysts for the alkaline oxygen evolution reaction. Catalysis Communications, 2019, 127, 5-9.	1.6	14
779	Encapsulated spinel CuXCo3-XO4 in carbon nanotubes as efficient and stable oxygen electrocatalysts. International Journal of Hydrogen Energy, 2019, 44, 11421-11430.	3.8	33
780	TiO2 homojunction with Au nanoparticles decorating as an efficient and stable electrocatalyst for hydrogen evolution reaction. Materials Characterization, 2019, 151, 286-291.	1.9	13
781	Recent progress in theoretical and computational investigations of structural stability and activity of single-atom electrocatalysts. Progress in Natural Science: Materials International, 2019, 29, 256-264.	1.8	27
782	Atomic-Layer-Deposited MoN_x Thin Films on Three-Dimensional Ni Foam as Efficient Catalysts for the Electrochemical Hydrogen Evolution Reaction. ACS Applied Materials & Interfaces, 2019, 11, 17321-17332.	4.0	48
783	Expanding Multinary Selenide Based High-Efficiency Oxygen Evolution Electrocatalysts through Combinatorial Electrodeposition: Case Study with Feâ€"Cuâ€"Co Selenides. ACS Sustainable Chemistry and Engineering, 2019, 7, 9588-9600.	3.2	64
784	Solid-solution alloy nanoparticles of a combination of immiscible Au and Ru with a large gap of reduction potential and their enhanced oxygen evolution reaction performance. Chemical Science, 2019, 10, 5133-5137.	3.7	48

#	Article	IF	Citations
785	Electrocatalytic materials design for oxygen evolution reaction. Advances in Inorganic Chemistry, 2019, , 241-303.	0.4	14
786	Influence of Electrochemical Aging on Bead-Blasted Nickel Electrodes for the Oxygen Evolution Reaction. ACS Applied Energy Materials, 2019, 2, 3166-3178.	2.5	5
787	A unique sandwich structure of a CoMnP/Ni₂P/NiFe electrocatalyst for highly efficient overall water splitting. Journal of Materials Chemistry A, 2019, 7, 12325-12332.	5.2	62
788	Engineering the surface atomic structure of FeVO₄nanocrystals for use as highly active and stable electrocatalysts for oxygen evolution. Journal of Materials Chemistry A, 2019, 7, 10949-10953.	5.2	21
789	Separation of hot electrons and holes in Au/LaFeO3 to boost the photocatalytic activities both for water reduction and oxidation. International Journal of Hydrogen Energy, 2019, 44, 13242-13252.	3.8	36
790	Coupling a Low Loading of IrP₂, PtP₂, or Pd₃P with Heteroatom-Doped Nanocarbon for Overall Water-Splitting Cells and Zincâ€“Air Batteries. ACS Applied Materials & Interfaces, 2019, 11, 16461-16473.	4.0	38
791	In-situ preparation of porous carbon nanosheets loaded with metal chalcogenides for a superior oxygen evolution reaction. Carbon, 2019, 149, 144-151.	5.4	32
792	Iron-Doped LiCoO2 Nanosheets as Highly Efficient Electrocatalysts for Alkaline Water Oxidation. European Journal of Inorganic Chemistry, 2019, 2019, 2448-2454.	1.0	6
793	Nanostructured core-shell cobalt chalcogenides for efficient water oxidation in alkaline electrolyte. Electrochimica Acta, 2019, 312, 234-241.	2.6	29
794	A facile sequential ion exchange strategy to synthesize CoSe₂/FeSe₂ double-shelled hollow nanocuboids for the highly active and stable oxygen evolution reaction. Nanoscale, 2019, 11, 10738-10745.	2.8	80
795	Stepwise Electrochemical Construction of FeOOH/Ni(OH)₂ on Ni Foam for Enhanced Electrocatalytic Oxygen Evolution. ACS Applied Energy Materials, 2019, 2, 3927-3935.	2.5	87
796	Edge-Enhanced Oxygen Evolution Reactivity at Ultrathin, Au-Supported Fe₂O₃ Electrocatalysts. ACS Catalysis, 2019, 9, 5375-5382.	5.5	46
797	Atomic-Level Understanding of the Effect of Heteroatom Doping of the Cocatalyst on Water-Splitting Activity in AuPd or AuPt Alloy Cluster-Loaded BaLa₄Ti₄O₁₅. ACS Applied Energy Materials, 2019, 2, 4175-4187.	2.5	61
798	Molecular Evidence for the Catalytic Process of Cobalt Porphyrin Catalyzed Oxygen Evolution Reaction in Alkaline Solution. Journal of the American Chemical Society, 2019, 141, 7665-7669.	6.6	61
799	Efficient Oxygen Evolution Catalysis Triggered by Nickel Phosphide Nanoparticles Compositing with Reduced Graphene Oxide with Controlled Architecture. ACS Sustainable Chemistry and Engineering, 2019, 7, 9566-9573.	3.2	34
800	Ru@RuO₂ Coreâ€Shell Nanorods: A Highly Active and Stable Bifunctional Catalyst for Oxygen Evolution and Hydrogen Evolution Reactions. Energy and Environmental Materials, 2019, 2, 201-208.	7.3	64
801	Single phase of spinel Co₂RhO₄ nanotubes with remarkably enhanced catalytic performance for the oxygen evolution reaction. Nanoscale, 2019, 11, 9287-9295.	2.8	23
802	Bioinspired Synthesis of Reduced Graphene Oxide-Wrapped Geobacter sulfurreducens as a Hybrid Electrocatalyst for Efficient Oxygen Evolution Reaction. Chemistry of Materials, 2019, 31, 3686-3693.	3.2	47

#	Article	IF	Citations
803	Integration of Semiconductor Oxide and a Microporous (3,10)-Connected Co6-Based Metalâ€“Organic Framework for Enhanced Oxygen Evolution Reaction. Inorganic Chemistry, 2019, 58, 5837-5843.	1.9	61
804	Sea urchin-like Niâ€“Fe sulfide architectures as efficient electrocatalysts for the oxygen evolution reaction. Journal of Materials Chemistry A, 2019, 7, 12350-12357.	5.2	109
805	Thin Nickel Layer with Embedded WC Nanoparticles for Efficient Oxygen Evolution. ACS Applied Energy Materials, 2019, 2, 3452-3460.	2.5	14
806	Black Phosphorus-Modified Co₃O₄ through Tuning the Electronic Structure for Enhanced Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2019, 11, 17459-17466.	4.0	87
807	A promising engineering strategy for water electro-oxidation iridate catalysts via coordination distortion. Chemical Communications, 2019, 55, 5801-5804.	2.2	24
808	Coâ€Modified MoS₂ Hybrids as Superior Bifunctional Electrocatalysts for Water Splitting Reactions: Integrating Multiple Active Components in One. Advanced Materials Interfaces, 2019, 6, 1900372.	1.9	22
809	Room-temperature ligancy engineering of perovskite electrocatalyst for enhanced electrochemical water oxidation. Nano Research, 2019, 12, 2296-2301.	5.8	11
810	Trimetallic Metalâ€“Organic Framework Derived Carbonâ€Based Nanoflower Electrocatalysts for Efficient Overall Water Splitting. Advanced Materials Interfaces, 2019, 6, 1900290.	1.9	72
811	Surface confinement assisted synthesis of nitrogen-rich hollow carbon cages with Co nanoparticles as breathable electrodes for Zn-air batteries. Applied Catalysis B: Environmental, 2019, 254, 55-65.	10.8	92
812	Operando Surface X-ray Diffraction Studies of Structurally Defined Co₃O₄ and CoOOH Thin Films during Oxygen Evolution. ACS Catalysis, 2019, 9, 3811-3821.	5.5	93
813	Morphological and Interfacial Engineering of Cobalt-Based Electrocatalysts by Carbon Dots for Enhanced Water Splitting. ACS Sustainable Chemistry and Engineering, 2019, 7, 7047-7057.	3.2	65
814	Co₃O₄@Cuâ€Based Conductive Metalâ€“Organic Framework Coreâ€“Shell Nanowire Electrocatalysts Enable Efficient Lowâ€Overallâ€Potential Water Splitting. Chemistry - A European Journal, 2019, 25, 6575-6583.	1.7	64
815	Identifying high-efficiency oxygen evolution electrocatalysts from Coâ€“Niâ€“Cu based selenides through combinatorial electrodeposition. Journal of Materials Chemistry A, 2019, 7, 9877-9889.	5.2	80
816	Anodization study of epitaxial graphene: insights on the oxygen evolution reaction of graphitic materials. Nanotechnology, 2019, 30, 285701.	1.3	2
817	Oxygen Evolution Reaction Activity in IrOx/SrIrO3 Catalysts: Correlations between Structural Parameters and the Catalytic Activity. Journal of Physical Chemistry Letters, 2019, 10, 1516-1522.	2.1	24
818	Hierarchical Ni₂P/Cr₂CT_x(MXene) composites with oxidized surface groups as efficient bifunctional electrocatalysts for overall water splitting. Journal of Materials Chemistry A, 2019, 7, 9324-9334.	5.2	54
819	Iron-substituted Co-Ni phosphides immobilized on Ni foam as efficient self-supported 3D hierarchical electrocatalysts for oxygen evolution reaction. International Journal of Hydrogen Energy, 2019, 44, 8156-8165.	3.8	50
820	Synthesis and characterization of mesoporous BiVO4 nanofibers with enhanced photocatalytic water oxidation performance. Applied Surface Science, 2019, 481, 255-261.	3.1	35

#	Article	IF	Citations
821	Carbon Nanotube-Supported MoSe₂ Holey Flake:Mo₂C Ball Hybrids for Bifunctional pH-Universal Water Splitting. ACS Nano, 2019, 13, 3162-3176.	7.3	120
822	Support and Interface Effects in Waterâ€Splitting Electrocatalysts. Advanced Materials, 2019, 31, e1808167.	11.1	531
823	Hierarchical Porous Ni₃S₄ with Enriched Highâ€Valence Ni Sites as a Robust Electrocatalyst for Efficient Oxygen Evolution Reaction. Advanced Functional Materials, 2019, 29, 1900315.	7.8	281
824	Cobalt oxide-based nanoarchitectures for electrochemical energy applications. Progress in Materials Science, 2019, 103, 596-677.	16.0	166
825	Iridiumâ€Based Cubic Nanocages with 1.1â€nmâ€Thick Walls: A Highly Efficient and Durable Electrocatalyst for Water Oxidation in an Acidic Medium. Angewandte Chemie - International Edition, 2019, 58, 7244-7248.	7.2	89
826	Self-generated N-doped anodized stainless steel mesh for an efficient and stable overall water splitting electrocatalyst. Applied Surface Science, 2019, 480, 655-664.	3.1	55
827	2D Layered Double Hydroxides for Oxygen Evolution Reaction: From Fundamental Design to Application. Advanced Energy Materials, 2019, 9, 1803358.	10.2	467
828	Roomâ€Temperature Ultrafast Synthesis of NiCoâ€Layered Double Hydroxide as an Excellent Electrocatalyst for Water Oxidation. ChemistrySelect, 2019, 4, 2409-2415.	0.7	25
829	Mesoporous Ultrathin Cobalt Oxides Nanosheets Grown on Carbon Cloth as a High-Performance Electrode for Oxygen Evolution Reaction. ACS Applied Energy Materials, 2019, 2, 1977-1987.	2.5	18
830	Operando Unraveling of the Structural and Chemical Stability of P-Substituted CoSe₂ Electrocatalysts toward Hydrogen and Oxygen Evolution Reactions in Alkaline Electrolyte. ACS Energy Letters, 2019, 4, 987-994.	8.8	363
831	Chemical and structural origin of lattice oxygen oxidation in Coâ€“Zn oxyhydroxide oxygen evolution electrocatalysts. Nature Energy, 2019, 4, 329-338.	19.8	977
832	Nickel based oxide film formed in molten salts for efficient electrocatalytic oxygen evolution. Journal of Materials Chemistry A, 2019, 7, 10514-10522.	5.2	44
833	Conductive metalâ€“organic framework nanowire arrays for electrocatalytic oxygen evolution. Journal of Materials Chemistry A, 2019, 7, 10431-10438.	5.2	115
834	In-situ growth of nitrogen-doped mesoporous carbon nanostructure supported nickel metal nanoparticles for oxygen evolution reaction in an alkaline electrolyte. Electrochimica Acta, 2019, 306, 617-626.	2.6	7
835	3D self-branched zinc-cobalt Oxide@N-doped carbon hollow nanowall arrays for high-performance asymmetric supercapacitors and oxygen electrocatalysis. Energy Storage Materials, 2019, 23, 653-663.	9.5	104
836	One-step synthesis of wire-in-plate nanostructured materials made of CoFe-LDH nanoplates coupled with Co(OH)₂ nanowires grown on a Ni foam for a high-efficiency oxygen evolution reaction. Chemical Communications, 2019, 55, 4218-4221.	2.2	75
837	Iridiumâ€Based Cubic Nanocages with 1.1â€nmâ€Thick Walls: A Highly Efficient and Durable Electrocatalyst for Water Oxidation in an Acidic Medium. Angewandte Chemie, 2019, 131, 7322-7326.	1.6	12
838	Metalâ€“Organic Gelâ€Derived Multimetal Oxides as Effective Electrocatalysts for the Oxygen Evolution Reaction. ChemSusChem, 2019, 12, 2480-2486.	3.6	27

#	Article	IF	Citations
839	Green Synthesis and Electrochemical Study of Cobalt/Graphene Quantum Dots for Efficient Water Splitting. Journal of Physical Chemistry C, 2019, 123, 9183-9191.	1.5	30
840	Activating hierarchically hortensia-like CoAl layered double hydroxides by alkaline etching and anion modulation strategies for the efficient oxygen evolution reaction. Dalton Transactions, 2019, 48, 5214-5221.	1.6	23
841	Metalâ€“organic framework composites and their electrochemical applications. Journal of Materials Chemistry A, 2019, 7, 7301-7327.	5.2	284
842	Identifying the Activation of Bimetallic Sites in NiCo₂S₄@gâ€C₃N₄â€CNT Hybrid Electrocatalysts for Synergistic Oxygen Reduction and Evolution. Advanced Materials, 2019, 31, e1808281.	11.1	315
843	Core-Shell Architecture Advances Oxygen Electrocatalysis. CheM, 2019, 5, 260-262.	5.8	11
844	Boosting electrocatalysis by heteroatom doping and oxygen vacancies in hierarchical Ni-Co based nitride phosphide hybrid. Journal of Power Sources, 2019, 422, 33-41.	4.0	39
845	Nanoporous gold supported chromium-doped NiFe oxyhydroxides as high-performance catalysts for the oxygen evolution reaction. Journal of Materials Chemistry A, 2019, 7, 9690-9697.	5.2	33
846	Electroactive Edgeâ€Siteâ€Enriched Î±â€Co 0.9 Fe 0.1 (OH) x Nanoplates for Efficient Overall Water Splitting. ChemElectroChem, 2019, 6, 2415-2422.	1.7	4
847	Electrocatalytic Water Splitting through the Ni_xS_y Self-Grown Superstructures Obtained via a Wet Chemical Sulfurization Process. ACS Omega, 2019, 4, 6486-6491.	1.6	14
848	Synthesis of Flowerâ€Like Carbonâ€Doped Nickel Phosphides Electrocatalysts for Oxygen Evolution Reaction. ChemistrySelect, 2019, 4, 4271-4277.	0.7	9
849	Boosting oxygen evolution of single-atomic ruthenium through electronic coupling with cobalt-iron layered double hydroxides. Nature Communications, 2019, 10, 1711.	5.8	446
850	All-In-One Deep Eutectic Solvent toward Cobalt-Based Electrocatalyst for Oxygen Evolution Reaction. ACS Sustainable Chemistry and Engineering, 2019, 7, 8964-8971.	3.2	22
851	Deep Eutectic Solvent-Mediated Hierarchically Structured Fe-Based Organicâ€“Inorganic Hybrid Catalyst for Oxygen Evolution Reaction. ACS Applied Energy Materials, 2019, 2, 3343-3351.	2.5	23
852	Electrocatalysis of the first electron transfer in hydrogen evolution reaction with an atomically precise CuII-organic framework catalyst. Electrochimica Acta, 2019, 308, 285-294.	2.6	30
853	Electrospun NiMn2O4 and NiCo2O4 spinel oxides supported on carbon nanofibers as electrocatalysts for the oxygen evolution reaction in an anion exchange membrane-based electrolysis cell. International Journal of Hydrogen Energy, 2019, 44, 20987-20996.	3.8	46
854	Metalâ€“organic layer derived metal hydroxide nanosheets for highly efficient oxygen evolution. Chemical Communications, 2019, 55, 5467-5470.	2.2	33
855	Versatile electrocatalytic processes realized by Ni, Co and Fe alloyed core coordinated carbon shells. Journal of Materials Chemistry A, 2019, 7, 12154-12165.	5.2	34
856	In-situ growth of iron/nickel phosphides hybrid on nickel foam as bifunctional electrocatalyst for overall water splitting. Journal of Power Sources, 2019, 424, 42-51.	4.0	56

#	Article	IF	Citations
857	Ternary metal sulfides for electrocatalytic energy conversion. Journal of Materials Chemistry A, 2019, 7, 9386-9405.	5.2	225
858	BCNO Nanosheet Supported Co3O4 Nanoparticles as an Enhanced Electrocatalyst for Oxygen Evolution Reaction. Journal of the Electrochemical Society, 2019, 166, H177-H181.	1.3	5
859	Tuning Interfacial Structures for Better Catalysis of Water Electrolysis. Chemistry - A European Journal, 2019, 25, 9799-9815.	1.7	41
860	The Role of Electrochemistry in Future Dynamic Bioâ€Refineries: A Focus on (Nonâ€)Kolbe Electrolysis. Chemie-Ingenieur-Technik, 2019, 91, 699-706.	0.4	24
861	Examining the Structure Sensitivity of the Oxygen Evolution Reaction on Pt Singleâ€Crystal Electrodes: A Combined Experimental and Theoretical Study. ChemPhysChem, 2019, 20, 3154-3162.	1.0	11
862	Environmentallyâ€Friendly Exfoliate and Active Site Selfâ€Assembly: Thin 2D/2D Heterostructure Amorphous Nickelâ€“Iron Alloy on 2D Materials for Efficient Oxygen Evolution Reaction. Small, 2019, 15, e1805435.	5.2	64
863	Boosting the oxygen evolution electrocatalysis of layered nickel hydroxidenitrate nanosheets by iron doping. International Journal of Hydrogen Energy, 2019, 44, 10627-10636.	3.8	34
864	Efficient Oxygen Electrocatalyst for Znâ€“Air Batteries: Carbon Dots and Co₉S₈ Nanoparticles in a N,S-Codoped Carbon Matrix. ACS Applied Materials & Interfaces, 2019, 11, 14085-14094.	4.0	96
865	Cobalt (oxy)hydroxide nanosheet arrays with exceptional porosity and rich defects as a highly efficient oxygen evolution electrocatalyst under neutral conditions. Journal of Materials Chemistry A, 2019, 7, 10217-10224.	5.2	23
866	Edge/Defect Sites in Î±â€Co 1â^' m Fe m (OH) x Nanoplates Responsible for Water Oxidation Activity. ChemSusChem, 2019, 12, 2755-2762.	3.6	5
867	Amorphous CoFe Double Hydroxides Decorated with Nâ€Doped CNTs for Efficient Electrochemical Oxygen Evolution. ChemSusChem, 2019, 12, 2679-2688.	3.6	26
868	Controlled phase evolution from Cu_{0.33}Co_{0.67}S₂ to Cu₃Co₆S₈ hexagonal nanosheets as oxygen evolution reaction catalysts. RSC Advances, 2019, 9, 9729-9736.	1.7	11
869	Photocatalytic 4-nitrophenol degradation and oxygen evolution reaction in CuO/g-C₃N₄ composites prepared by deep eutectic solvent-assisted chlorine doping. Dalton Transactions, 2019, 48, 8594-8610.	1.6	48
870	A strong coupled 2D metal-organic framework and ternary layered double hydroxide hierarchical nanocomposite as an excellent electrocatalyst for the oxygen evolution reaction. Electrochimica Acta, 2019, 307, 275-284.	2.6	49
871	Electronic-Structure Tuning of Water-Splitting Nanocatalysts. Trends in Chemistry, 2019, 1, 259-271.	4.4	99
872	Enhanced oxygen evolution reaction on amine functionalized graphene oxide in alkaline medium. RSC Advances, 2019, 9, 6444-6451.	1.7	24
873	Platinum/Nickel Bicarbonate Heterostructures towards Accelerated Hydrogen Evolution under Alkaline Conditions. Angewandte Chemie, 2019, 131, 5486-5491.	1.6	30
874	Rational Design of Nanoarray Architectures for Electrocatalytic Water Splitting. Advanced Functional Materials, 2019, 29, 1808367.	7.8	298

#	Article	IF	Citations
875	Enhancing Electrocatalytic Water Splitting by Strain Engineering. Advanced Materials, 2019, 31, e1807001.	11.1	470
876	Nanoarchitectonics for Transitionâ€Metalâ€Sulfideâ€Based Electrocatalysts for Water Splitting. Advanced Materials, 2019, 31, e1807134.	11.1	998
877	Selfâ€Assembly of Colloidal Spheres toward Fabrication of Hierarchical and Periodic Nanostructures for Technological Applications. Advanced Materials Technologies, 2019, 4, 1800541.	3.0	62
878	A 2D NiFe Bimetallic Metalâ€“Organic Frameworks for Efficient Oxygen Evolution Electrocatalysis. Energy and Environmental Materials, 2019, 2, 18-21.	7.3	56
879	Finely prepared and optimized Co/Fe double hydroxide nanofilms at an ionic layer level on rough Cu substrates for efficient oxygen evolution reaction. Applied Surface Science, 2019, 478, 615-622.	3.1	14
880	Decoupling structure-sensitive deactivation mechanisms of Ir/IrOx electrocatalysts toward oxygen evolution reaction. Journal of Catalysis, 2019, 371, 57-70.	3.1	70
881	Carbon Nanomaterials for Energy and Biorelated Catalysis: Recent Advances and Looking Forward. ACS Central Science, 2019, 5, 389-408.	5.3	67
882	Anionic defect engineering of transition metal oxides for oxygen reduction and evolution reactions. Journal of Materials Chemistry A, 2019, 7, 5875-5897.	5.2	252
883	A hierarchical oxygen vacancy-rich WO₃ with â€œnanowire-array-on-nanosheet-arrayâ€• structure for highly efficient oxygen evolution reaction. Journal of Materials Chemistry A, 2019, 7, 6730-6739.	5.2	67
884	Free-standing cotton-derived carbon microfiber@nickel-aluminum layered double hydroxides composite and its excellent capacitive performance. Journal of Alloys and Compounds, 2019, 787, 27-35.	2.8	21
885	Surface chemical-functionalization of ultrathin two-dimensional nanomaterials for electrocatalysis. Materials Today Energy, 2019, 12, 250-268.	2.5	48
886	Noble Metalâ€“Manganese Oxide Hybrid Nanocatalysts. , 2019, , 313-340.		13
887	Nanoparticle electrocatalysis: Unscrambling illusory inhibition and catalysis. Applied Materials Today, 2019, 15, 139-144.	2.3	22
888	Laser structured nickel-iron electrodes for oxygen evolution in alkaline water electrolysis. International Journal of Hydrogen Energy, 2019, 44, 12671-12684.	3.8	40
889	3D nanoporous iridium-based alloy microwires for efficient oxygen evolution in acidic media. Nano Energy, 2019, 59, 146-153.	8.2	134
890	Water Adsorption on MO₂ (M = Ti, Ru, and Ir) Surfaces. Importance of Octahedral Distortion and Cooperative Effects. ACS Omega, 2019, 4, 2989-2999.	1.6	28
891	An Unconventional Iron Nickel Catalyst for the Oxygen Evolution Reaction. ACS Central Science, 2019, 5, 558-568.	5.3	263
892	In situsynthesized low-PtCo@porous carbon catalyst for highly efficient hydrogen evolution. Journal of Materials Chemistry A, 2019, 7, 6543-6551.	5.2	59

#	Article	IF	Citations
893	Fabrication of Superior Singleâ€Atom Catalysts toward Diverse Electrochemical Reactions. Small Methods, 2019, 3, 1800497.	4.6	99
894	A Lowâ€Cost and Facile Method for the Preparation of Feâ€N/Câ€Based Hybrids with Superior Catalytic Performance toward Oxygen Reduction Reaction. Advanced Materials Interfaces, 2019, 6, 1900273.	1.9	25
895	Iron Doping Effect for Oxygen Evolution Hybrid Catalysts based on Nickel Phosphate/Nitrogenâ€Doped Carbon Nanoflakes. ChemElectroChem, 2019, 6, 2195-2200.	1.7	8
896	Highly Selective Active Chlorine Generation Electrocatalyzed by Co₃O₄ Nanoparticles: Mechanistic Investigation through in Situ Electrokinetic and Spectroscopic Analyses. Journal of Physical Chemistry Letters, 2019, 10, 1226-1233.	2.1	44
897	Prussian blue analog-derived 2D ultrathin CoFe₂O₄ nanosheets as high-activity electrocatalysts for the oxygen evolution reaction in alkaline and neutral media. Journal of Materials Chemistry A, 2019, 7, 7328-7332.	5.2	75
898	Revealing the structural transformation of rutile RuO₂via in situ X-ray absorption spectroscopy during the oxygen evolution reaction. Dalton Transactions, 2019, 48, 7122-7129.	1.6	30
899	Two-Dimensional Materials on the Rocks: Positive and Negative Role of Dopants and Impurities in Electrochemistry. ACS Nano, 2019, 13, 2681-2728.	7.3	62
900	Tryptophan-Stabilized Auâ€“Fe_xO_y Nanocomposites as Electrocatalysts for Oxygen Evolution Reaction. ACS Omega, 2019, 4, 3385-3391.	1.6	4
901	Electrochemical water oxidation by cobalt-Prussian blue coordination polymer and theoretical studies of the electronic structure of the active species. Dalton Transactions, 2019, 48, 4811-4822.	1.6	30
902	Crâ€Doped FeNiâ€“P Nanoparticles Encapsulated into Nâ€Doped Carbon Nanotube as a Robust Bifunctional Catalyst for Efficient Overall Water Splitting. Advanced Materials, 2019, 31, e1900178.	11.1	246
903	Ruthenium Oxide Nanosheets for Enhanced Oxygen Evolution Catalysis in Acidic Medium. Advanced Energy Materials, 2019, 9, 1803795.	10.2	147
904	Cobalt oxyhydroxide with highly porous structures as active and stable phase for efficient water oxidation. Electrochimica Acta, 2019, 303, 231-238.	2.6	19
905	Direct electrosynthesis of sodium hydroxide and hydrochloric acid from brine streams. Nature Catalysis, 2019, 2, 106-113.	16.1	65
906	Syntheses, structures, magnetism and electrocatalytic oxygen evolution for four cobalt, manganese and copper complexes with dinuclear, 1D and 3D structures. Dalton Transactions, 2019, 48, 3467-3475.	1.6	8
907	Platinum/Nickel Bicarbonate Heterostructures towards Accelerated Hydrogen Evolution under Alkaline Conditions. Angewandte Chemie - International Edition, 2019, 58, 5432-5437.	7.2	194
908	Tip-Welded Ternary FeCo₂S₄ Nanotube Arrays on Carbon Cloth as Binder-Free Electrocatalysts for Highly Efficient Oxygen Evolution. ACS Sustainable Chemistry and Engineering, 2019, 7, 19426-19433.	3.2	32
909	Electrochemical CO₂ Fixation to Î±-Methylbenzyl Bromide in Divided Cells with Nonsacrificial Anodes and Aqueous Anolytes. ACS Sustainable Chemistry and Engineering, 2019, 7, 19631-19639.	3.2	33
910	Graphene Supported Rhodium Nanoparticles for Enhanced Electrocatalytic Hydrogen Evolution Reaction. Scientific Reports, 2019, 9, 17027.	1.6	6

#	Article	IF	Citations
911	Local Atomic and Electronic Structures of Î²-Ð¡oooh Nanosheets for the Hydrogen-Release Reaction. Journal of Surface Investigation, 2019, 13, 1028-1034.	0.1	1
912	Defective glycerolatocobalt(<scp>ii</scp>) for enhancing the oxygen evolution reaction. Chemical Communications, 2019, 55, 12861-12864.	2.2	8
913	Intermetallic compounds with high hydrogen evolution reaction performance: a case study of a MCo₂ (M = Ti, Zr, Hf and Sc) series. Chemical Communications, 2019, 55, 14406-14409.	2.2	23
914	Confined carburization-engineered synthesis of ultrathin nickel oxide/nickel heterostructured nanosheets for enhanced oxygen evolution reaction. Nanoscale, 2019, 11, 22261-22269.	2.8	18
915	Metal-organic Framework-driven Porous Cobalt Disulfide Nanoparticles Fabricated by Gaseous Sulfurization as Bifunctional Electrocatalysts for Overall Water Splitting. Scientific Reports, 2019, 9, 19539.	1.6	23
916	Galvanic replacement mediated 3D porous PtCu nano-frames for enhanced ethylene glycol oxidation. Chemical Communications, 2019, 55, 14526-14529.	2.2	12
917	Fe ions modulated formation of hollow NiFe oxyphosphide spheres with enhanced oxygen evolution performance. Chemical Communications, 2019, 55, 14371-14374.	2.2	9
918	Binary nickel iron phosphide composites with oxidized surface groups as efficient electrocatalysts for the oxygen evolution reaction. Sustainable Energy and Fuels, 2019, 3, 3518-3524.	2.5	17
919	Carbon fibre paper coated by a layered manganese oxide: a nano-structured electrocatalyst for water-oxidation with high activity over a very wide pH range. Journal of Materials Chemistry A, 2019, 7, 25333-25346.	5.2	22
920	Ambient fast, large-scale synthesis of entropy-stabilized metalâ€“organic framework nanosheets for electrocatalytic oxygen evolution. Journal of Materials Chemistry A, 2019, 7, 26238-26242.	5.2	89
921	Stability profiles of transition metal oxides in the oxygen evolution reaction in alkaline medium. Journal of Materials Chemistry A, 2019, 7, 25865-25877.	5.2	40
922	Noble Metal-Free Co₉S₈ and NiS Composite Nanosheets for Enhanced Electrocatalytic Oxygen Evolution Reaction. Industrial & Engineering Chemistry Research, 2019, 58, 22977-22983.	1.8	5
923	Niâˆ'Fe (Oxy)hydroxide Modified Graphene Additive Manufactured (3Dâ€Printed) Electrochemical Platforms as an Efficient Electrocatalyst for the Oxygen Evolution Reaction. ChemElectroChem, 2019, 6, 5633-5641.	1.7	32
924	2020 roadmap on pore materials for energy and environmental applications. Chinese Chemical Letters, 2019, 30, 2110-2122.	4.8	75
925	Visible-Light-Driven H2 Evolution with Cobalt Complexes in Aqueous Solution: Theoretical and Experimental Study. Journal of Physical Chemistry C, 2019, 123, 30351-30359.	1.5	8
926	Charge transfer and spillover phenomena in ceria-supported iridium catalysts: A model study. Journal of Chemical Physics, 2019, 151, 204703.	1.2	20
927	Hierarchical nanowire and nanoplate-assembled NiCo2O4â€“NiO biphasic microspheres as effective electrocatalysts for oxygen evolution reaction. Materials Today Chemistry, 2019, 14, 100215.	1.7	5
928	Zinc-telluride nanospheres as an efficient water oxidation electrocatalyst displaying a low overpotential for oxygen evolution. Journal of Materials Chemistry A, 2019, 7, 26410-26420.	5.2	87

#	Article	IF	Citations
929	Carbon nanofibers@NiSe core/sheath nanostructures as efficient electrocatalysts for integrating highly selective methanol conversion and less-energy intensive hydrogen production. Journal of Materials Chemistry A, 2019, 7, 25878-25886.	5.2	57
930	Ir nanoparticles with ultrahigh dispersion as oxygen evolution reaction (OER) catalysts: synthesis and activity benchmarking. Catalysis Science and Technology, 2019, 9, 6345-6356.	2.1	61
931	Intrinsic poorly-crystallized Fe5O7(OH)Â·4H2O: a highly efficient oxygen evolution reaction electrocatalyst under alkaline conditions. RSC Advances, 2019, 9, 42470-42473.	1.7	3
932	Preparation and electrochemical performance of VO2(A) hollow spheres as a cathode for aqueous zinc ion batteries. RSC Advances, 2019, 9, 35117-35123.	1.7	20
933	Zincâ€“air batteries: are they ready for prime time?. Chemical Science, 2019, 10, 8924-8929.	3.7	211
934	Selective acid leaching: a simple way to engineer cobalt oxide nanostructures for the electrochemical oxygen evolution reaction. Journal of Materials Chemistry A, 2019, 7, 23130-23139.	5.2	29
935	Thermally induced top-down nanostructuring for the synthesis of a core/shell-structured CoO/CoS_x electrocatalyst. Journal of Materials Chemistry A, 2019, 7, 26557-26565.	5.2	14
936	Facile fabrication of a hierarchical NiCoFeP hollow nanoprism for efficient oxygen evolution in the Znâ€“air battery. Journal of Materials Chemistry A, 2019, 7, 24964-24972.	5.2	65
937	Electrocatalytic Properties of Ni-Doped BaFe12O19 for Oxygen Evolution in Alkaline Solution. Open Chemistry, 2019, 17, 1382-1392.	1.0	5
938	La1.7Sr0.3Co0.5Ni0.5O4+Î´ layered perovskite as an efficient bifunctional electrocatalyst for rechargeable zinc-air batteries. Applied Surface Science, 2019, 464, 494-501.	3.1	37
939	In Situ Electrochemical Conversion of an Ultrathin Tannin Nickel Iron Complex Film as an Efficient Oxygen Evolution Reaction Electrocatalyst. Angewandte Chemie, 2019, 131, 3809-3813.	1.6	22
940	Electrodeposited Copperâ€“Cobaltâ€“Phosphide: A Stable Bifunctional Catalyst for Both Hydrogen and Oxygen Evolution Reactions. ACS Sustainable Chemistry and Engineering, 2019, 7, 3092-3100.	3.2	62
941	Bi-interface induced multi-active MCo2O4@MCo2S4@PPy (M=Ni, Zn) sandwich structure for energy storage and electrocatalysis. Nano Energy, 2019, 57, 363-370.	8.2	278
942	Exceptional Performance of Hierarchical Niâ€“Fe (hydr)oxide@NiCu Electrocatalysts for Water Splitting. Advanced Materials, 2019, 31, e1806769.	11.1	124
943	Imidazole for Pyridine Substitution Leads to Enhanced Activity Under Milder Conditions in Cobalt Water Oxidation Electrocatalysis. Inorganic Chemistry, 2019, 58, 1391-1397.	1.9	26
944	Ni x Co 3â€•x O 4 Nanoneedle Arrays Grown on Ni Foam as an Efficient Bifunctional Electrocatalyst for Full Water Splitting. Chemistry - an Asian Journal, 2019, 14, 480-485.	1.7	21
945	Fabrication of NiO Microflake@NiFe-LDH Nanosheet Heterostructure Electrocatalysts for Oxygen Evolution Reaction. ACS Sustainable Chemistry and Engineering, 2019, 7, 2327-2334.	3.2	74
946	Vertically Aligned Ni Nanowires as a Platform for Kinetically Limited Water-Splitting Electrocatalysis. Journal of Physical Chemistry C, 2019, 123, 1082-1093.	1.5	5

#	Article	IF	Citations
947	Silicon nanowires@Co3O4 arrays film with Zâ€'scheme band alignment for hydrogen evolution. Catalysis Today, 2019, 335, 294-299.	2.2	18
948	Small, Narrowly Distributed Iridium Nanoparticles Supported on Indium Tin Oxide for Efficient Anodic Water Oxidation. ACS Applied Energy Materials, 2019, 2, 196-200.	2.5	25
949	Computational Electrochemistry of Water Oxidation on Metalâ€Doped and Metalâ€Supported Defective hâ€BN. ChemSusChem, 2019, 12, 1995-2007.	3.6	12
950	Pt nanoparticles embedded metal-organic framework nanosheets: A synergistic strategy towards bifunctional oxygen electrocatalysis. Applied Catalysis B: Environmental, 2019, 245, 389-398.	10.8	66
951	Tuning the Electronic Structure of NiO via Li Doping for the Fast Oxygen Evolution Reaction. Chemistry of Materials, 2019, 31, 419-428.	3.2	78
952	Large-Scale, Low-Cost, and High-Efficiency Water-Splitting System for Clean H₂ Generation. ACS Applied Materials & Interfaces, 2019, 11, 3971-3977.	4.0	46
953	Engineering Oxygen Vacancies into LaCoO₃ Perovskite for Efficient Electrocatalytic Oxygen Evolution. ACS Sustainable Chemistry and Engineering, 2019, 7, 2906-2910.	3.2	110
954	Facile Dynamic Synthesis of Homodispersed Ni₃S₂ Nanosheets as a Highâ€Efficient Bifunctional Electrocatalyst for Water Splitting. ChemCatChem, 2019, 11, 1320-1327.	1.8	21
955	Trimetallic Molybdate Nanobelts as Active and Stable Electrocatalysts for the Oxygen Evolution Reaction. ACS Catalysis, 2019, 9, 1013-1018.	5.5	59
956	Well-dispersed CoO embedded in 3D N-S-doped carbon framework through morphology-retaining pyrolysis as efficient oxygen reduction and evolution electrocatalyst. Electrochimica Acta, 2019, 295, 624-631.	2.6	21
957	Hollow Carbon@NiCo₂O₄ Coreâ€"Shell Microspheres for Efficient Electrocatalytic Oxygen Evolution. Energy Technology, 2019, 7, 1800919.	1.8	5
958	Colloidal synthesis of high-performance FeSe/CoSe nanocomposites for electrochemical oxygen evolution reaction. Electrochimica Acta, 2019, 297, 197-205.	2.6	39
959	Opportunities and Challenges of Interface Engineering in Bimetallic Nanostructure for Enhanced Electrocatalysis. Advanced Functional Materials, 2019, 29, 1806419.	7.8	223
960	Recent advances in emerging single atom confined two-dimensional materials for water splitting applications. Materials Today Energy, 2019, 11, 1-23.	2.5	189
961	Accelerated oxygen evolution kinetics on nickelâ€"iron diselenide nanotubes by modulating electronic structure. Materials Today Energy, 2019, 11, 89-96.	2.5	42
962	Three dimensional hierarchical network structure of S-NiFe2O4 modified few-layer titanium carbides (MXene) flakes on nickel foam as a high efficient electrocatalyst for oxygen evolution. Electrochimica Acta, 2019, 296, 762-770.	2.6	71
963	Metal organic frameworks derived CoSe2@N-Doped-carbon-nanorods as highly efficient electrocatalysts for oxygen evolution reaction. Journal of Alloys and Compounds, 2019, 778, 134-140.	2.8	27
964	2D Fe-containing cobalt phosphide/cobalt oxide lateral heterostructure with enhanced activity for oxygen evolution reaction. Nano Energy, 2019, 56, 109-117.	8.2	223

#	Article	IF	Citations
965	Polyvinylpyrrolidone-Assisted Hydrothermal Synthesis of CuCoO₂ Nanoplates with Enhanced Oxygen Evolution Reaction Performance. ACS Sustainable Chemistry and Engineering, 2019, 7, 1493-1501.	3.2	48
966	Nitrogen-doped CoOx/carbon nanotubes derived by plasma-enhanced atomic layer deposition: Efficient bifunctional electrocatalyst for oxygen reduction and evolution reactions. Electrochimica Acta, 2019, 296, 964-971.	2.6	30
967	Coordination-assisted synthesis of iron-incorporated cobalt oxide nanoplates for enhanced oxygen evolution. Materials Today Chemistry, 2019, 11, 112-118.	1.7	30
968	Cobalt hydroxide-black phosphorus nanosheets: A superior electrocatalyst for electrochemical oxygen evolution. Electrochimica Acta, 2019, 297, 40-45.	2.6	27
969	Nobleâ€Metalâ€Free Electrocatalysts for Oxygen Evolution. Small, 2019, 15, e1804201.	5.2	388
970	Coâ€“Fe Bimetal Phosphate Composite Loaded on Reduced Graphene Oxide for Oxygen Evolution. Nano, 2019, 14, 1950003.	0.5	8
971	Effective Fabrication and Electrochemical Oxygen Evolution Reaction Activity of Gold Multipod Nanoparticle Coreâ€“Cobalt Sulfide Shell Nanohybrids. ACS Applied Nano Materials, 2019, 2, 678-688.	2.4	16
972	Cobaltâ€“Tanninâ€Frameworkâ€Derived Amorphous Coâ^'P/Coâ^'Nâ^'C on N, P Coâ€Doped Porous Carbon with Abundant Active Moieties for Efficient Oxygen Reactions and Water Splitting. ChemSusChem, 2019, 12, 830-838.	3.6	48
973	Correlation between composition, electrical and electrochemical properties of LnCo1-xCrxO3 (Ln =) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	1.2	8
974	Electrocatalytic water oxidation influenced by the ratio between Cu2+ and a multiply branched peptide ligand. Catalysis Communications, 2019, 122, 5-9.	1.6	7
975	Carbonâ€Based Metalâ€Free ORR Electrocatalysts for Fuel Cells: Past, Present, and Future. Advanced Materials, 2019, 31, e1804799.	11.1	649
976	Cobalt Nanoparticles Confined in Carbon Cages Derived from Zeolitic Imidazolate Frameworks as Efficient Oxygen Electrocatalysts for Zincâ€Air Batteries. Batteries and Supercaps, 2019, 2, 355-363.	2.4	16
977	Delicate excavated trimetallic Prussian blue analogues for efficient oxygen evolution reactions. Electrochimica Acta, 2019, 299, 575-581.	2.6	18
978	Multi-active sites derived from a single/double perovskite hybrid for highly efficient water oxidation. Electrochimica Acta, 2019, 299, 926-932.	2.6	37
979	Boosting the Electrocatalytic Water Oxidation Performance of CoFe₂O₄ Nanoparticles by Surface Defect Engineering. ACS Applied Materials & Interfaces, 2019, 11, 3978-3983.	4.0	76
980	Nanosheet-like Co₃(OH)₂(HPO₄)₂ as a Highly Efficient and Stable Electrocatalyst for Oxygen Evolution Reaction. ACS Sustainable Chemistry and Engineering, 2019, 7, 3083-3091.	3.2	39
981	Lattice-strained metalâ€“organic-framework arrays for bifunctional oxygen electrocatalysis. Nature Energy, 2019, 4, 115-122.	19.8	680
982	Kinetic Competition between Waterâ€Splitting and Photocorrosion Reactions in Photoelectrochemical Devices. ChemSusChem, 2019, 12, 1984-1994.	3.6	29

#	Article	IF	Citations
983	Layered double hydroxides decorated graphic carbon nitride film as efficient photoanodes for photoelectrochemical water splitting. Catalysis Today, 2019, 335, 423-428.	2.2	20
984	Helical cobalt borophosphates to master durable overall water-splitting. Energy and Environmental Science, 2019, 12, 988-999.	15.6	179
985	Layered Nickel-Cobalt Oxide Coatings on Stainless Steel as an Electrocatalyst for Oxygen Evolution Reaction. Electrocatalysis, 2019, 10, 63-71.	1.5	22
986	Bimetal-phthalocyanine based covalent organic polymers for highly efficient oxygen electrode. Applied Catalysis B: Environmental, 2019, 243, 204-211.	10.8	70
987	Topotactic Transformations in an Icosahedral Nanocrystal to Form Efficient Waterâ€Splitting Catalysts. Advanced Materials, 2019, 31, e1805546.	11.1	76
988	Towards highly efficient and low-cost oxygen evolution reaction electrocatalysts: An effective method of electronic waste management by utilizing waste Cu cable wires. Journal of Colloid and Interface Science, 2019, 537, 43-49.	5.0	41
989	N/S co-doped 3D carbon framework prepared by a facile morphology-controlled solid-state pyrolysis method for oxygen reduction reaction in both acidic and alkaline media. Journal of Energy Chemistry, 2019, 34, 220-226.	7.1	20
990	Rapid identification of homogeneous O2 evolution catalysts and comparative studies of Ru(II)-carboxamides vs. Ru(II)-carboxylates in water-oxidation. Journal of Catalysis, 2019, 369, 10-20.	3.1	11
991	Heterostructures Based on 2D Materials: A Versatile Platform for Efficient Catalysis. Advanced Materials, 2019, 31, e1804828.	11.1	142
992	Nanocoral-like composite of nickel selenide nanoparticles anchored on two-dimensional multi-layered graphitic carbon nitride: A highly efficient electrocatalyst for oxygen evolution reaction. Applied Catalysis B: Environmental, 2019, 243, 463-469.	10.8	113
993	Efficient hydrogen generation on graphdiyne-based heterostructure. Nano Energy, 2019, 55, 135-142.	8.2	59
994	Design of Noble Metal Electrocatalysts on an Atomic Level. ChemElectroChem, 2019, 6, 289-303.	1.7	46
995	Hierarchical Cobalt Sulfide/Molybdenum Sulfide Heterostructure as Bifunctional Electrocatalyst towards Overall Water Splitting. ChemElectroChem, 2019, 6, 430-438.	1.7	49
996	Engineering ordered dendrite-like nickel selenide as electrocatalyst. Electrochimica Acta, 2019, 295, 92-98.	2.6	40
997	Facile Synthesis of Amorphous Ternary Metal Boridesâ€“Reduced Graphene Oxide Hybrid with Superior Oxygen Evolution Activity. ACS Applied Materials & Interfaces, 2019, 11, 846-855.	4.0	67
998	In-Situ Grown, Passivator-Modulated Anodization Derived Synergistically Well-Mixed Niâ€“Fe Oxides from Ni Foam as High-Performance Oxygen Evolution Reaction Electrocatalyst. ACS Applied Energy Materials, 2019, 2, 743-753.	2.5	34
999	Advanced Electrocatalytic Performance of Ni-Based Materials for Oxygen Evolution Reaction. ACS Sustainable Chemistry and Engineering, 2019, 7, 341-349.	3.2	43
1000	Defect engineering on electrocatalysts for gas-evolving reactions. Dalton Transactions, 2019, 48, 15-20.	1.6	48

#	Article	IF	Citations
1001	In Situ Electrochemical Conversion of an Ultrathin Tannin Nickel Iron Complex Film as an Efficient Oxygen Evolution Reaction Electrocatalyst. Angewandte Chemie - International Edition, 2019, 58, 3769-3773.	7.2	188
1002	Synergistically well-mixed MOFs grown on nickel foam as highly efficient durable bifunctional electrocatalysts for overall water splitting at high current densities. Nano Energy, 2019, 57, 1-13.	8.2	211
1003	Ultrasmall Ni/NiO Nanoclusters on Thiol-Functionalized and -Exfoliated Graphene Oxide Nanosheets for Durable Oxygen Evolution Reaction. ACS Applied Energy Materials, 2019, 2, 363-371.	2.5	74
1004	Interfacial Scaffolding Preparation of Hierarchical PBAâ€Based Derivative Electrocatalysts for Efficient Water Splitting. Advanced Energy Materials, 2019, 9, 1802939.	10.2	119
1005	Fluoride-Induced Dynamic Surface Self-Reconstruction Produces Unexpectedly Efficient Oxygen-Evolution Catalyst. Nano Letters, 2019, 19, 530-537.	4.5	210
1006	Enabling High and Stable Electrocatalytic Activity of Ironâ€Based Perovskite Oxides for Water Splitting by Combined Bulk Doping and Morphology Designing. Advanced Materials Interfaces, 2019, 6, 1801317.	1.9	87
1007	Single-Walled Carbon Nanotubes Wrapped CoFe₂O₄ Nanorods with Enriched Oxygen Vacancies for Efficient Overall Water Splitting. ACS Applied Energy Materials, 2019, 2, 1026-1032.	2.5	47
1008	A Nanosized CoNi Hydroxide@Hydroxysulfide Coreâ€“Shell Heterostructure for Enhanced Oxygen Evolution. Advanced Materials, 2019, 31, e1805658.	11.1	203
1009	Hierarchically Structured Ultraporous Iridiumâ€Based Materials: A Novel Catalyst Architecture for Proton Exchange Membrane Water Electrolyzers. Advanced Energy Materials, 2019, 9, 1802136.	10.2	72
1010	Multimetal Borides Nanochains as Efficient Electrocatalysts for Overall Water Splitting. Small, 2019, 15, e1804212.	5.2	135
1011	Interaction between Ruthenium Oxide Surfaces and Water Molecules. Effect of Surface Morphology and Water Coverage. Journal of Physical Chemistry C, 2019, 123, 7786-7798.	1.5	18
1012	Hierarchical Bimetallic Selenide Nanosheetâ€Constructed Nanotubes for Efficient Electrocatalytic Water Oxidation. ChemElectroChem, 2019, 6, 331-335.	1.7	15
1013	Facile synthesis of NiSe2 particles with highly efficient electrocatalytic oxygen evolution reaction. Materials Letters, 2019, 235, 53-56.	1.3	12
1014	Graphene as an electrochemical transfer layer. Carbon, 2019, 141, 266-273.	5.4	17
1015	Laserâ€Induced Graphene: From Discovery to Translation. Advanced Materials, 2019, 31, e1803621.	11.1	512
1016	A New Defectâ€Rich CoGa Layered Double Hydroxide as Efficient and Stable Oxygen Evolution Electrocatalyst. Small Methods, 2019, 3, 1800286.	4.6	41
1017	CoNiSe2 heteronanorods decorated with layered-double-hydroxides for efficient hydrogen evolution. Applied Catalysis B: Environmental, 2019, 242, 132-139.	10.8	198
1018	Facile Synthesis of Mesoporous Nickel Cobalt Oxide for OER â€“ Insight into Intrinsic Electrocatalytic Activity. ChemCatChem, 2019, 11, 412-416.	1.8	55

#	Article	IF	Citations
1019	Ceria supported ruthenium(0) nanoparticles: Highly efficient catalysts in oxygen evolution reaction. Journal of Colloid and Interface Science, 2019, 534, 704-710.	5.0	37
1020	Metal Phosphorous Trichalcogenides (MPCh₃): From Synthesis to Contemporary Energy Challenges. Angewandte Chemie - International Edition, 2019, 58, 9326-9337.	7.2	73
1021	Metallâ€Phosphorâ€Trichalkogenide (MPCh 3): von der Synthese zu aktuellen Energieanwendungen. Angewandte Chemie, 2019, 131, 9426-9438.	1.6	5
1022	Catalysis for solar-driven chemistry: The role of electrocatalysis. Catalysis Today, 2019, 330, 157-170.	2.2	49
1023	Nanostructured NiMoO4 as active electrocatalyst for oxygen evolution. Chinese Chemical Letters, 2019, 30, 319-323.	4.8	55
1024	Bi-metallic cobalt-nickel phosphide nanowires for electrocatalysis of the oxygen and hydrogen evolution reactions. Catalysis Today, 2020, 358, 196-202.	2.2	46
1025	Carbon cloth/transition metals-based hybrids with controllable architectures for electrocatalytic hydrogen evolution - A review. International Journal of Hydrogen Energy, 2020, 45, 7716-7740.	3.8	101
1026	State of the Art and Prospects in Metalâ€“Organic Framework (MOF)-Based and MOF-Derived Nanocatalysis. Chemical Reviews, 2020, 120, 1438-1511.	23.0	1,505
1027	Molten salt-assisted synthesis of bulk CoOOH as a water oxidation catalyst. Journal of Energy Chemistry, 2020, 42, 5-10.	7.1	38
1028	Selfâ€Supported Transitionâ€Metalâ€Based Electrocatalysts for Hydrogen and Oxygen Evolution. Advanced Materials, 2020, 32, e1806326.	11.1	986
1029	Irâ€Based Alloy Nanoflowers with Optimized Hydrogen Binding Energy as Bifunctional Electrocatalysts for Overall Water Splitting. Small Methods, 2020, 4, 1900129.	4.6	93
1030	Atomically Precise Noble Metal Nanoclusters as Efficient Catalysts: A Bridge between Structure and Properties. Chemical Reviews, 2020, 120, 526-622.	23.0	849
1031	Mn promotion of rutile TiO2-RuO2 anodes for water oxidation in acidic media. Applied Catalysis B: Environmental, 2020, 261, 118225.	10.8	53
1032	Serpentine CoxNi3-xGe2O5(OH)4 nanosheets with tuned electronic energy bands for highly efficient oxygen evolution reaction in alkaline and neutral electrolytes. Applied Catalysis B: Environmental, 2020, 260, 118184.	10.8	28
1033	3D porous network heterostructure NiCe@NiFe electrocatalyst for efficient oxygen evolution reaction at large current densities. Applied Catalysis B: Environmental, 2020, 260, 118199.	10.8	100
1034	Development of RuO2/CeO2 heterostructure as an efficient OER electrocatalyst for alkaline water splitting. International Journal of Hydrogen Energy, 2020, 45, 18635-18644.	3.8	93
1035	3D metal dendrite-derived petaloid shaped NiFe2O4@ NFM as binderless electrode for oxygen evolution reaction and electrochemical energy storage. Journal of Alloys and Compounds, 2020, 813, 152219.	2.8	13
1036	Metal-organic framework derived carbon materials for electrocatalytic oxygen reactions: Recent progress and future perspectives. Carbon, 2020, 156, 77-92.	5.4	149

#	Article	IF	Citations
1037	Prussian blue, its analogues and their derived materials for electrochemical energy storage and conversion. Energy Storage Materials, 2020, 25, 585-612.	9.5	181
1038	Crucial roles of interfacial coupling and oxygen defect in multifunctional 2D inorganic nanosheets. Nano Energy, 2020, 67, 104192.	8.2	35
1039	An effective method for enhancing oxygen evolution kinetics of LaMO3 (Mâ€¯=â€¯Ni, Co, Mn) perovskite catalysts and its application to a rechargeable zincâ€“air battery. Applied Catalysis B: Environmental, 2020, 262, 118291.	10.8	75
1040	Multifunctional Transition Metalâ€Based Phosphides in Energyâ€Related Electrocatalysis. Advanced Energy Materials, 2020, 10, 1902104.	10.2	322
1041	Cobaltâ€Doped Tungsten Sulfides as Stable and Efficient Air Electrodes for Rechargeable Zincâ€Air Batteries. ChemElectroChem, 2020, 7, 148-154.	1.7	17
1042	Metalâ€Organic Frameworkâ€Templated Hollow Co₃O₄/C with Controllable Oxygen Vacancies for Efficient Oxygen Evolution Reaction. ChemNanoMat, 2020, 6, 107-112.	1.5	13
1043	Synergistic Control of Structural Disorder and Surface Bonding Nature to Optimize the Functionality of Manganese Oxide as an Electrocatalyst and a Cathode for Liâ€“O 2 Batteries. Small, 2020, 16, 1903265.	5.2	26
1044	Facile Synthesis of Sulfurâ€Containing Transition Metal (Mn, Fe, Co, and Ni) (Hydr)oxides for Efficient Oxygen Evolution Reaction. ChemCatChem, 2020, 12, 710-716.	1.8	17
1045	N, S-codoped graphene loaded Ni-Co bimetal sulfides for enhanced oxygen evolution activity. Applied Surface Science, 2020, 503, 144146.	3.1	41
1046	Interfacial electronic structure and electrocatalytic performance modulation in Cu0.81Ni0.19 nanoflowers by heteroatom doping engineering using ionic liquid dopant. Applied Surface Science, 2020, 500, 144052.	3.1	11
1047	Hierarchical three-dimensional framework interface assembled from oxygen-doped cobalt phosphide layer-shelled metal nanowires for efficient electrocatalytic water splitting. Applied Catalysis B: Environmental, 2020, 261, 118268.	10.8	87
1048	A review on non-noble metal based electrocatalysis for the oxygen evolution reaction. Arabian Journal of Chemistry, 2020, 13, 4294-4309.	2.3	138
1049	Redox bifunctional activities with optical gain of Ni3S2 nanosheets edged with MoS2 for overall water splitting. Applied Catalysis B: Environmental, 2020, 268, 118435.	10.8	118
1050	Stannites â€“ A New Promising Class of Durable Electrocatalysts for Efficient Water Oxidation. ChemCatChem, 2020, 12, 1161-1168.	1.8	18
1051	Regulating electron density of NiFe-P nanosheets electrocatalysts by a trifle of Ru for high-efficient overall water splitting. Applied Catalysis B: Environmental, 2020, 263, 118324.	10.8	178
1052	â€œStructural instabilityâ€•induced high-performance NiFe layered double hydroxides as oxygen evolution reaction catalysts for pH-near-neutral borate electrolyte: The role of intercalates. Applied Catalysis B: Environmental, 2020, 263, 118343.	10.8	39
1053	NiFeMo alloy inverse-opals on Ni foam as outstanding bifunctional catalysts for electrolytic water splitting of ultra-low cell voltages at high current densities. Applied Catalysis B: Environmental, 2020, 267, 118376.	10.8	77
1054	Oxygen Evolution Reaction on Singleâ€Walled Carbon Nanotubes Noncovalently Functionalized with Metal Phthalocyanines. ChemElectroChem, 2020, 7, 428-436.	1.7	28

#	Article	IF	Citations
1055	Metal Borideâ€Based Catalysts for Electrochemical Waterâ€Splitting: A Review. Advanced Functional Materials, 2020, 30, 1906481.	7.8	268
1056	ZnOâ€Templated Selenized and Phosphorized Cobaltâ€Nickel Oxide Microcubes as Rapid Alkaline Water Oxidation Electrocatalysts. Chemistry - A European Journal, 2020, 26, 1306-1313.	1.7	1
1057	Photosynthesis on exoplanets and exomoons from reflected light. International Journal of Astrobiology, 2020, 19, 210-219.	0.9	10
1058	Graphene-cobalt based oxygen electrocatalysts. Catalysis Today, 2020, 358, 184-195.	2.2	6
1059	Bimetallic NiFe alloys as highly efficient electrocatalysts for the oxygen evolution reaction. Catalysis Today, 2020, 352, 27-33.	2.2	72
1060	Efficient Optimization of Electron/Oxygen Pathway by Constructing Ceria/Hydroxide Interface for Highly Active Oxygen Evolution Reaction. Advanced Functional Materials, 2020, 30, 1908367.	7.8	120
1061	Cobalt-Nickel Wrapped Hydroxyapatite Carbon Nanotubes as a New Catalyst in Oxygen Evolution Reaction in Alkaline Media. Electrocatalysis, 2020, 11, 226-233.	1.5	2
1062	Advanced Bifunctional Oxygen Reduction and Evolution Electrocatalyst Derived from Surfaceâ€Mounted Metalâ€“Organic Frameworks. Angewandte Chemie, 2020, 132, 5886-5892.	1.6	16
1063	Nanostructured coreâ€“shell metal boridesâ€“oxides as highly efficient electrocatalysts for photoelectrochemical water oxidation. Nanoscale, 2020, 12, 3121-3128.	2.8	29
1064	Advanced Bifunctional Oxygen Reduction and Evolution Electrocatalyst Derived from Surfaceâ€Mounted Metalâ€“Organic Frameworks. Angewandte Chemie - International Edition, 2020, 59, 5837-5843.	7.2	99
1065	Recent Advances on Black Phosphorus Based Electrocatalysts for Waterâ€Splitting. ChemCatChem, 2020, 12, 1913-1921.	1.8	17
1066	Tuning Palladium Nickel Phosphide toward Efficient Oxygen Evolution Performance. ACS Applied Energy Materials, 2020, 3, 879-888.	2.5	21
1067	Connected iridium nanoparticle catalysts coated onto silica with high density for oxygen evolution in polymer electrolyte water electrolysis. Nanoscale Advances, 2020, 2, 171-175.	2.2	22
1068	Ligand-protected atomically precise gold nanoclusters as model catalysts for oxidation reactions. Chemical Communications, 2020, 56, 1163-1174.	2.2	52
1069	A highly efficient electrocatalyst based on double perovskite cobaltites with immense intrinsic catalytic activity for water oxidation. Chemical Communications, 2020, 56, 1030-1033.	2.2	10
1070	Recent advances in transition metal based compound catalysts for water splitting from the perspective of crystal engineering. CrystEngComm, 2020, 22, 1531-1540.	1.3	32
1071	Insights into membrane-separated organic electrosynthesis: the case of adiponitrile electrochemical production. Reaction Chemistry and Engineering, 2020, 5, 136-144.	1.9	19
1072	Single-atom catalysts for electrochemical clean energy conversion: recent progress and perspectives. Sustainable Energy and Fuels, 2020, 4, 996-1011.	2.5	36

#	Article	IF	Citations
1073	Rational design of Cuâ€“Co thiospinel ternary sheet arrays for highly efficient electrocatalytic water splitting. Journal of Materials Chemistry A, 2020, 8, 1799-1807.	5.2	48
1074	Photo-induced charge kinetic acceleration in ultrathin layered double hydroxide nanosheets boosts the oxygen evolution reaction. Journal of Materials Chemistry A, 2020, 8, 1105-1112.	5.2	32
1075	Point-defect-optimized electron distribution for enhanced electrocatalysis: Towards the perfection of the imperfections. Nano Today, 2020, 31, 100833.	6.2	52
1076	Detecting structural transformation of cobalt phosphonate to active bifunctional catalysts for electrochemical water-splitting. Journal of Materials Chemistry A, 2020, 8, 2637-2643.	5.2	80
1077	Conductive metalâ€“Organic frameworks endow high-efficient oxygen evolution of La0Â·6Sr0Â·4Co0Â·8Fe0Â·2O3 perovskite oxide nanofibers. Electrochimica Acta, 2020, 334, 135638.	2.6	25
1078	Identifying the role of Ni and Fe in Niâ€“Fe co-doped orthorhombic CoSe2 for driving enhanced electrocatalytic activity for oxygen evolution reaction. Electrochimica Acta, 2020, 335, 135682.	2.6	39
1079	Flexible 3D carbon cloth as a high-performing electrode for energy storage and conversion. Nanoscale, 2020, 12, 5261-5285.	2.8	81
1080	Exceptional performance of hierarchical Niâ€“Fe oxyhydroxide@NiFe alloy nanowire array electrocatalysts for large current density water splitting. Energy and Environmental Science, 2020, 13, 86-95.	15.6	698
1081	Blue energy fuels: converting ocean wave energy to carbon-based liquid fuels via CO₂ reduction. Energy and Environmental Science, 2020, 13, 1300-1308.	15.6	93
1082	A Ni/Fe-based heterometallic phthalocyanine conjugated polymer for the oxygen evolution reaction. Inorganic Chemistry Frontiers, 2020, 7, 642-646.	3.0	32
1083	Room-temperature synthesis of Ni_{1â^'x}Fe_x (oxy)hydroxides: structureâ€“activity relationship for the oxygen evolution reaction. Sustainable Energy and Fuels, 2020, 4, 932-939.	2.5	6
1084	Novel CuOâ€“Cu2O redox-induced self-assembly of hierarchical NiOOH@CuOâ€“Cu2O/Co(OH)2 nanocomposite for efficient oxygen evolution reaction. Sustainable Energy and Fuels, 2020, 4, 869-877.	2.5	7
1085	Ultra-thin NiFeSe nanosheets as a highly efficient bifunctional electrocatalyst for overall water splitting. Sustainable Energy and Fuels, 2020, 4, 582-588.	2.5	31
1086	Theoretical insights into nonprecious oxygen-evolution active sites in Tiâ€“Ir-Based perovskite solid solution electrocatalysts. Journal of Materials Chemistry A, 2020, 8, 218-223.	5.2	15
1087	Electronic structure modulation of bifunctional oxygen catalysts for rechargeable Znâ€“air batteries. Journal of Materials Chemistry A, 2020, 8, 1229-1237.	5.2	26
1088	N-doped FeP nanorods derived from Fe-MOFs as bifunctional electrocatalysts for overall water splitting. Applied Surface Science, 2020, 507, 145096.	3.1	57
1089	A hybrid Co NPs@CNT nanocomposite as highly efficient electrocatalyst for oxygen evolution reaction. Applied Surface Science, 2020, 507, 145155.	3.1	34
1090	Overall water splitting on Ni0.19WO4 nanowires as highly efficient and durable bifunctional non-precious metal electrocatalysts. Electrochimica Acta, 2020, 333, 135554.	2.6	13

#	Article	IF	Citations
1091	Facile one-step synthesis of tunable nanochain-like Feâ€“Moâ€“B: A highly efficient and stable catalyst for oxygen evolution reaction. Journal of Alloys and Compounds, 2020, 822, 153517.	2.8	14
1092	Recent advances in cobalt-based electrocatalysts for hydrogen and oxygen evolution reactions. Journal of Alloys and Compounds, 2020, 821, 153542.	2.8	191
1093	Hollow Cobalt Sulfide Nanoparticles: A Robust and Low-Cost pH-Universal Oxygen Evolution Electrocatalyst. ACS Applied Energy Materials, 2020, 3, 977-986.	2.5	36
1094	Three-Dimensional N-Doped Carbon Nanotube Frameworks on Ni Foam Derived from a Metalâ€“Organic Framework as a Bifunctional Electrocatalyst for Overall Water Splitting. ACS Applied Materials & Interfaces, 2020, 12, 3592-3602.	4.0	88
1095	Boosted Oxygen Evolution Reactivity by Igniting Double Exchange Interaction in Spinel Oxides. Journal of the American Chemical Society, 2020, 142, 50-54.	6.6	199
1096	Micro-nanostructural designs of bifunctional electrocatalysts for metal-air batteries. Chinese Journal of Catalysis, 2020, 41, 390-403.	6.9	36
1097	Insight into the Boosted Electrocatalytic Oxygen Evolution Performance of Highly Hydrophilic Nickelâ€“Iron Hydroxide. ACS Applied Energy Materials, 2020, 3, 822-830.	2.5	37
1098	Effect of Graphene Encapsulation of NiMo Alloys on Oxygen Evolution Reaction. ACS Catalysis, 2020, 10, 792-799.	5.5	60
1099	Iridium oxide fabrication and application: A review. Journal of Energy Chemistry, 2020, 46, 152-172.	7.1	51
1100	A review on NiFe-based electrocatalysts for efficient alkaline oxygen evolution reaction. Journal of Power Sources, 2020, 448, 227375.	4.0	217
1101	CoFe-based electrocatalysts for oxygen evolution and reduction reaction. , 2020, , 265-293.		0
1102	A multiphase nickel iron sulfide hybrid electrode for highly active oxygen evolution. Science China Materials, 2020, 63, 356-363.	3.5	23
1103	Methods for Electrocatalysis. , 2020, , .		2
1104	Optimized trimetallic benzotriazole-5-carboxylate MOFs with coordinately unsaturated active sites as an efficient electrocatalyst for the oxygen evolution reaction. Dalton Transactions, 2020, 49, 750-756.	1.6	25
1105	Strain stabilized nickel hydroxide nanoribbons for efficient water splitting. Energy and Environmental Science, 2020, 13, 229-237.	15.6	78
1106	Graphdiyne for crucial gas involved catalytic reactions in energy conversion applications. Energy and Environmental Science, 2020, 13, 1326-1346.	15.6	115
1107	Electro-synthesized Co(OH)₂@CoSe with Coâ€“OH active sites for overall water splitting electrocatalysis. Nanoscale Advances, 2020, 2, 792-797.	2.2	30
1108	Hybrid photoanodes for water oxidation combining a molecular photosensitizer with a metal oxide oxygen-evolving catalyst. Sustainable Energy and Fuels, 2020, 4, 31-49.	2.5	28

#	Article	IF	Citations
1109	Straightforward fabrication of robust Fe-doped Ni₃Se₂ supported nickel foam as a highly efficient electrocatalyst for the oxygen evolution reaction. Sustainable Energy and Fuels, 2020, 4, 1150-1156.	2.5	25
1110	Vanadium-containing electro and photocatalysts for the oxygen evolution reaction: a review. Journal of Materials Chemistry A, 2020, 8, 2171-2206.	5.2	94
1111	Temperature-regulated reversible transformation of spinel-to-oxyhydroxide active species for electrocatalytic water oxidation. Journal of Materials Chemistry A, 2020, 8, 1631-1635.	5.2	33
1112	Co-Ni based hybrid transition metal oxide nanostructures for cost-effective bi-functional electrocatalytic oxygen and hydrogen evolution reactions. International Journal of Hydrogen Energy, 2020, 45, 391-400.	3.8	33
1113	Gold nanodots-decorated nickel hydroxide nanoflowers for enhanced electrochemical oxygen evolution activity. Journal of Industrial and Engineering Chemistry, 2020, 82, 359-366.	2.9	9
1114	Ultrafast construction of interfacial sites by wet chemical etching to enhance electrocatalytic oxygen evolution. Nano Energy, 2020, 69, 104367.	8.2	58
1115	Promises of Main Group Metalâ€“Based Nanostructured Materials for Electrochemical CO₂ Reduction to Formate. Advanced Energy Materials, 2020, 10, 1902338.	10.2	384
1116	Highâ€Performance Platinumâ€Perovskite Composite Bifunctional Oxygen Electrocatalyst for Rechargeable Znâ€“Air Battery. Advanced Energy Materials, 2020, 10, 1903271.	10.2	98
1117	Earth-abundant transition-metal-based bifunctional catalysts for overall electrochemical water splitting: A review. Journal of Alloys and Compounds, 2020, 819, 153346.	2.8	253
1118	Fabrication of Hollow CoP/TiO_x Heterostructures for Enhanced Oxygen Evolution Reaction. Small, 2020, 16, e1905075.	5.2	117
1119	A Co-Doped Nanorod-like RuO2 Electrocatalyst with Abundant Oxygen Vacancies for Acidic Water Oxidation. IScience, 2020, 23, 100756.	1.9	125
1120	Hierarchical trimetallic layered double hydroxide nanosheets derived from 2D metal-organic frameworks for enhanced oxygen evolution reaction. Applied Catalysis B: Environmental, 2020, 264, 118532.	10.8	62
1121	Double Metal Diphosphide Pair Nanocages Coupled with P-Doped Carbon for Accelerated Oxygen and Hydrogen Evolution Kinetics. ACS Applied Materials & Interfaces, 2020, 12, 727-733.	4.0	93
1122	Self-standing Substrates. Engineering Materials, 2020, , .	0.3	2
1123	Electrocatalytic Selective Oxygen Evolution of Carbon-Coated Na₂Co_{1â€“x}Fe_xP₂O₇ Nanoparticles for Alkaline Seawater Electrolysis. ACS Catalysis, 2020, 10, 702-709.	5.5	141
1124	In-situ X-ray techniques for non-noble electrocatalysts. Pure and Applied Chemistry, 2020, 92, 733-749.	0.9	19
1125	Hydroxide Is Not a Promoter of C₂₊ Product Formation in the Electrochemical Reduction of CO on Copper. Angewandte Chemie - International Edition, 2020, 59, 4464-4469.	7.2	80
1126	Ultrasonication-assisted and gram-scale synthesis of Co-LDH nanosheet aggregates for oxygen evolution reaction. Nano Research, 2020, 13, 79-85.	5.8	83

#	Article	IF	Citations
1127	Sulfate-Functionalized Nickel Hydroxide Nanobelts for Sustained Oxygen Evolution. ACS Applied Materials & Interfaces, 2020, 12, 443-450.	4.0	31
1128	A Triphasic Bifunctional Oxygen Electrocatalyst with Tunable and Synergetic Interfacial Structure for Rechargeable Znâ€Air Batteries. Advanced Energy Materials, 2020, 10, 1903003.	10.2	74
1129	Hydroxide Is Not a Promoter of C₂₊ Product Formation in the Electrochemical Reduction of CO on Copper. Angewandte Chemie, 2020, 132, 4494-4499.	1.6	16
1130	One-pot synthesis of NiCoP/CNTs composites for lithium ion batteries and hydrogen evolution reaction. Ionics, 2020, 26, 1771-1778.	1.2	14
1131	Spinel-type oxygen-incorporated Ni3+ self-doped Ni3S4 ultrathin nanosheets for highly efficient and stable oxygen evolution electrocatalysis. Journal of Colloid and Interface Science, 2020, 564, 418-427.	5.0	43
1132	Aqueous metal-air batteries: Fundamentals and applications. Energy Storage Materials, 2020, 27, 478-505.	9.5	221
1133	Surface construction of loose Co(OH)2 shell derived from ZIF-67 nanocube for efficient oxygen evolution. Journal of Colloid and Interface Science, 2020, 562, 279-286.	5.0	53
1134	Si-Based Water Oxidation Photoanodes Conjugated with Earth-Abundant Transition Metal-Based Catalysts. , 2020, 2, 107-126.		35
1135	Integrating Rh Species with NiFe-Layered Double Hydroxide for Overall Water Splitting. Nano Letters, 2020, 20, 136-144.	4.5	129
1136	Surface Activation and Reconstruction of Non-Oxide-Based Catalysts Through in Situ Electrochemical Tuning for Oxygen Evolution Reactions in Alkaline Media. ACS Catalysis, 2020, 10, 463-493.	5.5	196
1137	Oxygen Evolution on Metalâ€oxyâ€hydroxides: Beneficial Role of Mixing Fe, Co, Ni Explained via Bifunctional Edge/acceptor Route. ChemCatChem, 2020, 12, 1436-1442.	1.8	21
1138	Rapid growth of amorphous cobalt-iron oxyhydroxide nanosheet arrays onto iron foam: Highly efficient and low-cost catalysts for oxygen evolution. Journal of Electroanalytical Chemistry, 2020, 856, 113621.	1.9	13
1139	Graphiticâ€Shell Encapsulation of Metal Electrocatalysts for Oxygen Evolution, Oxygen Reduction, and Hydrogen Evolution in Alkaline Solution. Advanced Energy Materials, 2020, 10, 1903215.	10.2	138
1140	Fabrication of Niâ€“Co-Based Heterometallo-Supramolecular Polymer Films and the Study of Electron Transfer Kinetics for the Nonenzymatic Electrochemical Detection of Nitrite. ACS Applied Polymer Materials, 2020, 2, 273-284.	2.0	30
1141	3D Carbon Materials for Efficient Oxygen and Hydrogen Electrocatalysis. Advanced Energy Materials, 2020, 10, 1902494.	10.2	97
1142	Vanadium Doped Nickel Phosphide Nanosheets Selfâ€Assembled Microspheres as a Highâ€Efficiency Oxygen Evolution Catalyst. ChemCatChem, 2020, 12, 917-925.	1.8	22
1143	Iron encased organic networks with enhanced lithium storage properties. Energy Storage, 2020, 2, e114.	2.3	4
1144	Hierarchical molybdenum-doped cobaltous hydroxide nanotubes assembled by cross-linked porous nanosheets with efficient electronic modulation toward overall water splitting. Journal of Colloid and Interface Science, 2020, 562, 400-408.	5.0	29

#	Article	IF	Citations
1145	Preparation of Co-Fe oxides immobilized on carbon paper using water-dispersible Prussian-blue analog nanoparticles and their oxygen evolution reaction (OER) catalytic activities. Inorganica Chimica Acta, 2020, 502, 119345.	1.2	15
1146	An Feâ€“V@NiO heterostructure electrocatalyst towards the oxygen evolution reaction. Nanoscale, 2020, 12, 3803-3811.	2.8	32
1147	Nickel is a Different Pickle: Trends in Water Oxidation Catalysis for Molecular Nickel Complexes. ChemSusChem, 2020, 13, 6629-6634.	3.6	14
1148	Reduced graphene oxide coated graphite electrodes for treating Reactive Turquoise Blue 21 rinse water using an indirect electro-oxidation process. SN Applied Sciences, 2020, 2, 1.	1.5	7
1149	Microkinetic assessment of electrocatalytic oxygen evolution reaction over iridium oxide in unbuffered conditions. Journal of Catalysis, 2020, 391, 435-445.	3.1	52
1150	Controllable synthesis of CoFeMo layered double hydroxide nanoarrays for promoting the oxygen evolution reaction. Dalton Transactions, 2020, 49, 15417-15424.	1.6	20
1151	Hydrochloric acid corrosion induced bifunctional free-standing NiFe hydroxide nanosheets towards high-performance alkaline seawater splitting. Nanoscale, 2020, 12, 21743-21749.	2.8	43
1152	Recent Advances in Transition Metal Carbide Electrocatalysts for Oxygen Evolution Reaction. Catalysts, 2020, 10, 1164.	1.6	43
1153	Stoichiometry control and phosphorus doping as strategies for the enhancement of nickel iron spinel oxides as electrocatalysts for water oxidation. International Journal of Hydrogen Energy, 2020, 45, 30404-30414.	3.8	2
1154	Auâ€“Manganese Oxide Nanostructures by a Plasmaâ€Assisted Process as Electrocatalysts for Oxygen Evolution: A Chemicoâ€Physical Investigation. Advanced Sustainable Systems, 2020, , 2000177.	2.7	5
1155	Design and operando/in situ characterization of preciousâ€metalâ€free electrocatalysts for alkaline water splitting. , 2020, 2, 582-613.		105
1156	Recent advances of transition metal based bifunctional electrocatalysts for rechargeable zinc-air batteries. Journal of Power Sources, 2020, 477, 228696.	4.0	56
1157	Molecular Functionalization of NiO Nanocatalyst for Enhanced Water Oxidation by Electronic Structure Engineering. ChemSusChem, 2020, 13, 5901-5909.	3.6	14
1158	Boosting oxygen evolution reactivity by modulating electronic structure and honeycomb-like architecture in Ni2P/N,P-codoped carbon hybrids. Green Energy and Environment, 2021, 6, 866-874.	4.7	12
1159	Carbon supported noble metal nanoparticles as efficient catalysts for electrochemical water splitting. Nanoscale, 2020, 12, 20165-20170.	2.8	34
1160	Electroless Production of Fertilizer (Struvite) and Hydrogen from Synthetic Agricultural Wastewaters. Journal of the American Chemical Society, 2020, 142, 18844-18858.	6.6	33
1161	A critical review: 1D/2D nanostructured self-supported electrodes for electrochemical water splitting. Journal of Power Sources, 2020, 474, 228621.	4.0	86
1162	Preparation of nickel-iron hydroxides by microorganism corrosion for efficient oxygen evolution. Nature Communications, 2020, 11, 5075.	5.8	226

#	Article	IF	Citations
1163	Interlayer ligand engineering of Î²-Ni(OH)2 for oxygen evolution reaction. Science China Chemistry, 2020, 63, 1684-1693.	4.2	15
1164	Engineering Lower Coordination Atoms onto NiO/Co₃O₄ Heterointerfaces for Boosting Oxygen Evolution Reactions. ACS Catalysis, 2020, 10, 12376-12384.	5.5	223
1165	A highly efficient electrochemical oxygen evolution reaction catalyst constructed from a S-treated two-dimensional Prussian blue analogue. Dalton Transactions, 2020, 49, 14290-14296.	1.6	19
1166	Nitrogenâ€Doped Cobalt Pyrite Yolkâ€“Shell Hollow Spheres for Longâ€Life Rechargeable Znâ€“Air Batteries. Advanced Science, 2020, 7, 2001178.	5.6	206
1167	Black Phosphorus Nanosheets Modified with Au Nanoparticles as High Conductivity and High Activity Electrocatalyst for Oxygen Evolution Reaction. Advanced Energy Materials, 2020, 10, 2002424.	10.2	79
1168	Role of electron pathway in dimensionally increasing water splitting reaction sites in liquid electrolytes. Electrochimica Acta, 2020, 362, 137113.	2.6	13
1169	Microkinetic model for pH- and potential-dependent oxygen evolution during water splitting on Fe-doped Î²-NiOOH. Energy and Environmental Science, 2020, 13, 4962-4976.	15.6	46
1170	In situ electrochemical conversion of cobalt oxide@MOF-74 core-shell structure as an efficient and robust electrocatalyst for water oxidation. Applied Materials Today, 2020, 21, 100820.	2.3	11
1171	Decoupled Electrochemical Water Splitting: From Fundamentals to Applications. Advanced Energy Materials, 2020, 10, 2002453.	10.2	167
1172	In-situ integration of nickel-iron Prussian blue analog heterostructure on Ni foam by chemical corrosion and partial conversion for oxygen evolution reaction. Electrochimica Acta, 2020, 363, 137211.	2.6	14
1173	Electrocatalytic water oxidation reaction promoted by cobalt-Prussian blue and its thermal decomposition product under mild conditions. Dalton Transactions, 2020, 49, 16488-16497.	1.6	13
1174	Alteration in electrocatalytic water splitting activity of reduced graphene oxide through simultaneous and individual doping of Lewis acid/base center. Electrochimica Acta, 2020, 362, 137146.	2.6	9
1175	Boosting the oxygen evolution activity of copper foam containing trace Ni by intentionally supplementing Fe and forming nanowires in anodization. Electrochimica Acta, 2020, 364, 137170.	2.6	16
1176	Waste leather-derived (Cr, N)-co-doped carbon cloth coupling with Mo2C nanoparticles as a self-supported electrode for highly active hydrogen evolution reaction performances. Journal of Power Sources, 2020, 476, 228706.	4.0	19
1177	Boron-Doped Graphene Oxide-Supported Nickel Nitride Nanoparticles for Electrocatalytic Oxygen Evolution in Alkaline Electrolytes. ACS Applied Nano Materials, 2020, 3, 9924-9930.	2.4	21
1178	Explainable and trustworthy artificial intelligence for correctable modeling in chemical sciences. Science Advances, 2020, 6, .	4.7	26
1179	Octahedral Coordinated Trivalent Cobalt Enriched Multimetal Oxygenâ€Evolution Catalysts. Advanced Energy Materials, 2020, 10, 2002593.	10.2	47
1180	Solarâ€Driven Electrochemical CO₂ Reduction with Heterogeneous Catalysts. Advanced Energy Materials, 2021, 11, 2002652.	10.2	67

#	Article	IF	Citations
1181	Vanadium nitride based CoFe prussian blue analogues for enhanced electrocatalytic oxygen evolution. International Journal of Hydrogen Energy, 2020, 45, 31410-31417.	3.8	10
1182	A novel tin-chloride-zirconium oxide-kaolin composite coated carbon felt anode for electro-oxidation of surfactant from municipal wastewater. Journal of Environmental Chemical Engineering, 2020, 8, 104489.	3.3	7
1183	Research progress and surface/interfacial regulation methods for electrophotocatalytic hydrogen production from water splitting. Materials Today Energy, 2020, 18, 100524.	2.5	28
1184	Electrocatalysts for acidic oxygen evolution reaction: Achievements and perspectives. Nano Energy, 2020, 78, 105392.	8.2	86
1185	Electrospun nitrogen-doped carbon nanofibers for electrocatalysis. Sustainable Materials and Technologies, 2020, 26, e00221.	1.7	11
1186	Ultrathin Nanosheet-Assembled Coâ€“Fe Hydroxide Nanotubes: Sacrificial Template Synthesis, Topotactic Transformation, and Their Application as Electrocatalysts for Efficient Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2020, 12, 46578-46587.	4.0	12
1187	Influence of Composition on Performance in Metallic Ironâ€“Nickelâ€“Cobalt Ternary Anodes for Alkaline Water Electrolysis. ACS Catalysis, 2020, 10, 12139-12147.	5.5	20
1188	Engineering water splitting sites in three-dimensional flower-like Coâ€“Niâ€“P/MoS₂ heterostructural hybrid spheres for accelerating electrocatalytic oxygen and hydrogen evolution. Journal of Materials Chemistry A, 2020, 8, 22181-22190.	5.2	47
1189	Ceâ€Doped Ordered Mesoporous Cobalt Ferrite Phosphides as Robust Catalysts for Water Oxidation. Chemistry - A European Journal, 2020, 26, 13305-13310.	1.7	18
1190	Recent Developments on the Single Atom Supported at 2D Materials Beyond Graphene as Catalysts. ACS Catalysis, 2020, 10, 9634-9648.	5.5	102
1191	Interface Engineering of Binderâ€Free Earthâ€Abundant Electrocatalysts for Efficient Advanced Energy Conversion. ChemSusChem, 2020, 13, 4795-4811.	3.6	28
1192	Unveiling the Origin of Catalytic Sites of Pt Nanoparticles Decorated on Oxygen-Deficient Vanadium-Doped Cobalt Hydroxide Nanosheet for Hybrid Sodiumâ€“Air Batteries. ACS Applied Energy Materials, 2020, 3, 7464-7473.	2.5	9
1193	Mechanochemical synthesis of cobalt/copper fluorophosphate generates a multifunctional electrocatalyst. Chemical Communications, 2020, 56, 9276-9279.	2.2	5
1194	Nanostructured Niâ€“Cu electrocatalysts for the oxygen evolution reaction. Catalysis Science and Technology, 2020, 10, 4960-4967.	2.1	18
1195	Ni foam electrode solution impregnated with Ni-FeX(OH)Y catalysts for efficient oxygen evolution reaction in alkaline electrolyzers. RSC Advances, 2020, 10, 25426-25434.	1.7	4
1196	Understanding the Synergistic Effect in Oxygen Evolution Reaction Catalysis from Chemical Kinetics Point of View: An Iron Oxide/Nickel Oxide Case Study. Journal of the Electrochemical Society, 2020, 167, 116514.	1.3	11
1197	Stoichiometry-Dependent Oxygen Evolution Electrocatalysis on Open-Tubular Nitrogen-Doped Carbon Column Supported Transition Metal Oxides. ACS Applied Energy Materials, 2020, 3, 2010-2019.	2.5	6
1198	Nanosheet-Derived Ultrafine CoRuOx@NC Nanoparticles with a Core@Shell Structure as Bifunctional Electrocatalysts for Electrochemical Water Splitting with High Current Density or Low Power Input. ACS Sustainable Chemistry and Engineering, 2020, 8, 12089-12099.	3.2	20

#	Article	IF	Citations
1199	Phosphorus-Accumulating Organism Assisted Phosphorization of Ni-Fe Nanocomposites for Efficient Oxygen Evolution Reaction. ACS Sustainable Chemistry and Engineering, 2020, 8, 11456-11464.	3.2	9
1200	Selective dissolution of A-site cations of La0.6Sr0.4Co0.8Fe0.2O3 perovskite catalysts to enhance the oxygen evolution reaction. Applied Surface Science, 2020, 529, 147165.	3.1	35
1201	Enhanced water oxidation activity of 3D porous carbon by incorporation of heterogeneous Ni/NiO nanoparticles. Applied Surface Science, 2020, 530, 147192.	3.1	24
1202	Bimetallic organic framework-derived rich pyridinic N-doped carbon nanotubes as oxygen catalysts for rechargeable Zn-air batteries. Journal of Power Sources, 2020, 472, 228470.	4.0	31
1203	Highly Efficient and Selective Metal Oxy-Boride Electrocatalysts for Oxygen Evolution from Alkali and Saline Solutions. ACS Applied Energy Materials, 2020, 3, 7619-7628.	2.5	54
1204	Boosting Electrocatalytic Water Oxidation by Creating Defects and Latticeâ€Oxygen Active Sites on Niâ€Fe Nanosheets. ChemSusChem, 2020, 13, 5067-5072.	3.6	12
1205	Self-crosslinkable polyaniline with coordinated stabilized CoOOH nanosheets as a high-efficiency electrocatalyst for oxygen evolution reaction. Applied Surface Science, 2020, 529, 147173.	3.1	25
1206	Co/FeC coreâ€“nitrogen doped hollow carbon shell structure with tunable shell-thickness for oxygen evolution reaction. Journal of Colloid and Interface Science, 2020, 580, 794-802.	5.0	15
1207	Vulcanization and acid etching of NiCoFe layered ternary hydroxides for enhancing oxygen evolution reaction. Journal of Alloys and Compounds, 2020, 832, 155012.	2.8	13
1208	Embedding Ultrafine Metal Oxide Nanoparticles in Monolayered Metalâ€“Organic Framework Nanosheets Enables Efficient Electrocatalytic Oxygen Evolution. ACS Nano, 2020, 14, 1971-1981.	7.3	109
1209	Hierarchical Highly Wrinkled Trimetallic NiFeCu Phosphide Nanosheets on Nanodendrite Ni₃S₂/Ni Foam as an Efficient Electrocatalyst for the Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2020, 12, 36268-36276.	4.0	44
1210	Electronic coupling strategy to boost water oxidation efficiency based on the modelling of trimetallic hydroxides Ni1-x-yFexCry(OH)2: From theory to experiment. Chemical Engineering Journal, 2020, 402, 126144.	6.6	11
1211	Layered Double Hydroxides in Bioinspired Nanotechnology. Crystals, 2020, 10, 602.	1.0	15
1212	Two-dimensional Noble Metal Nanomaterials for Electrocatalysis. Chemical Research in Chinese Universities, 2020, 36, 597-610.	1.3	11
1213	Recent advances in rational design of efficient electrocatalyst for full water splitting across all pH conditions. MRS Bulletin, 2020, 45, 539-547.	1.7	26
1214	Inâ€…Situ Electrochemical Formation of a Coreâ€Shell ZnFe 2 O 4 @Zn(Fe)OOH Heterostructural Catalyst for Efficient Water Oxidation in Alkaline Medium. ChemElectroChem, 2020, 7, 3478-3486.	1.7	7
1215	Fabricating nano-IrO₂@amorphous Ir-MOF composites for efficient overall water splitting: a one-pot solvothermal approach. Journal of Materials Chemistry A, 2020, 8, 25687-25695.	5.2	26
1216	Electrodeposition of High-Surface-Area IrO2 Films on Ti Felt as an Efficient Catalyst for the Oxygen Evolution Reaction. Frontiers in Chemistry, 2020, 8, 593272.	1.8	24

#	Article	IF	Citations
1217	Amorphous CoO_x-Decorated Crystalline RuO₂ Nanosheets as Bifunctional Catalysts for Boosting Overall Water Splitting at Large Current Density. ACS Sustainable Chemistry and Engineering, 2020, 8, 17520-17526.	3.2	95
1218	Identification of the Electronic and Structural Dynamics of Catalytic Centers in Single-Fe-Atom Material. CheM, 2020, 6, 3440-3454.	5.8	231
1219	Engineering efficient bifunctional electrocatalysts for rechargeable zincâ€“air batteries by confining Feâ€“Coâ€“Ni nanoalloys in nitrogen-doped carbon nanotube@nanosheet frameworks. Journal of Materials Chemistry A, 2020, 8, 25919-25930.	5.2	58
1220	Increasing the active sites and intrinsic activity of transition metal chalcogenide electrocatalysts for enhanced water splitting. Journal of Materials Chemistry A, 2020, 8, 25465-25498.	5.2	112
1221	Hexadecyltrimethylammonium hydroxide promotes electrocatalytic activity for the oxygen evolution reaction. Communications Chemistry, 2020, 3, .	2.0	2
1222	Molybdenum oxynitride nanoparticles on nitrogen-doped CNT architectures for the oxygen evolution reaction. Nanoscale Advances, 2020, 2, 5659-5665.	2.2	7
1223	NiCoO₂@CeO₂ Nanoboxes for Ultrasensitive Electrochemical Immunosensing Based on the Oxygen Evolution Reaction in a Neutral Medium: Application for Interleukin-6 Detection. Analytical Chemistry, 2020, 92, 16267-16273.	3.2	32
1224	The individual role of active sites in bimetallic oxygen evolution reaction catalysts. Dalton Transactions, 2020, 49, 17505-17510.	1.6	13
1225	High performance binder-free Feâ€“Ni hydroxides on nickel foam prepared in piranha solution for the oxygen evolution reaction. Sustainable Energy and Fuels, 2020, 4, 6311-6320.	2.5	14
1226	Elucidation of Factors That Govern the 2e^{â€“}/2H⁺ vs 4e^{â€“}/4H⁺ Selectivity of Water Oxidation by a Cobalt Corrole. Journal of the American Chemical Society, 2020, 142, 21040-21049.	6.6	44
1227	Two-dimensional bimetallic CoFe selenite via metal-ion assisted self-assembly for enhanced oxygen evolution reaction. New Journal of Chemistry, 2020, 44, 20148-20154.	1.4	7
1228	Enhancing Solar Water Splitting of Textured BiVO4 by Dual Effect of a Plasmonic Silver Nanoshell: Plasmon-Induced Light Absorption and Enhanced Hole Transport. ACS Applied Energy Materials, 2020, 3, 11886-11892.	2.5	6
1229	Nickel-Rich Phosphide (Ni₁₂P₅) Nanosheets Coupled with Oxidized Multiwalled Carbon Nanotubes for Oxygen Evolution. ACS Applied Nano Materials, 2020, 3, 10914-10921.	2.4	23
1230	Benchmarking Perovskite Electrocatalystsâ€™ OER Activity as Candidate Materials for Industrial Alkaline Water Electrolysis. Catalysts, 2020, 10, 1387.	1.6	15
1231	Transition Metal Chalcogenides for the Electrocatalysis of Water. , 2020, , .		2
1232	Single Atoms on a Nitrogen-Doped Boron Phosphide Monolayer: A New Promising Bifunctional Electrocatalyst for ORR and OER. ACS Applied Materials & Interfaces, 2020, 12, 52549-52559.	4.0	95
1233	Ultrafine oxygen-defective iridium oxide nanoclusters for efficient and durable water oxidation at high current densities in acidic media. Journal of Materials Chemistry A, 2020, 8, 24743-24751.	5.2	45
1234	Co-based coordination polymer-derived Co3S4 nanotube decorated with NiMoO4 nanosheets for effective oxygen evolution reaction. International Journal of Hydrogen Energy, 2020, 45, 30463-30472.	3.8	17

#	Article	IF	Citations
1235	Boosting the oxygen evolution reaction using defect-rich ultra-thin ruthenium oxide nanosheets in acidic media. Energy and Environmental Science, 2020, 13, 5143-5151.	15.6	159
1236	Semiconducting metal oxides empowered by graphene and its derivatives: Progresses and critical perspective on selected functional applications. Journal of Applied Physics, 2020, 128, .	1.1	18
1237	Adaptive Bifunctional Electrocatalyst of Amorphous CoFe Oxide @ 2D Black Phosphorus for Overall Water Splitting. Angewandte Chemie, 2020, 132, 21292-21299.	1.6	26
1238	Adaptive Bifunctional Electrocatalyst of Amorphous CoFe Oxide @ 2D Black Phosphorus for Overall Water Splitting. Angewandte Chemie - International Edition, 2020, 59, 21106-21113.	7.2	182
1239	Amorphous NiFe phosphides supported on nanoarray-structured nitrogen-doped carbon paper for high-performance overall water splitting. Electrochimica Acta, 2020, 357, 136873.	2.6	23
1240	Deep eutectic solvent stabilised Coâ€“P films for electrocatalytic oxidation of 5-hydroxymethylfurfural into 2,5-furandicarboxylic acid. New Journal of Chemistry, 2020, 44, 14239-14245.	1.4	28
1241	Porous NiCo2S4/FeOOH nanowire arrays with rich sulfide/hydroxide interfaces enable high OER activity. Nano Energy, 2020, 78, 105230.	8.2	121
1242	The Effect of Heteroatom Doping on Nickel Cobalt Oxide Electrocatalysts for Oxygen Evolution and Reduction Reactions. ChemPlusChem, 2020, 85, 1710-1718.	1.3	10
1243	Electrodeposition-fabricated catalysts for polymer electrolyte water electrolysis. Korean Journal of Chemical Engineering, 2020, 37, 1275-1294.	1.2	6
1244	Why Do We Use the Materials and Operating Conditions We Use for Heterogeneous (Photo)Electrochemical Water Splitting?. ACS Catalysis, 2020, 10, 11177-11234.	5.5	89
1245	Boron-doped graphene as electrocatalytic support for iridium oxide for oxygen evolution reaction. Catalysis Science and Technology, 2020, 10, 6599-6610.	2.1	24
1246	Iridium nanorods as a robust and stable bifunctional electrocatalyst for pH-universal water splitting. Applied Catalysis B: Environmental, 2020, 279, 119394.	10.8	90
1247	Seawater electrolyte-based metalâ€“air batteries: from strategies to applications. Energy and Environmental Science, 2020, 13, 3253-3268.	15.6	128
1248	Mixed zincâ€“cobalt oxide coatings for photocatalytic applications. Applied Physics A: Materials Science and Processing, 2020, 126, 1.	1.1	2
1249	Iron ion irradiated Bi₂Te₃ nanosheets with defects and regulated hydrophilicity to enhance the hydrogen evolution reaction. Nanoscale, 2020, 12, 16208-16214.	2.8	16
1250	Synthesis and characterization of NiO, MoO3, and NiMoO4 nanostructures through a green, facile method and their potential use as electrocatalysts for water splitting. Materials Chemistry and Physics, 2020, 255, 123570.	2.0	61
1251	Composition-balanced trimetallic MOFs as ultra-efficient electrocatalysts for oxygen evolution reaction at high current densities. Applied Catalysis B: Environmental, 2020, 279, 119375.	10.8	102
1252	Excellent Oxygen Evolution Reaction of Activated Carbon-Anchored NiO Nanotablets Prepared by Green Routes. Nanomaterials, 2020, 10, 1382.	1.9	40

#	Article	IF	Citations
1253	Oxidation of carbon monoxide over various nickel oxide catalysts in different conditions: A review. Chemical Engineering Journal Advances, 2020, 1, 100008.	2.4	33
1254	Electrolysis of waste water containing aniline to produce polyaniline and hydrogen with low energy consumption. International Journal of Hydrogen Energy, 2020, 45, 22419-22426.	3.8	21
1255	Designing 3d dual transition metal electrocatalysts for oxygen evolution reaction in alkaline electrolyte: Beyond oxides. Nano Energy, 2020, 77, 105162.	8.2	134
1256	Transition-Metal-Substituted Cobalt Carbonate Hydroxide Nanostructures as Electrocatalysts in Alkaline Oxygen Evolution Reaction. ACS Applied Energy Materials, 2020, 3, 7335-7344.	2.5	25
1257	Activity and Regeneration of Electrodeposited Feâ€"Niâ€"Co-Based Electrocatalysts for the Alkaline Oxygen Evolution Reaction. ACS Applied Energy Materials, 2020, 3, 7239-7245.	2.5	8
1258	Phosphorusâ€Based Electrocatalysts: Black Phosphorus, Metal Phosphides, and Phosphates. Advanced Materials Interfaces, 2020, 7, 2000676.	1.9	35
1259	Oxygen Evolution and Reduction on Fe-doped NiOOH: Influence of Solvent, Dopant Position and Reaction Mechanism. Topics in Catalysis, 2020, 63, 833-845.	1.3	19
1260	Nitrogen-doped graphene encapsulated FeCoMoS nanoparticles as advanced trifunctional catalyst for water splitting devices and zincâ€"air batteries. Applied Catalysis B: Environmental, 2020, 279, 119381.	10.8	177
1261	Graphdiyne-anchored ultrafine NiFe hydroxide nanodots electrocatalyst for water oxidation with high mass activity and superior durability. Carbon, 2020, 169, 45-54.	5.4	28
1262	Recent advance and prospectives of electrocatalysts based on transition metal selenides for efficient water splitting. Nano Energy, 2020, 78, 105234.	8.2	250
1263	High-Valent Nickel Promoted by Atomically Embedded Copper for Efficient Water Oxidation. ACS Catalysis, 2020, 10, 9725-9734.	5.5	100
1264	A ball-milling synthesis of N-graphyne with controllable nitrogen doping sites for efficient electrocatalytic oxygen evolution and supercapacitors. Dalton Transactions, 2020, 49, 10958-10969.	1.6	51
1265	Transition metalâ€"N₄ embedded black phosphorus carbide as a high-performance bifunctional electrocatalyst for ORR/OER. Nanoscale, 2020, 12, 18721-18732.	2.8	39
1266	Breaking the scaling relationship via dual metal doping in a cobalt spinel for the OER: a computational prediction. Physical Chemistry Chemical Physics, 2020, 22, 18672-18680.	1.3	5
1267	Trimetallic Nanoparticles Encapsulated into Bambooâ€Like Nâ€Doped Carbon Nanotubes as a Robust Catalyst for Efficient Oxygen Evolution Electrocatalysis. ChemNanoMat, 2020, 6, 1496-1501.	1.5	8
1268	Self-templating synthesis of hollow NiFe hydroxide nanospheres for efficient oxygen evolution reaction. Electrochimica Acta, 2020, 357, 136869.	2.6	7
1269	Fundamentals of Electrochemical CO₂ Reduction on Single-Metal-Atom Catalysts. ACS Catalysis, 2020, 10, 10068-10095.	5.5	161
1270	Metalâ€"Organicâ€Frameworkâ€Derived Co₂P Nanoparticle/Multiâ€Doped Porous Carbon as a Trifunctional Electrocatalyst. Advanced Materials, 2020, 32, e2003649.	11.1	261

#	Article	IF	Citations
1271	Suppressed Jahnâ€“Teller Distortion in MnCo₂O₄@Ni₂P Heterostructures to Promote the Overall Water Splitting. Small, 2020, 16, e2001856.	5.2	59
1272	Controlled colloidal metal nanoparticles and nanoclusters: recent applications as cocatalysts for improving photocatalytic water-splitting activity. Journal of Materials Chemistry A, 2020, 8, 16081-16113.	5.2	66
1273	Developing efficient catalysts for the OER and ORR using a combination of Co, Ni, and Pt oxides along with graphene nanoribbons and NiCo₂O₄. Journal of Materials Chemistry A, 2020, 8, 17691-17705.	5.2	95
1274	Comparative Oxygen Evolution Reaction performance of cobalt oxide electrocatalyst in combination with various metal ions MCo₂O₄ (M= Mn²⁺, Cu²⁺,) Tj ETQq1 1 0.784314 rgBT /Ov Materials Science and Engineering, 2020, 872, 012182.	0.3	4
1275	Lattice oxygen activation enabled by high-valence metal sites for enhanced water oxidation. Nature Communications, 2020, 11, 4066.	5.8	337
1276	Development of Niâ€“Fe based ternary metal hydroxides as highly efficient oxygen evolution catalysts in AEM water electrolysis for hydrogen production. International Journal of Hydrogen Energy, 2020, 45, 24232-24247.	3.8	55
1277	Carbon corrosion: A novel termination mechanism of the water electrolysis plateau during voltage reversal. Journal of Power Sources, 2020, 473, 228542.	4.0	20
1278	CoO/TiN nanowires array as an effective self-supported catalyst for oxygen evolution reaction. Materials Letters, 2020, 279, 128494.	1.3	0
1279	Iridium-based nanomaterials for electrochemical water splitting. Nano Energy, 2020, 78, 105270.	8.2	192
1280	Metallic single-atoms confined in carbon nanomaterials for the electrocatalysis of oxygen reduction, oxygen evolution, and hydrogen evolution reactions. Catalysis Science and Technology, 2020, 10, 6420-6448.	2.1	33
1281	Morphology and strain control of hierarchical cobalt oxide nanowire electrocatalysts via solvent effect. Nano Research, 2020, 13, 3130-3136.	5.8	13
1282	Dual-modulation of phase and electronic structure in hierarchical Ni3Fe/Ni3FeN catalyst by Mo-doping to achieve efficient oxygen evolution reaction. Applied Surface Science, 2020, 529, 147172.	3.1	10
1283	Concurrently Realizing Geometric Confined Growth and Doping of Transition Metals within Graphene Hosts for Bifunctional Electrocatalysts toward a Solid-State Rechargeable Micro-Znâ€“Air Battery. ACS Applied Materials & Interfaces, 2020, 12, 38031-38044.	4.0	24
1284	Direct growth of Fe-incorporated NiSe microspheres on FeNi alloy foam as a highly efficient electrocatalyst for oxygen evolution reaction. Journal of Materials Science: Materials in Electronics, 2020, 31, 15968-15975.	1.1	10
1285	Discovering Competing Electrocatalytic Mechanisms and Their Overpotentials: Automated Enumeration of Oxygen Evolution Pathways. Journal of Physical Chemistry C, 2020, 124, 24883-24898.	1.5	7
1286	Construction of three-dimensionally ordered macroporous bimetal phosphides as bifunctional electrocatalysts for highly efficient water splitting. Journal of Materials Chemistry A, 2020, 8, 24572-24578.	5.2	19
1287	Structural transformation of highly active metalâ€“organic framework electrocatalysts during the oxygen evolution reaction. Nature Energy, 2020, 5, 881-890.	19.8	647
1288	In Situ Growth of 3D NiFe LDHâ€POM Microâ€Flowers on Nickel Foam for Overall Water Splitting. Small, 2020, 16, e2003777.	5.2	71

#	Article	IF	Citations
1289	Effects of a conductive support on the bonding of oxygen containing molecules to transition metal oxide surfaces. Physical Chemistry Chemical Physics, 2020, 22, 26216-26222.	1.3	7
1290	Waterâ€Splitting Based and Related Therapeutic Effects: Evolving Concepts, Progress, and Perspectives. Small, 2020, 16, e2004551.	5.2	26
1291	Dynamic structure evolution of free-standing S-doped porous Co-Fe microspheres with enhanced oxygen evolution electrocatalysis in alkaline media. Electrochimica Acta, 2020, 361, 137038.	2.6	14
1292	Retention of anions in cobalt hydroxide with Ni substitution to emphasize the role of anions and cations for high current density in oxygen evolution reactions. Dalton Transactions, 2020, 49, 16962-16969.	1.6	7
1293	Origin of High Nonradiative Recombination and Relevant Optoelectronic Properties of Ba 2 Bi 1+ x Nb 1â^' x O 6 : Candidate for Photo(electro)catalysis and Photovoltaic Applications?. Advanced Optical Materials, 2020, 8, 2000901.	3.6	3
1294	Oxygen-deficient perovskites for oxygen evolution reaction in alkaline media: a review. Emergent Materials, 2020, 3, 567-590.	3.2	47
1295	Polypyrrole assisted synthesis of nanosized iridium oxide for oxygen evolution reaction in acidic medium. International Journal of Hydrogen Energy, 2020, 45, 33491-33499.	3.8	11
1296	Loading of individual Se-doped Fe₂O₃-decorated Ni/NiO particles on carbon cloth: facile synthesis and efficient electrocatalysis for the oxygen evolution reaction. Dalton Transactions, 2020, 49, 15682-15692.	1.6	10
1297	Understanding and Optimizing Ultraâ€Thin Coordination Polymer Derivatives with High Oxygen Evolution Performance. Advanced Energy Materials, 2020, 10, 2002228.	10.2	28
1298	Full Bulkâ€Structure Reconstruction into Amorphorized Cobaltâ€“Iron Oxyhydroxide Nanosheet Electrocatalysts for Greatly Improved Electrocatalytic Activity. Small Methods, 2020, 4, 2000546.	4.6	38
1299	Latticeâ€Strain Engineering of Homogeneous NiS_{0.5}Se_{0.5} Coreâ€“Shell Nanostructure as a Highly Efficient and Robust Electrocatalyst for Overall Water Splitting. Advanced Materials, 2020, 32, e2000231.	11.1	158
1300	Photocatalysts Based on Organic Semiconductors with Tunable Energy Levels for Solar Fuel Applications. Advanced Energy Materials, 2020, 10, 2001935.	10.2	92
1301	A Simple Method for Synthesizing Highly Active Amorphous Iridium Oxide for Oxygen Evolution under Acidic Conditions. Chemistry - A European Journal, 2020, 26, 17063-17068.	1.7	12
1302	NiFe₂O₄ hollow nanoparticles of small sizes on carbon nanotubes for oxygen evolution. Catalysis Science and Technology, 2020, 10, 6970-6976.	2.1	9
1303	Understanding the formation of bulk- and surface-active layered (oxy)hydroxides for water oxidation starting from a cobalt selenite precursor. Energy and Environmental Science, 2020, 13, 3607-3619.	15.6	77
1304	Bifunctional water-electrolysis-catalysts meeting band-diagram analysis: case study of â€œFePâ€• electrodes. Journal of Materials Chemistry A, 2020, 8, 20021-20029.	5.2	25
1305	In situX-ray diffraction and X-ray absorption spectroscopy of electrocatalysts for energy conversion reactions. Journal of Materials Chemistry A, 2020, 8, 19079-19112.	5.2	98
1306	Fabrication of Nonmetal-Modulated Dual Metalâ€“Organic Platform for Overall Water Splitting and Rechargeable Zincâ€“Air Batteries. ACS Applied Materials & Interfaces, 2020, 12, 41704-41717.	4.0	43

#	Article	IF	Citations
1307	Enhanced Electrochemical Properties and OER Performances by Cu Substitution in NiCo2O4 Spinel Structure. Nanomaterials, 2020, 10, 1727.	1.9	37
1308	Quasi-1D Mn₂O₃ Nanostructures Functionalized with First-Row Transition-Metal Oxides as Oxygen Evolution Catalysts. ACS Applied Nano Materials, 2020, 3, 9889-9898.	2.4	12
1309	Potentialâ€•and Bufferâ€Dependent Catalyst Decomposition during Nickelâ€Based Water Oxidation Catalysis. ChemSusChem, 2020, 13, 5625-5631.	3.6	7
1310	Modulation of Disordered Coordination Degree Based on Surface Defective Metalâ€“Organic Framework Derivatives toward Boosting Oxygen Evolution Electrocatalysis. Small, 2020, 16, e2003630.	5.2	44
1311	Synthetic Approaches to Metallo-Supramolecular Co^{II} Polygons and Potential Use for H₂O Oxidation. Inorganic Chemistry, 2020, 59, 14432-14438.	1.9	2
1312	Nano/Microscale Integrated Mushroom-Shaped Hydrophilic CoP@Ni-CoP with Optimized Gas Bubble Release for High-Performance Water Splitting Catalysis. ACS Applied Energy Materials, 2020, 3, 9769-9784.	2.5	11
1313	Bifunctional electrocatalysts based on hierarchical graphene/iron hybrid architectures branched by N-doped CNT. Journal of Alloys and Compounds, 2020, 846, 156244.	2.8	15
1314	Concentration based multicolor upconversion emission of lanthanides Co-doped Ruddlesden-Popper type layered perovskites. Optical Materials, 2020, 109, 110294.	1.7	3
1315	First principles study of electrocatalytic behavior of olivine phosphates with mixed alkali and mixed transition metal atoms. RSC Advances, 2020, 10, 29175-29180.	1.7	0
1316	Cation and Anion Co-doped Perovskite Nanofibers for Highly Efficient Electrocatalytic Oxygen Evolution. ACS Applied Materials & Interfaces, 2020, 12, 41259-41268.	4.0	39
1317	First-row transition metal oxide oxygen evolution electrocatalysts: regulation strategies and mechanistic understandings. Sustainable Energy and Fuels, 2020, 4, 5417-5432.	2.5	86
1318	Underestimation of Platinum Electrocatalysis Induced by Carbon Monoxide Evolved from Graphite Counter Electrodes. ACS Catalysis, 2020, 10, 10773-10783.	5.5	26
1319	Achieving delafossite analog by in situ electrochemical self-reconstruction as an oxygen-evolving catalyst. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 21906-21913.	3.3	67
1320	Oxygen Vacancies Induced NiFe-Hydroxide as a Scalable, Efficient, and Stable Electrode for Alkaline Overall Water Splitting. ACS Sustainable Chemistry and Engineering, 2020, 8, 14071-14081.	3.2	32
1321	Promoting photocatalytic hydrogen evolution over the perovskite oxide Pr_{0.5}(Ba_{0.5}Sr_{0.5})_{0.5}Co_{0.8}Fe_{0.2}O₃ by plasmon-induced hot electron injection. Nanoscale, 2020, 12, 18710-18720.	2.8	6
1322	Single-atom catalysts for the oxygen evolution reaction: recent developments and future perspectives. Chemical Communications, 2020, 56, 12687-12697.	2.2	69
1323	Recent advances and strategies in the stabilization of singleâ€atom catalysts for electrochemical applications. , 2020, 2, 488-520.		37
1324	Recent Advances in Earth-Abundant Core/Noble-Metal Shell Nanoparticles for Electrocatalysis. ACS Catalysis, 2020, 10, 10886-10904.	5.5	38

#	Article	IF	Citations
1325	Oxygen Plasma Activation of Carbon Nanotubes-Interconnected Prussian Blue Analogue for Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2020, 12, 42634-42643.	4.0	44
1326	A fundamental look at electrocatalytic sulfur reduction reaction. Nature Catalysis, 2020, 3, 762-770.	16.1	455
1327	Theoretical study on the photocatalytic properties of 2D InX(X = S, Se)/transition metal disulfide (MoS₂and WS₂) van der Waals heterostructures. Nanoscale, 2020, 12, 20025-20032.	2.8	49
1328	Direct MOCVD Growth of Iron Oxide on Threeâ€Dimensional Nickel Foam as Electrode for the Oxygen Evolution Reaction. ChemSusChem, 2020, 13, 5954-5961.	3.6	3
1329	Constructing Chemical Interaction between Hematite and Carbon Nanosheets with Single Active Sites for Efficient Photoâ€Electrochemical Water Oxidation. Small Methods, 2020, 4, 2000577.	4.6	23
1330	Alcohol oxidation as alternative anode reactions paired with (photo)electrochemical fuel production reactions. Nature Communications, 2020, 11, 4594.	5.8	67
1331	Enhanced Water Electrolysis: Effect of Temperature on the Oxygen Evolution Reaction at Cobalt Oxide Nanoparticles Modified Glassy Carbon Electrodes. International Journal of Electrochemical Science, 2020, , 6549-6560.	0.5	3
1332	Metal oxide-based materials as an emerging family of hydrogen evolution electrocatalysts. Energy and Environmental Science, 2020, 13, 3361-3392.	15.6	370
1333	Study of â€œNi-dopingâ€•and â€œopen-pore microstructureâ€•as physico-electrochemical stimuli towards the electrocatalytic efficiency of Ni/NiO for the oxygen evolution reaction. New Journal of Chemistry, 2020, 44, 17507-17517.	1.4	19
1334	Autoxidation of polythiophene tethered to carbon cloth boosts its electrocatalytic activity towards durable water oxidation. Journal of Materials Chemistry A, 2020, 8, 19793-19798.	5.2	11
1335	Capturing the active sites of multimetallic (oxy)hydroxides for the oxygen evolution reaction. Energy and Environmental Science, 2020, 13, 4225-4237.	15.6	186
1336	Enhancing the oxygen evolution activity of nitrogen-doped graphitic carbon shell-embedded nickel/nickel oxide nanoparticles by surface dissolution. Materials Chemistry Frontiers, 2020, 4, 3267-3279.	3.2	20
1337	Nickel Selenide Quantum Dot Applications in Electrocatalysis and Sensors. Electroanalysis, 2020, 32, 2603-2614.	1.5	6
1338	Synergetic FeCo nanorods embedded in nitrogen-doped carbon nanotubes with abundant metalâ€“NCNT heterointerfaces as efficient air electrocatalysts for rechargeable zincâ€“air batteries. Sustainable Energy and Fuels, 2020, 4, 5188-5194.	2.5	7
1339	Charge reactions on crystalline/amorphous lanthanum nickel oxide cocatalyst modified hematite photoanode. Journal of Chemical Physics, 2020, 153, 024701.	1.2	3
1340	Emerging Metal Single Atoms in Electrocatalysts and Batteries. Advanced Functional Materials, 2020, 30, 2003870.	7.8	38
1341	Nickel foam supported Cr-doped NiCo2O4/FeOOH nanoneedle arrays as a high-performance bifunctional electrocatalyst for overall water splitting. Nano Research, 2020, 13, 3299-3309.	5.8	88
1342	MoO₂ as a Propitious â€œPore-Forming Additiveâ€•for Boosting the Water Oxidation Activity of Cobalt Oxalate Microrods. Journal of Physical Chemistry C, 2020, 124, 20010-20020.	1.5	19

#	Article	IF	Citations
1343	Oxygen Evolution Reaction in Ba_{0.5}Sr_{0.5}Co_{0.8}Fe_{0.2}O_{3-Î´} Aided by Intrinsic Co/Fe Spinel-Like Surface. Journal of the American Chemical Society, 2020, 142, 15876-15883.	6.6	81
1344	2D-organic framework confined metal single atoms with the loading reaching the theoretical limit. Materials Horizons, 2020, 7, 2726-2733.	6.4	26
1345	Genuine Active Species Generated from Fe₃N Nanotube by Synergistic CoNi Doping for Boosted Oxygen Evolution Catalysis. Small, 2020, 16, e2003824.	5.2	31
1346	Synergistically Coupling Phosphorus-Doped Molybdenum Carbide with MXene as a Highly Efficient and Stable Electrocatalyst for Hydrogen Evolution Reaction. ACS Sustainable Chemistry and Engineering, 2020, 8, 12990-12998.	3.2	42
1347	Significantly Improved Water Oxidation of CoP Catalysts by Electrochemical Activation. ACS Sustainable Chemistry and Engineering, 2020, 8, 17851-17859.	3.2	55
1348	Stabilization of NiFe Layered Double Hydroxides on n-Si by an Activated TiO₂ Interlayer for Efficient Solar Water Oxidation. ACS Applied Energy Materials, 2020, 3, 12298-12307.	2.5	17
1349	Tuning the Electronic Structures of Multimetal Oxide Nanoplates to Realize Favorable Adsorption Energies of Oxygenated Intermediates. ACS Nano, 2020, 14, 17640-17651.	7.3	56
1350	Designing the future atomic electrocatalyst for efficient energy systems. Engineering Reports, 2020, 2, e12327.	0.9	5
1351	2D Heterojunction Between Double Perovskite Oxide Nanosheet and Layered Double Hydroxide to Promote Rechargeable Zincâ€Air Battery Performance. ChemElectroChem, 2020, 7, 5005-5012.	1.7	19
1352	Self-assembly of Niâ€“Fe layered double hydroxide at room temperature for oxygen evolution reaction. Energy Reports, 2020, 6, 248-254.	2.5	13
1353	Preparation of Ni3Fe2@NC/CC Integrated Electrode and Its Application in Zinc-Air Battery. Frontiers in Chemistry, 2020, 8, 575288.	1.8	4
1354	Chemical Leaching of Inactive Cr and Subsequent Electrochemical Resurfacing of Catalytically Active Sites in Stainless Steel for High-Rate Alkaline Hydrogen Evolution Reaction. ACS Applied Energy Materials, 2020, 3, 12596-12606.	2.5	21
1355	Engineering NiFe layered double hydroxide by valence control and intermediate stabilization toward the oxygen evolution reaction. Journal of Materials Chemistry A, 2020, 8, 26130-26138.	5.2	62
1356	Double exchange interaction promoted high-valence metal sites for neutral oxygen evolution reaction. Chemical Communications, 2020, 56, 15004-15007.	2.2	9
1357	Synergistic effect of NiII and Co/FeIII in doped mixed-valence phosphonate for enhancing electrocatalytic oxygen evolution. Green Energy and Environment, 2022, 7, 432-439.	4.7	8
1358	Hierarchical Microspheres Composed of Mn-Doped CoP Nanosheets for Enhanced Oxygen Evolution. ACS Applied Nano Materials, 2020, 3, 10702-10707.	2.4	16
1359	Electrocatalytic activity sites for the oxygen evolution reaction on binary cobalt and nickel phosphides. RSC Advances, 2020, 10, 39909-39915.	1.7	18
1360	A soft molecular 2Feâ€“2As precursor approach to the synthesis of nanostructured FeAs for efficient electrocatalytic water oxidation. Chemical Science, 2020, 11, 11834-11842.	3.7	30

#	Article	IF	Citations
1361	Electricâ€Field Assisted Inâ€...Situ Hydrolysis of Bulk Metalâ€“Organic Frameworks (MOFs) into Ultrathin Metal Oxyhydroxide Nanosheets for Efficient Oxygen Evolution. Angewandte Chemie, 2020, 132, 13201-13208.	1.6	16
1362	PLD-fabricated perovskite oxide nanofilm as efficient electrocatalyst with highly enhanced water oxidation performance. Applied Catalysis B: Environmental, 2020, 272, 119046.	10.8	29
1363	Defect-Engineered MoO₂ Nanostructures as an Efficient Electrocatalyst for Oxygen Evolution Reaction. ACS Applied Energy Materials, 2020, 3, 5208-5218.	2.5	54
1364	Synthesis of nanoporous graphenes via decarboxylation reaction. Chemical Communications, 2020, 56, 6336-6339.	2.2	2
1365	Synthesis of Co2â^'xNixO2 (0 < x < 1.0) hexagonal nanostructures as efficient bifunctional electrocatalysts for overall water splitting. Dalton Transactions, 2020, 49, 6587-6595.	1.6	20
1366	Ultrathin sulfate-intercalated NiFe-layered double hydroxide nanosheets for efficient electrocatalytic oxygen evolution. RSC Advances, 2020, 10, 12145-12150.	1.7	23
1367	Accelerating charge transfer at an ultrafine NiFe-LDHs/CB interface during the electrocatalyst activation process for water oxidation. Dalton Transactions, 2020, 49, 7436-7443.	1.6	6
1368	Robust Interface Ru Centers for Highâ€Performance Acidic Oxygen Evolution. Advanced Materials, 2020, 32, e1908126.	11.1	145
1369	Role of active sites in N-coordinated Fe-Co dual-metal doped graphene for oxygen reduction and evolution reactions: A theoretical insight. Applied Surface Science, 2020, 525, 146588.	3.1	75
1370	Interface engineering of oxygen-vacancy-rich CoP/CeO2 heterostructure boosts oxygen evolution reaction. Chemical Engineering Journal, 2020, 395, 125160.	6.6	174
1371	Oxygen evolution electrocatalysis using mixed metal oxides under acidic conditions: Challenges and opportunities. Journal of Catalysis, 2020, 388, 130-140.	3.1	59
1372	Design-controlled synthesis of IrO₂ sub-monolayers on Au nanoflowers: marrying plasmonic and electrocatalytic properties. Nanoscale, 2020, 12, 12281-12291.	2.8	20
1373	Effects of Structure and Constituent of Prussian Blue Analogs on Their Application in Oxygen Evolution Reaction. Molecules, 2020, 25, 2304.	1.7	24
1374	Advancement of Platinum (Pt)-Free (Non-Pt Precious Metals) and/or Metal-Free (Non-Precious-Metals) Electrocatalysts in Energy Applications: A Review and Perspectives. Energy & Fuels, 2020, 34, 6634-6695.	2.5	100
1375	Cu Anchored Ti₂NO₂ as High Performance Electrocatalyst for Oxygen Evolution Reaction: A Density Functional Theory Study. ChemCatChem, 2020, 12, 4059-4066.	1.8	27
1376	Corrosion and Alloy Engineering in Rational Design of High Current Density Electrodes for Efficient Water Splitting. Advanced Energy Materials, 2020, 10, 1904020.	10.2	109
1377	A MnV₂O₆/graphene nanocomposite as an efficient electrocatalyst for the oxygen evolution reaction. Nanoscale, 2020, 12, 16028-16033.	2.8	16
1378	Highly Active Bifunctional Oxygen Electrocatalytic Sites Realized in Ceriaâ€“Functionalized Graphene. Advanced Sustainable Systems, 2020, 4, 2000048.	2.7	8

#	Article	IF	Citations
1379	Na₄Ni₃P₄O₁₅â€“Ni(OH)₂ coreâ€“shell nanoparticles as hybrid electrocatalysts for the oxygen evolution reaction in alkaline electrolytes. Dalton Transactions, 2020, 49, 8226-8237.	1.6	12
1380	Metal Phthalocyanineâ€Porphyrinâ€based Conjugated Microporous Polymerâ€derived Bifunctional Electrocatalysts for Znâ€Air Batteries. Chemistry - an Asian Journal, 2020, 15, 1970-1975.	1.7	14
1381	A Co₃O₄/MnCO₃ heterojunction on three-dimensional nickel foam for an enhanced oxygen evolution reaction. CrystEngComm, 2020, 22, 3984-3990.	1.3	7
1382	Aliovalent fluorine doping and anodization-induced amorphization enable bifunctional catalysts for efficient water splitting. Journal of Materials Chemistry A, 2020, 8, 10831-10838.	5.2	31
1383	Hierarchical Polyelemental Nanoparticles as Bifunctional Catalysts for Oxygen Evolution and Reduction Reactions. Advanced Energy Materials, 2020, 10, 2001119.	10.2	39
1384	Competing Effect of Co³⁺Reducibility and Oxygen-Deficient Defects Toward High Oxygen Evolution Activity in Co₃O₄Systems in Alkaline Medium. ACS Applied Energy Materials, 2020, 3, 5439-5447.	2.5	117
1385	Exceeding the volcano relationship in oxygen reduction/evolution reactions using single-atom-based catalysts with dual-active-sites. Journal of Materials Chemistry A, 2020, 8, 10193-10198.	5.2	33
1386	Activation strategies of water-splitting electrocatalysts. Journal of Materials Chemistry A, 2020, 8, 10096-10129.	5.2	67
1387	Electronic structure inspired a highly robust electrocatalyst for the oxygen-evolution reaction. Chemical Communications, 2020, 56, 8071-8074.	2.2	15
1388	Phosphate Ionâ€Functionalized CoS with Hexagonal Bipyramid Structures from a Metalâ€“Organic Framework: Bifunctionality towards Supercapacitors and Oxygen Evolution Reaction. Chemistry - A European Journal, 2020, 26, 14903-14911.	1.7	21
1389	Tuning the d-band center enables nickel-iron phosphide nanoprisms as efficient electrocatalyst towards oxygen evolution. International Journal of Hydrogen Energy, 2020, 45, 17388-17397.	3.8	30
1390	Vacancy Occupation-Driven Polymorphic Transformation in Cobalt Ditelluride for Boosted Oxygen Evolution Reaction. ACS Nano, 2020, 14, 6968-6979.	7.3	100
1391	Dynamic active-site generation of atomic iridium stabilized on nanoporous metal phosphides for water oxidation. Nature Communications, 2020, 11, 2701.	5.8	204
1392	Catalytic activity atlas of ternary Coâ€“Feâ€“V metal oxides for the oxygen evolution reaction. Journal of Materials Chemistry A, 2020, 8, 15951-15961.	5.2	43
1393	Fundamental understanding of the acidic oxygen evolution reaction: mechanism study and state-of-the-art catalysts. Nanoscale, 2020, 12, 13249-13275.	2.8	183
1394	In situ electro-reduction to modulate the surface electronic structure of Fe3O4 for enhancing oxygen evolution reaction. International Journal of Hydrogen Energy, 2020, 45, 15476-15482.	3.8	17
1395	High-performance metal-organic framework-perovskite hybrid as an important component of the air-electrode for rechargeable Zn-Air battery. Journal of Power Sources, 2020, 468, 228377.	4.0	52
1396	General approach to construct hierarchical-structured porous Coâ€“Ni bimetallic oxides for efficient oxygen evolution. Inorganic Chemistry Frontiers, 2020, 7, 2611-2620.	3.0	7

#	Article	IF	Citations
1397	Li-Ni-Co-Mn oxides powders recycled from spent lithium-ion batteries for OER electrodes in CO2 reduction. Environmental Technology and Innovation, 2020, 18, 100732.	3.0	10
1398	Boosting oxygen evolution reaction performance by nickel substituted cobalt-iron oxide nanoparticles embedded over reduced graphene oxide. Materials Chemistry and Physics, 2020, 252, 123238.	2.0	10
1399	Î±-Fe2O3@MoS2 nanostructure as an efficient electrochemical catalyst for water oxidation. Microchemical Journal, 2020, 157, 104939.	2.3	11
1400	3D freestanding flower-like nickel-cobalt layered double hydroxides enriched with oxygen vacancies as efficient electrocatalysts for water oxidation. Sustainable Materials and Technologies, 2020, 25, e00170.	1.7	8
1401	Plasma-Treated Ultrathin Ternary FePSe₃ Nanosheets as a Bifunctional Electrocatalyst for Efficient Zincâ€“Air Batteries. ACS Applied Materials & Interfaces, 2020, 12, 29393-29403.	4.0	10
1402	Improvement of Trisodium Citrate-Modified NiFe-Layered Double Hydroxide Nanosheets with Carbon Black for Oxygen Evolution Reaction. Catalysts, 2020, 10, 431.	1.6	2
1403	Hierarchical Cu(OH)₂@Co(OH)₂ Nanotrees for Water Oxidation Electrolysis. ChemCatChem, 2020, 12, 4038-4043.	1.8	26
1404	Oxygen evolution reaction efficiently catalyzed by a quasi-single-crystalline cobalt fluoride. Chemical Engineering Journal, 2020, 397, 125500.	6.6	67
1405	Employing dual-ligand co-coordination compound to construct nanorod-like Bi-metallic (Fe, Co)P decorated with nitrogen-doped graphene for electrocatalytic overall water splitting. Electrochimica Acta, 2020, 350, 136338.	2.6	23
1406	Mechanistic study on nickel-molybdenum based electrocatalysts for the hydrogen evolution reaction. Journal of Catalysis, 2020, 388, 122-129.	3.1	32
1407	Ni3S2-Co9S8 heterostructure nanowires supported on Ni foam as highly efficient and stable electrocatalyst for oxygen evolution reaction. Applied Surface Science, 2020, 526, 146753.	3.1	25
1408	Thermodynamic driven phase engineering in VMo2S4 nanosheets for superior water splitting. Applied Surface Science, 2020, 527, 146755.	3.1	0
1409	Inductive effect between atomically dispersed iridium and transition-metal hydroxide nanosheets enables highly efficient oxygen evolution reaction. Chemical Engineering Journal, 2020, 395, 125149.	6.6	53
1410	Computational Approach to Understanding the Electrocatalytic Reaction Mechanism for the Process of Electrochemical Oxidation of Nitrite at a Niâ€“Co-Based Heterometallo-Supramolecular Polymer. ACS Omega, 2020, 5, 12882-12891.	1.6	14
1411	Facet-dependent activity of hematite nanocrystals toward the oxygen evolution reaction. Catalysis Science and Technology, 2020, 10, 3748-3754.	2.1	16
1412	Manganese oxide-based heterogeneous electrocatalysts for water oxidation. Energy and Environmental Science, 2020, 13, 2310-2340.	15.6	81
1413	Exploring the artificially induced nonstoichiometric effect of Li₂RuO₃ as a reactive promoter on electrocatalytic behavior. Energy and Environmental Science, 2020, 13, 2167-2177.	15.6	26
1414	Performance improvement of N-doped carbon ORR catalyst via large through-hole structure. Nanotechnology, 2020, 31, 335717.	1.3	19

#	Article	IF	Citations
1415	A-Site Cation-Ordering Layered Perovskite EuBa_{0.5}Sr_{0.5}Co_{2â€“x}Fe_xO_{5+Î´} as Highly Active and Durable Electrocatalysts for Oxygen Evolution Reaction. ACS Omega, 2020, 5, 12501-12515.	1.6	13
1416	The ï£¿NH x Group Induced Formation of 3D Î±â€Co(OH) 2 Curly Nanosheet Aggregates as Efficient Oxygen Evolution Electrocatalysts. Small, 2020, 16, 2001973.	5.2	22
1417	Enhanced electrocatalytic oxygen evolution by manipulation of electron transfer through cobalt-phosphorous bridging. Chemical Engineering Journal, 2020, 398, 125660.	6.6	20
1418	Hierarchical NiSe@Ni nanocone arrays electrocatalyst for oxygen evolution reaction. Electrochimica Acta, 2020, 353, 136519.	2.6	26
1419	Competition and selectivity during parallel evolution of bromine, chlorine and oxygen on IrOx electrodes. Journal of Catalysis, 2020, 389, 99-110.	3.1	21
1420	Strained heterointerfaces in sandwichâ€“like NiFe layered double hydroxides/Co1-xS for highly efficient and superior longâ€“term durable oxygen evolution reaction. Journal of Catalysis, 2020, 389, 132-139.	3.1	32
1421	Fe₃O₄/FeS₂ heterostructures enable efficient oxygen evolution reaction. Journal of Materials Chemistry A, 2020, 8, 14145-14151.	5.2	36
1422	Performance enhancement of oxygen evolution reaction through incorporating bimetallic electrocatalysts in two-dimensional metalâ€“organic frameworks. Catalysis Science and Technology, 2020, 10, 3897-3903.	2.1	34
1423	Hierarchical nickel cobalt sulfide nanosheet arrays supported on CuO/Cu hybrid foams as a rationally designed coreâ€“shell dendrite electrocatalyst for an efficient oxygen evolution reaction. Sustainable Energy and Fuels, 2020, 4, 4039-4045.	2.5	11
1424	NiFe-coordinated zeolitic imidazolate framework derived trifunctional electrocatalyst for overall water-splitting and zinc-air batteries. Journal of Colloid and Interface Science, 2020, 579, 1-11.	5.0	39
1425	Fabrication of Few-Layer Graphene-Supported Copper Catalysts Using a Lithium-Promoted Thermal Exfoliation Method for Methanol Oxidative Carbonylation. ACS Applied Materials & Interfaces, 2020, 12, 30483-30493.	4.0	8
1426	Mechanism of Oxygen Evolution Catalyzed by Cobalt Oxyhydroxide: Cobalt Superoxide Species as a Key Intermediate and Dioxygen Release as a Rate-Determining Step. Journal of the American Chemical Society, 2020, 142, 11901-11914.	6.6	452
1427	Electronically Modulated CoP by Ce Doping as a Highly Efficient Electrocatalyst for Water Splitting. ACS Sustainable Chemistry and Engineering, 2020, 8, 10009-10016.	3.2	114
1428	Synthesis of Novel Melilite-Type Iron/Cobalt Oxides and Their Oxygen Evolution Reaction Electrocatalytic Activity. Chemistry of Materials, 2020, 32, 6847-6854.	3.2	5
1429	Mesoporous anion-cation-codoped Co₉S₈ nanorings for enhanced electrocatalytic oxygen evolution reactions. Nanotechnology, 2020, 31, 334001.	1.3	6
1430	Recent Advances in Transition Metal Phosphide Electrocatalysts for Water Splitting under Neutral pH Conditions. ChemElectroChem, 2020, 7, 3578-3589.	1.7	63
1431	Hierarchical Porous NiS@NiO Nanoarrays in Situ Grown on Nickel Foam as Superior Electrocatalyst for Water Splitting. International Journal of Electrochemical Science, 2020, 15, 3563-3577.	0.5	7
1432	Metalâ€Nitrogenâ€Doped Carbon Materials as Highly Efficient Catalysts: Progress and Rational Design. Advanced Science, 2020, 7, 2001069.	5.6	228

#	Article	IF	Citations
1433	Rapid conjunction of 1D carbon nanotubes and 2D graphitic carbon nitride with ZnO for improved optoelectronic properties. Applied Nanoscience (Switzerland), 2020, 10, 3805-3817.	1.6	8
1434	HER activity of MNi1- (MÂ=ÂCr, Mo and W; xÂâ‰ˆÂ0.2) alloy in acid and alkaline media. International Journal of Hydrogen Energy, 2020, 45, 17533-17539.	3.8	22
1435	Operando Raman spectroscopy tracks oxidation-state changes in an amorphous Co oxide material for electrocatalysis of the oxygen evolution reaction. Journal of Chemical Physics, 2020, 152, 194202.	1.2	55
1436	Recent Advances in Nanocasting Cobalt-Based Mesoporous Materials for Energy Storage and Conversion. Electrocatalysis, 2020, 11, 465-484.	1.5	10
1437	Manganese MOF Enables Efficient Oxygen Evolution in Acid. , 2020, 2, 798-800.		18
1438	NixRh1-xOy composite nanofibres as highly efficient and robust oxygen evolution electrocatalysts. Journal of Alloys and Compounds, 2020, 836, 155309.	2.8	9
1439	Novel (Ni, Fe)S2/(Ni, Fe)3S4 solid solution hybrid: an efficient electrocatalyst with robust oxygen-evolving performance. Science China Chemistry, 2020, 63, 1030-1039.	4.2	22
1440	MOF-derived hollow spherical Co2P@C composite with micro-nanostructure for highly efficient oxygen evolution reaction in alkaline solution. Journal of Solid State Chemistry, 2020, 288, 121456.	1.4	15
1441	Electrocatalytic performance and cell voltage characteristics of 1st-row transition metal phosphate (TM-Pi) catalysts at neutral pH. Materials Today Energy, 2020, 17, 100426.	2.5	10
1442	A metal and nitrogen doped carbon composite with both oxygen reduction and evolution active sites for rechargeable zincâ€“air batteries. Journal of Materials Chemistry A, 2020, 8, 15752-15759.	5.2	28
1443	Advanced framework-modified POM@ZIF-67 nanocomposites as enhanced oxygen evolution reaction electrocatalysts. Journal of Materials Chemistry A, 2020, 8, 13509-13521.	5.2	78
1444	Rational design of marigold-shaped composite Ni₃V₂O₈ flowers: a promising catalyst for the oxygen evolution reaction. New Journal of Chemistry, 2020, 44, 12256-12265.	1.4	35
1445	Atomically dispersed catalysts for hydrogen/oxygen evolution reactions and overall water splitting. Journal of Power Sources, 2020, 471, 228446.	4.0	74
1446	Metalâ€“Organic Framework-Derived NiS/Fe₃O₄ Heterostructure-Decorated Carbon Nanotubes as Highly Efficient and Durable Electrocatalysts for Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2020, 12, 31552-31563.	4.0	78
1447	Compositional engineering of sulfides, phosphides, carbides, nitrides, oxides, and hydroxides for water splitting. Journal of Materials Chemistry A, 2020, 8, 13415-13436.	5.2	124
1448	FeNi alloy nanoparticles embedded in electrospun nitrogen-doped carbon fibers for efficient oxygen evolution reaction. Journal of Colloid and Interface Science, 2020, 578, 805-813.	5.0	33
1449	CoP₂ Nanoparticles Deposited on Nanometer-Thick Pt-Coated Fluorine-Doped Tin Oxide Substrates as Electrocatalysts for Simultaneous Hydrogen Evolution and Oxygen Evolution. ACS Applied Nano Materials, 2020, 3, 6507-6515.	2.4	12
1450	Towards a generic understanding of oxygen evolution reaction kinetics in polymer electrolyte water electrolysis. Energy and Environmental Science, 2020, 13, 2153-2166.	15.6	90

#	Article	IF	Citations
1451	Highly porous Niâ€“P electrode synthesized by an ultrafast electrodeposition process for efficient overall water electrolysis. Journal of Materials Chemistry A, 2020, 8, 12069-12079.	5.2	56
1452	Singleâ€Atom Catalysts for Electrocatalytic Applications. Advanced Functional Materials, 2020, 30, 2000768.	7.8	390
1453	Hollow Porous MnFe₂O₄ Sphere Grown on Elmâ€Moneyâ€Derived Biochar towards Energyâ€Saving Full Water Electrolysis. Chemistry - A European Journal, 2020, 26, 14397-14404.	1.7	9
1454	A zeolite-type CoFe selenite via in-situ transformation of layered double hydroxide boosting the water oxidation performance in alkaline electrolyte. Chemical Engineering Journal, 2020, 399, 125799.	6.6	14
1455	Electroactivation-induced IrNi nanoparticles under different pH conditions for neutral water oxidation. Nanoscale, 2020, 12, 14903-14910.	2.8	14
1456	Trace tungsten and iron-doped nickel hydroxide nanosheets for an efficient oxygen evolution reaction. Sustainable Energy and Fuels, 2020, 4, 2792-2799.	2.5	8
1457	Computationally aided, entropy-driven synthesis of highly efficient and durable multi-elemental alloy catalysts. Science Advances, 2020, 6, eaaz0510.	4.7	158
1458	Recent Bio-Advances in Metal-Organic Frameworks. Molecules, 2020, 25, 1291.	1.7	48
1459	Progress in Computational and Machineâ€Learning Methods for Heterogeneous Smallâ€Molecule Activation. Advanced Materials, 2020, 32, e1907865.	11.1	46
1460	Reduced CoFe2O4/graphene composite with rich oxygen vacancies as a high efficient electrocatalyst for oxygen evolution reaction. International Journal of Hydrogen Energy, 2020, 45, 11052-11061.	3.8	36
1461	Modification Structure of CoS2 Electrocatalysts towards Enhanced Oxygen Evolution by Nitrogen Doping. International Journal of Electrochemical Science, 2020, 15, 1169-1186.	0.5	4
1462	Strategies for Engineering Highâ€Performance PGMâ€Free Catalysts toward Oxygen Reduction and Evolution Reactions. Small Methods, 2020, 4, 2000016.	4.6	70
1463	Molecular engineering of nanostructures and activities on bifunctional oxygen electrocatalysts for Zinc-air batteries. Applied Catalysis B: Environmental, 2020, 270, 118869.	10.8	34
1464	Designing water splitting catalysts using rules of thumb: advantages, dangers and alternatives. Physical Chemistry Chemical Physics, 2020, 22, 6797-6803.	1.3	59
1465	Electrocatalytic oxygen evolution reaction of hierarchical micro/nanostructured mixed transition cobalt oxide in alkaline medium. Journal of Solid State Electrochemistry, 2020, 24, 891-904.	1.2	25
1466	In situ Observation of Electrodeposited Bimetallic pâ€Si Micropillar Array Photocathode for Solarâ€Driven Hydrogen Evolution. Solar Rrl, 2020, 4, 2000028.	3.1	3
1467	Self-Assembled Amphiphilic Molecules for Highly Efficient Photocatalytic Hydrogen Evolution from Water. Journal of Physical Chemistry C, 2020, 124, 6971-6978.	1.5	7
1468	Chemically deposited Co3S4 thin film: morphology dependant electrocatalytic oxygen evolution reaction. Applied Physics A: Materials Science and Processing, 2020, 126, 1.	1.1	9

#	Article	IF	Citations
1469	Tailoring Ï€-symmetry electrons in cobaltâ€“iron phosphide for highly efficient oxygen evolution. Electrochimica Acta, 2020, 341, 136029.	2.6	24
1470	Conductive MOFs. EnergyChem, 2020, 2, 100029.	10.1	264
1471	Chitosan-Based N-Doped Carbon Materials for Electrocatalytic and Photocatalytic Applications. ACS Sustainable Chemistry and Engineering, 2020, 8, 4708-4727.	3.2	123
1472	Confinement of fluorine anions in nickel-based catalysts for greatly enhancing oxygen evolution activity. Chemical Communications, 2020, 56, 4196-4199.	2.2	34
1473	CoS₂@N-doped carbon coreâ€“shell nanorod array grown on Ni foam for enhanced electrocatalytic water oxidation. Journal of Materials Chemistry A, 2020, 8, 6795-6803.	5.2	75
1474	Crystalline Copper Selenide as a Reliable Nonâ€Noble Electro(pre)catalyst for Overall Water Splitting. ChemSusChem, 2020, 13, 3222-3229.	3.6	85
1475	Insight into electrochemical performance of porous FexSiy intermetallic anode for zinc electrowinning. Materials and Design, 2020, 191, 108645.	3.3	11
1476	Ultrathin FeP Nanosheets as an Efficient Catalyst for Electrocatalytic Water Oxidation: Promoted Intermediates Adsorption by Surface Defects. ACS Applied Energy Materials, 2020, 3, 3577-3585.	2.5	42
1477	Enhancing Bifunctional Electrocatalytic Activities via Metal d-Band Center Lift Induced by Oxygen Vacancy on the Subsurface of Perovskites. ACS Catalysis, 2020, 10, 4664-4670.	5.5	116
1478	A dinuclear iron complex as an efficient electrocatalyst for homogeneous water oxidation reaction. Catalysis Science and Technology, 2020, 10, 2830-2837.	2.1	18
1479	Structural Designs and inâ€situ Xâ€ray Characterizations of Metal Phosphides for Electrocatalysis. ChemCatChem, 2020, 12, 3621-3638.	1.8	13
1480	Investigation on the Component Evolution of a Tetranuclear Nickel-Cluster-Based Metalâ€“Organic Framework in an Electrochemical Oxidation Reaction. Inorganic Chemistry, 2020, 59, 4764-4771.	1.9	42
1481	Undoped SnO₂ as a Support for Ni Species to Boost Oxygen Generation through Alkaline Water Electrolysis. ACS Applied Materials & Interfaces, 2020, 12, 18407-18420.	4.0	17
1482	An Adaptive Machine Learning Strategy for Accelerating Discovery of Perovskite Electrocatalysts. ACS Catalysis, 2020, 10, 4377-4384.	5.5	75
1483	Modulation of an intermediate layer between NiCoP and Ni foam substrate in a microwire array electrode for enhancing the hydrogen-evolution reaction. Chemical Communications, 2020, 56, 4990-4993.	2.2	10
1484	Metalâ€“Organic Frameworks in Heterogeneous Catalysis: Recent Progress, New Trends, and Future Perspectives. Chemical Reviews, 2020, 120, 8468-8535.	23.0	1,001
1485	Approaching the activity limit of CoSe2 for oxygen evolution via Fe doping and Co vacancy. Nature Communications, 2020, 11, 1664.	5.8	191
1486	Development of transition metal based electrolyzer for efficient oxygen evolution reaction. Journal of Renewable and Sustainable Energy, 2020, 12, 024102.	0.8	11

#	Article	IF	Citations
1487	Intermetallic borides: structures, synthesis and applications in electrocatalysis. Inorganic Chemistry Frontiers, 2020, 7, 2248-2264.	3.0	94
1488	Ternary FeCoNi alloy nanoparticles embedded in N-doped carbon nanotubes for efficient oxygen evolution reaction electrocatalysis. Electrochimica Acta, 2020, 339, 135886.	2.6	98
1489	Controlled engineering of nickel carbide induced N-enriched carbon nanotubes for hydrogen and oxygen evolution reactions in wide pH range. Electrochimica Acta, 2020, 341, 136032.	2.6	45
1490	Recent Advances in Self-Supported Layered Double Hydroxides for Oxygen Evolution Reaction. Research, 2020, 2020, 3976278.	2.8	57
1491	Comparative Study between NiCoB and IrO2-Ta2O5/Ti Anodes for Application in Impressed Current Cathodic Protection (ICCP). Coatings, 2020, 10, 199.	1.2	5
1492	Ptâ€Irâ€Pd Trimetallic Nanocages as a Dual Catalyst for Efficient Oxygen Reduction and Evolution Reactions in Acidic Media. Advanced Energy Materials, 2020, 10, 1904114.	10.2	100
1493	Pt₅Se₄ Monolayer: A Highly Efficient Electrocatalyst toward Hydrogen and Oxygen Electrode Reactions. ACS Applied Materials & Interfaces, 2020, 12, 13896-13903.	4.0	26
1494	A review on fundamentals for designing oxygen evolution electrocatalysts. Chemical Society Reviews, 2020, 49, 2196-2214.	18.7	1,466
1495	Atomic site electrocatalysts for water splitting, oxygen reduction and selective oxidation. Chemical Society Reviews, 2020, 49, 2215-2264.	18.7	582
1496	Revealing the defect-dominated oxygen evolution activity of hematene. Journal of Materials Chemistry A, 2020, 8, 6709-6716.	5.2	54
1497	Designed Formation of Doubleâ€Shelled Niâ€“Fe Layeredâ€Doubleâ€Hydroxide Nanocages for Efficient Oxygen Evolution Reaction. Advanced Materials, 2020, 32, e1906432.	11.1	305
1498	Construction and Application of Interfacial Inorganic Nanostructures. Chinese Journal of Chemistry, 2020, 38, 772-786.	2.6	13
1499	Surface/Interface Engineering of Carbonâ€Based Materials for Constructing Multidimensional Functional Hybrids. Solar Rrl, 2020, 4, 1900577.	3.1	52
1500	Oxygen Evolution Reaction Electrocatalytic Improvement in POM@ZIF Nanocomposites: A Bidirectional Synergistic Effect. ACS Applied Energy Materials, 2020, 3, 2925-2934.	2.5	62
1501	Iridium Nanotubes as Bifunctional Electrocatalysts for Oxygen Evolution and Nitrate Reduction Reactions. ACS Applied Materials & Interfaces, 2020, 12, 14064-14070.	4.0	91
1502	A systematic investigation of the catalytic performances of monolayer carbon nitride nanosheets C_{1â^'x}N_x. Physical Chemistry Chemical Physics, 2020, 22, 6772-6782.	1.3	9
1503	2D Fe-doped NiO nanosheets with grain boundary defects for the advanced oxygen evolution reaction. Dalton Transactions, 2020, 49, 6355-6362.	1.6	32
1504	Strain-modulated Ni3Al alloy promotes oxygen evolution reaction. Journal of Alloys and Compounds, 2020, 844, 156094.	2.8	21

#	Article	IF	Citations
1505	Ferroceneâ€Incorporated Cobalt Sulfide Nanoarchitecture for Superior Oxygen Evolution Reaction. Small, 2020, 16, e2001665.	5.2	67
1506	Co@N-doped carbon nanomaterial derived by simple pyrolysis of mixed-ligand MOF as an active and stable oxygen evolution electrocatalyst. Applied Surface Science, 2020, 529, 147081.	3.1	36
1507	Ion-Induced Delamination of Layered Bulk Metalâ€“Organic Frameworks into Ultrathin Nanosheets for Boosting the Oxygen Evolution Reaction. ACS Sustainable Chemistry and Engineering, 2020, 8, 10554-10563.	3.2	17
1508	Coral-Shaped Bifunctional NiCo₂O₄ Nanostructure: A Material for Highly Efficient Electrochemical Charge Storage and Electrocatalytic Oxygen Evolution Reaction. ACS Applied Energy Materials, 2020, 3, 6793-6804.	2.5	31
1509	CoSe₂/Co nanoheteroparticles embedded in Co, N co-doped carbon nanopolyhedra/nanotubes as an efficient oxygen bifunctional electrocatalyst for Znâ€“air batteries. Sustainable Energy and Fuels, 2020, 4, 4722-4732.	2.5	10
1510	Iron-doped cobalt phosphate 1D amorphous ultrathin nanowires as a highly efficient electrocatalyst for water oxidation. Sustainable Energy and Fuels, 2020, 4, 4704-4712.	2.5	16
1511	Assembling Nickel Oxide Nanoparticles into Porous Polyhedra: Highly Active Electrocatalysts for Alkaline Water Oxidation. ChemistrySelect, 2020, 5, 7311-7314.	0.7	2
1512	Atomically Dispersed Iridium on Indium Tin Oxide Efficiently Catalyzes Water Oxidation. ACS Central Science, 2020, 6, 1189-1198.	5.3	47
1513	Sustainable at both ends: electrochemical CO₂ utilization paired with electrochemical treatment of nitrogenous waste. Green Chemistry, 2020, 22, 4456-4462.	4.6	55
1514	Self-supported N-doped NiSe2 hierarchical porous nanoflake arrays for efficient oxygen electrocatalysis in flexible zinc-air batteries. Chemical Engineering Journal, 2020, 401, 126088.	6.6	40
1515	A new concept analogous to homogeneous catalysis to construct in-situ regenerative electrodes for long-term oxygen evolution reaction. Nano Energy, 2020, 76, 105115.	8.2	14
1516	Phosphorene-quantum-dot-interspersed few-layered MoS₂ hybrids as efficient bifunctional electrocatalysts for hydrogen and oxygen evolution. Chemical Communications, 2020, 56, 8623-8626.	2.2	21
1517	Phase selective synthesis of nickel silicide nanocrystals in molten salts for electrocatalysis of the oxygen evolution reaction. Nanoscale, 2020, 12, 15209-15213.	2.8	22
1518	NiMnâ€Based Bimetalâ€“Organic Framework Nanosheets Supported on Multiâ€Channel Carbon Fibers for Efficient Oxygen Electrocatalysis. Angewandte Chemie, 2020, 132, 18391-18396.	1.6	24
1519	Advances in manganese-based oxides for oxygen evolution reaction. Journal of Materials Chemistry A, 2020, 8, 14400-14414.	5.2	134
1520	In situ molecular-level synthesis of N, S co-doped carbon as efficient metal-free oxygen redox electrocatalysts for rechargeable Znâ€“Air batteries. Applied Materials Today, 2020, 20, 100737.	2.3	22
1521	N2-dopant of graphene with electrochemically switchable bifunctional ORR/OER catalysis for Zn-air battery. Energy Storage Materials, 2020, 32, 517-524.	9.5	80
1522	Ru single atoms and nanoparticles on carbon nanotubes as multifunctional catalysts. Dalton Transactions, 2020, 49, 10250-10260.	1.6	13

#	Article	IF	Citations
1523	Electroactive Covalent Organic Frameworks: Design, Synthesis, and Applications. Advanced Materials, 2020, 32, e2002038.	11.1	148
1524	Hydrogels and Hydrogel-Derived Materials for Energy and Water Sustainability. Chemical Reviews, 2020, 120, 7642-7707.	23.0	646
1525	A CoO_x/FeO_x heterojunction on carbon nanotubes prepared by plasma-enhanced atomic layer deposition for the highly efficient electrocatalysis of oxygen evolution reactions. Journal of Materials Chemistry A, 2020, 8, 15140-15147.	5.2	27
1526	2D iron-doped nickel MOF nanosheets grown on nickel foam for highly efficient oxygen evolution reaction. Applied Surface Science, 2020, 529, 147201.	3.1	65
1527	Trace Iridium Engineering on Nickel Hydroxide Nanosheets as Highâ€active Catalyst for Overall Water Splitting. ChemCatChem, 2020, 12, 5720-5726.	1.8	19
1528	Co3(hexaiminotriphenylene)2: A conductive two-dimensional Ï€â€“d conjugated metalâ€“organic framework for highly efficient oxygen evolution reaction. Applied Catalysis B: Environmental, 2020, 278, 119295.	10.8	80
1529	NiCo/NiCoâ€“OH and NiFe/NiFeâ€“OH core shell nanostructures for water splitting electrocatalysis at large currents. Applied Catalysis B: Environmental, 2020, 278, 119326.	10.8	141
1530	Waste cotton fabric derived porous carbon containing Fe3O4/NiS nanoparticles for electrocatalytic oxygen evolution. Journal of Materials Science and Technology, 2020, 59, 92-99.	5.6	25
1531	Metal Atomâ€Doped Co₃O₄ Hierarchical Nanoplates for Electrocatalytic Oxygen Evolution. Advanced Materials, 2020, 32, e2002235.	11.1	332
1532	Tetraruthenium Polyoxometalate as an Atom-Efficient Bifunctional Oxygen Evolution Reaction/Oxygen Reduction Reaction Catalyst and Its Application in Seawater Batteries. ACS Applied Materials & Interfaces, 2020, 12, 32689-32697.	4.0	23
1533	CoNiFe Layered Double Hydroxide/RuO_{2.1} Nanosheet Superlattice as Carbon-Free Electrocatalysts for Water Splitting and Liâ€“O₂ Batteries. ACS Applied Materials & Interfaces, 2020, 12, 33083-33093.	4.0	47
1534	Boron enhances oxygen evolution reaction activity over Ni foam-supported iron boride nanowires. Journal of Materials Chemistry A, 2020, 8, 13638-13645.	5.2	61
1535	In situ templating synthesis of mesoporous Niâ€“Fe electrocatalyst for oxygen evolution reaction. RSC Advances, 2020, 10, 23321-23330.	1.7	11
1536	Engineering Pt Nanoparticles with Fe and N Codoped Carbon to Boost Oxygen Reduction Catalytic Performance in Acidic Electrolyte. Energy Technology, 2020, 8, 2000393.	1.8	4
1537	Insights on boosting oxygen evolution reaction performance via boron incorporation into nitrogen-doped carbon electrocatalysts. Applied Surface Science, 2020, 528, 146979.	3.1	18
1538	Effect of the Size and Shape on the Electrocatalytic Activity of Co₃O₄ Nanoparticles in the Oxygen Evolution Reaction. Inorganic Chemistry, 2020, 59, 10013-10024.	1.9	39
1539	Exploring the hydrogen evolution capabilities of earth-abundant ternary metal borides for neutral and alkaline water-splitting. Electrochimica Acta, 2020, 354, 136738.	2.6	30
1540	Bifunctionality behavior of phase controlled nickel selenides in alkaline water electrolysis application. Electrochimica Acta, 2020, 354, 136742.	2.6	23

#	Article	IF	Citations
1541	NiMnâ€Based Bimetalâ€“Organic Framework Nanosheets Supported on Multiâ€Channel Carbon Fibers for Efficient Oxygen Electrocatalysis. Angewandte Chemie - International Edition, 2020, 59, 18234-18239.	7.2	232
1542	Hierarchical microspheres of Co2CrO4 nanoplates for electrocatalytic water oxidation. Journal of Nanoparticle Research, 2020, 22, 1.	0.8	3
1543	Carbon-based active support for water oxidation electrocatalyst: Making full use of the available surface area. Carbon, 2020, 167, 548-558.	5.4	11
1544	A 3d-printed composite electrode for sustained electrocatalytic oxygen evolution. Chemical Communications, 2020, 56, 8476-8479.	2.2	7
1545	Carbonâ€based cathode materials for rechargeable zincâ€air batteries: From current collectors to bifunctional integrated air electrodes. , 2020, 2, 370-386.		82
1546	Decoupling Oxygen and Chlorine Evolution Reactions in Seawater using Iridiumâ€based Electrocatalysts. ChemCatChem, 2020, 12, 4526-4532.	1.8	28
1547	Utilizing ion leaching effects for achieving high oxygen-evolving performance on hybrid nanocomposite with self-optimized behaviors. Nature Communications, 2020, 11, 3376.	5.8	122
1548	Single transition metal atoms anchored on a C₂N monolayer as efficient catalysts for hydrazine electrooxidation. Physical Chemistry Chemical Physics, 2020, 22, 16691-16700.	1.3	12
1549	Coreâ€“shell nanostructured electrocatalysts for water splitting. Nanoscale, 2020, 12, 15944-15969.	2.8	83
1550	Recent advances in electrospun nanofibers for supercapacitors. Journal of Materials Chemistry A, 2020, 8, 16747-16789.	5.2	166
1551	High entropy alloy electrocatalysts: a critical assessment of fabrication and performance. Journal of Materials Chemistry A, 2020, 8, 14844-14862.	5.2	108
1552	Polyoxometalateâ€Based Compounds for Photoâ€and Electrocatalytic Applications. Angewandte Chemie, 2020, 132, 20963-20977.	1.6	38
1553	Polyoxometalateâ€Based Compounds for Photoâ€and Electrocatalytic Applications. Angewandte Chemie - International Edition, 2020, 59, 20779-20793.	7.2	222
1554	Copperâ€based metalâ€“organic framework decorated by CuO hairâ€like nanostructures: Electrocatalyst for oxygen evolution reaction. Applied Organometallic Chemistry, 2020, 34, e5871.	1.7	11
1555	Cadmium Hydroxide: A Missing Non-Noble Metal Hydroxide Electrocatalyst for the Oxygen Evolution Reaction. ACS Applied Energy Materials, 2020, 3, 1305-1310.	2.5	20
1556	Ambient Temperature Synthesis of Iron-Doped Porous Nickel Pyrophosphate Nanoparticles with Long-Term Chemical Stability for High-Performance Oxygen Evolution Reaction Catalysis and Supercapacitors. ACS Sustainable Chemistry and Engineering, 2020, 8, 2843-2853.	3.2	46
1557	Zeolitic imidazolate framework-67 derived ultra-small CoP particles incorporated into N-doped carbon nanofiber as efficient bifunctional catalysts for oxygen reaction. Journal of Power Sources, 2020, 452, 227837.	4.0	79
1558	Recent advances in black phosphorus/carbon hybrid composites: from improved stability to applications. Journal of Materials Chemistry A, 2020, 8, 4647-4676.	5.2	39

#	Article	IF	Citations
1559	Well-defined Coâ€“Ptâ€“OH as â€œelectronic pumpâ€•on Co-LDH nanocages for enhanced oxygen evolution reaction. Applied Catalysis B: Environmental, 2020, 269, 118782.	10.8	38
1560	Strong electronic couple engineering of transition metal phosphides-oxides heterostructures as multifunctional electrocatalyst for hydrogen production. Applied Catalysis B: Environmental, 2020, 269, 118803.	10.8	94
1561	Coâ€“NiFe layered double hydroxide nanosheets as an efficient electrocatalyst for the electrochemical evolution of oxygen. International Journal of Hydrogen Energy, 2020, 45, 9368-9379.	3.8	40
1562	Fe-Based Electrocatalysts for Oxygen Evolution Reaction: Progress and Perspectives. ACS Catalysis, 2020, 10, 4019-4047.	5.5	379
1563	Earthâ€Abundant Transitionâ€Metalâ€Based Bifunctional Electrocatalysts for Overall Water Splitting in Alkaline Media. Chemistry - A European Journal, 2020, 26, 6423-6436.	1.7	66
1564	High-Entropy Perovskite Fluorides: A New Platform for Oxygen Evolution Catalysis. Journal of the American Chemical Society, 2020, 142, 4550-4554.	6.6	208
1565	Building Electron/Proton Nanohighways for Full Utilization of Water Splitting Catalysts. Advanced Energy Materials, 2020, 10, 1903871.	10.2	38
1566	Deep Eutectic Solventâ€Assisted Synthesis of Ternary Heterojunctions for the Oxygen Evolution Reaction and Photocatalysis. ChemSusChem, 2020, 13, 2726-2738.	3.6	17
1567	The electrochemical synthesis of CNTs/N-Cu2S composites as efficient electrocatalysts for water oxidation. Journal of Nanoparticle Research, 2020, 22, 1.	0.8	2
1568	Two-sites are better than one: revisiting the OER mechanism on CoOOH by DFT with electrode polarization. Physical Chemistry Chemical Physics, 2020, 22, 7031-7038.	1.3	45
1569	Recent trends in hydrogen and oxygen electrocatalysis for anion exchange membrane technologies. Current Opinion in Electrochemistry, 2020, 21, 146-159.	2.5	9
1570	Electrochemical deposition of CeO2 nanocrystals on Co3O4 nanoneedle arrays for efficient oxygen evolution. Journal of Alloys and Compounds, 2020, 828, 154394.	2.8	15
1571	Copper Cobalt Selenide as a High-Efficiency Bifunctional Electrocatalyst for Overall Water Splitting: Combined Experimental and Theoretical Study. ACS Applied Energy Materials, 2020, 3, 3092-3103.	2.5	60
1572	FeNi₃â€“Fe₃O₄ Heterogeneous Nanoparticles Anchored on 2D MOF Nanosheets/1D CNT Matrix as Highly Efficient Bifunctional Electrocatalysts for Water Splitting. ACS Sustainable Chemistry and Engineering, 2020, 8, 3820-3831.	3.2	80
1573	Bifunctional nickel ferrite-decorated carbon nanotube arrays as free-standing air electrode for rechargeable Znâ€“air batteries. Journal of Materials Chemistry A, 2020, 8, 5070-5077.	5.2	43
1574	A Lowâ€Temperature Molecular Precursor Approach to Copperâ€Based Nanoâ€Sized Digenite Mineral for Efficient Electrocatalytic Oxygen Evolution Reaction. Chemistry - an Asian Journal, 2020, 15, 852-859.	1.7	32
1575	An Asymmetric Ironâ€Based Redoxâ€Active System for Electrochemical Separation of Ions in Aqueous Media. Advanced Functional Materials, 2020, 30, 1910363.	7.8	39
1576	Deciphering Ironâ€Dependent Activity in Oxygen Evolution Catalyzed by Nickelâ€“Iron Layered Double Hydroxide. Angewandte Chemie - International Edition, 2020, 59, 8072-8077.	7.2	274

#	Article	IF	Citations
1577	Role of Defects in the Interplay between Adsorbate Evolving and Lattice Oxygen Mechanisms of the Oxygen Evolution Reaction in RuO₂ and IrO₂. ACS Catalysis, 2020, 10, 3650-3657.	5.5	339
1578	Ultrafast Activating Strategy to Significantly Enhance the Electrocatalysis of Commercial Carbon Cloth for Oxygen Evolution Reaction and Overall Water Splitting. ChemNanoMat, 2020, 6, 542-549.	1.5	7
1579	Impact of the NiO nanostructure morphology on the oxygen evolution reaction catalysis. Journal of Materials Science, 2020, 55, 6648-6659.	1.7	62
1580	Atomic Doping and Anion Reconstructed CoF₂ Electrocatalyst for Oxygen Evolution Reaction. Advanced Materials Interfaces, 2020, 7, 1901939.	1.9	18
1581	Deciphering Ironâ€Dependent Activity in Oxygen Evolution Catalyzed by Nickelâ€“Iron Layered Double Hydroxide. Angewandte Chemie, 2020, 132, 8149-8154.	1.6	56
1582	Substantial Role of Nitrogen and Sulfur in Quaternary-Atom-Doped Multishelled Carbon Nanospheres for the Oxygen Evolution Reaction. ACS Sustainable Chemistry and Engineering, 2020, 8, 4284-4291.	3.2	18
1583	Hydrothermal synthesis of delafossite CuScO₂ hexagonal plates as an electrocatalyst for the alkaline oxygen evolution reaction. Dalton Transactions, 2020, 49, 3519-3524.	1.6	18
1584	Promoting the Fe(VI) active species generation by structural and electronic modulation of efficient iron oxide based water oxidation catalyst without Ni or Co. Nano Energy, 2020, 72, 104656.	8.2	35
1585	Insights into the Enhanced Catalytic Activity of Fe-Doped LiCoPO₄for the Oxygen Evolution Reaction. ACS Applied Energy Materials, 2020, 3, 2959-2965.	2.5	5
1586	In Situ Growth of Amorphous Fe(OH)₃ on Nickel Nitrate Hydroxide Nanoarrays for Enhanced Electrocatalytic Oxygen Evolution. ACS Applied Materials & Interfaces, 2020, 12, 12668-12676.	4.0	51
1587	Well-aligned arrangement CoFe nanoparticles assisted with cellulose nanofibrils for efficient oxygen evolution reaction. Applied Surface Science, 2020, 510, 145484.	3.1	12
1588	Optimization of carbon-supported Irâ€“Ru alloys for polymer electrolyte fuel cell anodes under cell reversal. Journal of Industrial and Engineering Chemistry, 2020, 85, 87-93.	2.9	21
1589	Ultrafine Î±-CoOOH Nanorods Activated with Iron for Exceptional Oxygen Evolution Reaction. Langmuir, 2020, 36, 2223-2230.	1.6	21
1590	Facile Synthesis of Nanoporous Transition Metalâ€Based Phosphates for Oxygen Evolution Reaction. ChemCatChem, 2020, 12, 2091-2096.	1.8	106
1591	Construction of Defectâ€Rich Niâ€Feâ€Doped K_{0.23}MnO₂ Cubic Nanoflowers via Etching Prussian Blue Analogue for Efficient Overall Water Splitting. Small, 2020, 16, e1905223.	5.2	62
1592	Surface and interface engineering in transition metalâ€“based catalysts for electrochemical water oxidation. Materials Today Chemistry, 2020, 16, 100239.	1.7	23
1593	Recent advances in ternary layered double hydroxide electrocatalysts for the oxygen evolution reaction. New Journal of Chemistry, 2020, 44, 9981-9997.	1.4	76
1594	Bifunctional Catalysts for Reversible Oxygen Evolution Reaction and Oxygen Reduction Reaction. Chemistry - A European Journal, 2020, 26, 3906-3929.	1.7	90

#	Article	IF	Citations
1595	The application of perovskite materials in solar water splitting. Journal of Semiconductors, 2020, 41, 011701.	2.0	46
1596	Spherical Sacrificial ZnO Templateâ€“Derived Hybrid Ni/Co 3 O 4 Cubes as Efficient Bifunctional Electrocatalyst for Overall Water Splitting. Energy Technology, 2020, 8, 1901310.	1.8	6
1597	Low Overpotential and Stable Electrocatalytic Oxygen Evolution Reaction Utilizing Doped Perovskite Oxide, La0.7Sr0.3MnO3, Modified by Cobalt Phosphate. ACS Applied Energy Materials, 2020, 3, 1279-1285.	2.5	29
1598	Facet-Independent Oxygen Evolution Activity of Pure Î²-NiOOH: Different Chemistries Leading to Similar Overpotentials. Journal of the American Chemical Society, 2020, 142, 3600-3612.	6.6	114
1599	Three-dimensional hierarchically porous iridium oxide-nitrogen doped carbon hybrid: An efficient bifunctional catalyst for oxygen evolution and hydrogen evolution reaction in acid. International Journal of Hydrogen Energy, 2020, 45, 6036-6046.	3.8	30
1600	Fe-substituted cobalt-phosphate polyoxometalates as enhanced oxygen evolution catalysts in acidic media. Chinese Journal of Catalysis, 2020, 41, 853-857.	6.9	29
1601	Synthesis of rod-type Co2.4Mn0.6O4 via oxalate precipitation for water splitting catalysts. Applied Surface Science, 2020, 510, 145390.	3.1	12
1602	Cobaltâ€Exchanged Poly(Heptazine Imides) as Transition Metalâ€“N_x Electrocatalysts for the Oxygen Evolution Reaction. Advanced Materials, 2020, 32, e1903942.	11.1	56
1603	Ni@Ni₂P Encapsulation in Interconnected N-Doped Carbonized Cellulose Nanofibril Network for Efficient Oxygen Evolution Reaction. ACS Sustainable Chemistry and Engineering, 2020, 8, 1859-1867.	3.2	20
1604	A bifunctional nanoporous Niâ€“Coâ€“Se electrocatalyst with a superaerophobic surface for water and hydrazine oxidation. Nanoscale, 2020, 12, 4426-4434.	2.8	101
1605	Interpreting Tafel behavior of consecutive electrochemical reactions through combined thermodynamic and steady state microkinetic approaches. Energy and Environmental Science, 2020, 13, 622-634.	15.6	67
1606	Ultrathin Amorphous Nickel Doped Cobalt Phosphates with Highly Ordered Mesoporous Structures as Efficient Electrocatalyst for Oxygen Evolution Reaction. Small, 2020, 16, e1906766.	5.2	50
1607	Tuning the oxygen evolution electrocatalysis on NiFe-layered double hydroxides via sulfur doping. Chinese Journal of Catalysis, 2020, 41, 847-852.	6.9	53
1608	Synchronously integration of Co, Fe dual-metal doping in Ru@C and CDs for boosted water splitting performances in alkaline media. Applied Catalysis B: Environmental, 2020, 267, 118657.	10.8	82
1609	Bimetallic CoNi Alloy Nanoparticles Embedded in Pomegranate-like Nitrogen-Doped Carbon Spheres for Electrocatalytic Oxygen Reduction and Evolution. ACS Applied Nano Materials, 2020, 3, 1354-1362.	2.4	39
1610	Heterogeneous Single Atom Electrocatalysis, Where â€œSinglesâ€• Are â€œMarriedâ€• Advanced Energy Materials, 2020, 10, 1903181.	10.2	113
1611	Emerging covalent organic frameworks tailored materials for electrocatalysis. Nano Energy, 2020, 70, 104525.	8.2	143
1612	Bimetalâ€“MOF nanosheets as efficient bifunctional electrocatalysts for oxygen evolution and nitrogen reduction reaction. Journal of Materials Chemistry A, 2020, 8, 3658-3666.	5.2	119

#	Article	IF	Citations
1613	Flexible Coâ€“Moâ€“N/Au Electrodes with a Hierarchical Nanoporous Architecture as Highly Efficient Electrocatalysts for Oxygen Evolution Reaction. Advanced Materials, 2020, 32, e1907214.	11.1	114
1614	Highâ€Valence Nickel Singleâ€Atom Catalysts Coordinated to Oxygen Sites for Extraordinarily Activating Oxygen Evolution Reaction. Advanced Science, 2020, 7, 1903089.	5.6	182
1615	FeOOH-enhanced bifunctionality in Ni3N nanotube arrays for water splitting. Applied Catalysis B: Environmental, 2020, 269, 118600.	10.8	152
1616	Recent advances in pristine tri-metallic metalâ€“organic frameworks toward the oxygen evolution reaction. Nanoscale, 2020, 12, 4816-4825.	2.8	83
1617	Metalâ€“Nitrogenâ€“Carbon Electrocatalysts for CO₂ Reduction towards Syngas Generation. ChemSusChem, 2020, 13, 1688-1698.	3.6	36
1618	In Situ Induction of Strain in Iron Phosphide (FeP₂) Catalyst for Enhanced Hydroxide Adsorption and Water Oxidation. Advanced Functional Materials, 2020, 30, 1907791.	7.8	55
1619	Comprehensively Probing the Contribution of Site Activity and Population of Active Sites toward Heterogeneous Electrocatalysis. ChemCatChem, 2020, 12, 1926-1933.	1.8	7
1620	Electronic modulation of nickel phosphide by iron doping and its assembly on a graphene framework for efficient electrocatalytic water oxidation. Journal of Alloys and Compounds, 2020, 824, 153913.	2.8	15
1621	Boosting H₂ Generation Coupled with Selective Oxidation of Methanol into Valueâ€Added Chemical over Cobalt Hydroxide@Hydroxysulfide Nanosheets Electrocatalysts. Advanced Functional Materials, 2020, 30, 1909610.	7.8	190
1622	FeCoNi Ternary Spinel Oxides Nanosheets as High Performance Water Oxidation Electrocatalyst. ChemCatChem, 2020, 12, 2209-2214.	1.8	10
1623	A Disquisition on the Active Sites of Heterogeneous Catalysts for Electrochemical Reduction of CO₂ to Valueâ€Added Chemicals and Fuel. Advanced Energy Materials, 2020, 10, 1902106.	10.2	113
1624	Regulating the Catalytic Dynamics Through a Crystal Structure Modulation of Bimetallic Catalyst. Advanced Energy Materials, 2020, 10, 1903225.	10.2	21
1625	Alloy Foamâ€Derived Ni_{0.86}Fe_{2.14}O₄ Hexagonal Plates as an Efficient Electrochemical Catalyst for the Oxygen Evolution Reaction. ChemistrySelect, 2020, 5, 1578-1585.	0.7	2
1626	Robust and Stable Acidic Overall Water Splitting on Ir Single Atoms. Nano Letters, 2020, 20, 2120-2128.	4.5	190
1627	Fe and B Codoped Nickel Zinc Layered Double Hydroxide for Boosting the Oxygen Evolution Reaction. ACS Sustainable Chemistry and Engineering, 2020, 8, 2931-2938.	3.2	24
1628	An amorphous carbon nitride/NiO/CoN-based composite: a highly efficient nonprecious electrode for supercapacitors and the oxygen evolution reaction. Nanoscale, 2020, 12, 7024-7034.	2.8	28
1629	Amorphous Niâ€“Feâ€“Mo Suboxides Coupled with Ni Network as Porous Nanoplate Array on Nickel Foam: A Highly Efficient and Durable Bifunctional Electrode for Overall Water Splitting. Advanced Science, 2020, 7, 1902034.	5.6	94
1630	Interfacial Engineering of Cobalt Nitrides and Mesoporous Nitrogen-Doped Carbon: Toward Efficient Overall Water-Splitting Activity with Enhanced Charge-Transfer Efficiency. ACS Energy Letters, 2020, 5, 692-700.	8.8	125

#	Article	IF	Citations
1631	Waste PET plastic derived ZnO@NMC nanocomposite via MOF-5 construction for hydrogen and oxygen evolution reactions. Journal of King Saud University - Science, 2020, 32, 2397-2405.	1.6	66
1632	Gradient phosphorus-doping engineering and superficial amorphous reconstruction in NiFe₂O₄ nanoarrays to enhance the oxygen evolution electrocatalysis. Nanoscale, 2020, 12, 10977-10986.	2.8	24
1633	Electricâ€Field Assisted Inâ€…Situ Hydrolysis of Bulk Metalâ€“Organic Frameworks (MOFs) into Ultrathin Metal Oxyhydroxide Nanosheets for Efficient Oxygen Evolution. Angewandte Chemie - International Edition, 2020, 59, 13101-13108.	7.2	108
1634	LaCoO3-modified RuO2â€“TiO2/Ti electrode as an efficient electrocatalyst for oxygen evolution reaction. Journal of Applied Electrochemistry, 2020, 50, 723-731.	1.5	4
1635	Identifying Key Structural Subunits and Their Synergism in Low-Iridium Triple Perovskites for Oxygen Evolution in Acidic Media. Chemistry of Materials, 2020, 32, 3904-3910.	3.2	29
1636	Synergistic tuning of oxygen vacancies and d-band centers of ultrathin cobaltous dihydroxycarbonate nanowires for enhanced electrocatalytic oxygen evolution. Nanoscale, 2020, 12, 11735-11745.	2.8	10
1637	3D Composite Nickel-Cobalt Oxides on Sintered Metal Fiber Mesh for Electrocatalytic and Pseudocapacitive Applications. Journal of Electronic Materials, 2020, 49, 3708-3719.	1.0	3
1638	2D Layered Double Hydroxide Nanosheets and Their Derivatives Toward Efficient Oxygen Evolution Reaction. Nano-Micro Letters, 2020, 12, 86.	14.4	124
1639	Nanoheterostructures of Partially Oxidized RuNi Alloy as Bifunctional Electrocatalysts for Overall Water Splitting. ChemSusChem, 2020, 13, 2739-2744.	3.6	23
1640	Tuning Interfacial Electron Transfer by Anchoring NiFe-LDH on In-situ Grown Cu2O for Enhancing Oxygen Evolution. Catalysis Letters, 2020, 150, 3049-3057.	1.4	7
1641	Production of NiO/N-doped carbon hybrid and its electrocatalytic performance for oxygen evolution reactions. Carbon Letters, 2020, 30, 485-491.	3.3	13
1642	Unique advantages of 2D inorganic nanosheets in exploring high-performance electrocatalysts: Synthesis, application, and perspective. Coordination Chemistry Reviews, 2020, 415, 213280.	9.5	70
1643	Interface and valence modulation on scalable phosphorene/phosphide lamellae for efficient water electrolysis. Chemical Engineering Journal, 2020, 395, 124976.	6.6	65
1644	A core-shell structured CoMoO4â‹…nH2O@Co1-xFexOOH nanocatalyst for electrochemical evolution of oxygen. Electrochimica Acta, 2020, 345, 136125.	2.6	9
1645	Controllable fabrication of graphitic nanocarbon encapsulating FexNiy hybrids for efficient splitting of water. Journal of Alloys and Compounds, 2020, 829, 154421.	2.8	2
1646	Directly ball milling red phosphorus and expended graphite for oxygen evolution reaction. Journal of Power Sources, 2020, 456, 228003.	4.0	36
1647	Ultrafine-Grained Porous Ir-Based Catalysts for High-Performance Overall Water Splitting in Acidic Media. ACS Applied Energy Materials, 2020, 3, 3736-3744.	2.5	26
1648	A Universal Strategy for Carbon-Supported Transition Metal Phosphides as High-Performance Bifunctional Electrocatalysts towards Efficient Overall Water Splitting. ACS Applied Materials & Interfaces, 2020, 12, 19447-19456.	4.0	103

#	Article	IF	Citations
1649	Trace metals dramatically boost oxygen electrocatalysis of N-doped coal-derived carbon for zincâ€“air batteries. Nanoscale, 2020, 12, 9628-9639.	2.8	24
1650	Coupling amorphous cobalt hydroxide nanoflakes on Sr₂Fe_{1.5}Mo_{0.5}O_{5+Î´} perovskite nanofibers to induce bifunctionality for water splitting. Nanoscale, 2020, 12, 9048-9057.	2.8	33
1651	Designing transition-metal-boride-based electrocatalysts for applications in electrochemical water splitting. Nanoscale, 2020, 12, 9327-9351.	2.8	88
1652	Facile synthesis of nanoparticle-stacked tungsten-doped nickel iron layered double hydroxide nanosheets for boosting oxygen evolution reaction. Journal of Materials Chemistry A, 2020, 8, 8096-8103.	5.2	73
1653	Combinational modulations of NiSe₂ nanodendrites by phase engineering and iron-doping towards an efficient oxygen evolution reaction. Journal of Materials Chemistry A, 2020, 8, 8113-8120.	5.2	82
1654	Retarded Chargeâ€“Carrier Recombination in Photoelectrochemical Cells from Plasmonâ€Induced Resonance Energy Transfer. Advanced Energy Materials, 2020, 10, 2000570.	10.2	40
1655	Synthesis of an amorphous Geobacter-manganese oxide biohybrid as an efficient water oxidation catalyst. Green Chemistry, 2020, 22, 5610-5618.	4.6	11
1656	Electrocatalysts Based on Transition Metal Borides and Borates for the Oxygen Evolution Reaction. Chemistry - A European Journal, 2020, 26, 11661-11672.	1.7	43
1657	Operando Raman Spectroscopy Reveals Cr-Induced-Phase Reconstruction of NiFe and CoFe Oxyhydroxides for Enhanced Electrocatalytic Water Oxidation. Chemistry of Materials, 2020, 32, 4303-4311.	3.2	115
1658	Synthesis of one dimensional Cu₂S nanorods using a self-grown sacrificial template for the electrocatalytic oxygen evolution reaction (OER). New Journal of Chemistry, 2020, 44, 8771-8777.	1.4	37
1659	Recent Advances in Nonâ€Noble Bifunctional Oxygen Electrocatalysts toward Largeâ€Scale Production. Advanced Functional Materials, 2020, 30, 2000503.	7.8	226
1660	Porous Monolithic Electrode of Ni₃FeN on 3D Graphene for Efficient Oxygen Evolution. Journal of Nanoscience and Nanotechnology, 2020, 20, 5175-5181.	0.9	8
1661	In-situ synthesis of free-standing FeNi-oxyhydroxide nanosheets as a highly efficient electrocatalyst for water oxidation. Chemical Engineering Journal, 2020, 395, 125180.	6.6	100
1662	Halides-assisted electrochemical synthesis of Cu/Cu2O/CuO core-shell electrocatalyst for oxygen evolution reaction. Journal of Power Sources, 2020, 457, 228058.	4.0	34
1663	Zn-substituted MnCo2O4 nanostructure anchored over rGO for boosting the electrocatalytic performance towards methanol oxidation and oxygen evolution reaction (OER). International Journal of Hydrogen Energy, 2020, 45, 14713-14727.	3.8	96
1664	Morphological and Electronic Dual Regulation of Cobaltâ€“Nickel Bimetal Phosphide Heterostructures Inducing High Water-Splitting Performance. Journal of Physical Chemistry Letters, 2020, 11, 3911-3919.	2.1	33
1665	Novel 2D Transitionâ€Metal Carbides: Ultrahigh Performance Electrocatalysts for Overall Water Splitting and Oxygen Reduction. Advanced Functional Materials, 2020, 30, 2000570.	7.8	186
1666	Rapid microwave-assisted preparation of high-performance bifunctional Ni3Fe/Co-N-C for rechargeable Zn-air battery. Chemical Engineering Journal, 2020, 395, 125151.	6.6	52

#	Article	IF	Citations
1667	Trivalent iron rich CoFe layered oxyhydroxides for electrochemical water oxidation. Electrochimica Acta, 2020, 350, 136256.	2.6	8
1668	<scp>l</scp>-Lysine-Functionalized Reduced Graphene Oxide as a Highly Efficient Electrocatalyst for Enhanced Oxygen Evolution Reaction. ACS Sustainable Chemistry and Engineering, 2020, 8, 5524-5533.	3.2	39
1669	Recent progress in self-supported two-dimensional transition metal oxides and (oxy)hydroxides as oxygen evolution reaction catalysts. Sustainable Energy and Fuels, 2020, 4, 2625-2637.	2.5	28
1670	Construction of tetrahedral CoO₄ vacancies for activating the high oxygen evolution activity of Co_{3â^'x}O_{4â^'Î´} porous nanosheet arrays. Nanoscale, 2020, 12, 11079-11087.	2.8	35
1671	Electronic engineering of CoSe/FeSe₂ hollow nanospheres for efficient water oxidation. Nanoscale, 2020, 12, 10196-10204.	2.8	48
1672	Engineering Ru(IV) charge density in Ru@RuO2 core-shell electrocatalyst via tensile strain for efficient oxygen evolution in acidic media. Chinese Journal of Catalysis, 2020, 41, 1161-1167.	6.9	45
1673	Recent trends in alkaline hydrogen evolution using nonprecious multi-metallic electrocatalysts. Current Opinion in Green and Sustainable Chemistry, 2020, 25, 100342.	3.2	7
1674	Electrodeposited NiSe on a forest of carbon nanotubes as a free-standing electrode for hybrid supercapacitors and overall water splitting. Journal of Colloid and Interface Science, 2020, 574, 300-311.	5.0	83
1675	Recent progress of precious-metal-free electrocatalysts for efficient water oxidation in acidic media. Journal of Energy Chemistry, 2020, 51, 113-133.	7.1	66
1676	Rational design of hybrid Fe7S8/Fe2N nanoparticles as effective and durable bifunctional electrocatalysts for rechargeable zinc-air batteries. Journal of Power Sources, 2020, 457, 228038.	4.0	20
1677	The roles of oxygen vacancies in electrocatalytic oxygen evolution reaction. Nano Energy, 2020, 73, 104761.	8.2	465
1678	Iron-Based Metalâ€“Organic Framework System as an Efficient Bifunctional Electrocatalyst for Oxygen Evolution and Hydrogen Evolution Reactions. Inorganic Chemistry, 2020, 59, 6078-6086.	1.9	69
1679	FeRh and Nitrogen Codoped Graphene, a Highly Efficient Bifunctional Catalyst toward Oxygen Reduction and Oxygen Evolution Reactions. Journal of Physical Chemistry C, 2020, 124, 9142-9150.	1.5	8
1680	Molecular crowding electrolytes for high-voltage aqueous batteries. Nature Materials, 2020, 19, 1006-1011.	13.3	431
1681	Metallic nanostructures with low dimensionality for electrochemical water splitting. Chemical Society Reviews, 2020, 49, 3072-3106.	18.7	609
1682	Phosphorus-doped CoTe₂/C nanoparticles create new Coâ€“P active sites to promote the hydrogen evolution reaction. Nanoscale, 2020, 12, 9171-9177.	2.8	25
1683	Electrodeposition of (hydro)oxides for an oxygen evolution electrode. Chemical Science, 2020, 11, 10614-10625.	3.7	117
1684	Engineering cobalt oxide by interfaces and pore architectures for enhanced electrocatalytic performance for overall water splitting. Nanoscale, 2020, 12, 11201-11208.	2.8	67

#	Article	IF	Citations
1685	The HER/OER mechanistic study of an FeCoNi-based electrocatalyst for alkaline water splitting. Journal of Materials Chemistry A, 2020, 8, 9939-9950.	5.2	162
1686	Bi-functional S-Doped Ni Catalysts on Copper Foams with Enhanced Electrocatalytic Performance and Excellent Stability for Electrocatalytic Water Splitting. International Journal of Electrochemical Science, 2020, 15, 2806-2821.	0.5	5
1687	Bimetallic oxide coupled with B-doped graphene as highly efficient electrocatalyst for oxygen evolution reaction. Science China Materials, 2020, 63, 1247-1256.	3.5	14
1688	Prussian blue- and Prussian blue analogue-derived materials: progress and prospects for electrochemical energy conversion. Materials Today Energy, 2020, 16, 100404.	2.5	68
1689	Ultrafine Co nanodots embedded in N-doped carbon nanotubes grafted on hexagonal VN for highly efficient overall water splitting. Nano Energy, 2020, 73, 104788.	8.2	71
1690	Controllable structure reconstruction of nickelâ€“iron compounds toward highly efficient oxygen evolution. Nanoscale, 2020, 12, 10751-10759.	2.8	19
1691	On-chip electrocatalytic microdevice: an emerging platform for expanding the insight into electrochemical processes. Chemical Society Reviews, 2020, 49, 2916-2936.	18.7	68
1692	Pt/CoFe2O4-C hollow ball as efficient bifunctional electrocatalyst for Zn-air batteries. Catalysis Today, 2021, 368, 204-210.	2.2	7
1693	Recent Advances in Plasmonic Nanostructures for Enhanced Photocatalysis and Electrocatalysis. Advanced Materials, 2021, 33, e2000086.	11.1	232
1694	Synergistic cerium doping and MXene coupling in layered double hydroxides as efficient electrocatalysts for oxygen evolution. Journal of Energy Chemistry, 2021, 52, 412-420.	7.1	89
1695	Amorphous iron-nickel phosphide nanocone arrays as efficient bifunctional electrodes for overall water splitting. Green Energy and Environment, 2021, 6, 496-505.	4.7	42
1696	Bonding interface boosts the intrinsic activity and durability of NiSe@Fe2O3 heterogeneous electrocatalyst for water oxidation. Science Bulletin, 2021, 66, 52-61.	4.3	44
1697	Surpassing electrocatalytic limit of earth-abundant Fe4+ embedded in N-doped graphene for (photo)electrocatalytic water oxidation. Journal of Energy Chemistry, 2021, 54, 274-281.	7.1	5
1698	Spatial-controlled etching of coordination polymers. Chinese Chemical Letters, 2021, 32, 635-641.	4.8	9
1699	Grain Boundaries Boost Oxygen Evolution Reaction in NiFe Electrocatalysts. Small Methods, 2021, 5, 2000755.	4.6	22
1700	Highly Efficient Perovskiteâ€Based Electrocatalysts for Water Oxidation in Acidic Environments: A Mini Review. Advanced Energy Materials, 2021, 11, 2002428.	10.2	92
1701	Urchin-like cobalt hydroxide coupled with N-doped carbon dots hybrid for enhanced electrocatalytic water oxidation. Chemical Engineering Journal, 2021, 420, 127598.	6.6	29
1702	Recent Advances in 1D Electrospun Nanocatalysts for Electrochemical Water Splitting. Small Structures, 2021, 2, 2000048.	6.9	157

#	Article	IF	Citations
1703	Spectroscopic and Electrokinetic Evidence for a Bifunctional Mechanism of the Oxygen Evolution Reaction**. Angewandte Chemie, 2021, 133, 3132-3140.	1.6	34
1704	An account of the strategies to enhance the water splitting efficiency of noble-metal-free electrocatalysts. Journal of Energy Chemistry, 2021, 59, 160-190.	7.1	48
1705	Facile synthesis of nanoflower-like phosphorus-doped Ni3S2/CoFe2O4 arrays on nickel foam as a superior electrocatalyst for efficient oxygen evolution reaction. Journal of Colloid and Interface Science, 2021, 581, 774-782.	5.0	99
1706	Multi-site catalyst derived from Cr atoms-substituted CoFe nanoparticles for high-performance oxygen evolution activity. Chemical Engineering Journal, 2021, 404, 126513.	6.6	41
1707	Two flowers per seed: Derivatives of CoG@F127/GO with enhanced catalytic performance of overall water splitting. Journal of Energy Chemistry, 2021, 54, 761-769.	7.1	17
1708	Noble-Metal Nanocrystals with Controlled Shapes for Catalytic and Electrocatalytic Applications. Chemical Reviews, 2021, 121, 649-735.	23.0	388
1709	Direct growth of holey Fe3O4-coupled Ni(OH)2 sheets on nickel foam for the oxygen evolution reaction. Chinese Journal of Catalysis, 2021, 42, 271-278.	6.9	21
1710	Poly-active centric Co3O4-CeO2/Co-N-C composites as superior oxygen reduction catalysts for Zn-air batteries. Science China Materials, 2021, 64, 73-84.	3.5	27
1711	Ta-doping triggered electronic structural engineering and strain effect in NiFe LDH for enhanced water oxidation. Chemical Engineering Journal, 2021, 403, 126297.	6.6	154
1712	Continuous nitrogen-doped carbon nanotube matrix for boosting oxygen electrocatalysis in rechargeable Zn-air batteries. Journal of Energy Chemistry, 2021, 55, 183-189.	7.1	125
1713	Carbon-based electrocatalysts for sustainable energy applications. Progress in Materials Science, 2021, 116, 100717.	16.0	216
1714	More than physical support: The effect of nickel foam corrosion on electrocatalytic performance. Applied Surface Science, 2021, 538, 147977.	3.1	27
1715	A review on the 2D black phosphorus materials for energy applications. Inorganic Chemistry Communication, 2021, 124, 108242.	1.8	27
1716	Boosting the electrocatalytic performance of NiFe layered double hydroxides for the oxygen evolution reaction by exposing the highly active edge plane (012). Chemical Science, 2021, 12, 650-659.	3.7	68
1717	Microporous nickel phosphonate derived heteroatom doped nickel oxide and nickel phosphide: Efficient electrocatalysts for oxygen evolution reaction. Chemical Engineering Journal, 2021, 405, 126803.	6.6	112
1718	Anomalous self-optimization of sulfate ions for boosted oxygen evolution reaction. Science Bulletin, 2021, 66, 553-561.	4.3	30
1719	Hollow Co₃O₄ dodecahedrons with controlled crystal orientation and oxygen vacancies for the high performance oxygen evolution reaction. Materials Chemistry Frontiers, 2021, 5, 259-267.	3.2	22
1720	Anion-mediated transition metal electrocatalysts for efficient water electrolysis: Recent advances and future perspectives. Coordination Chemistry Reviews, 2021, 427, 213552.	9.5	66

#	Article	IF	Citations
1721	Ni/Fe based bimetallic coordination complexes with rich active sites for efficient oxygen evolution reaction. Chemical Engineering Journal, 2021, 405, 126959.	6.6	38
1722	Amorphous cobalt-manganese sulfide electrode for efficient water oxidation: Meeting the fundamental requirements of an electrocatalyst. Chemical Engineering Journal, 2021, 405, 126993.	6.6	31
1723	In Situ/Operando Electrocatalyst Characterization by X-ray Absorption Spectroscopy. Chemical Reviews, 2021, 121, 882-961.	23.0	358
1724	Hollow cobalt-nickel phosphide nanocages for efficient electrochemical overall water splitting. Science China Materials, 2021, 64, 861-869.	3.5	33
1725	Design Strategies of Transitionâ€Metal Phosphate and Phosphonate Electrocatalysts for Energyâ€Related Reactions. ChemSusChem, 2021, 14, 130-149.	3.6	48
1726	Ni-based layered double hydroxide catalysts for oxygen evolution reaction. Materials Today Physics, 2021, 16, 100292.	2.9	108
1727	Spectroscopic and Electrokinetic Evidence for a Bifunctional Mechanism of the Oxygen Evolution Reaction**. Angewandte Chemie - International Edition, 2021, 60, 3095-3103.	7.2	176
1728	Unlocking the Potential of Mechanochemical Coupling: Boosting the Oxygen Evolution Reaction by Mating Proton Acceptors with Electron Donors. Advanced Functional Materials, 2021, 31, 2008077.	7.8	40
1729	Organic carboxylate-based MOFs and derivatives for electrocatalytic water oxidation. Coordination Chemistry Reviews, 2021, 428, 213619.	9.5	122
1730	Directly application of bimetallic 2D-MOF for advanced electrocatalytic oxygen evolution. International Journal of Hydrogen Energy, 2021, 46, 416-424.	3.8	30
1731	Identification of highly active surface iron sites on Ni(OOH) for the oxygen evolution reaction by atomic layer deposition. Journal of Catalysis, 2021, 394, 476-485.	3.1	8
1732	Recent progress in water splitting and hybrid supercapacitors based on nickel-vanadium layered double hydroxides. Journal of Energy Chemistry, 2021, 57, 496-515.	7.1	65
1733	In-situ constructed Ru-rich porous framework on NiFe-based ribbon for enhanced oxygen evolution reaction in alkaline solution. Journal of Materials Science and Technology, 2021, 70, 197-204.	5.6	23
1734	Simultaneous Preparation and Functionalization of Ultrathin Fewâ^'layer Black Phosphorus Nanosheets and Their Electrocatalytic OER and HER Performance. ChemCatChem, 2021, 13, 592-602.	1.8	14
1735	Bimetallic chalcogenide nanocrystallites as efficient electrocatalyst for overall water splitting. Journal of Alloys and Compounds, 2021, 852, 156736.	2.8	30
1736	Surface amorphized nickel hydroxy sulphide for efficient hydrogen evolution reaction in alkaline medium. Chemical Engineering Journal, 2021, 408, 127275.	6.6	64
1737	Metalâ€organic frameworksâ€derived novel nanostructured electrocatalysts for oxygen evolution reaction. , 2021, 3, 66-100.		93
1738	Preparation of Ni(Zn)Cr-LDH/LDO coated magnetic-graphene composites using simulative electroplating wastewaters for oxygen evolution reaction. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 611, 125839.	2.3	6

#	Article	IF	Citations
1739	â€œMore is Different:â€•Synergistic Effect and Structural Engineering in Doubleâ€Atom Catalysts. Advanced Functional Materials, 2021, 31, 2007423.	7.8	179
1740	Cu2O/CuO heterojunction catalysts through atmospheric pressure plasma induced defect passivation. Applied Surface Science, 2021, 541, 148571.	3.1	43
1741	1D metal-dithiolene wires as a new class of bi-functional oxygen reduction and evolution single-atom electrocatalysts. Journal of Catalysis, 2021, 393, 140-148.	3.1	18
1742	Surface reconstruction of Ni doped Coâ€“Fe Prussian blue analogues for enhanced oxygen evolution. Catalysis Science and Technology, 2021, 11, 1110-1115.	2.1	22
1743	Local probe investigation of electrocatalytic activity. Chemical Science, 2021, 12, 71-98.	3.7	13
1744	Nitrogen-doped carbon wrapped Co-Mo2C dual Mottâ€“Schottky nanosheets with large porosity for efficient water electrolysis. Applied Catalysis B: Environmental, 2021, 284, 119738.	10.8	125
1745	Surface-enhanced OER activity in Co3V2O8 using cyclic charge-discharge to balance electrocatalytic active site generation and degradation. Electrochimica Acta, 2021, 367, 137538.	2.6	6
1746	DNA as template and P-source for synthesis of Co2P/Co2N coreâ€“shell nanostructure embedded in N-doped carbon nanofiber derived from electrospun precursor for oxygen evolution reaction. Electrochimica Acta, 2021, 367, 137562.	2.6	12
1747	Carbon nanotube boosting electrocatalytic oxygen evolution of NiFe-polyphenol coordination catalyst through donor-acceptor modulation. Journal of Colloid and Interface Science, 2021, 582, 396-404.	5.0	13
1748	Atomic-level tungsten doping triggered low overpotential for electrocatalytic water splitting. Journal of Colloid and Interface Science, 2021, 587, 581-589.	5.0	10
1749	Phosphate-assisted efficient oxygen evolution over finely dispersed cobalt particles supported on graphene. Catalysis Science and Technology, 2021, 11, 1039-1048.	2.1	2
1750	Iron doped vanadium sulfide anemone like nanorod structure for electrochemical water oxidation. Current Applied Physics, 2021, 21, 192-198.	1.1	2
1751	Recent Advances in Electrocatalysis of Oxygen Evolution Reaction using Nobleâ€Metal, Transitionâ€Metal, and Carbonâ€Based Materials. ChemElectroChem, 2021, 8, 447-483.	1.7	68
1752	Ternary cobaltâ€“iron sulfide as a robust electrocatalyst for water oxidation: A dual effect from surface evolution and metal doping. Applied Surface Science, 2021, 542, 148681.	3.1	28
1753	Recent Progress of Vacancy Engineering for Electrochemical Energy Conversion Related Applications. Advanced Functional Materials, 2021, 31, 2009070.	7.8	166
1754	Design of Local Atomic Environments in Singleâ€Atom Electrocatalysts for Renewable Energy Conversions. Advanced Materials, 2021, 33, e2003075.	11.1	187
1755	Metal-organic framework-derived porous carbon templates for catalysis. , 2021, , 73-121.		0
1756	Seawater electrocatalysis: activity and selectivity. Journal of Materials Chemistry A, 2021, 9, 74-86.	5.2	111

#	Article	IF	Citations
1757	Recent advances of electrically conductive metal-organic frameworks in electrochemical applications. Materials Today Nano, 2021, 13, 100105.	2.3	32
1758	Amorphous nickel sulfoselenide for efficient electrochemical urea-assisted hydrogen production in alkaline media. Nano Energy, 2021, 81, 105605.	8.2	108
1759	Highly Efficient Alkaline Water Splitting with Ruâ€Doped Coâ^'V Layered Double Hydroxide Nanosheets as a Bifunctional Electrocatalyst. ChemSusChem, 2021, 14, 730-737.	3.6	63
1760	Visible light-induced stable HER performance using duality of ultrafine Pt NPs in a Z-scheme p-n junction Fe2O3@Pt@FeS catalyst. Applied Surface Science, 2021, 541, 148347.	3.1	13
1761	Fe-modified Co2(OH)3Cl microspheres for highly efficient oxygen evolution reaction. Journal of Colloid and Interface Science, 2021, 582, 803-814.	5.0	16
1762	CuS@Î²-SnS nanocomposite electrocatalysts for efficient electrochemical water oxidation. International Journal of Hydrogen Energy, 2021, 46, 3387-3400.	3.8	8
1763	Promoting oxygen evolution of IrO2 in acid electrolyte by Mn. Electrochimica Acta, 2021, 366, 137448.	2.6	21
1764	Efficient electrocatalytic oxygen evolution at ultra-high current densities over 3D Fe, N doped Ni(OH)2 nanosheets. Chinese Chemical Letters, 2021, 32, 1210-1214.	4.8	18
1765	Structurally ordered intermetallic Ir3V electrocatalysts for alkaline hydrogen evolution reaction. Nano Energy, 2021, 81, 105636.	8.2	45
1766	Phosphorusâ€Doped CuCo₂O₄ Oxide with Partial Amorphous Phase as a Robust Electrocatalyst for the Oxygen Evolution Reaction. ChemElectroChem, 2021, 8, 135-141.	1.7	22
1767	Oneâ€Pot Hydrothermal Synthesis of Ni₃S₂/MoS₂/FeOOH Hierarchical Microspheres on Ni Foam as a Highâ€Efficiency and Durable Dualâ€Function Electrocatalyst for Overall Water Splitting. ChemElectroChem, 2021, 8, 665-674.	1.7	14
1768	Electrodeposited porous spherical Ni(OH)2@Ni on carbon paper for high-efficiency hydrogen evolution. International Journal of Hydrogen Energy, 2021, 46, 1540-1547.	3.8	19
1769	Modification strategies on transition metal-based electrocatalysts for efficient water splitting. Journal of Energy Chemistry, 2021, 58, 446-462.	7.1	88
1770	Nanostructured metallic FeNi2S4 with reconstruction to generate FeNi-based oxide as a highly-efficient oxygen evolution electrocatalyst. Nano Energy, 2021, 81, 105619.	8.2	68
1771	Microkinetic Modeling: A Tool for Rational Catalyst Design. Chemical Reviews, 2021, 121, 1049-1076.	23.0	191
1772	In situ construction of N-doped amorphous CoFe selenites toward efficient electrocatalytic water oxidation. Journal of Power Sources, 2021, 483, 229196.	4.0	15
1773	Single Ru Atoms Stabilized by Hybrid Amorphous/Crystalline FeCoNi Layered Double Hydroxide for Ultraefficient Oxygen Evolution. Advanced Energy Materials, 2021, 11, .	10.2	223
1774	Tunable e g Orbital Occupancy in Heusler Compounds for Oxygen Evolution Reaction**. Angewandte Chemie, 2021, 133, 5864-5869.	1.6	12

#	Article	IF	Citations
1775	Tunablee_gOrbital Occupancy in Heusler Compounds for Oxygen Evolution Reaction**. Angewandte Chemie - International Edition, 2021, 60, 5800-5805.	7.2	45
1776	Anion Vacancy Engineering in Electrocatalytic Water Splitting. ChemNanoMat, 2021, 7, 102-109.	1.5	17
1777	Engineering defect-rich Fe-doped NiO coupled Ni cluster nanotube arrays with excellent oxygen evolution activity. Applied Catalysis B: Environmental, 2021, 285, 119809.	10.8	103
1778	Laâ€“Mo binary metal oxides for oxygen evolution reaction. International Journal of Hydrogen Energy, 2021, 46, 6197-6205.	3.8	3
1779	Self-supported Ni3Se2@NiFe layered double hydroxide bifunctional electrocatalyst for overall water splitting. Journal of Colloid and Interface Science, 2021, 587, 79-89.	5.0	89
1780	Engineering heterointerfaces coupled with oxygen vacancies in lanthanumâ€“based hollow microspheres for synergistically enhanced oxygen electrocatalysis. Journal of Energy Chemistry, 2021, 60, 503-511.	7.1	27
1781	Polyoxometalate/metalâ€“organic framework hybrids and their derivatives for hydrogen and oxygen evolution electrocatalysis. Materials Today Energy, 2021, 19, 100618.	2.5	39
1782	Smart oxygen vacancy engineering to enhance water oxidation efficiency by separating the different effects of bulk and surface vacancies. Materials Today Energy, 2021, 19, 100619.	2.5	12
1783	Multifunctional spinel MnCo₂O₄ based materials for energy storage and conversion: a review on emerging trends, recent developments and future perspectives. Journal of Materials Chemistry A, 2021, 9, 3095-3124.	5.2	88
1784	Ultrathin MoS₂ wrapped N-doped carbon-coated cobalt nanospheres for OER applications. Sustainable Energy and Fuels, 2021, 5, 801-807.	2.5	16
1785	Integrated transition metal and compounds with carbon nanomaterials for electrochemical water splitting. Journal of Materials Chemistry A, 2021, 9, 3786-3827.	5.2	140
1786	TiNâ€Š@â€ŠCo_{5.47}N Composite Material Constructed by Atomic Layer Deposition as Reliable Electrocatalyst for Oxygen Evolution Reaction. Advanced Functional Materials, 2021, 31, 2008511.	7.8	38
1787	Materials Engineering in Perovskite for Optimized Oxygen Evolution Electrocatalysis in Alkaline Condition. Small, 2021, 17, e2006638.	5.2	41
1788	Improving the electrocatalytic performance of sustainable Co/carbon materials for the oxygen evolution reaction by ultrasound and microwave assisted synthesis. Sustainable Energy and Fuels, 2021, 5, 720-731.	2.5	21
1789	Nanoboxes endow non-noble-metal-based electrocatalysts with high efficiency for overall water splitting. Journal of Materials Chemistry A, 2021, 9, 857-874.	5.2	100
1790	Filling the in situ-generated vacancies with metal cations captured by Câ^'N bonds of defect-rich 3D carbon nanosheet for bifunctional oxygen electrocatalysis. Journal of Energy Chemistry, 2021, 59, 47-54.	7.1	26
1791	Transforming Damage into Benefit: Corrosion Engineering Enabled Electrocatalysts for Water Splitting. Advanced Functional Materials, 2021, 31, 2009032.	7.8	70
1792	Formation of FeOOH Nanosheets Induces Substitutional Doping of CeO_{2â^'}_x with Highâ€Valence Ni for Efficient Water Oxidation. Advanced Energy Materials, 2021, 11, 2002731.	10.2	110

#	Article	IF	Citations
1793	NiFeMo Nanoparticles Encapsulated within Nitrogenâ€Doped Reduced Graphene Oxide as Bifunctional Electrocatalysts for Zincâ€Air Batteries. ChemElectroChem, 2021, 8, 524-531.	1.7	7
1794	A new synthetic approach to cobalt oxides: Designed phase transformation for electrochemical water splitting. Chemical Engineering Journal, 2021, 415, 127958.	6.6	17
1795	Optimized performance of nickel in crystal-layered arrangement of NiFe2O4/rGO hybrid for high-performance oxygen evolution reaction. International Journal of Hydrogen Energy, 2021, 46, 2617-2629.	3.8	44
1796	Walnut kernel-like iron-cobalt-nickel sulfide nanosheets directly grown on nickel foam: A binder-free electrocatalyst for high-efficiency oxygen evolution reaction. Journal of Colloid and Interface Science, 2021, 587, 141-149.	5.0	30
1797	Understanding the role of nickelâ€“iron (oxy)hydroxide (NiFeOOH) electrocatalysts on hematite photoanodes. Sustainable Energy and Fuels, 2021, 5, 501-508.	2.5	6
1798	A unique Co(<scp>iii</scp>)-peptoid as a fast electrocatalyst for homogeneous water oxidation with low overpotential. Chemical Communications, 2021, 57, 939-942.	2.2	13
1799	Decoupled amphoteric water electrolysis and its integration with Mnâ€“Zn battery for flexible utilization of renewables. Energy and Environmental Science, 2021, 14, 883-889.	15.6	49
1800	Iron-doped cobalt nitride nanoparticles (Feâ€“Co3N): An efficient electrocatalyst for water oxidation. International Journal of Hydrogen Energy, 2021, 46, 2086-2094.	3.8	21
1801	Hybrid water electrolysis: Replacing oxygen evolution reaction for energy-efficient hydrogen production and beyond. Materials Reports Energy, 2021, 1, 100004.	1.7	27
1802	A sequential template strategy toward hierarchical hetero-metal phosphide hollow nanoboxes for electrocatalytic oxygen evolution. Journal of Materials Chemistry A, 2021, 9, 3482-3491.	5.2	26
1803	High Density and Unit Activity Integrated in Amorphous Catalysts for Electrochemical Water Splitting. Small Structures, 2021, 2, 2000096.	6.9	102
1804	Oxide-based precious metal-free electrocatalysts for anion exchange membrane fuel cells: from material design to cell applications. Journal of Materials Chemistry A, 2021, 9, 3151-3179.	5.2	12
1805	Feâ€Based Mesoporous Nanostructures for Electrochemical Conversion and Storage of Energy. Batteries and Supercaps, 2021, 4, 429-444.	2.4	15
1806	ZnO@Ni foam photoelectrode modified with heteroatom doped graphitic carbon for enhanced photoelectrochemical water splitting under solar light. International Journal of Hydrogen Energy, 2021, 46, 2075-2085.	3.8	11
1807	Recent Advances in Electrochemical Water Splitting and Reduction of CO₂ into Green Fuels on 2D Phosphoreneâ€Based Catalyst. Energy Technology, 2021, 9, .	1.8	14
1808	Advanced Oxygen Electrocatalysis in Energy Conversion and Storage. Advanced Functional Materials, 2021, 31, 2007602.	7.8	86
1809	Reconstructed Water Oxidation Electrocatalysts: The Impact of Surface Dynamics on Intrinsic Activities. Advanced Functional Materials, 2021, 31, 2008190.	7.8	161
1810	An Active Hybrid Electrocatalyst with Synergized Pyridinic <scp>Nitrogenâ€Cobalt</scp> and Oxygen Vacancies for Bifunctional Oxygen Reduction and Evolution. Chinese Journal of Chemistry, 2021, 39, 655-660.	2.6	14

#	Article	IF	Citations
1811	Sol-gel derived MgCr2O4 nanoparticles for aqueous supercapacitor and alkaline OER and HER bi-functional electrocatalyst applications. Journal of Alloys and Compounds, 2021, 858, 157679.	2.8	28
1812	Vanadium doped cobalt phosphide nanorods array as a bifunctional electrode catalyst for efficient and stable overall water splitting. International Journal of Hydrogen Energy, 2021, 46, 599-608.	3.8	25
1813	Highly porous metal organic framework derived NiO hollow spheres and flowers for oxygen evolution reaction and supercapacitors. Ceramics International, 2021, 47, 3312-3321.	2.3	42
1814	Efficient Improved Charge Separation of FeP Decorated Worm-Like Nanoporous BiVO4 Photoanodes for Solar-Driven Water Splitting. Catalysis Letters, 2021, 151, 1231-1238.	1.4	6
1815	Tailoring the activity of NiFe layered double hydroxide with CeCO3OH as highly efficient water oxidation electrocatalyst. International Journal of Hydrogen Energy, 2021, 46, 2018-2025.	3.8	10
1816	Strategies to Develop Earthâ€Abundant Heterogeneous Oxygen Evolution Reaction Catalysts for pHâ€Neutral or pHâ€Nearâ€Neutral Electrolytes. Small Methods, 2021, 5, e2000719.	4.6	31
1817	Composition controllable fabrication of ultrathin 2D CoMn layered double hydroxides for highly efficient electrocatalytic oxygen evolution. Applied Surface Science, 2021, 539, 148305.	3.1	19
1818	Advances in synthesis, properties and emerging applications of tin sulfides and its heterostructures. Materials Chemistry Frontiers, 2021, 5, 516-556.	3.2	32
1819	Electrochemical synergies of Feâ€“Ni bimetallic MOF CNTs catalyst for OER in water splitting. Journal of Alloys and Compounds, 2021, 850, 156583.	2.8	139
1820	å¾®çº³ç»“æž„è¿‡å±žåŒ–å•‰©èƒ½æºè½¬åŒ–ç”µå‚¬åŒ–å‰‚ç©¶è¿›å±•. Science China Materials, 2021, 64, 1-26.	2.1	26
1821	Toward Active-Site Tailoring in Heterogeneous Catalysis by Atomically Precise Metal Nanoclusters with Crystallographic Structures. Chemical Reviews, 2021, 121, 567-648.	23.0	361
1822	Innovative method of intralesional drug delivery in nodulocystic acne. Journal of the American Academy of Dermatology, 2021, 84, e189-e190.	0.6	2
1823	Fibrousâ€Structured Freestanding Electrodes for Oxygen Electrocatalysis. Small, 2021, 17, e1903760.	5.2	28
1824	Photothermally boosted water splitting electrocatalysis by broadband solar harvesting nickel phosphide within a quasi-MOF. Journal of Materials Chemistry A, 2021, 9, 16479-16488.	5.2	30
1825	Defects as catalytic sites for the oxygen evolution reaction in Earth-abundant MOF-74 revealed by DFT. Catalysis Science and Technology, 2021, 11, 1443-1450.	2.1	17
1826	Metalloporphyrin immobilized CeO₂: in situ generation of active sites and synergistic promotion of photocatalytic water oxidation. Catalysis Science and Technology, 2021, 11, 2560-2569.	2.1	1
1827	Synthesis of transition metal sulfide nanostructures for water splitting. , 2021, , 311-341.		1
1828	Controlled growth of porous oxygen-deficient NiCo₂O₄ nanobelts as high-efficiency electrocatalysts for oxygen evolution reaction. Catalysis Science and Technology, 2021, 11, 264-271.	2.1	11

#	Article	IF	Citations
1829	Hollow cobalt phosphate microspheres for sustainable electrochemical ammonia production through rechargeable Znâ€“N₂ batteries. Journal of Materials Chemistry A, 2021, 9, 11370-11380.	5.2	27
1830	Tuning the intrinsic catalytic activities of oxygen-evolution catalysts by doping: a comprehensive review. Journal of Materials Chemistry A, 2021, 9, 20131-20163.	5.2	110
1831	A novel Co-based MOF/Pd composite: synergy of charge-transfer towards the electrocatalytic oxygen evolution reaction. CrystEngComm, 2021, 23, 2982-2991.	1.3	5
1832	Multimetallic nanostructures for electrocatalytic oxygen evolution reaction in acidic media. Materials Chemistry Frontiers, 2021, 5, 4445-4473.	3.2	14
1833	Regulated iron corrosion towards fabricating large-area self-supporting electrodes for efficient oxygen evolution reaction. Journal of Materials Chemistry A, 0, , .	5.2	14
1834	Ir-based bifunctional electrocatalysts for overall water splitting. Catalysis Science and Technology, 2021, 11, 4673-4689.	2.1	53
1835	In situ growth of porous carbon with adjustable morphology on black phosphorus nanosheets for boosting electrocatalytic H₂ and O₂ evolution. New Journal of Chemistry, 2021, 45, 12203-12212.	1.4	4
1836	Tailoring the catalytic activity of nickel sites in NiFe₂O₄ by cobalt substitution for highly enhanced oxygen evolution reaction. Sustainable Energy and Fuels, 2021, 5, 2668-2677.	2.5	12
1837	Plasma-engineered bifunctional cobaltâ€“metal organic framework derivatives for high-performance complete water electrolysis. Nanoscale, 2021, 13, 6201-6211.	2.8	14
1838	Ultrathin amorphous iron-doped cobalt-molybdenum hydroxide nanosheets for advanced oxygen evolution reactions. Nanoscale, 2021, 13, 3153-3160.	2.8	24
1839	Promoting urea oxidation and water oxidation through interface construction on a CeO₂@CoFe₂O₄ heterostructure. Dalton Transactions, 2021, 50, 12301-12307.	1.6	108
1840	Structural transformation between rutile and spinel crystal lattices in Ruâ€“Co binary oxide nanotubes: enhanced electron transfer kinetics for the oxygen evolution reaction. Nanoscale, 2021, 13, 13776-13785.	2.8	9
1841	Irregularly Shaped Mn₂O₃ Nanostructures with High Surface Area for Water Oxidation. ACS Applied Nano Materials, 2021, 4, 396-405.	2.4	16
1842	3D porous Ni/NiO_x as a bifunctional oxygen electrocatalyst derived from freeze-dried Ni(OH)₂. Nanoscale, 2021, 13, 5530-5535.	2.8	21
1843	Highly Efficient Electrocatalyst for Oxygen Evolution Reaction: DFT Investigation on Transition Metalâ€Tetracyanoquinodimethane Monolayer. ChemistrySelect, 2021, 6, 609-616.	0.7	7
1844	Electrocatalysis for the Water Splitting: Recent Strategies for Improving the Performance of Electrocatalyst. , 2021, , 315-339.		1
1845	Nanoporous multimetallic Ir alloys as efficient and stable electrocatalysts for acidic oxygen evolution reactions. Journal of Catalysis, 2021, 393, 303-312.	3.1	17
1846	Bimetallic cyclic redox couple in dimanganese copper oxide supported by nickel borate for boosted alkaline electrocatalytic oxygen evolution reaction. Sustainable Energy and Fuels, 2021, 5, 2517-2527.	2.5	5

#	Article	IF	Citations
1847	Recent advances in single-atom electrocatalysts supported on two-dimensional materials for the oxygen evolution reaction. Journal of Materials Chemistry A, 2021, 9, 9979-9999.	5.2	50
1848	Siliconâ€Based Photocatalysis for Green Chemical Fuels and Carbon Negative Technologies. Advanced Sustainable Systems, 2021, 5, 2000242.	2.7	12
1849	Perspective on intermetallics towards efficient electrocatalytic water-splitting. Chemical Science, 2021, 12, 8603-8631.	3.7	74
1850	Metalâ€“organic framework (MOF) derived flower-shaped CoSe₂ nanoplates as a superior bifunctional electrocatalyst for both oxygen and hydrogen evolution reactions. Sustainable Energy and Fuels, 2021, 5, 4992-5000.	2.5	22
1851	Multiâ€Scale Design of Metalâ€“Organic Frameworkâ€Derived Materials for Energy Electrocatalysis. Advanced Energy Materials, 2022, 12, 2003410.	10.2	81
1852	Ru-tweaking of non-precious materials: the tale of a strategy that ensures both cost and energy efficiency in electrocatalytic water splitting. Journal of Materials Chemistry A, 2021, 9, 6710-6731.	5.2	46
1853	Nitrogen-Doped Mixed-Phase Cobalt Nanocatalyst Derived from a Trinuclear Mixed-Valence Cobalt(III)/Cobalt(II) Complex for High-Performance Oxygen Evolution Reaction. Inorganic Chemistry, 2021, 60, 2333-2346.	1.9	9
1854	Crystal and electronic structure manipulation of Laves intermetallics for boosting hydrogen evolution reaction. Chemical Communications, 2021, 57, 8504-8507.	2.2	5
1855	Efficient electrochemical water splitting using copper molybdenum sulfide anchored Ni foam as a high-performance bifunctional catalyst. Materials Advances, 2021, 2, 455-463.	2.6	11
1856	Pulsed electrodeposition of iridium catalyst nanoparticles on titanium suboxide supports for application in PEM electrolysis. Materials Today: Proceedings, 2021, 45, 4254-4259.	0.9	8
1857	Cathodic corrosion activated Fe-based nanoglass as a highly active and stable oxygen evolution catalyst for water splitting. Journal of Materials Chemistry A, 2021, 9, 12152-12160.	5.2	23
1858	Recent advances in doped ruthenium oxides as high-efficiency electrocatalysts for the oxygen evolution reaction. Journal of Materials Chemistry A, 2021, 9, 15506-15521.	5.2	73
1859	Tungsten doped manganese silicate films as stable and efficient oxygen evolution catalysts in near-neutral media. Journal of Materials Chemistry A, 2021, 9, 17893-17904.	5.2	14
1860	Intermetallic Fe₆Ge₅ formation and decay of a coreâ€“shell structure during the oxygen evolution reaction. Chemical Communications, 2021, 57, 2184-2187.	2.2	25
1861	Nanostructured metal phosphides: from controllable synthesis to sustainable catalysis. Chemical Society Reviews, 2021, 50, 7539-7586.	18.7	177
1862	Extensive Active-Site Formation in Trirutile CoSb₂O₆ by Oxygen Vacancy for Oxygen Evolution Reaction in Anion Exchange Membrane Water Splitting. ACS Energy Letters, 2021, 6, 364-370.	8.8	66
1863	Interfacing RuO₂ with Pt to induce efficient charge transfer from Pt to RuO₂ for highly efficient and stable oxygen evolution in acidic media. Journal of Materials Chemistry A, 2021, 9, 14352-14362.	5.2	25
1864	P-type cobaltite oxide spinels enable efficient electrocatalytic oxygen evolution reaction. Materials Advances, 2021, 2, 5494-5500.	2.6	2

#	Article	IF	Citations
1865	Recent advances in surface/interface engineering of noble-metal free catalysts for energy conversion reactions. Materials Chemistry Frontiers, 2021, 5, 3576-3592.	3.2	9
1866	CoS₂Nanoparticles Supported on rGO, g-C₃N₄, BCN, MoS₂, and WS₂Two-Dimensional Nanosheets with Excellent Electrocatalytic Performance for Overall Water Splitting: Electrochemical Studies and DFT Calculations. ACS Applied Energy Materials, 2021, 4, 1269-1285.	2.5	39
1867	Emerging Energy Harvesting Technology for Electro/Photo-Catalytic Water Splitting Application. Catalysts, 2021, 11, 142.	1.6	24
1868	Iron sulphide rice grain nanostructures as potential electrocatalysts for an improved oxygen evolution reaction. Nanoscale, 2021, 13, 14837-14846.	2.8	11
1869	Hollow cuboidal MnCo₂O₄ coupled with nickel phosphate: a promising oxygen evolution reaction electrocatalyst. Chemical Communications, 2021, 57, 8027-8030.	2.2	11
1870	Understanding the mechanisms and design principles for oxygen evolution and oxygen reduction activity on perovskite catalysts for alkaline zincâ€“air batteries. Catalysis Science and Technology, 2021, 11, 5200-5211.	2.1	3
1871	CoP₂/Fe-CoP₂ yolkâ€“shell nanoboxes as efficient electrocatalysts for the oxygen evolution reaction. Nanoscale, 2021, 13, 4569-4575.	2.8	29
1872	Atomic layer deposited Al₂O₃layer confinement: an efficient strategy to synthesize durable MOF-derived catalysts toward the oxygen evolution reaction. Inorganic Chemistry Frontiers, 2021, 8, 1432-1438.	3.0	10
1873	Recent advances in activating surface reconstruction for the high-efficiency oxygen evolution reaction. Chemical Society Reviews, 2021, 50, 8428-8469.	18.7	452
1874	Tunable metalâ€“organic framework nanoarrays on carbon cloth constructed by a rational self-sacrificing template for efficient and robust oxygen evolution reactions. CrystEngComm, 2021, 23, 7090-7096.	1.3	6
1875	Hierarchical superhydrophilic/superaerophobic CoMnP/Ni₂P nanosheet-based microplate arrays for enhanced overall water splitting. Journal of Materials Chemistry A, 2021, 9, 22129-22139.	5.2	45
1876	Sm_{0.5}Sr_{0.5}Fe_{0.8}M_{0.2}O_{3â^'Î´} (M = Co,) Tj ETQq1 1 0.784314 rg Energy and Fuels, 2021, 5, 4858-4868.	2.5	9
1877	A morphology controlled surface sulfurized CoMn₂O₄ microspike electrocatalyst for water splitting with excellent OER rate for binder-free electrocatalytic oxygen evolution. Journal of Materials Chemistry A, 2021, 9, 12255-12264.	5.2	58
1878	Metalâ€“organic framework derived nanomaterials for electrocatalysis: recent developments for CO2 and N2 reduction. Nano Convergence, 2021, 8, 1.	6.3	84
1879	Two-dimensional conductive metalâ€“organic frameworks with dual metal sites toward the electrochemical oxygen evolution reaction. Journal of Materials Chemistry A, 2021, 9, 1623-1629.	5.2	38
1880	Vertical Alignment of Fe-Doped Î²â€˜Ni Oxyhydroxides for Highly Active and Stable Oxygen Evolution Reaction. SSRN Electronic Journal, 0, , .	0.4	0
1881	Single-layer CoFe hydroxides for efficient electrocatalytic oxygen evolution. Chemical Communications, 2021, 57, 7653-7656.	2.2	12
1882	Localized surface plasmon resonance for enhanced electrocatalysis. Chemical Society Reviews, 2021, 50, 12070-12097.	18.7	112

#	Article	IF	Citations
1883	A strategy of asymmetric local structure based on mesoporous MoO₂ toward efficient electrocatalysis. Chemical Communications, 2021, 57, 7834-7837.	2.2	3
1884	Trace amounts of Ru-doped Niâ€“Fe oxide bone-like structures via single-step anodization: a flexible and bifunctional electrode for efficient overall water splitting. Journal of Materials Chemistry A, 2021, 9, 12041-12050.	5.2	30
1885	Layered double hydroxide-based electrocatalysts for the oxygen evolution reaction: identification and tailoring of active sites, and superaerophobic nanoarray electrode assembly. Chemical Society Reviews, 2021, 50, 8790-8817.	18.7	331
1886	Polyethylenimine-modified bimetallic Au@Rh coreâ€“shell mesoporous nanospheres surpass Pt for pH-universal hydrogen evolution electrocatalysis. Journal of Materials Chemistry A, 2021, 9, 13080-13086.	5.2	29
1887	New Water Oxidation Electrocatalyst Based on the Cobalt-Containing Polyoxometalate-Reduced Graphene Oxide Hybrid Nanomaterial. Langmuir, 2021, 37, 1925-1931.	1.6	11
1888	Nanoengineered Electrodes for Biomass-Derived 5-Hydroxymethylfurfural Electrocatalytic Oxidation to 2,5-Furandicarboxylic Acid. ACS Sustainable Chemistry and Engineering, 2021, 9, 1970-1993.	3.2	65
1889	Engineering electrocatalyst nanosurfaces to enrich the activity by inducing lattice strain. Energy and Environmental Science, 2021, 14, 3717-3756.	15.6	98
1890	Electrochemical synthesis of coreâ€“shell nanoparticles by seed-mediated selective deposition. Chemical Science, 2021, 12, 13557-13563.	3.7	8
1891	Defective/graphitic synergy in a heteroatom-interlinked-triggered metal-free electrocatalyst for high-performance rechargeable zincâ€“air batteries. Journal of Materials Chemistry A, 2021, 9, 18222-18230.	5.2	135
1892	Contribution of B,N-co-doped reduced graphene oxide as a catalyst support to the activity of iridium oxide for oxygen evolution reaction. Journal of Materials Chemistry A, 2021, 9, 9066-9080.	5.2	30
1893	Self-sorting multimetalâ€“organic gel electrocatalysts for a highly efficient oxygen evolution reaction. Journal of Materials Chemistry A, 2021, 9, 17451-17458.	5.2	21
1894	Quantum Chemical Modeling of Oxygen Evolution Reaction Pathways Mediated by Metal (Oxy)hydroxide Complexes. Journal of Physical Chemistry C, 2021, 125, 1345-1354.	1.5	1
1895	Lattice oxygen redox chemistry in solid-state electrocatalysts for water oxidation. Energy and Environmental Science, 2021, 14, 4647-4671.	15.6	190
1896	Recognition of Surface Oxygen Intermediates on NiFe Oxyhydroxide Oxygen-Evolving Catalysts by Homogeneous Oxidation Reactivity. Journal of the American Chemical Society, 2021, 143, 1493-1502.	6.6	111
1897	Metalâ€“organic framework derived NiSe₂/CeO₂ nanocomposite as a high-performance electrocatalyst for oxygen evolution reaction (OER). Sustainable Energy and Fuels, 2021, 5, 2994-3000.	2.5	14
1898	Design of Ni₃N/Co₂N heterojunctions for boosting electrocatalytic alkaline overall water splitting. Journal of Materials Chemistry A, 2021, 9, 10260-10269.	5.2	57
1899	Co/Ni-polyoxotungstate photocatalysts as precursor materials for electrocatalytic water oxidation. RSC Advances, 2021, 11, 11425-11436.	1.7	3
1900	A highly efficient Feâ€“Niâ€“S/NF hybrid electrode for promoting oxygen evolution performance. Chemical Communications, 2021, 57, 4572-4575.	2.2	6

#	Article	IF	Citations
1901	Crystal structure and optical properties of oxygen-deficiency of barium titanate (BaTiO3-x) prepared by sol-gel method. AIP Conference Proceedings, 2021, , .	0.3	2
1902	Advances in electrochemical energy storage with covalent organic frameworks. Materials Advances, 0, , .	2.6	26
1903	Waste-Recovered Nanomaterials for Emerging Electrocatalytic Applications. Topics in Mining, Metallurgy and Materials Engineering, 2021, , 247-292.	1.4	1
1904	An Fe_xNi_{4â^'x}P_y/N, P co-doped carbon nanotube composite as a bifunctional electrocatalyst for oxygen and hydrogen electrode reactions. Inorganic Chemistry Frontiers, 2021, 8, 1710-1718.	3.0	5
1905	Synthesis of Pt mesoflowers as electrocatalysts for water splitting. AIP Conference Proceedings, 2021, , .	0.3	0
1906	Nickelâ€“cobalt oxalate as an efficient non-precious electrocatalyst for an improved alkaline oxygen evolution reaction. Nanoscale Advances, 2021, 3, 3770-3779.	2.2	19
1907	In situformation of grain boundaries on a supported hybrid to boost water oxidation activity of iridium oxide. Nanoscale, 2021, 13, 13845-13857.	2.8	6
1908	Organic Ï€â€Conjugated Polymers as Photocathode Materials for Visibleâ€Lightâ€Enhanced Hydrogen and Hydrogen Peroxide Production from Water. Advanced Energy Materials, 2021, 11, 2003724.	10.2	36
1909	Precursor accumulation on nanocarbons for the synthesis of LaCoO₃ nanoparticles as electrocatalysts for oxygen evolution reaction. RSC Advances, 2021, 11, 20313-20321.	1.7	4
1910	Earthâ€Abundant Amorphous Electrocatalysts for Electrochemical Hydrogen Production: A Review. Advanced Energy and Sustainability Research, 2021, 2, 2000071.	2.8	30
1911	Two-dimensional stable and ultrathin cluster-based metalâ€“organic layers for efficient electrocatalytic water oxidation. CrystEngComm, 2021, 23, 4700-4707.	1.3	4
1912	Boosting the oxygen evolution activity in non-stoichiometric praseodymium ferrite-based perovskites by A site substitution for alkaline electrolyser anodes. Sustainable Energy and Fuels, 2021, 5, 154-165.	2.5	14
1913	Achieving selective photocatalytic CO₂ reduction to CO on bismuth tantalum oxyhalogen nanoplates. Journal of Materials Chemistry A, 2021, 9, 19631-19636.	5.2	41
1914	Surface self-reconstructed amorphous/crystalline hybrid iron disulfide for high-efficiency water oxidation electrocatalysis. Dalton Transactions, 2021, 50, 6333-6342.	1.6	9
1915	Controllable growth of graphdiyne layered nanosheets for high-performance water oxidation. Materials Chemistry Frontiers, 2021, 5, 4153-4159.	3.2	19
1916	Hierarchical sheet-on-sheet heterojunction array of Î²-Ni(OH)2/Fe(OH)3 self-supporting anode for effective overall alkaline water splitting. Dalton Transactions, 2021, 50, 12547-12554.	1.6	11
1917	Construction of self-supporting, hierarchically structured caterpillar-like NiCo₂S₄ arrays as an efficient trifunctional electrocatalyst for water and urea electrolysis. Nanoscale, 2021, 13, 1680-1688.	2.8	63
1918	Perfecting electrocatalystsviaimperfections: towards the large-scale deployment of water electrolysis technology. Energy and Environmental Science, 2021, 14, 1722-1770.	15.6	213

#	Article	IF	Citations
1919	Combination of Highly Efficient Electrocatalytic Water Oxidation with Selective Oxygenation of Organic Substrates using Manganese Borophosphates. Advanced Materials, 2021, 33, e2004098.	11.1	52
1920	First-principles investigation of two-dimensional covalentâ€“organic framework electrocatalysts for oxygen evolution/reduction and hydrogen evolution reactions. Sustainable Energy and Fuels, 2021, 5, 5615-5626.	2.5	13
1921	High-performance diluted nickel nanoclusters decorating ruthenium nanowires for pH-universal overall water splitting. Energy and Environmental Science, 2021, 14, 3194-3202.	15.6	53
1922	Nanostructured multifunctional electrocatalysts for efficient energy conversion systems: Recent perspectives. Nanotechnology Reviews, 2021, 10, 137-157.	2.6	28
1923	Porphyrin-based frameworks for oxygen electrocatalysis and catalytic reduction of carbon dioxide. Chemical Society Reviews, 2021, 50, 2540-2581.	18.7	249
1924	Transition metal-based catalysts for electrochemical water splitting at high current density: current status and perspectives. Nanoscale, 2021, 13, 12788-12817.	2.8	142
1925	Recent advances in transition-metal-sulfide-based bifunctional electrocatalysts for overall water splitting. Journal of Materials Chemistry A, 2021, 9, 5320-5363.	5.2	322
1926	Monoâ€Doped Carbon Nanofiber Aerogel as a Highâ€Performance Electrode Material for Rechargeable Zincâ€Air Batteries. ChemElectroChem, 2021, 8, 829-838.	1.7	7
1927	Reevesite with Ordered Intralayer Atomic Arrangement as an Optimized Nickelâ€Iron Oxygen Evolution Electrocatalyst. ChemElectroChem, 2021, 8, 558-562.	1.7	4
1928	First-Principles Design of Rutile Oxide Heterostructures for Oxygen Evolution Reactions. Frontiers in Energy Research, 2021, 9, .	1.2	3
1929	Insights of enhanced oxygen evolution reaction of nanostructured cobalt ferrite surface. Journal of Materials Science, 2021, 56, 8383-8395.	1.7	16
1930	Fe²⁺â€Induced In Situ Intercalation and Cation Exsolution of Co₈₀Fe₂₀(OH)(OCH₃) with Rich Vacancies for Boosting Oxygen Evolution Reaction. Advanced Functional Materials, 2021, 31, 2009245.	7.8	38
1931	Transition-Metal (Fe, Co, and Ni)-Based Nanofiber Electrocatalysts for Water Splitting. Advanced Fiber Materials, 2021, 3, 210-228.	7.9	74
1932	Understanding the Structural Evolution of a Nickel Chalcogenide Electrocatalyst Surface for Water Oxidation. Energy & Fuels, 2021, 35, 4387-4403.	2.5	33
1933	Designing Highâ€Valence Metal Sites for Electrochemical Water Splitting. Advanced Functional Materials, 2021, 31, 2009779.	7.8	195
1934	Hydrogen production from water electrolysis: role of catalysts. Nano Convergence, 2021, 8, 4.	6.3	540
1935	Progress of Exsolved Metal Nanoparticles on Oxides as High Performance (Electro)Catalysts for the Conversion of Small Molecules. Small, 2021, 17, e2005383.	5.2	53
1936	Tailoring Electronegativity of Bimetallic Ni/Fe Metalâ€“Organic Framework Nanosheets for Electrocatalytic Water Oxidation. ACS Applied Nano Materials, 2021, 4, 1967-1975.	2.4	30

#	Article	IF	Citations
1937	Synthesis and electrochemical characterization of Si/TiO2/Au composite anode: Efficient oxygen evolution and hydroxyl radicals generation. Electrochimica Acta, 2021, 370, 137742.	2.6	8
1938	Delivering the Full Potential of Oxygen Evolving Electrocatalyst by Conditioning Electrolytes at Nearâ€Neutral pH. ChemSusChem, 2021, 14, 1554-1564.	3.6	20
1939	Graphdiyne Ultrathin Nanosheets for Efficient Water Splitting. Advanced Functional Materials, 2021, 31, 2010112.	7.8	35
1940	Enhanced oxygen and hydrogen evolution reaction by zinc doping in cobaltâ€“nickel sulfide heteronanorods. Electrochemical Science Advances, 0, , e202000038.	1.2	2
1941	Modulating Ni/Ce Ratio in NiyCe100â^'yOx Electrocatalysts for Enhanced Water Oxidation. Nanomaterials, 2021, 11, 437.	1.9	9
1942	Replacing Metals with Oxides in Metal-Assisted Chemical Etching Enables Direct Fabrication of Silicon Nanowires by Solution Processing. Nano Letters, 2021, 21, 2310-2317.	4.5	14
1943	Recent innovations of silk-derived electrocatalysts for hydrogen evolution reaction, oxygen evolution reaction and oxygen reduction reaction. International Journal of Hydrogen Energy, 2021, 46, 7848-7865.	3.8	30
1944	Carbon Cloth Supported Nitrogen Doped Porous Carbon Wrapped Co Nanoparticles for Effective Overall Water Splitting. ChemCatChem, 2021, 13, 2158-2166.	1.8	9
1945	Electrodeposition of Niâ€“Fe micro/nano urchin-like structure as an efficient electrocatalyst for overall water splitting. International Journal of Hydrogen Energy, 2021, 46, 9394-9405.	3.8	71
1946	Two biologically inspired tetranuclear nickel(II) catalysts: effect of the geometry of Ni4 core on electrocatalytic water oxidation. Journal of Biological Inorganic Chemistry, 2021, 26, 205-216.	1.1	8
1947	Precursor modulated active sites of nitrogen doped graphene-based carbon catalysts via one-step pyrolysis method for the enhanced oxygen reduction reaction. Electrochimica Acta, 2021, 370, 137712.	2.6	26
1948	In Situ Growth of Ni-Based Metalâ€“Organic Framework Nanosheets on Carbon Nanotube Films for Efficient Oxygen Evolution Reaction. Inorganic Chemistry, 2021, 60, 3439-3446.	1.9	19
1949	In-situ growth of Feâ€“Co Prussian-blue-analog nanocages on Ni(OH)2/NF and the derivative electrocatalysts with hierarchical cage-on-sheet architectures for efficient water splitting. International Journal of Hydrogen Energy, 2021, 46, 8345-8355.	3.8	15
1950	A Complementary Coâ^'Ni Phosphide/Bimetallic Alloyâ€Interspersed Nâ€Doped Graphene Electrocatalyst for Overall Alkaline Water Splitting. ChemSusChem, 2021, 14, 1921-1935.	3.6	42
1951	Rhenium Doping of Layered Transition-Metal Diselenides Triggers Enhancement of Photoelectrochemical Activity. ACS Nano, 2021, 15, 2374-2385.	7.3	19
1952	A highly efficient atomically thin curved PdIr bimetallene electrocatalyst. National Science Review, 2021, 8, nwab019.	4.6	59
1953	In-situ controlled synthesis of NiFe MOF materials with excellent electrocatalytic performances for water splitting. Functional Materials Letters, 2021, 14, 2151011.	0.7	7
1954	Engineering transition metal-based nanomaterials for high-performance electrocatalysis. Materials Reports Energy, 2021, 1, 100006.	1.7	14

#	Article	IF	Citations
1955	Potentiostatically deposited bimetallic cobaltâ€“nickel selenide nanostructures on nickel foam for highly efficient overall water splitting. International Journal of Hydrogen Energy, 2021, 46, 7297-7308.	3.8	16
1956	Structure engineering of Ni2P by Mo doping for robust electrocatalytic water and methanol oxidation reactions. Electrochimica Acta, 2021, 369, 137692.	2.6	20
1957	Na/Al Codoped Layered Cathode with Defects as Bifunctional Electrocatalyst for Highâ€Performance Liâ€Ion Battery and Oxygen Evolution Reaction. Small, 2021, 17, e2005605.	5.2	31
1958	Plasmonic Hot Hole-Driven Water Splitting on Au Nanoprisms/P-Type GaN. ACS Energy Letters, 0, , 1333-1339.	8.8	57
1959	Recent Advances in Nonprecious Metal Oxide Electrocatalysts and Photocatalysts for N₂ Reduction Reaction under Ambient Condition. Small Science, 2021, 1, 2000069.	5.8	63
1960	Three-Dimensionally Interconnected Nanoporous IrRe Thin Films Prepared by Selective Etching of Re for Oxygen Evolution Reaction. ACS Applied Energy Materials, 2021, 4, 4173-4180.	2.5	8
1961	Phase Transitions and Water Splitting Applications of 2D Transition Metal Dichalcogenides and Metal Phosphorous Trichalcogenides. Advanced Science, 2021, 8, 2002284.	5.6	47
1962	Pd^{Î´+}-Mediated Surface Engineering of AgMnO₄ Nanorods as Advanced Bifunctional Electrocatalysts for Highly Efficient Water Electrolysis. ACS Catalysis, 2021, 11, 3687-3703.	5.5	29
1963	Surface oxidized iron-nickel nanorods anchoring on graphene architectures for oxygen evolution reaction. Chinese Chemical Letters, 2021, 32, 3579-3583.	4.8	16
1964	Hierarchical CuCo₂S₄ Nanoflake Arrays Grown on Carbon Cloth: A Remarkable Bifunctional Electrocatalyst for Overall Water Splitting. ChemElectroChem, 2021, 8, 1134-1140.	1.7	19
1965	Interfacial engineering of heterogeneous catalysts for electrocatalysis. Materials Today, 2021, 48, 115-134.	8.3	96
1966	Synthesis of Iron Phosphide Nanoclusters by an Electroless Plating Method for Enhanced Oxygen Evolution Reaction. Journal of Electronic Materials, 2021, 50, 3071-3077.	1.0	4
1967	Recent Advances on Nonprecious-Metal-Based Bifunctional Oxygen Electrocatalysts for Zincâ€“Air Batteries. Energy & Fuels, 2021, 35, 6380-6401.	2.5	48
1968	Preparation of Hollow Cobaltâ€“Iron Phosphides Nanospheres by Controllable Atom Migration for Enhanced Water Oxidation and Splitting. Small, 2021, 17, e2007858.	5.2	35
1969	Inexpensive Amorphous Fe^{III} Oxoâ€Hydroxide as Highly Active and Ultradurable Electrocatalyst for Water Electrolysis. ChemElectroChem, 2021, 8, 887-894.	1.7	15
1970	Co-Cu-P nanosheet-based open architecture for high-performance oxygen evolution reaction. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	1.1	7
1971	Covalent Organic Frameworks for Efficient Energy Electrocatalysis: Rational Design and Progress. Advanced Energy and Sustainability Research, 2021, 2, 2000090.	2.8	29
1972	In Situ-Generated Oxide in Sn-Doped Nickel Phosphide Enables Ultrafast Oxygen Evolution. ACS Catalysis, 2021, 11, 4520-4529.	5.5	41

#	Article	IF	Citations
1973	Recent Development of Oxygen Evolution Electrocatalysts in Acidic Environment. Advanced Materials, 2021, 33, e2006328.	11.1	392
1974	Nickel Structures as a Template Strategy to Create Shaped Iridium Electrocatalysts for Electrochemical Water Splitting. ACS Applied Materials & Interfaces, 2021, 13, 13576-13585.	4.0	7
1975	Metalâ€Organic Fragments with Adhesive Excipient and Their Utilization to Stabilize Multimetallic Electrocatalysts for High Activity and Robust Durability in Oxygen Evolution Reaction. Advanced Science, 2021, 8, e2100044.	5.6	8
1976	Tailoring the Electronic Structures of the La₂NiMnO₆ Double Perovskite as Efficient Bifunctional Oxygen Electrocatalysis. Chemistry of Materials, 2021, 33, 2062-2071.	3.2	58
1977	Electrified Membranes for Water Treatment Applications. ACS ES&T Engineering, 2021, 1, 725-752.	3.7	139
1978	Redirecting dynamic surface restructuring of a layered transition metal oxide catalyst for superior water oxidation. Nature Catalysis, 2021, 4, 212-222.	16.1	266
1979	Molybdenum and Phosphorous Dualâ€Doped, Transitionâ€Metalâ€Based, Freeâ€Standing Electrode for Overall Water Splitting. ChemElectroChem, 2021, 8, 1612-1620.	1.7	10
1980	Nanoporous Goldâ€Based Materials for Electrochemical Energy Storage and Conversion. Energy Technology, 2021, 9, 2000927.	1.8	26
1981	In Situ Anchoring Polymetallic Phosphide Nanoparticles within Porous Prussian Blue Analogue Nanocages for Boosting Oxygen Evolution Catalysis. Nano Letters, 2021, 21, 3016-3025.	4.5	250
1982	A porous heterostructure catalyst for oxygen evolution: synergy between IrP₂ nanocrystals and ultrathin P,N-codoped carbon nanosheets. Nanotechnology, 2021, 32, 245402.	1.3	4
1983	Incorporation of MnO2 nanoparticles into MOF-5 for efficient oxygen evolution reaction. Ionics, 2021, 27, 2159-2167.	1.2	5
1984	Cobalt-Based Electrocatalysts for Water Splitting: An Overview. Catalysis Surveys From Asia, 2021, 25, 114-147.	1.0	16
1985	Facilitating the Deprotonation of OH to O through Fe⁴⁺â€Induced States in Perovskite LaNiO₃ Enables a Fast Oxygen Evolution Reaction. Small, 2021, 17, e2006930.	5.2	40
1986	Iron and Manganese Codoped Cobalt Tungstates Co_{1â€“(x+y)}Fe_xMn_yWO₄ as Efficient Photoelectrocatalysts for Oxygen Evolution Reaction. ACS Omega, 2021, 6, 7334-7341.	1.6	19
1987	Iridium Oxide Modified with Silver Single Atom for Boosting Oxygen Evolution Reaction in Acidic Media. ACS Energy Letters, 0, , 1588-1595.	8.8	69
1988	Improving the Catalytic Efficiency of NiFe-LDH/ATO by Air Plasma Treatment for Oxygen Evolution Reaction. Chemical Research in Chinese Universities, 2021, 37, 293-297.	1.3	16
1989	Epitaxial Stabilization and Oxygen Evolution Reaction Activity of Metastable Columbite Iridium Oxide. ACS Applied Energy Materials, 2021, 4, 3074-3082.	2.5	7
1990	Recent Progress in Advanced Electrocatalyst Design for Acidic Oxygen Evolution Reaction. Advanced Materials, 2021, 33, e2004243.	11.1	284

#	Article	IF	Citations
1991	MOF-on-MOF hybrids: Synthesis and applications. Coordination Chemistry Reviews, 2021, 432, 213743.	9.5	231
1992	The Tunability of Oxygen Evolution Reaction in Flexible Van der Waals Manganite Membrane. Advanced Sustainable Systems, 2021, 5, 2100073.	2.7	3
1993	Electrocatalytic Oxygen Evolution by Hierarchically Structured Cobaltâ€“Iron Composites. ACS Applied Materials & Interfaces, 2021, 13, 19048-19054.	4.0	13
1994	Unstable Cathode Potential in Alkaline Flow Cells for CO₂ Electroreduction Driven by Gas Evolution. ACS Sustainable Chemistry and Engineering, 2021, 9, 5570-5579.	3.2	14
1995	Dual Active Center-Assembled Cu₃₁S₁₆â€“Co_{9-x}Ni_xS₈ Heterodimers: Coherent Interface Engineering Induces Multihole Accumulation for Light-Enhanced Electrocatalytic Oxygen Evolution. ACS Applied Materials & Interfaces, 2021, 13, 20094-20104.	4.0	7
1996	Redox-Mediated Water Splitting for Decoupled H₂ Production. , 2021, 3, 641-651.		57
1997	Twoâ€Dimensional Metalâ€“Organic Frameworks and Covalentâ€“Organic Frameworks for Electrocatalysis: Distinct Merits by the Reduced Dimension. Advanced Energy Materials, 2022, 12, 2003990.	10.2	78
1998	Fe3+-mediated coal-assisted water electrolysis for hydrogen production: Roles of mineral matter and oxygen-containing functional groups in coal. Energy, 2021, 220, 119677.	4.5	19
1999	Lattice Engineering to Simultaneously Control the Defect/Stacking Structures of Layered Double Hydroxide Nanosheets to Optimize Their Energy Functionalities. ACS Nano, 2021, 15, 8306-8318.	7.3	49
2000	2021 Roadmap: electrocatalysts for green catalytic processes. JPhys Materials, 2021, 4, 022004.	1.8	57
2001	Topâ€Level Design Strategy to Construct an Advanced Highâ€Entropy Coâ€“Cuâ€“Feâ€“Mo (Oxy)Hydroxide Electrocatalyst for the Oxygen Evolution Reaction. Advanced Materials, 2021, 33, e2100745.	11.1	123
2002	Influence of Fe and Ni Doping on the OER Performance at the Co₃O₄(001) Surface: Insights from DFT+UCalculations. ACS Catalysis, 2021, 11, 5601-5613.	5.5	86
2003	Molecular Precursor Route to CuCo₂S₄ Nanosheets: A High-Performance Pre-Catalyst for Oxygen Evolution and Its Application in Znâ€“Air Batteries. Inorganic Chemistry, 2021, 60, 6721-6730.	1.9	22
2004	In-situ plasmonic tracking oxygen evolution reveals multistage oxygen diffusion and accumulating inhibition. Nature Communications, 2021, 12, 2164.	5.8	9
2005	Three-dimensional flower-like WP2 nanowire arrays grown on Ni foam for full water splitting. Applied Surface Science, 2021, 546, 148926.	3.1	18
2006	CeO2 nanoparticles@ NiFe-LDH nanosheet heterostructure as electrocatalysts for oxygen evolution reaction. Journal of Solid State Chemistry, 2021, 296, 121967.	1.4	25
2007	Donorâ€“Acceptor Couples of Metal and Metal Oxides with Enriched Ni³⁺ Active Sites for Oxygen Evolution. ACS Applied Materials & Interfaces, 2021, 13, 17501-17510.	4.0	29
2008	A CoNâ€based OER Electrocatalyst Capable in Neutral Medium: Atomic Layer Deposition as Rational Strategy for Fabrication. Advanced Functional Materials, 2021, 31, 2101324.	7.8	46

#	Article	IF	Citations
2009	Hierarchical Ni3N/Ni0.2Mo0.8N heterostructure nanorods arrays as efficient electrocatalysts for overall water and urea electrolysis. Chemical Engineering Journal, 2021, 409, 128240.	6.6	94
2010	Self-templating construction of hollow Fe-CoxP nanospheres for oxygen evolution reaction. Chemical Engineering Journal, 2021, 409, 128227.	6.6	39
2011	Improving water oxidation performance by implementing heterointerfaces between ceria and metal-oxide nanoparticles. Journal of Colloid and Interface Science, 2021, 587, 39-46.	5.0	10
2012	Strengthen metal-oxygen covalency of CoFe-layered double hydroxide for efficient mild oxygen evolution. Nano Research, 2022, 15, 162-169.	5.8	29
2013	Heterocyclic-Additive-Activated Dinuclear Dysprosium Electrocatalysts for Heterogeneous Water Oxidation. Inorganic Chemistry, 2021, 60, 6930-6938.	1.9	5
2014	Singleâ€Atom Coâ€Decorated MoS₂ Nanosheets Assembled on Metal Nitride Nanorod Arrays as an Efficient Bifunctional Electrocatalyst for pHâ€Universal Water Splitting. Advanced Functional Materials, 2021, 31, 2100233.	7.8	108
2015	Preparation of Three-dimensional Mesoporous Carbon Electrode Materials as Electrocatalysts for Hydrogen Evolution Reaction. International Journal of Electrochemical Science, 2021, 16, 21043.	0.5	1
2016	MOF-Derived Fe-Doped Ni@NC Hierarchical Hollow Microspheres as an Efficient Electrocatalyst for Alkaline Oxygen Evolution Reaction. ACS Omega, 2021, 6, 11077-11082.	1.6	20
2017	Ni-, Co-, and Mn-Doped Fe₂O₃ Nano-Parallelepipeds for Oxygen Evolution. ACS Applied Nano Materials, 2021, 4, 5131-5140.	2.4	33
2018	Electrocatalytic oxygen evolution reaction (OER) on mixed nanoporous RuIr borides. Journal of Applied Electrochemistry, 2021, 51, 1101-1108.	1.5	3
2019	In situ synthesis of Fe-doped CrOOH nanosheets for efficient electrocatalytic water oxidation. Nanotechnology, 2021, 32, 28LT01.	1.3	5
2020	Bifunctional Covalent Organic Frameworkâ€Derived Electrocatalysts with Modulated pâ€Band Centers for Rechargeable Znâ€“Air Batteries. Advanced Functional Materials, 2021, 31, 2101727.	7.8	76
2021	Phase-Segregated SrCo_{0.8}Fe_{0.5â€“x}O_{3â^Î´}/Fe_xO_y Heterostructured Catalyst Promotes Alkaline Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2021, 13, 17439-17449.	4.0	28
2022	Isolating the Electrocatalytic Activity of a Confined NiFe Motif within Zirconium Phosphate. Advanced Energy Materials, 2021, 11, 2003545.	10.2	21
2023	In Situ Synthesis of Superhydrophilic Amorphous NiFe Prussian Blue Analogues for the Oxygen Evolution Reaction at a High Current Density. ACS Sustainable Chemistry and Engineering, 2021, 9, 5693-5704.	3.2	26
2024	Mechanistic insights of the oxidation of bisphenol A at ultrasonication assisted polyaniline-Au nanoparticles composite for highly sensitive electrochemical sensor. Electrochimica Acta, 2021, 374, 137968.	2.6	38
2025	Anticatalytic Strategies to Suppress Water Electrolysis in Aqueous Batteries. Chemical Reviews, 2021, 121, 6654-6695.	23.0	175
2026	Open Framework Material Based Thin Films: Electrochemical Catalysis and Stateâ€ofâ€theâ€art Technologies. Advanced Energy Materials, 2022, 12, 2003499.	10.2	25

#	Article	IF	Citations
2027	Achieving a long-term stability by self-redox property between Fe and Mn ions in the iron-manganese spinel structured electrode in oxygen evolution reaction. Applied Surface Science, 2021, 546, 149124.	3.1	28
2028	Activation Strategies of Perovskiteâ€Type Structure for Applications in Oxygenâ€Related Electrocatalysts. Small Methods, 2021, 5, e2100012.	4.6	29
2029	Metal-free red phosphorus-black phosphorus/carbon nanotubes heterostructured electrocatalyst for efficient oxygen evolution reaction. Composites Communications, 2021, 24, 100624.	3.3	9
2030	Synthesis of 3D CoO nanowires supported NiFe layered double hydroxide using an atmospheric pressure microplasma for high-performance oxygen evolution reaction. Chemical Engineering Journal, 2021, 410, 128366.	6.6	39
2031	Double Perovskite Cobaltites Integrated in a Monolithic and Noble Metal-Free Photoelectrochemical Device for Efficient Water Splitting. ACS Applied Materials & Interfaces, 2021, 13, 20313-20325.	4.0	17
2032	Polymer electrolyte electrolysis: A review of the activity and stability of non-precious metal hydrogen evolution reaction and oxygen evolution reaction catalysts. Renewable and Sustainable Energy Reviews, 2021, 139, 110709.	8.2	92
2033	Electrocatalysis for the Oxygen Evolution Reaction in Acidic Media: Progress and Challenges. Applied Sciences (Switzerland), 2021, 11, 4320.	1.3	41
2034	Heteroatom-doped porous carbon-supported single-atom catalysts for electrocatalytic energy conversion. Journal of Energy Chemistry, 2021, 63, 54-73.	7.1	16
2035	Morphological and compositional modification of Î²-Ni(OH)2 nanoplates by ferrihydrite for enhanced oxygen evolution reaction. International Journal of Hydrogen Energy, 2021, 46, 17720-17730.	3.8	12
2036	Hornwort-like hollow porous MoO3/NiF2 heterogeneous nanowires as high-performance electrocatalysts for efficient water oxidation. Electrochimica Acta, 2021, 379, 138146.	2.6	16
2037	Nanoscale CuTe electrocatalyst immobilized at conductor surface for remarkable hydrogen evolution reaction. International Journal of Hydrogen Energy, 2021, 46, 18729-18739.	3.8	27
2038	Engineering of cation and anion vacancies in Co3O4 thin nanosheets by laser irradiation for more advancement of oxygen evolution reaction. Nano Energy, 2021, 83, 105800.	8.2	50
2039	Cost-effective and efficient plum-pudding-like FexNi1-xS2/C composite electrocatalysts for oxygen evolution reaction. Renewable Energy, 2021, 168, 416-423.	4.3	12
2040	Multidimensional Nonstoichiometric Electrode Materials for Electrochemical Energy Conversion and Storage. Advanced Energy Materials, 2022, 12, 2100640.	10.2	25
2041	Phosphate-induced interfacial electronic engineering in VPO4-Ni2P heterostructure for improved electrochemical water oxidation. Chinese Chemical Letters, 2022, 33, 452-456.	4.8	12
2042	Regulation of Perovskite Surface Stability on the Electrocatalysis of Oxygen Evolution Reaction. , 2021, 3, 721-737.		61
2043	Dynamic Surface Chemistry of Catalysts in Oxygen Evolution Reaction. Small Science, 2021, 1, 2100011.	5.8	59
2044	Inherent Oxygen Vacancies Boost Surface Reconstruction of Ultrathin Ni-Fe Layered-Double-Hydroxides toward Efficient Electrocatalytic Oxygen Evolution. ACS Sustainable Chemistry and Engineering, 2021, 9, 7390-7399.	3.2	36

#	Article	IF	Citations
2045	The role of ZnFe2O4 in the electrochemical performance of Pb-ceramic composite anode in sulfuric acid solution. Hydrometallurgy, 2021, 201, 105587.	1.8	1
2046	Enhanced electrocatalytic water oxidation using cobalt-based polyaniline hybrid assembly. Synthetic Metals, 2021, 275, 116738.	2.1	6
2047	Spinel type Fe3O4 polyhedron supported on nickel foam as an electrocatalyst for water oxidation reaction. Journal of Alloys and Compounds, 2021, 863, 158742.	2.8	17
2048	Synergistically Integrating Nickel Porous Nanosheets with 5d Transition Metal Oxides Enabling Efficient Electrocatalytic Overall Water Splitting. Inorganic Chemistry, 2021, 60, 8189-8199.	1.9	27
2049	Advances and Challenges for the Electrochemical Reduction of CO₂ to CO: From Fundamentals to Industrialization. Angewandte Chemie, 2021, 133, 20795-20816.	1.6	82
2050	Optimization and characterization of pulse electrodeposited nickel selenide nanostructure as a bifunctional electrocatalyst by response surface methodology. International Journal of Hydrogen Energy, 2021, 46, 18898-18912.	3.8	11
2051	In-situ transformational mycelium-like metal phosphides-encapsulated carbon nanotubes coating on the stainless steel mesh as robust self-supporting electrocatalyst for water splitting. Applied Surface Science, 2021, 549, 149227.	3.1	7
2052	Advanced High Entropy Perovskite Oxide Electrocatalyst for Oxygen Evolution Reaction. Advanced Functional Materials, 2021, 31, 2101632.	7.8	231
2053	Metalâ€“Organic Frameworks and Metalâ€“Organic Gels for Oxygen Electrocatalysis: Structural and Compositional Considerations. Advanced Materials, 2021, 33, e2008023.	11.1	60
2054	Rich Surface Oxygen Vacancies of MnO₂ for Enhancing Electrocatalytic Oxygen Reduction and Oxygen Evolution Reactions. Advanced Energy and Sustainability Research, 2021, 2, 2100030.	2.8	35
2055	Boosting oxygen reduction activity and enhancing stability through structural transformation of layered lithium manganese oxide. Nature Communications, 2021, 12, 3136.	5.8	25
2056	Benchmarking of oxygen evolution catalysts on porous nickel supports. Joule, 2021, 5, 1281-1300.	11.7	74
2057	Fe/Fe₃C Embedded in N-Doped Worm-like Porous Carbon for High-Rate Catalysis in Rechargeable Zincâ€“Air Batteries. ACS Applied Materials & Interfaces, 2021, 13, 24710-24722.	4.0	19
2058	Manganese dioxides for oxygen electrocatalysis in energy conversion and storage systems over full pH range. Journal of Power Sources, 2021, 494, 229779.	4.0	37
2059	Carbonaceous Oxygen Evolution Reaction Catalysts: From Defect and Dopingâ€Induced Activity over Hybrid Compounds to Ordered Framework Structures. Small, 2021, 17, e2007484.	5.2	25
2060	Two new polyoxoniobosilicate-based compounds: Syntheses, structures, characterizations and their catalytic properties for epoxidation and water oxidation. Journal of Solid State Chemistry, 2021, 297, 122029.	1.4	4
2061	Oxide Nanofibers as Catalysts Toward Energy Conversion and Environmental Protection. Chemical Research in Chinese Universities, 2021, 37, 366-378.	1.3	5
2062	Ni III â€rich NiFeBa as an Efficient Catalyst for Water Oxidation. ChemSusChem, 2021, 14, 2516-2520.	3.6	2

#	Article	IF	Citations
2063	Advances in electrochemical reduction of carbon dioxide to formate over bismuth-based catalysts. Rare Metals, 2021, 40, 2327-2353.	3.6	35
2064	Regulating Intrinsic Electronic Structures of Transition-Metal-Based Catalysts and the Potential Applications for Electrocatalytic Water Splitting. , 2021, 3, 752-780.		62
2065	Optimizing Surface Nâ€Ðoping of Feâ€Nâ€C Catalysts Derived from Fe/Melamineâ€Ðecorated Polyaniline for Oxygen Reduction Electrocatalysis. Advanced Materials Interfaces, 2021, 8, 2100197.	1.9	10
2066	Metal organic framework-derived Ni-Cu bimetallic electrocatalyst for efficient oxygen evolution reaction. Journal of King Saud University - Science, 2021, 33, 101379.	1.6	19
2067	Lanthanide based double perovskites: Bifunctional catalysts for oxygen evolution/reduction reactions. International Journal of Hydrogen Energy, 2021, 46, 17163-17172.	3.8	20
2068	Synthesis of Pd-Based Bimetallic Nanoparticles and Their Effective Electrocatalytic Properties. Catalysis Surveys From Asia, 2021, 25, 399-405.	1.0	0
2069	Electrochemical Construction of Low-Crystalline CoOOH Nanosheets with Short-Range Ordered Grains to Improve Oxygen Evolution Activity. ACS Catalysis, 2021, 11, 6104-6112.	5.5	103
2070	Electrochemical Catalysts for Green Hydrogen Energy. Advanced Energy and Sustainability Research, 2021, 2, 2100019.	2.8	4
2071	Enhanced electrocatalytic activity of PtRu/nitrogen and sulphur co-doped crumbled graphene in acid and alkaline media. Journal of Colloid and Interface Science, 2021, 590, 154-163.	5.0	13
2072	Metalâ€“Organic Frameworks for Photo/Electrocatalysis. Advanced Energy and Sustainability Research, 2021, 2, 2100033.	2.8	123
2073	Correlation and Improvement of Bimetallic Electronegativity on Metalâ€“Organic Frameworks for Electrocatalytic Water Oxidation. Advanced Energy and Sustainability Research, 2021, 2, 2100055.	2.8	8
2074	MOFs template derived Co/Fe binary phosphide nanocomposite embedded in ternary-doped carbon matrix for efficient water splitting. Ceramics International, 2021, 47, 12843-12850.	2.3	15
2075	Elucidating the Role of Hydroxide Electrolyte on Anion-Exchange-Membrane Water Electrolyzer Performance. Journal of the Electrochemical Society, 2021, 168, 054522.	1.3	54
2076	Low-Cost Pb-Co-Sn film for the Oxygen Evolution Reaction in Acid Media. Journal of the Electrochemical Society, 2021, 168, 052505.	1.3	2
2077	Influence of electrochemical active surface area on the oxygen evolution reaction and energy storage performance of<scp>MnO₂â€multiwalled</scp>carbon nanotube composite. International Journal of Energy Research, 2021, 45, 16908-16921.	2.2	26
2078	Inâ€Situ Generated Trimetallic Molybdate Nanoflowers on Ni Foam Assisted with Microwave for Highly Enhanced Oxygen Evolution Reaction. Chemistry - A European Journal, 2021, 27, 9044-9053.	1.7	9
2079	Unusual Role of Point Defects in Perovskite Nickelate Electrocatalysts. ACS Applied Materials & Interfaces, 2021, 13, 24887-24895.	4.0	9
2080	Sulfateâ€Functionalized RuFeO_x as Highly Efficient Oxygen Evolution Reaction Electrocatalyst in Acid. Advanced Functional Materials, 2021, 31, 2101405.	7.8	67

#	Article	IF	Citations
2081	Facile Synthesis of Carbonâ€Sulfur Scaffold with Transitionâ€Metal Sulfides and Oxides as Efficient Electrocatalysts for Oxygen Evolution Reaction. ChemCatChem, 2021, 13, 3749-3753.	1.8	6
2082	Advances and Challenges for the Electrochemical Reduction of CO₂ to CO: From Fundamentals to Industrialization. Angewandte Chemie - International Edition, 2021, 60, 20627-20648.	7.2	408
2083	Metal Substitution Steering Electron Correlations in Pyrochlore Ruthenates for Efficient Acidic Water Oxidation. ACS Nano, 2021, 15, 8537-8548.	7.3	54
2084	Tailored Brownmillerite Oxide Catalyst with Multiple Electronic Functionalities Enables Ultrafast Water Oxidation. Chemistry of Materials, 2021, 33, 5233-5241.	3.2	32
2085	Persulfate activation using Co/AC particle electrodes and synergistic effects on humic acid degradation. Applied Catalysis B: Environmental, 2021, 285, 119848.	10.8	56
2086	Electronic Modulation of Nonâ€van der Waals 2D Electrocatalysts for Efficient Energy Conversion. Advanced Materials, 2021, 33, e2008422.	11.1	190
2087	Thermally templated cobalt oxide nanobubbles on crumpled graphene sheets: A promising non-precious metal catalysts for acidic oxygen evolution. Electrochimica Acta, 2021, 382, 138277.	2.6	11
2088	Doubleâ€Exchangeâ€Induced in situ Conductivity in Nickelâ€Based Oxyhydroxides: An Effective Descriptor for Electrocatalytic Oxygen Evolution. Angewandte Chemie - International Edition, 2021, 60, 16448-16456.	7.2	63
2089	Advanced Transition Metalâ€Based OER Electrocatalysts: Current Status, Opportunities, and Challenges. Small, 2021, 17, e2100129.	5.2	293
2090	Electrocatalytic Water Oxidation by a Trinuclear Copper(II) Complex. ACS Catalysis, 2021, 11, 7223-7240.	5.5	35
2091	Iron-facilitated surface reconstruction to in-situ generate nickelâ€“iron oxyhydroxide on self-supported FeNi alloy fiber paper for efficient oxygen evolution reaction. Applied Catalysis B: Environmental, 2021, 286, 119902.	10.8	105
2092	NH₄F-Induced Morphology Control of CoP Nanostructures to Enhance the Hydrogen Evolution Reaction. Inorganic Chemistry, 2021, 60, 10781-10790.	1.9	20
2093	Self-Assembly of Porphyrin Dipeptide Conjugates toward Hydrogen Production. ACS Sustainable Chemistry and Engineering, 2021, 9, 7781-7791.	3.2	18
2094	The real-time investigation of the nickel-iron hydroxide catalyzed oxygen evolution reaction with interdigitated array electrodes. Nanotechnology, 2021, 32, .	1.3	2
2095	Synthetic disposable material derived-carbon supported NiO: Efficient hybrid electrocatalyst for water oxidation process. Fuel, 2021, 294, 120558.	3.4	16
2096	Recent Advances in the Understanding of the Surface Reconstruction of Oxygen Evolution Electrocatalysts and Materials Development. Electrochemical Energy Reviews, 2021, 4, 566-600.	13.1	90
2097	Energy catalysis needs ligands with high oxidative stability. Chem Catalysis, 2021, 1, 32-43.	2.9	16
2098	Electrocatalytic Oxidation of Glycerol Using Solidâ€State Synthesised Nickel Boride: Impact of Key Electrolysis Parameters on Product Selectivity. ChemElectroChem, 2021, 8, 2336-2342.	1.7	21

#	Article	IF	Citations
2099	Highâ€Performance Perovskite Composite Electrocatalysts Enabled by Controllable Interface Engineering. Small, 2021, 17, e2101573.	5.2	128
2100	Self-Optimized Metalâ€“Organic Framework Electrocatalysts with Structural Stability and High Current Tolerance for Water Oxidation. ACS Catalysis, 2021, 11, 7132-7143.	5.5	77
2101	Hydrazine-assisted electrochemical hydrogen production by efficient and self-supported electrodeposited Ni-Cu-P@Ni-Cu nano-micro dendrite catalyst. Electrochimica Acta, 2021, 382, 138335.	2.6	46
2102	Selective photoelectrocatalytic tuning of benzyl alcohol to benzaldehyde for enhanced hydrogen production. Applied Catalysis B: Environmental, 2021, 286, 119868.	10.8	61
2103	Recent progress on precious metal single atom materials for water splitting catalysis. SusMat, 2021, 1, 194-210.	7.8	86
2104	Single atomically anchored iron on graphene quantum dots for a highly efficient oxygen evolution reaction. Materials Today Energy, 2021, 20, 100693.	2.5	18
2105	ZIF-12/Fe-Cu LDH Composite as a High Performance Electrocatalyst for Water Oxidation. Frontiers in Chemistry, 2021, 9, 686968.	1.8	12
2106	A chemical etching strategy to improve and stabilize RuO2-based nanoassemblies for acidic oxygen evolution. Nano Energy, 2021, 84, 105909.	8.2	58
2107	Advances in CoP electrocatalysts for water splitting. Materials Today Energy, 2021, 20, 100698.	2.5	48
2108	An Extraordinary OER Electrocatalyst Based on the Coâ€“Mo Synergistic 2D Pure Inorganic Porous Framework. European Journal of Inorganic Chemistry, 2021, 2021, 2606-2610.	1.0	10
2109	Probing self-optimization of carbon support in oxygen evolution reaction. Nano Research, 2021, 14, 4534-4540.	5.8	20
2110	Synthesis of Fe3C@C core-shell catalysts with controlled shell composition for robust oxygen evolution reaction. Applied Surface Science, 2021, 551, 149445.	3.1	22
2111	Prevailing conjugated porous polymers for electrochemical energy storage and conversion: Lithium-ion batteries, supercapacitors and water-splitting. Coordination Chemistry Reviews, 2021, 436, 213782.	9.5	52
2112	Mechanisms of water oxidation on heterogeneous catalyst surfaces. Nano Research, 2021, 14, 3446-3457.	5.8	34
2113	Acidic Water Oxidation on Quantum Dots of IrO_x/Graphdiyne. Advanced Energy Materials, 2021, 11, 2101138.	10.2	54
2114	CoMo carbide/nitride from bimetallic MOF precursors for enhanced OER performance. International Journal of Hydrogen Energy, 2021, 46, 22268-22276.	3.8	78
2115	Synthesis of ZIF-9(III)/Co LDH layered composite from ZIF-9(I) based on controllable phase transition for enhanced electrocatalytic oxygen evolution reaction. Chemical Engineering Journal, 2021, 414, 128784.	6.6	38
2116	Progress of Nonpreciousâ€Metalâ€Based Electrocatalysts for Oxygen Evolution in Acidic Media. Advanced Materials, 2021, 33, e2003786.	11.1	166

#	Article	IF	Citations
2117	Boosting the kinetics of oxygen and hydrogen evolution in alkaline water splitting using nickel ferrite /N-graphene nanocomposite as a bifunctional electrocatalyst. International Journal of Hydrogen Energy, 2021, 46, 21512-21524.	3.8	31
2118	Hierarchical trimetallic Co-Ni-Fe oxides derived from core-shell structured metal-organic frameworks for highly efficient oxygen evolution reaction. Applied Catalysis B: Environmental, 2021, 287, 119953.	10.8	175
2119	Gold nanocrystal decorated trimetallic metal organic frameworks as high performance electrocatalysts for oxygen evolution reaction. Applied Catalysis B: Environmental, 2021, 286, 119916.	10.8	45
2120	Clean and Affordable Hydrogen Fuel from Alkaline Water Splitting: Past, Recent Progress, and Future Prospects. Advanced Materials, 2021, 33, e2007100.	11.1	781
2121	Surface Modification of Electrocatalyst for Optimal Adsorption of Reactants in Oxygen Evolution Reaction. Catalysts, 2021, 11, 717.	1.6	3
2122	Hexagonal nickel selenide nanoflakes decorated carbon fabric: An efficient binder-free water loving electrode for electrochemical water splitting. Solid State Sciences, 2021, 116, 106613.	1.5	7
2123	Integration of LaCo(OH)_x Photo-Electrocatalyst and Plasmonic Gold Nanoparticles with Sb-Doped TiO₂ Nanorods for Photoelectrochemical Water Oxidation. ACS Applied Nano Materials, 2021, 4, 6111-6123.	2.4	30
2124	Rational design of oxygen evolution reaction catalysts for seawater electrolysis. Trends in Chemistry, 2021, 3, 485-498.	4.4	105
2125	Interface engineered NiFe2O4â^'x/NiMoO4 nanowire arrays for electrochemical oxygen evolution. Applied Catalysis B: Environmental, 2021, 286, 119857.	10.8	138
2126	Palladium nanoparticles embedded in microporous carbon as electrocatalysts for water splitting in alkaline media. International Journal of Hydrogen Energy, 2021, 46, 21462-21474.	3.8	17
2127	Doubleâ€Exchangeâ€Induced in situ Conductivity in Nickelâ€Based Oxyhydroxides: An Effective Descriptor for Electrocatalytic Oxygen Evolution. Angewandte Chemie, 2021, 133, 16584-16592.	1.6	3
2128	Hydrogen Environmental Benefits Depend on the Way of Production: An Overview of the Main Processes Production and Challenges by 2050. Advanced Energy and Sustainability Research, 2021, 2, 2100093.	2.8	22
2129	Surface Electronic Modulation with Hetero-Single Atoms to Enhance Oxygen Evolution Catalysis. ACS Nano, 2021, 15, 11891-11897.	7.3	27
2130	Defect-Rich Fe-Doped CoP Nanosheets as Efficient Oxygen Evolution Electrocatalysts. Energy & Fuels, 2021, 35, 10890-10897.	2.5	17
2131	Nitrogen and Oxygen Functionalization of Multiâ€Walled Carbon Nanotubes for Tuning the Bifunctional Oxygen Reduction/Oxygen Evolution Performance of Supported FeCo Oxide Nanoparticles. ChemElectroChem, 2021, 8, 2803-2816.	1.7	13
2132	Controlled synthesis of CeOx-NiCo2O4 nanocomposite with 3D umbrella-shaped hierarchical structure: A sharp-tip enhanced electrocatalyst for efficient oxygen evolution reaction over a broad pH region. Electrochimica Acta, 2021, 382, 138345.	2.6	7
2133	In-situ transformation obtained defect-rich porous hollow CuO@CoZn-LDH nanoarrays as self-supported electrode for highly efficient overall water splitting. Chemical Engineering Journal, 2021, 414, 128809.	6.6	64
2134	Interfacial and electronic band structure optimization for the adsorption and visible-light photocatalytic activity of macroscopic ZnSnO3/graphene aerogel. Composites Part B: Engineering, 2021, 215, 108765.	5.9	65

#	Article	IF	Citations
2135	Synthesis of iron pyrite with efficient bifunctional electrocatalytic activity towards overall water splitting in alkaline medium. Bulletin of Materials Science, 2021, 44, 1.	0.8	7
2136	Dualâ€Doping and Synergism toward Highâ€Performance Seawater Electrolysis. Advanced Materials, 2021, 33, e2101425.	11.1	161
2137	Hierarchical nano/micro/macro-assembled integrated electrode with high-performance water electro-oxidation. Chemical Engineering Journal, 2021, 415, 128941.	6.6	21
2138	Metal oxides as electrocatalysts for water splitting: On plasmonâ€driven enhanced activity. Electrochemical Science Advances, 2022, 2, e2100079.	1.2	7
2139	Influence of the Amount of Carbon during the Synthesis of LaFe_{0.8}Co_{0.2}O₃/Carbon Hybrid Material in Oxygen Evolution Reaction. ACS Omega, 2021, 6, 17566-17575.	1.6	10
2140	Water oxidation with transition metal catalysts with non-innocent ligands and its mechanisms. Coordination Chemistry Reviews, 2021, 439, 213911.	9.5	27
2141	Metal hydride mediated water splitting: Electrical energy saving and decoupled H2/O2 generation. Materials Today, 2021, 47, 16-24.	8.3	13
2142	Detection of high-valent iron species in alloyed oxidic cobaltates for catalysing the oxygen evolution reaction. Nature Communications, 2021, 12, 4218.	5.8	38
2143	Combining Machine Learning and Computational Chemistry for Predictive Insights Into Chemical Systems. Chemical Reviews, 2021, 121, 9816-9872.	23.0	287
2144	Bimetal Phthalocyanineâ€Modified Carbon Nanotubeâ€Based Bifunctional Catalysts for Zincâ€Air Batteries. ChemElectroChem, 2021, 8, 2662-2670.	1.7	34
2145	Selfâ€Supporting Electrodes for Gasâ€Involved Key Energy Reactions. Advanced Functional Materials, 2021, 31, 2104620.	7.8	39
2146	Principles of Water Electrolysis and Recent Progress in Cobaltâ€, Nickelâ€, and Ironâ€Based Oxides for the Oxygen Evolution Reaction. Angewandte Chemie, 2022, 134, .	1.6	18
2147	Accelerating Optimizing the Design of Carbonâ€based Electrocatalyst via Machine Learning. Electroanalysis, 2022, 34, 599-607.	1.5	9
2148	Thermoelectric Driven Self-Powered Water Electrolyzer Using Nanostructured CuFeS₂ Plates as Bifunctional Electrocatalyst. ACS Applied Energy Materials, 2021, 4, 7020-7029.	2.5	31
2149	Density Functional Theory Studies of Heteroatom-Doped Graphene-like GaN Monolayers as Electrocatalysts for Oxygen Evolution and Reduction. ACS Applied Nano Materials, 2021, 4, 7125-7133.	2.4	9
2150	The construction of stable Ru/RuO2 porous reticular heterostructure with highly efficient electrocatalytic activity for oxygen evolution reaction. Materials Characterization, 2021, 177, 111201.	1.9	13
2151	Two-Dimensional In₂X₂Xâ€² (X and Xâ€² = S, Se, and Te) Monolayers with an Intrinsic Electric Field for High-Performance Photocatalytic and Piezoelectric Applications. ACS Applied Materials & Interfaces, 2021, 13, 34178-34187.	4.0	38
2152	Transmission electron microscopy study of CoMnO catalyst nanoparticles. Microscopy and Microanalysis, 2021, 27, 2440-2442.	0.2	0

#	Article	IF	Citations
2153	Differences and Similarities of Photocatalysis and Electrocatalysis in Two-Dimensional Nanomaterials: Strategies, Traps, Applications and Challenges. Nano-Micro Letters, 2021, 13, 156.	14.4	71
2154	3D titania nanotube array support for water electrolysis palladium catalysts. Electrochimica Acta, 2021, 383, 138338.	2.6	6
2155	Electronic Coupling of Single Atom and FePS₃ Boosts Water Electrolysis. Energy and Environmental Materials, 2022, 5, 899-905.	7.3	16
2156	Engineering Charge Redistribution within Perovskite Oxides for Synergistically Enhanced Overall Water Splitting. , 2021, 3, 1258-1265.		30
2157	Investigation of electrochemical performance of sol-gel derived MgFe2O4 nanospheres as aqueous supercapacitor electrode and bi-functional water splitting electrocatalyst in alkaline medium. Current Applied Physics, 2021, 27, 73-88.	1.1	17
2158	Anion Modulation of Ptâ€Group Metals and Electrocatalysis Applications. Chemistry - A European Journal, 2021, 27, 12257-12271.	1.7	30
2159	Boosting the activity of FeOOH via integration of ZIF-12 and graphene to efficiently catalyze the oxygen evolution reaction. International Journal of Hydrogen Energy, 2021, 46, 25050-25059.	3.8	7
2160	In Situ Coupling of MnO and Co@N-Doped Graphite Carbon Derived from Prussian Blue Analogous Achieves High-Performance Reversible Oxygen Electrocatalysis for Znâ€“Air Batteries. Inorganic Chemistry, 2021, 60, 10340-10349.	1.9	16
2161	Recent development of perovskite oxide-based electrocatalysts and their applications in low to intermediate temperature electrochemical devices. Materials Today, 2021, 49, 351-377.	8.3	91
2162	Tellurium-Incorporated Nickel-Cobalt Layered Double Hydroxide and Its Oxygen Evolution Reaction. Journal of Korean Institute of Metals and Materials, 2021, 59, 491-498.	0.4	6
2163	The Effect of Interlayer Anion Grafting on Water Oxidation Electrocatalysis: A Comparative Study of Niâ€•and Coâ€Based Bruciteâ€Type Layered Hydroxides, Layered Double Hydroxides and Hydroxynitrate Salts. Chemistry - A European Journal, 2021, 27, 16930-16937.	1.7	12
2164	Principles of Water Electrolysis and Recent Progress in Cobaltâ€, Nickelâ€, and Ironâ€Based Oxides for the Oxygen Evolution Reaction. Angewandte Chemie - International Edition, 2022, 61, .	7.2	286
2165	Boosting Photocatalytic Water Oxidation Over Bifunctional Rh 0 â€Rh 3+ Sites. Angewandte Chemie, 2021, 133, 22943.	1.6	2
2166	Engineering Ruthenium-Based Electrocatalysts for Effective Hydrogen Evolution Reaction. Nano-Micro Letters, 2021, 13, 160.	14.4	142
2167	Noble-Metal-Free Multicomponent Nanointegration for Sustainable Energy Conversion. Chemical Reviews, 2021, 121, 10271-10366.	23.0	156
2169	Research Advance of Multi-anionic Compound Nanomaterials in Electrocatalytic Water Decomposition. International Journal of Electrochemical Science, 2021, 16, 21078.	0.5	0
2170	In situ evolution of surface Co2CrO4 to CoOOH/CrOOH by electrochemical method: Toward boosting electrocatalytic water oxidation. Chinese Journal of Catalysis, 2021, 42, 1096-1101.	6.9	19
2171	Carbon Quantum Dots for Energy Applications: A Review. ACS Applied Nano Materials, 2021, 4, 6515-6541.	2.4	145

#	Article	IF	Citations
2172	Combinatorial growth of multinary nanostructured thin functional films. Materials Today, 2021, 50, 89-99.	8.3	7
2173	Conductive Polymer Intercalation Tunes Charge Transfer and Sorptionâ€"Desorption Properties of LDH Enabling Efficient Alkaline Water Oxidation. ACS Applied Materials & Interfaces, 2021, 13, 37063-37070.	4.0	19
2174	Activating Both Basal Plane and Edge Sites of Layered Cobalt Oxides for Boosted Water Oxidation. Advanced Functional Materials, 2021, 31, 2103569.	7.8	28
2175	Progress and challenges pertaining to the earthly-abundant electrocatalytic materials for oxygen evolution reaction. Sustainable Materials and Technologies, 2021, 28, e00252.	1.7	12
2176	Synergizing aliovalent doping and interface in heterostructured NiV nitride@oxyhydroxide core-shell nanosheet arrays enables efficient oxygen evolution. Nano Energy, 2021, 85, 105961.	8.2	55
2177	Boosting Photocatalytic Water Oxidation Over Bifunctional Rh⁰â€Rh³⁺ Sites. Angewandte Chemie - International Edition, 2021, 60, 22761-22768.	7.2	19
2178	Enhanced Oxygen Evolution Reaction with a Ternary Hybrid of Patroniteâ€"Carbon Nanotube-Reduced Graphene Oxide: A Synergy between Experiments and Theory. ACS Applied Materials & Interfaces, 2021, 13, 35828-35836.	4.0	11
2179	Revealing the Correlation of OER with Magnetism: A New Descriptor of Curie/Neel Temperature for Magnetic Electrocatalysts. Advanced Science, 2021, 8, e2101000.	5.6	14
2180	Electrochemical tuning of nickel molybdate nanorod arrays towards promoted electrocatalytic urea oxidization. Applied Catalysis A: General, 2021, 622, 118220.	2.2	11
2181	Ni and Co oxide water oxidation electrocatalysts: Effect of thermal treatment on catalytic activity and surface morphology. Renewable and Sustainable Energy Reviews, 2021, 145, 111097.	8.2	11
2182	Inâ€šitu Surfaceâ€šelective Removal of Al Element from NiFeAl Ternary Nanowires for Largeâ€ccurrent Oxygen Evolution Reaction. ChemNanoMat, 2021, 7, 1138.	1.5	0
2183	Emerging Dualâ€Atomicâ€Site Catalysts for Efficient Energy Catalysis. Advanced Materials, 2021, 33, e2102576.	11.1	226
2184	Heterojunction catalyst in electrocatalytic water splitting. Coordination Chemistry Reviews, 2021, 439, 213953.	9.5	195
2185	Tuning the Electrochemical Properties of Polymeric Cobalt Phthalocyanines for Efficient Water Splitting. Advanced Functional Materials, 2021, 31, 2103290.	7.8	38
2186	Efforts at Enhancing Bifunctional Electrocatalysis and Related Events for Rechargeable Zincâ€Air Batteries. ChemElectroChem, 2021, 8, 3998-4018.	1.7	36
2187	Rational construction of vertical few layer graphene/NiO core-shell nanoflake arrays for efficient oxygen evolution reaction. Materials Research Bulletin, 2021, 139, 111260.	2.7	11
2188	Leveraging metal alloy-hybrid support interaction to enhance oxygen evolution kinetics and stability in proton exchange membrane water electrolyzers. Journal of Power Sources, 2021, 501, 230002.	4.0	15
2189	Mechanism investigation of carboxyl functional groups catalytic oxidation in coal assisted water electrolysis cell. Energy, 2021, 226, 120243.	4.5	9

#	Article	IF	Citations
2190	Atomically controllable in-situ electrochemical treatment of metal-organic-framework-derived cobalt-embedded carbon composites for highly efficient electrocatalytic oxygen evolution. Applied Surface Science, 2021, 554, 149651.	3.1	11
2191	A Highlyâ€Efficient Oxygen Evolution Electrocatalyst Derived from a Metalâ€Organic Framework and Ketjenblack Carbon Material. ChemPlusChem, 2021, 86, 1106-1115.	1.3	10
2192	Stability challenges of electrocatalytic oxygen evolution reaction: From mechanistic understanding to reactor design. Joule, 2021, 5, 1704-1731.	11.7	416
2193	Rational Design of Singleâ€Atom Site Electrocatalysts: From Theoretical Understandings to Practical Applications. Advanced Materials, 2021, 33, e2008151.	11.1	175
2194	Iridium-containing water-oxidation catalysts in acidic electrolyte. Chinese Journal of Catalysis, 2021, 42, 1054-1077.	6.9	66
2195	Advanced Oxygen Electrocatalyst for Air-Breathing Electrode in Zn-Air Batteries. ACS Applied Materials & Interfaces, 2021, 13, 40172-40199.	4.0	92
2196	Plasmaâ€Assisted Synthesis of Co₃O₄â€Based Electrocatalysts on Ni Foam Substrates for the Oxygen Evolution Reaction. Advanced Materials Interfaces, 2021, 8, 2100763.	1.9	12
2197	Spin-state reconfiguration induced by alternating magnetic field for efficient oxygen evolution reaction. Nature Communications, 2021, 12, 4827.	5.8	147
2198	Boosting Oxygen Evolution Reaction on Metalloceneâ€based Transition Metal Sulfides Integrated with Nâ€doped Carbon Nanostructures. ChemSusChem, 2021, 14, 5004-5020.	3.6	12
2199	Electrocatalytic acidic oxygen evolution reaction: From nanocrystals to single atoms. Aggregate, 2021, 2, e106.	5.2	27
2200	Direct Detection of Surface Species Formed on Iridium Electrocatalysts during the Oxygen Evolution Reaction. Angewandte Chemie, 2021, 133, 21566-21573.	1.6	10
2201	Carbon-Based Composites as Electrocatalysts for Oxygen Evolution Reaction in Alkaline Media. Materials, 2021, 14, 4984.	1.3	23
2202	Platinum Nanoparticles Decorated IrO₂@MWCNT as an Improved Catalyst for Oxygen Evolution Reaction. ChemistrySelect, 2021, 6, 7542-7550.	0.7	2
2203	Applications of Atomic Layer Deposition in Design of Systems for Energy Conversion. Small, 2021, 17, e2102088.	5.2	26
2204	Non-precious metal electrocatalysts design for oxygen reduction reaction in polymer electrolyte membrane fuel cells: Recent advances, challenges and future perspectives. Coordination Chemistry Reviews, 2021, 441, 213954.	9.5	63
2205	Magnetic NiFe₂O₄ Nanoparticles Prepared via Nonâ€Aqueous Microwaveâ€Assisted Synthesis for Application in Electrocatalytic Water Oxidation. Chemistry - A European Journal, 2021, 27, 16990-17001.	1.7	21
2206	In situ growth of Co3O4 nanoneedles on titanium mesh for electrocatalytic oxygen evolution. Journal of Materials Science: Materials in Electronics, 2021, 32, 23275-23284.	1.1	5
2207	Recent advances of layered double hydroxidesâ€“based bifunctional electrocatalysts for ORR and OER. Materials Today Chemistry, 2021, 21, 100488.	1.7	15

#	Article	IF	Citations
2208	Heterostructured Auâ€“Ir Catalysts for Enhanced Oxygen Evolution Reaction. , 2021, 3, 1440-1447.		20
2209	Cleaner way for overall water splitting reaction by using palladium and cobalt based nanocomposites prepared from mixed metallosurfactants. Applied Surface Science, 2021, 556, 149769.	3.1	4
2210	Selective Electro-oxidation of Alcohols to the Corresponding Aldehydes in Aqueous Solution via Cu(III) Intermediates from CuO Nanorods. ACS Sustainable Chemistry and Engineering, 2021, 9, 11855-11861.	3.2	19
2211	Crystal and Electronic Structure Modification of Synthetic Perryite Minerals: A Facile Phase Transformation Strategy to Boost the Oxygen Evolution Reaction. Inorganic Chemistry, 2021, 60, 13607-13614.	1.9	4
2212	Experimental and theoretical realization of an advanced bifunctional 2D Î´-MnO2 electrode for supercapacitor and oxygen evolution reaction via defect engineering. International Journal of Hydrogen Energy, 2021, 46, 28028-28042.	3.8	20
2213	Insights into Improving Photoelectrochemical Waterâ€Splitting Performance Using Hematite Anode. Energy Technology, 2022, 10, 2100457.	1.8	10
2214	A review on cerium-containing electrocatalysts for oxygen evolution reaction. Functional Materials Letters, 2021, 14, .	0.7	4
2215	Strategies for the enhanced water splitting activity over metalâ€“organic frameworks-based electrocatalysts and photocatalysts. Materials Today Nano, 2021, 15, 100124.	2.3	28
2216	Composition-Balanced Bi-Metallic MOFs Directly Grown on Nickel Foam for High-Efficiency Oxygen Evolution Reaction. Journal of the Electrochemical Society, 2021, 168, 082504.	1.3	6
2217	Formation of carbon nanostructures on nickel acetate alcogel by CVD method and its OER electrocatalytic study in alkaline media. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	1.1	7
2218	Direct Detection of Surface Species Formed on Iridium Electrocatalysts during the Oxygen Evolution Reaction. Angewandte Chemie - International Edition, 2021, 60, 21396-21403.	7.2	26
2219	Bifunctional Oxygen Electrocatalysis on Mixed Metal Phthalocyanine-Modified Carbon Nanotubes Prepared via Pyrolysis. ACS Applied Materials & Interfaces, 2021, 13, 41507-41516.	4.0	65
2220	One-Pot Crystallization of 2D and 3D Cobalt-Based Metalâ€“Organic Frameworks and Their High-Performance Electrocatalytic Oxygen Evolution. Inorganic Chemistry, 2021, 60, 12685-12690.	1.9	8
2221	Theory-guided design of atomic Feâ€“Ni dual sites in N,P-co-doped C for boosting oxygen evolution reaction. Chem Catalysis, 2021, 1, 734-745.	2.9	45
2222	On the Roles of Electron Transfer in Catalysis by Nanoclusters and Nanoparticles. Chemistry - A European Journal, 2021, 27, 16291-16308.	1.7	8
2223	In situ formation of amorphous Fe-based bimetallic hydroxides from metal-organic frameworks as efficient oxygen evolution catalysts. Chinese Journal of Catalysis, 2021, 42, 1370-1378.	6.9	37
2224	Mixed-addenda polyoxometalates for enhanced electrochemical water oxidation. MRS Advances, 2021, 6, 588-593.	0.5	1
2225	Facile multilayer assemble of a mixed-valence Mn4-containing silicotungstate and its electrochemical study with Co3O4 as co-catalyst for photoelectrocatalytic water oxidation. Journal of Electroanalytical Chemistry, 2021, 894, 115339.	1.9	4

#	Article	IF	Citations
2226	(NixFeyCo6-x-y)Mo6C cuboids as outstanding bifunctional electrocatalysts for overall water splitting. Applied Catalysis B: Environmental, 2021, 290, 120049.	10.8	47
2227	Metalâ€“Organic Frameworks for Electrocatalysis: Beyond Their Derivatives. Small Science, 2021, 1, 2100015.	5.8	94
2228	Amine group ligand-modified hydrotalcite-like nano cobalt hydroxide for efficient oxygen evolution reaction. International Journal of Hydrogen Energy, 2021, 46, 29905-29915.	3.8	3
2229	Synthesis of multifunctional CdSe and Pd quantum dot decorated CdSe thin films for photocatalytic,electrocatalytic and thermoelectric applications. Surfaces and Interfaces, 2021, 25, 101149.	1.5	14
2230	Microwave-assisted hydrothermal synthesis of NiMoO4 nanorods for high-performance urea electrooxidation. Chinese Chemical Letters, 2022, 33, 1105-1109.	4.8	49
2231	Observation of a potential-dependent switch of water-oxidation mechanism on Co-oxide-based catalysts. CheM, 2021, 7, 2101-2117.	5.8	42
2232	Engineering unique Fe(SexS1â^'x)2 nanorod bundles for boosting oxygen evolution reaction. Chemical Engineering Journal, 2021, 418, 129426.	6.6	29
2233	Tailoring the bifunctional electrocatalytic activity of electrodeposited molybdenum sulfide/iron oxide heterostructure to achieve excellent overall water splitting. Chemical Engineering Journal, 2021, 417, 129333.	6.6	27
2234	How Can the Electrode Influence the Formation of the Solid Electrolyte Interface?. ACS Energy Letters, 2021, 6, 3307-3320.	8.8	60
2235	Electro catalytic oxidation reactions for harvesting alternative energy over non noble metal oxides: Are we a step closer to sustainable energy solution?. Advanced Powder Technology, 2021, 32, 2663-2689.	2.0	21
2236	Low-crystalline transition metal oxide/hydroxide on MWCNT by Fenton-reaction-inspired green synthesis for lithium ion battery and OER electrocatalysis. Electrochimica Acta, 2021, 387, 138559.	2.6	19
2237	In situ growing N and O co-doped helical carbon nanotubes encapsulated with CoFe alloy as tri-functional electrocatalyst applied in Znâ€“Air Batteries driving Water Splitting. Electrochimica Acta, 2021, 388, 138587.	2.6	19
2238	Atomic level engineering of noble metal nanocrystals for energy conversion catalysis. Journal of Energy Chemistry, 2021, 63, 604-624.	7.1	12
2239	Sequenced Successive Ionic Layer Adsorption and Reaction for Rational Design of Ni(OH)2/FeOOH Heterostructures with Tailored Catalytic Properties. ACS Applied Energy Materials, 2021, 4, 8252-8261.	2.5	6
2240	Engineering heterogeneous nickel-iron oxide/iron phosphate on P, N co-doped carbon fibers for efficient oxygen evolution reaction in neutral and alkaline solutions. Surfaces and Interfaces, 2021, 25, 101193.	1.5	6
2241	Postsynthetic treatment of nickelâ€“iron layered double hydroxides for the optimum catalysis of the oxygen evolution reaction. Npj 2D Materials and Applications, 2021, 5, .	3.9	12
2242	ZnFe2O4@ZnFe2S4 core-shell nanosheet on Ni foam as efficient and novel electrocatalyst for oxygen generation. International Journal of Hydrogen Energy, 2021, 46, 26940-26949.	3.8	9
2243	Multipronged Fabrication of Co 3 Se 4 Wrapped into Nâ€Doped Multiwall Carbon Nanotubes Tangled Hollow Dodecahedron Framework for Overall Water Splitting under Benign Condition. Advanced Materials Interfaces, 2021, 8, 2100879.	1.9	1

#	Article	IF	Citations
2244	Dual-atom catalysts: controllable synthesis and electrocatalytic applications. Science China Chemistry, 2021, 64, 1908-1922.	4.2	51
2245	Enhancing Iridium Nanoparticlesâ€™ Oxygen Evolution Reaction Activity and Stability by Adjusting the Coverage of Titanium Oxynitride Flakes on Reduced Graphene Oxide Nanoribbonsâ€™ Support. Advanced Materials Interfaces, 2021, 8, 2100900.	1.9	10
2246	A self-supporting electrode with in-situ partial transformation of Fe-MOF into amorphous NiFe-LDH for efficient oxygen evolution reaction. Applied Surface Science, 2021, 556, 149781.	3.1	47
2247	Coupled Effects of Temperature, Pressure, and pH on Water Oxidation Thermodynamics and Kinetics. ACS Catalysis, 2021, 11, 11305-11319.	5.5	9
2248	Fe3O4-Bi2O3 nanostructures for efficient energy generation application-water oxidation under visible light irradiation. Journal of Electroanalytical Chemistry, 2021, 895, 115484.	1.9	2
2249	MoO42â^' doped Ni-Fe-Se nanospheres electrodeposited on nickel foam as effective electrocatalysts for oxygen evolution reaction. Journal of Electroanalytical Chemistry, 2021, 895, 115501.	1.9	15
2250	Boosting hydrogen production via urea electrolysis on anÂamorphous nickel phosphide/graphene hybrid structure. Journal of Materials Science, 2021, 56, 17709-17720.	1.7	21
2251	<scp>Iridiumâ€cobalt</scp> alloy nanotubes as a bifunctional electrocatalyst for <scp>pHâ€universal</scp> overall water splitting. Bulletin of the Korean Chemical Society, 2021, 42, 1524-1533.	1.0	11
2252	Multiâ€Sites Electrocatalysis in Highâ€Entropy Alloys. Advanced Functional Materials, 2021, 31, 2106715.	7.8	128
2253	Exceptionally Robust Faceâ€Sharing Motifs Enable Efficient and Durable Water Oxidation. Advanced Materials, 2021, 33, e2103392.	11.1	36
2254	Coupling of Thermal and Electrochemical-Activated Stainless-Steel Mesh as a Highly Robust Electrocatalyst for Oxygen Evolution Reaction. ACS Applied Energy Materials, 2021, 4, 10404-10413.	2.5	10
2255	Iridium oxide-nickel-coated titanium anodes for the oxygen evolution reaction. Electrochimica Acta, 2021, 390, 138866.	2.6	10
2256	Porous hollow nanorod structured chromium-substituted inverse spinel compound: An efficient oxygen evolution reaction catalyst. Journal of Industrial and Engineering Chemistry, 2021, 101, 178-185.	2.9	8
2257	Boosting Water Oxidation Performance of BiVO₄ Photoanode by Vertically Stacked NiO Nanosheets Coupled with Atomically Dispersed Iridium Sites. ACS Applied Energy Materials, 2021, 4, 11353-11366.	2.5	20
2258	A hierarchical and branch-like NiCoS/NF material prepared by gradient electrodeposition method for oxygen evolution reaction. International Journal of Hydrogen Energy, 2021, 46, 36629-36639.	3.8	14
2259	Ultrafast Two-Step Synthesis of S-Doped Fe/Ni (Oxy)Hydroxide/Ni Nanocone Arrays on Carbon Cloth and Stainless-Steel Substrates for Water-Splitting Applications. ACS Applied Energy Materials, 2021, 4, 10627-10638.	2.5	15
2260	Research progress of MXene-based catalysts for electrochemical water-splitting and metal-air batteries. Energy Storage Materials, 2021, 43, 509-530.	9.5	60
2261	Highly efficient overall-water splitting enabled via grafting boron-inserted Fe-Ni solid solution nanosheets onto unconventional skeleton. Applied Catalysis B: Environmental, 2021, 292, 120188.	10.8	46

#	Article	IF	Citations
2262	Covalent organic frameworks: Advances in synthesis and applications. Materials Today Communications, 2021, 28, 102612.	0.9	18
2263	Computational Studies on Carbon Dots Electrocatalysis: A Review. Advanced Functional Materials, 2021, 31, 2107196.	7.8	46
2264	Preparation and investigation of Fe-MIL-101 as efficient catalysts for oxygen evolution reaction. Journal of Fuel Chemistry and Technology, 2021, 49, 1354-1361.	0.9	1
2265	Dual synergistic effects between Co and Mo2C in Co/Mo2C heterostructure for electrocatalytic overall water splitting. Chemical Engineering Journal, 2022, 430, 132697.	6.6	91
2266	First principles investigation on cobaltâ€“tetracyanoquinodimethane monolayer for efficient Bi-functional single atom electrocatalyst. Journal of Electroanalytical Chemistry, 2021, 897, 115602.	1.9	3
2267	Photo-bioelectrocatalytic CO2 reduction for a circular energy landscape. Joule, 2021, 5, 2564-2592.	11.7	32
2268	SrIrO3 modified with laminar Sr2IrO4 as a robust bifunctional electrocatalyst for overall water splitting in acidic media. Chemical Engineering Journal, 2021, 419, 129604.	6.6	28
2269	Selfâ€Supported Electrocatalysts for Practical Water Electrolysis. Advanced Energy Materials, 2021, 11, 2102074.	10.2	161
2270	Importance of the gas-phase error correction for O2 when using DFT to model the oxygen reduction and evolution reactions. Journal of Electroanalytical Chemistry, 2021, 896, 115178.	1.9	37
2271	Znâ€'air battery operated with a 3DOM trimetallic spinel (Mn0.5Ni0.5Co2O4) as the oxygen electrode. Electrochimica Acta, 2021, 391, 138900.	2.6	26
2272	Co0.85Se nanoparticles armored by N-doped carbon layer with electronic structure regulation functions: An efficient oxygen evolution electrocatalyst. Chemical Engineering Journal, 2021, 420, 130461.	6.6	15
2273	Quantitative Evaluation of the Activity of Low-Spin Tetravalent Nickel Ion Sites for the Oxygen Evolution Reaction. ACS Applied Energy Materials, 2021, 4, 10731-10738.	2.5	5
2274	Wood aerogel-derived sandwich-like layered nanoelectrodes for alkaline overall seawater electrosplitting. Applied Catalysis B: Environmental, 2021, 293, 120215.	10.8	112
2275	Recent development in electrocatalysts for hydrogen production through water electrolysis. International Journal of Hydrogen Energy, 2021, 46, 32284-32317.	3.8	236
2276	Synergistic phosphorized NiFeCo and MXene interaction inspired the formation of high-valence metal sites for efficient oxygen evolution. Journal of Materials Science and Technology, 2022, 106, 90-97.	5.6	35
2277	Constructing a Graphene-Encapsulated Amorphous/Crystalline Heterophase NiFe Alloy by Microwave Thermal Shock for Boosting the Oxygen Evolution Reaction. ACS Catalysis, 2021, 11, 12284-12292.	5.5	93
2278	Facile oneâ€step synthesis of Ru doped NiCoP nanoparticles as highly efficient electrocatalysts for oxygen evolution reaction. Chemistry - an Asian Journal, 2021, 16, 3630-3635.	1.7	5
2279	Using a combination of Co, Mo, and Pt oxides along with graphene nanoribbon and MoSe2 as efficient catalysts for OER and HER. Electrochimica Acta, 2021, 391, 138907.	2.6	40

#	Article	IF	Citations
2280	Ni_{0.67}Fe_{0.33} Hydroxide Incorporated with Oxalate for Highly Efficient Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2021, 13, 42870-42879.	4.0	30
2281	A new catalyst based on a nickel(II) complex of diiminodiphosphine for hydrogen evolution and oxidation. International Journal of Hydrogen Energy, 2021, 46, 32480-32489.	3.8	15
2282	Unraveling Nanoscale Cobalt Oxide Catalysts for the Oxygen Evolution Reaction: Maximum Performance, Minimum Effort. Journal of the American Chemical Society, 2021, 143, 15022-15038.	6.6	44
2283	Tuning the Cationic Ratio of Fe1CoxNiyP Integrated on Vertically Aligned Reduced Graphene Oxide Array via Electroless Plating as Efficient Self-Supported Bifunctional Electrocatalyst for Water Splitting. Journal of Electrochemical Energy Conversion and Storage, 2022, 19, .	1.1	6
2284	S doped Cu2O-CuO nanoneedles array: Free standing oxygen evolution electrode with high efficiency and corrosion resistance for seawater splitting. Catalysis Today, 2022, 400-401, 14-25.	2.2	36
2285	NiCo-Based Electrocatalysts for the Alkaline Oxygen Evolution Reaction: A Review. ACS Catalysis, 2021, 11, 12485-12509.	5.5	204
2286	Anchoring Sites Engineering in Singleâ€Atom Catalysts for Highly Efficient Electrochemical Energy Conversion Reactions. Advanced Materials, 2021, 33, e2102801.	11.1	64
2287	Applied Machine Learning for Developing Nextâ€Generation Functional Materials. Advanced Functional Materials, 2021, 31, 2104195.	7.8	28
2288	Atomicâ€Strain Mapping of Highâ€Index Facets in Lateâ€Transitionâ€Metal Nanoparticles for Electrocatalysis. Angewandte Chemie - International Edition, 2021, 60, 22996-23001.	7.2	16
2289	Detection of Spontaneous FeOOH Formation at the Hematite/Ni(Fe)OOH Interface During Photoelectrochemical Water Splitting by Operando X-ray Absorption Spectroscopy. ACS Catalysis, 2021, 11, 12324-12335.	5.5	18
2290	Atomicâ€Strain Mapping of Highâ€Index Facets in Lateâ€Transitionâ€Metal Nanoparticles for Electrocatalysis. Angewandte Chemie, 2021, 133, 23178.	1.6	0
2291	Selenization triggers deep reconstruction to produce ultrathin Î³-NiOOH toward the efficient water oxidation. Journal of Energy Chemistry, 2021, 63, 651-658.	7.1	13
2292	Construction of hydroxide pn junction for water splitting electrocatalysis. Applied Catalysis B: Environmental, 2021, 292, 120160.	10.8	78
2293	Mesoporous WC x Films with NiOâ€Protected Surface: Highly Active Electrocatalysts for the Alkaline Oxygen Evolution Reaction. ChemSusChem, 2021, 14, 4708-4717.	3.6	3
2294	One-dimensional iridium-based nanowires for efficient water electrooxidation and beyond. Nano Research, 2022, 15, 1087-1093.	5.8	25
2295	Understanding the Electronic Structure Evolution of Epitaxial LaNi_{1â€“x}Fe_xO₃ Thin Films for Water Oxidation. Nano Letters, 2021, 21, 8324-8331.	4.5	31
2296	Porous metal-organic framework (MOF)-based and MOF-derived electrocatalytic materials for energy conversion. Materials Today Energy, 2021, 21, 100816.	2.5	45
2297	Electrocatalysts for the oxygen evolution reaction in alkaline and neutral media. A comparative review. Journal of Power Sources, 2021, 507, 230072.	4.0	93

#	Article	IF	Citations
2298	La/Ce doped CoFe layered double hydroxides (LDH) highly enhanced oxygen evolution performance of water splitting. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 625, 126896.	2.3	31
2299	Utilizing tannic acid and polypyrrle to induce reconstruction to optimize the activity of MOF-derived electrocatalyst for water oxidation in seawater. Chemical Engineering Journal, 2022, 430, 132632.	6.6	15
2300	Ni Nanoparticles on Ni Core/N-Doped Carbon Shell Heterostructures for Electrocatalytic Oxygen Evolution. ACS Applied Nano Materials, 2021, 4, 9418-9429.	2.4	21
2301	Tuning Metal Elements in Open Frameworks for Efficient Oxygen Evolution and Oxygen Reduction Reaction Catalysts. ACS Applied Materials & Interfaces, 2021, 13, 42715-42723.	4.0	17
2302	Electrocatalytic activity of various hexagonal ferrites in OER process. Materials Chemistry and Physics, 2021, 270, 124818.	2.0	51
2303	Co3O4@carbon with high Co2+/Co3+ ratios derived from ZIF-67 supported on N-doped carbon nanospheres as stable bifunctional oxygen catalysts. Materials Today Energy, 2021, 21, 100737.	2.5	25
2304	Heterostructuring Mesoporous 2D Iridium Nanosheets with Amorphous Nickel Boron Oxide Layers to Improve Electrolytic Water Splitting. Small Methods, 2021, 5, e2100679.	4.6	40
2305	Three-dimensional porous ultrathin carbon networks reinforced PBAs-derived electrocatalysts for efficient oxygen evolution. Chemical Engineering Journal, 2021, 419, 129575.	6.6	27
2306	IrO_x@In₂O₃ Heterojunction from Individually Crystallized Oxides for Weakâ€Lightâ€Promoted Electrocatalytic Water Oxidation. Angewandte Chemie, 2021, 133, 26994-27001.	1.6	4
2307	Cu-Co bimetal oxide hierarchical nanostructures as high-performance electrocatalyst for oxygen evolution reaction. Materials Today Energy, 2021, 21, 100703.	2.5	5
2308	Fascinating Tin Effects on the Enhanced and Large-Current-Density Water Splitting Performance of Snâ€“Ni(OH)₂. ACS Applied Materials & Interfaces, 2021, 13, 42861-42869.	4.0	30
2309	Decorating MOF-74-derived nanocarbons with a sandwich-type polyoxometalate to enhance their OER activity: Exploring the underestimated bulk-deposition approach. Electrochimica Acta, 2021, 389, 138719.	2.6	16
2310	Construction of iridium oxide nanoparticle modified indium tin oxide electrodes with polycarboxylic acids and pyrophosphoric acid and their application to water oxidation reactions. Electrochimica Acta, 2021, 389, 138683.	2.6	4
2311	Structural and Interfacial Engineering of Ni₂P/Fe₃O₄ Porous Nanosheet Arrays for Efficient Oxygen Evolution Reaction. Inorganic Chemistry, 2021, 60, 14786-14792.	1.9	6
2312	Metal-substituted zirconium diboride (Zr1-TMB2; TMÂ=ÂNi, Co, and Fe) as low-cost and high-performance bifunctional electrocatalyst for water splitting. Electrochimica Acta, 2021, 389, 138789.	2.6	22
2313	Carbon nanorod supported metal alloy nanocubes using polydopamine as location reagent for water splitting. International Journal of Hydrogen Energy, 2021, 46, 36023-36036.	3.8	3
2314	Ligand Functionalized Ironâ€Based Metalâ€Organic Frameworks for Efficient Electrocatalytic Oxygen Evolution. ChemCatChem, 2021, 13, 4976-4984.	1.8	10
2315	Coreâ€“Shell Structured Cu(OH)₂@NiFe(OH)_x Nanotube Electrocatalysts for Methanol Oxidation Based Hydrogen Evolution. ACS Applied Nano Materials, 2021, 4, 8723-8732.	2.4	14

#	Article	IF	Citations
2316	Self-Supportive Bimetallic Selenide Heteronanostructures as High-Efficiency Electro(pre)catalysts for Water Oxidation. ACS Sustainable Chemistry and Engineering, 2021, 9, 13114-13123.	3.2	15
2317	Earth-Abundant Fe and Ni Dually Doped Co₂P for Superior Oxygen Evolution Reactivity and as a Bifunctional Electrocatalyst toward Renewable Energy-Powered Overall Alkaline Water Splitting. ACS Applied Energy Materials, 2021, 4, 9969-9981.	2.5	18
2318	Enhancing the Supply of Activated Hydrogen to Promote Photocatalytic Nitrogen Fixation. , 2021, 3, 1521-1527.		35
2319	Doping modification, defects construction, and surface engineering: Design of cost-effective high-performance electrocatalysts and their application in alkaline seawater splitting. Nano Energy, 2021, 87, 106160.	8.2	57
2320	Structural Transformation of Heterogeneous Materials for Electrocatalytic Oxygen Evolution Reaction. Chemical Reviews, 2021, 121, 13174-13212.	23.0	262
2321	Vertical-crystalline Fe-doped Î²-Ni oxyhydroxides for highly active and stable oxygen evolution reaction. Matter, 2021, 4, 3585-3604.	5.0	34
2322	Electrocatalytic Oxygen Evolution Reaction in Acidic Conditions: Recent Progress and Perspectives. ChemSusChem, 2021, 14, 4636-4657.	3.6	28
2323	Copper-doped ruthenium oxide as highly efficient electrocatalysts for the evolution of oxygen in acidic media. Journal of Alloys and Compounds, 2022, 892, 162113.	2.8	20
2324	Nanostructured Metal Borides for Energyâ€Related Electrocatalysis: Recent Progress, Challenges, and Perspectives. Small Methods, 2021, 5, e2100699.	4.6	47
2325	In Situ Construction of Flexible Vï£¿Ni Redox Centers over Niâ€Based MOF Nanosheet Arrays for Electrochemical Water Oxidation. Small Methods, 2021, 5, e2100573.	4.6	28
2326	Impact of Iron in Three-Dimensional Co-MOF for Electrocatalytic Water Oxidation. Inorganic Chemistry, 2022, 61, 62-72.	1.9	20
2327	IrO_x@In₂O₃ Heterojunction from Individually Crystallized Oxides for Weakâ€Lightâ€Promoted Electrocatalytic Water Oxidation. Angewandte Chemie - International Edition, 2021, 60, 26790-26797.	7.2	23
2328	Material libraries for electrocatalytic overall water splitting. Coordination Chemistry Reviews, 2021, 444, 214049.	9.5	123
2329	Surface restructuring of hematite photoanodes through ultrathin NiFeOx Catalyst: Amplified charge collection for solar water splitting and pollutant degradation. Chemical Engineering Journal, 2021, 422, 130137.	6.6	31
2330	Au-Ru alloy nanofibers as a highly stable and active bifunctional electrocatalyst for acidic water splitting. Applied Surface Science, 2021, 563, 150293.	3.1	25
2331	Nano-engineering of Ru-based hierarchical porous nanoreactors for highly efficient pH-universal overall water splitting. Applied Catalysis B: Environmental, 2021, 294, 120230.	10.8	49
2332	Metal oxides supported cobalt nanoparticles: Active electrocatalysts for oxygen evolution reaction. Electrochimica Acta, 2021, 393, 139053.	2.6	19
2333	Multifunctional Metalâ€oxide Integrated Monolayer Graphene Heterostructures for Planar, Flexible, and Skinâ€mountable Device Applications. Nano Energy, 2021, 88, 106274.	8.2	11

#	Article	IF	Citations
2334	Atmospheric pressure plasma engineered superhydrophilic CuO surfaces with enhanced catalytic activities. Applied Surface Science, 2021, 564, 150413.	3.1	9
2335	Co1-xS/N-doped graphene foam composite as efficient bifunctional electrocatalysts for the evolution reaction of oxygen and hydrogen. Electrochimica Acta, 2021, 393, 139081.	2.6	8
2336	Surface modification of SnO2 nanosheets via ultrathin N-doped carbon layers for improving CO2 electrocatalytic reduction. Chemical Engineering Journal, 2021, 421, 130003.	6.6	31
2337	Self-supported metal sulfide electrode for flexible quasi-solid-state zinc-air batteries. Journal of Alloys and Compounds, 2021, 878, 160434.	2.8	10
2338	Chemical synthesis of a microsphere-like copper molybdate electrode for oxygen evolution reaction. Surfaces and Interfaces, 2021, 26, 101425.	1.5	8
2339	Construction of iron doped cobalt- vanadate- cobalt oxide with metal-organic framework oriented nanoflakes for portable rechargeable zinc-air batteries powered total water splitting. Nano Energy, 2021, 88, 106238.	8.2	72
2340	Accessing the spatiotemporal heterogeneities of single nanocatalysts by optically imaging gas nanobubbles. Current Opinion in Colloid and Interface Science, 2021, 55, 101465.	3.4	7
2341	Design of bimetallic nickel-iron quantum dots with tunable compositions for enhanced electrochemical water splitting. Electrochimica Acta, 2021, 392, 139016.	2.6	8
2342	Self-supporting NiFe LDH-MoS integrated electrode for highly efficient water splitting at the industrial electrolysis conditions. Chinese Journal of Catalysis, 2021, 42, 1732-1741.	6.9	50
2343	Fluorination-assisted preparation of self-supporting single-atom Fe-N-doped single-wall carbon nanotube film as bifunctional oxygen electrode for rechargeable Zn-Air batteries. Applied Catalysis B: Environmental, 2021, 294, 120239.	10.8	70
2344	Non-noble metal (Ni, Cu)-carbon composite derived from porous organic polymers for high-performance seawater electrolysis. Environmental Pollution, 2021, 289, 117861.	3.7	9
2345	Stable and high-performance Ir electrocatalyst with boosted utilization efficiency in acidic overall water splitting. Chemical Engineering Journal, 2021, 424, 130337.	6.6	23
2346	In situ transformed three heteroleptic Co(II)-MOFs as potential electrocatalysts for the electrochemical oxygen evolution reaction. Electrochimica Acta, 2021, 395, 139117.	2.6	5
2347	W-induced morphological modification of NiFe layered double hydroxides as efficient electrocatalysts for overall water splitting. Electrochimica Acta, 2021, 395, 139199.	2.6	32
2348	Hollow and substrate-supported Prussian blue, its analogs, and their derivatives for green water splitting. Chinese Journal of Catalysis, 2021, 42, 1843-1864.	6.9	19
2349	Sulfur-modified nickel selenide as an efficient electrocatalyst for the oxygen evolution reaction. Journal of Energy Chemistry, 2021, 62, 198-203.	7.1	35
2350	Ni2+/Co2+ doped Au-Fe7S8 nanoplatelets with exceptionally high oxygen evolution reaction activity. Nano Energy, 2021, 89, 106463.	8.2	45
2351	Single noble metal atoms doped 2D materials for catalysis. Applied Catalysis B: Environmental, 2021, 297, 120389.	10.8	49

#	Article	IF	Citations
2352	Self-template synthesis of hollow Fe-doped CoP prisms with enhanced oxygen evolution reaction activity. Journal of Energy Chemistry, 2021, 62, 415-422.	7.1	60
2353	Highly efficient CoFe2O4 electrocatalysts prepared facilely by metal-organic decomposition process for the oxygen evolution reaction. Electrochimica Acta, 2021, 395, 139195.	2.6	15
2354	Transforming bad electrocatalysts into good ones: Dual functional hot H2S treatment. Applied Catalysis B: Environmental, 2021, 296, 120284.	10.8	3
2355	Exceptional lattice-oxygen participation on artificially controllable electrochemistry-induced crystalline-amorphous phase to boost oxygen-evolving performance. Applied Catalysis B: Environmental, 2021, 297, 120484.	10.8	41
2356	Recent progress on transition metal oxides as advanced materials for energy conversion and storage. Energy Storage Materials, 2021, 42, 317-369.	9.5	113
2357	Regulating the electronic structure of Ni3S2 nanorods by heteroatom vanadium doping for high electrocatalytic performance. Electrochimica Acta, 2021, 395, 139180.	2.6	13
2358	In-situ growth of CoFeS2 on metal-organic frameworks-derived Co-NC polyhedron enables high-performance oxygen electrocatalysis for rechargeable zinc-air batteries. Journal of Power Sources, 2021, 512, 230430.	4.0	25
2359	Designing a spontaneously deriving NiFe-LDH from bimetallic MOF-74 as an electrocatalyst for oxygen evolution reaction in alkaline solution. Chemical Engineering Journal, 2021, 423, 130204.	6.6	50
2360	Fabrication of MOFsâ€™ derivatives assisted perovskite nanocrystal on TiO2 photoanode for photoelectrochemical glycerol oxidation with simultaneous hydrogen production. Applied Catalysis B: Environmental, 2021, 296, 120382.	10.8	30
2361	Ternary metal-based inverse spinel oxide NiCrFeO4 nanoparticles as a highly efficient oxygen evolution catalyst. Applied Surface Science, 2021, 566, 150653.	3.1	9
2362	A high-performance electrocatalyst composed of nickel clusters encapsulated with a carbon network on TiN nanaowire arrays for the oxygen evolution reaction. Applied Surface Science, 2021, 567, 150779.	3.1	25
2363	An efficient dual-metal single-atom catalyst for bifunctional catalysis in zinc-air batteries. Carbon, 2021, 185, 526-535.	5.4	60
2364	Large-scale synthesis of low-cost bimetallic polyphthalocyanine for highly stable water oxidation. Applied Catalysis B: Environmental, 2021, 299, 120637.	10.8	39
2365	Fully exposed edge/corner active sites in Fe substituted-Ni(OH)2 tube-in-tube arrays for efficient electrocatalytic oxygen evolution. Applied Catalysis B: Environmental, 2021, 298, 120558.	10.8	26
2366	Surface reconstruction on silver nanoparticles decorated trimetallic hydroxide nanosheets to generate highly active oxygen-deficient (oxy)hydroxide layer for high-efficient water oxidation. Chemical Engineering Journal, 2021, 425, 131662.	6.6	19
2367	Iron doped cobalt fluoride derived from CoFe layered double hydroxide for efficient oxygen evolution reaction. Chemical Engineering Journal, 2021, 425, 130686.	6.6	53
2368	Efficient electrocatalytic water splitting by bimetallic cobalt iron boride nanoparticles with controlled electronic structure. Journal of Colloid and Interface Science, 2021, 604, 650-659.	5.0	32
2369	Defect enriched hierarchical iron promoted Bi2MoO6 hollow spheres as efficient electrocatalyst for water oxidation. Chemical Engineering Journal, 2021, 426, 131884.	6.6	16

#	Article	IF	Citations
2370	In situ semi-sacrificial template-assisted growth of ultrathin metalâ€“organic framework nanosheets for electrocatalytic oxygen evolution. Chemical Engineering Journal, 2021, 426, 131348.	6.6	25
2371	Interfacial heteroâ€phase construction in nickel/molybdenum selenide hybrids to promote the water splitting performance. Applied Materials Today, 2021, 25, 101175.	2.3	12
2372	Thermal-driven coordination adaption of metal sites in layered double hydroxides towards high-performance water oxidation. Materials Today Communications, 2021, 29, 102836.	0.9	0
2373	Hierarchically constructed Ag nanowires shelled with ultrathin Co-LDH nanosheets for advanced oxygen evolution reaction. Applied Catalysis B: Environmental, 2021, 298, 120601.	10.8	67
2374	Structure inheritance strategy from MOF to edge-enriched NiFe-LDH array for enhanced oxygen evolution reaction. Applied Catalysis B: Environmental, 2021, 298, 120580.	10.8	82
2375	Optional construction of Cu2O@Fe2O3@CC architecture as a robust multifunctional photoelectronic catalyst for overall water splitting and CO2 reduction. Chemical Engineering Journal, 2021, 426, 131192.	6.6	21
2376	Theoretical and experimental exploration of tri-metallic organic frameworks (t-MOFs) for efficient electrocatalytic oxygen evolution reaction. Applied Catalysis B: Environmental, 2021, 299, 120665.	10.8	43
2377	Cathodic plasma driven self-assembly of HEAs dendrites by pure single FCC FeCoNiMnCu nanoparticles as high efficient electrocatalysts for OER. Chemical Engineering Journal, 2021, 425, 131533.	6.6	51
2378	Recent progress of electrospun porous carbon-based nanofibers for oxygen electrocatalysis. Materials Today Energy, 2021, 22, 100850.	2.5	18
2379	Integrating high-efficiency oxygen evolution catalysts featuring accelerated surface reconstruction from waste printed circuit boards via a boriding recycling strategy. Applied Catalysis B: Environmental, 2021, 298, 120583.	10.8	31
2380	MoO3 crystal facets modulation by doping heteroatom Fe from polyoxometalate for quasi-industrial oxygen evolution reaction. Applied Catalysis B: Environmental, 2021, 298, 120582.	10.8	49
2381	Electron density modulation of MoP by rare earth metal as highly efficient electrocatalysts for pH-universal hydrogen evolution reaction. Applied Catalysis B: Environmental, 2021, 299, 120657.	10.8	57
2382	CoNi nanoalloys embedded in N-doped carbon nanofibers derived from layered bimetal-organic framework and as efficient oxygen electrocatalyst. Journal of Alloys and Compounds, 2021, 888, 161588.	2.8	10
2383	Efficient preparation of Ni-M (MÂ=ÂFe, Co, Mo) bimetallic oxides layer on Ni nanorod arrays for electrocatalytic oxygen evolution. Applied Materials Today, 2021, 25, 101185.	2.3	10
2384	Boosting overall water splitting by incorporating sulfur into NiFe (oxy)hydroxide. Journal of Energy Chemistry, 2022, 64, 364-371.	7.1	68
2385	Gold nanodot assembly within a cobalt chalcogenide nanoshell: Promotion of electrocatalytic activity. Journal of Colloid and Interface Science, 2022, 605, 274-285.	5.0	5
2386	Tuning electrochemical transformation process of zeolitic imidazolate framework for efficient water oxidation activity. Journal of Energy Chemistry, 2022, 65, 505-513.	7.1	23
2387	Creating anion defects on hollow CoxNi1-xO concave with dual binding sites as high-efficiency sulfur reduction reaction catalyst. Chemical Engineering Journal, 2022, 427, 132024.	6.6	13

#	Article	IF	Citations
2388	Enhanced bifunctional catalytic activities of N-doped graphene by Ni in a 3D trimodal nanoporous nanotubular network and its ultralong cycling performance in Zn-air batteries. Journal of Energy Chemistry, 2022, 66, 466-473.	7.1	18
2389	Understanding the activity and stability of flame-made Co3O4 spinels: A route towards the scalable production of highly performing OER electrocatalysts. Chemical Engineering Journal, 2022, 429, 132180.	6.6	56
2390	Improving oxygen evolution reaction activity by constructing core-shell structure of Co/N-doped carbon polyhedron@NiCo layered double hydroxides. Journal of Alloys and Compounds, 2022, 890, 161805.	2.8	12
2391	Hetero-structural mass transfer channel boosts electrocatalytic oxygen reactions of metallic catalyst. Chemical Engineering Journal, 2022, 428, 131140.	6.6	7
2392	Ultraviolet/ozone treatment for boosting OER activity of MOF nanoneedle arrays. Chemical Engineering Journal, 2022, 427, 131498.	6.6	26
2393	Minimal lanthanum-doping triggered enhancement in bifunctional water splitting activity of molybdenum oxide/sulfide heterostructure through structural evolution. Chemical Engineering Journal, 2022, 428, 131131.	6.6	15
2394	Electrochemically engineered zinc(iron)oxyhydroxide/zinc ferrite heterostructure with interfacial microstructure and hydrophilicity ideal for supercapacitors. Journal of Colloid and Interface Science, 2022, 606, 607-617.	5.0	8
2395	Gram-Scale production of Cu3P-Cu2O Janus nanoparticles into nitrogen and phosphorous doped porous carbon framework as bifunctional electrocatalysts for overall water splitting. Chemical Engineering Journal, 2022, 427, 130946.	6.6	88
2396	1 T-MoSe2 monolayer supported single Pd atom as a highly-efficient bifunctional catalyst for ORR/OER. Journal of Colloid and Interface Science, 2022, 605, 155-162.	5.0	55
2397	Progress in the development of heteroatom-doped nickel phosphates for electrocatalytic water splitting. Journal of Colloid and Interface Science, 2022, 607, 1091-1102.	5.0	76
2398	Correlating the electronic structure of perovskite La1â˜'Sr CoO3 with activity for the oxygen evolution reaction: The critical role of Co 3d hole state. Journal of Energy Chemistry, 2022, 65, 637-645.	7.1	39
2399	Interfacial engineering-induced electronic regulation drastically enhances the electrocatalytic oxygen evolution: Immobilization of Janus-structured NiS/NiO nanoparticles onto carbon nanotubes/nanofiber-integrated superstructures. Chemical Engineering Journal, 2022, 428, 131094.	6.6	23
2400	Metal-organic framework derived CeO2/C nanorod arrays directly grown on nickel foam as a highly efficient electrocatalyst for OER. Fuel, 2022, 307, 121823.	3.4	35
2401	Boosting oxygen evolution activity of nickel iron hydroxide by iron hydroxide colloidal particles. Journal of Colloid and Interface Science, 2022, 606, 518-525.	5.0	12
2402	High entropy alloy/C nanoparticles derived from polymetallic MOF as promising electrocatalysts for alkaline oxygen evolution reaction. Chemical Engineering Journal, 2022, 429, 132410.	6.6	84
2403	Amorphous High-entropy Non-precious metal oxides with surface reconstruction toward highly efficient and durable catalyst for oxygen evolution reaction. Journal of Colloid and Interface Science, 2022, 606, 635-644.	5.0	42
2404	Reticulated porous carbon foam with cobalt oxide nanoparticles for excellent oxygen evolution reaction. Materials Chemistry and Physics, 2022, 275, 125131.	2.0	4
2405	In situ recycling of particulate matter for a high-performance supercapacitor and oxygen evolution reaction. Materials Chemistry Frontiers, 2021, 5, 2742-2748.	3.2	1

#	Article	IF	Citations
2406	Dealloyed RuNiO_x as a robust electrocatalyst for the oxygen evolution reaction in acidic media. Dalton Transactions, 2021, 50, 5124-5127.	1.6	6
2407	ORR/OER activity and zinc-air battery performance of various kinds of graphene-based air catalysts. Materials Science for Energy Technologies, 2021, 4, 1-22.	1.0	6
2408	A CoV2O4 precatalyst for the oxygen evolution reaction: highlighting the importance of postmortem electrocatalyst characterization. Chemical Communications, 2021, 57, 883-886.	2.2	3
2409	Ethylene glycol-mediated one-pot synthesis of Fe incorporated Î±-Ni(OH)₂ nanosheets with enhanced intrinsic electrocatalytic activity and long-term stability for alkaline water oxidation. Dalton Transactions, 2021, 50, 7305-7313.	1.6	11
2410	A self-supported FeNi layered double hydroxide anode with high activity and long-term stability for efficient oxygen evolution reaction. Sustainable Energy and Fuels, 2021, 5, 3205-3212.	2.5	3
2411	Controllable synthesis of single-layer graphene over cobalt nanoparticles and insight into active sites for efficient oxygen evolution. Journal of Materials Chemistry A, 2021, 9, 12060-12073.	5.2	9
2412	Self-supported wire-in-plate NiFeS/CoS nanohybrids with a hierarchical structure for efficient overall water splitting. Dalton Transactions, 2021, 50, 5921-5930.	1.6	23
2413	Oxygen-evolution reactions (OER) on transition-metal-doped Fe₃Co(PO₄)₄ iron-phosphate surfaces: a first-principles study. Catalysis Science and Technology, 2021, 11, 4619-4626.	2.1	4
2414	A cobalt oxideâ€“polypyrrole nanocomposite as an efficient and stable electrode material for electrocatalytic water oxidation. Sustainable Energy and Fuels, 2021, 5, 4710-4723.	2.5	5
2415	Metal-ionic-conductor potassium ferrite nanocrystals with intrinsic superhydrophilic surfaces for electrocatalytic water splitting at ultrahigh current densities. Journal of Materials Chemistry A, 2021, 9, 7586-7593.	5.2	40
2416	Electrocatalysis using nanomaterials. Frontiers of Nanoscience, 2021, 18, 343-420.	0.3	2
2417	Tipâ€Enhanced Electric Field: A New Mechanism Promoting Mass Transfer in Oxygen Evolution Reactions. Advanced Materials, 2021, 33, e2007377.	11.1	179
2418	Advancing the extended roles of 3D transition metal based heterostructures with copious active sites for electrocatalytic water splitting. Dalton Transactions, 2021, 50, 13176-13200.	1.6	17
2419	Coâ€“Feâ€“Cr (oxy)Hydroxides as Efficient Oxygen Evolution Reaction Catalysts. Advanced Energy Materials, 2021, 11, 2003412.	10.2	94
2420	Synergistic effects of Co/CoO nanoparticles on imine-based covalent organic frameworks for enhanced OER performance. Nanoscale, 2021, 13, 14854-14865.	2.8	24
2421	A nitrogen-doped NiCo2S4/CoO hollow multi-layered heterostructure microsphere for efficient oxygen evolution in Znâ€“air batteries. Nanoscale, 2021, 13, 810-818.	2.8	38
2422	Ni₂P nanoflakes for the high-performing urea oxidation reaction: linking active sites to a UOR mechanism. Nanoscale, 2021, 13, 1759-1769.	2.8	106
2423	The in situ derivation of a NiFe-LDH ultra-thin layer on Ni-BDC nanosheets as a boosted electrocatalyst for the oxygen evolution reaction. CrystEngComm, 2021, 23, 1172-1180.	1.3	17

#	Article	IF	Citations
2424	Anodized Nickel Foam for Oxygen Evolution Reaction in Fe-Free and Unpurified Alkaline Electrolytes at High Current Densities. ACS Nano, 2021, 15, 3468-3480.	7.3	54
2425	Revealing the effect of interfacial electron transfer in heterostructured Co₉S₈@NiFe LDH for enhanced electrocatalytic oxygen evolution. Journal of Materials Chemistry A, 2021, 9, 12244-12254.	5.2	52
2426	Improving the performance stability of direct seawater electrolysis: from catalyst design to electrode engineering. Nanoscale, 2021, 13, 15177-15187.	2.8	48
2427	Facile water oxidation by dinuclear mixed-valence Co^{III}/Co^{II} complexes: the role of coordinated water. Dalton Transactions, 2021, 50, 14257-14263.	1.6	4
2428	Rational catalyst design for oxygen evolution under acidic conditions: strategies toward enhanced electrocatalytic performance. Journal of Materials Chemistry A, 2021, 9, 5890-5914.	5.2	65
2429	Tailoring oxygen evolution reaction activity of metal-oxide spinel nanoparticles via judiciously regulating surface-capping polymers. Journal of Materials Chemistry A, 2021, 9, 20375-20384.	5.2	14
2430	Boosting OER performance of IrO₂ in acid via urchin-like hierarchical-structure design. Dalton Transactions, 2021, 50, 6083-6087.	1.6	18
2431	Local spin-state tuning of cobaltâ€“iron selenide nanoframes for the boosted oxygen evolution. Energy and Environmental Science, 2021, 14, 365-373.	15.6	159
2432	Transition metal-based bimetallic MOFs and MOF-derived catalysts for electrochemical oxygen evolution reaction. Energy and Environmental Science, 2021, 14, 1897-1927.	15.6	415
2433	Non-carbon-supported single-atom site catalysts for electrocatalysis. Energy and Environmental Science, 2021, 14, 2809-2858.	15.6	198
2434	A New High Entropy Glycerate for High Performance Oxygen Evolution Reaction. Advanced Science, 2021, 8, 2002446.	5.6	95
2435	Constructing Ni/NiS Heteronanoparticle-Embedded Metalâ€“Organic Framework-Derived Nanosheets for Enhanced Water-Splitting Catalysis. ACS Sustainable Chemistry and Engineering, 2021, 9, 1920-1931.	3.2	72
2436	Preparation and Electrocatalytic Performance of Binary Layered Cobalt-Doped Manganese Oxide. Material Sciences, 2021, 11, 453-461.	0.0	0
2437	Low-temperature water electrolysis. , 2021, , 17-50.		3
2438	Low temperature scalable synthetic approach enabling high bifunctional electrocatalytic performance of NiCo₂S₄ and CuCo₂S₄ thiospinels. RSC Advances, 2021, 11, 31533-31546.	1.7	6
2439	MOF-derived M-OOH with rich oxygen defects by in situ electro-oxidation reconstitution for a highly efficient oxygen evolution reaction. Journal of Materials Chemistry A, 2021, 9, 11415-11426.	5.2	34
2440	â€œHighwayâ€•Toward Efficient Water Oxidation. Matter, 2021, 4, 21-22.	5.0	7
2441	Metalâ€“Organic Framework-Derived Bimetallic NiFe Selenide Electrocatalysts with Multiple Phases for Efficient Oxygen Evolution Reaction. ACS Sustainable Chemistry and Engineering, 2021, 9, 2047-2056.	3.2	159

#	Article	IF	Citations
2442	Self-assembled CoSe₂â€“FeSe₂ heteronanoparticles along the carbon nanotube network for boosted oxygen evolution reaction. Nanoscale, 2021, 13, 9651-9658.	2.8	38
2443	Autologous manganese phosphates with different Mn sites for electrocatalytic water oxidation. Chemical Communications, 2021, 57, 6165-6168.	2.2	8
2444	Emerging dynamic structure of electrocatalysts unveiled byin situX-ray diffraction/absorption spectroscopy. Energy and Environmental Science, 2021, 14, 1928-1958.	15.6	179
2445	Mechanochemically Synthetized PAN-Based Co-N-Doped Carbon Materials as Electrocatalyst for Oxygen Evolution Reaction. Nanomaterials, 2021, 11, 290.	1.9	10
2446	Controlled assembly of cobalt embedded N-doped graphene nanosheets (Co@NGr) by pyrolysis of a mixed ligand Co(<scp>ii</scp>) MOF as a sacrificial template for high-performance electrocatalysts. RSC Advances, 2021, 11, 21179-21188.	1.7	9
2447	Electrochemically dealloyed nanoporous Fe₄₀Ni₂₀Co₂₀P₁₅C₅ metallic glass for efficient and stable electrocatalytic hydrogen and oxygen generation. RSC Advances, 2021, 11, 7369-7380.	1.7	13
2448	Review on Synthesis and Catalytic Coupling Mechanism of Highly Active Electrocatalysts for Water Splitting. Energy Technology, 2021, 9, 2000855.	1.8	11
2449	Twoâ€Dimensional Metalâ€Organic Framework Nanosheet Supported Noble Metal Nanocrystals for Highâ€Efficiency Water Oxidation. Advanced Materials Interfaces, 2021, 8, 2002034.	1.9	21
2450	Periodic nanostructures: preparation, properties and applications. Chemical Society Reviews, 2021, 50, 6423-6482.	18.7	34
2451	Understanding the efficient electrocatalytic activities of MoSe₂â€“Cu₂S nanoheterostructures. Journal of Materials Chemistry A, 2021, 9, 9837-9848.	5.2	31
2452	Surface enrichment of iridium on IrCo alloys for boosting hydrogen production. Journal of Materials Chemistry A, 2021, 9, 16898-16905.	5.2	65
2453	Hierarchical MoO₄^{2â€“} Intercalating Î±-Co(OH)₂ Nanosheet Assemblies: Green Synthesis and Ultrafast Reconstruction for Boosting Electrochemical Oxygen Evolution. Energy & Fuels, 2021, 35, 2775-2784.	2.5	13
2454	Redox-inactive metal single-site molecular complexes: a new generation of electrocatalysts for oxygen evolution?. Catalysis Science and Technology, 2021, 11, 6411-6424.	2.1	4
2455	A fast and general approach to produce a carbon coated Janus metal/oxide hybrid for catalytic water splitting. Journal of Materials Chemistry A, 2021, 9, 7606-7616.	5.2	17
2456	Structural Dynamics of Ultrathin Cobalt Oxide Nanoislands under Potential Control. Advanced Functional Materials, 2021, 31, 2009923.	7.8	26
2457	Boosting eco-friendly hydrogen generation by urea-assisted water electrolysis using spinel M₂GeO₄(M = Fe, Co) as an active electrocatalyst. Environmental Science: Nano, 2021, 8, 3110-3121.	2.2	24
2458	Engineering Bimetallic NiFeâ€Based Hydroxides/Selenides Heterostructure Nanosheet Arrays for Highlyâ€Efficient Oxygen Evolution Reaction. Small, 2021, 17, e2007334.	5.2	103
2459	Covalent organic frameworks (COFs) for electrochemical applications. Chemical Society Reviews, 2021, 50, 6871-6913.	18.7	461

#	Article	IF	Citations
2460	Active Phase on SrCo_{1â€“x}Fe_xO_{3â^Î´} (0 â‰¤ x â‰¤ 0.5) Perovskite for Water Oxidation: Reconstructed Surface versus Remaining Bulk. Jacs Au, 2021, 1, 108-115.	3.6	47
2461	Fe-doping induced localized amorphization in ultrathin Î±-Ni(OH)₂ nanomesh for superior oxygen evolution reaction catalysis. Journal of Materials Chemistry A, 2021, 9, 14372-14380.	5.2	44
2462	Replacement of Ca by Ni in a Perovskite Titanate to Yield a Novel Perovskite Exsolution Architecture for Oxygenâ€Evolution Reactions. Advanced Energy Materials, 2020, 10, 1903693.	10.2	53
2463	Threeâ€Dimensional Hierarchical Architectures Derived from Surfaceâ€Mounted Metalâ€“Organic Framework Membranes for Enhanced Electrocatalysis. Angewandte Chemie, 2017, 129, 13969-13973.	1.6	42
2464	Designing Selfâ€Supported Metalâ€Organic Framework Derived Catalysts for Electrochemical Water Splitting. Chemistry - an Asian Journal, 2020, 15, 607-623.	1.7	48
2465	Rechargeable Photoactive Znâ€Air Batteries Using NiCo₂S₄ as an Efficient Bifunctional Photocatalyst towards OER/ORR at the Cathode. Batteries and Supercaps, 2020, 3, 541-547.	2.4	40
2466	Interface Chemistry of Platinum-Based Materials for Electrocatalytic Hydrogen Evolution in Alkaline Conditions. , 2020, , 453-473.		3
2467	Modulating interfacial electronic structure of CoNi LDH nanosheets with Ti3C2T MXene for enhancing water oxidation catalysis. Chemical Engineering Journal, 2020, 398, 125605.	6.6	113
2468	In-situ growth of novel CNTs-graphene hybrid structure on Ni-silica nanocomposites by CVD method for oxygen evolution reaction. Ceramics International, 2020, 46, 19158-19169.	2.3	28
2469	Covalent Organic Frameworks for Catalysis. EnergyChem, 2020, 2, 100035.	10.1	129
2470	Molecular reactions and oxidation corrosion on UN (001) surface under exposure to environment gases: A DFT study. Journal of Nuclear Materials, 2020, 533, 152095.	1.3	5
2471	POM derived UOR and HER bifunctional NiS/MoS2 composite for overall water splitting. Journal of Solid State Chemistry, 2020, 292, 121644.	1.4	26
2472	Selectively etched graphene encapsulated CoFe catalyst for zinc-air battery application. Materials Today Energy, 2020, 17, 100438.	2.5	8
2473	Reviving Inert Oxides for Electrochemical Water Splitting by Subsurface Engineering. Chemistry of Materials, 2020, 32, 5569-5578.	3.2	11
2474	A Review on Advanced FeNi-Based Catalysts for Water Splitting Reaction. Energy & Fuels, 2020, 34, 13491-13522.	2.5	158
2475	Rapid Synthesis of Large-Size Fe₂O₃ Nanoparticle Decorated NiO Nanosheets via Electrochemical Exfoliation for Enhanced Oxygen Evolution Electrocatalysis. Inorganic Chemistry, 2021, 60, 959-966.	1.9	29
2476	Electrochemical Reconstruction of Zn_{0.3}Co_{2.7}(PO₄)₂Â·4H₂O for Enhanced Water Oxidation Performance. ACS Applied Energy Materials, 2020, 3, 12088-12098.	2.5	17
2477	Three-Dimensional Ordered Macroporous NiFe₂O₄ Self-Supporting Electrode with Enhanced Mass Transport for High-Efficiency Oxygen Evolution Reaction. ACS Applied Energy Materials, 2021, 4, 268-274.	2.5	14

#	Article	IF	Citations
2478	Gd-Doped Ni-Oxychloride Nanoclusters: New Nanoscale Electrocatalysts for High-Performance Water Oxidation through Surface and Structural Modification. ACS Applied Materials & Interfaces, 2021, 13, 468-479.	4.0	33
2479	Surface Tuning to Promote the Electrocatalysis for Oxygen Evolution Reaction: From Metal-Free to Cobalt-Based Carbon Electrocatalysts. ACS Applied Materials & Interfaces, 2021, 13, 503-513.	4.0	13
2480	Electrocatalytic Oxidation of Glycerol to Formic Acid by CuCo₂O₄ Spinel Oxide Nanostructure Catalysts. ACS Catalysis, 2020, 10, 6741-6752.	5.5	221
2481	Effect of the Morphology of the High-Surface-Area Support on the Performance of the Oxygen-Evolution Reaction for Iridium Nanoparticles. ACS Catalysis, 2021, 11, 670-681.	5.5	40
2482	Corrosion engineering towards efficient oxygen evolution electrodes with stable catalytic activity for over 6000 hours. Nature Communications, 2018, 9, 2609.	5.8	389
2483	Highly efficient oxygen evolution reaction via facile bubble transport realized by three-dimensionally stack-printed catalysts. Nature Communications, 2020, 11, 4921.	5.8	93
2484	Combined high alkalinity and pressurization enable efficient CO₂ electroreduction to CO. Energy and Environmental Science, 2018, 11, 2531-2539.	15.6	214
2485	Hierarchical Co₃O₄ nanorods anchored on nitrogen doped reduced graphene oxide: a highly efficient bifunctional electrocatalyst for rechargeable Znâ€“air batteries. Catalysis Science and Technology, 2020, 10, 1444-1457.	2.1	13
2486	Recent catalytic routes for the preparation and the upgrading of biomass derived furfural and 5-hydroxymethylfurfural. Chemical Society Reviews, 2020, 49, 4273-4306.	18.7	559
2487	Plasma modified BiOCl/sulfonated graphene microspheres as efficient photo-compensated electrocatalysts for the oxygen evolution reaction. Catalysis Science and Technology, 2020, 10, 4786-4793.	2.1	12
2488	Surface-coordinated metalâ€“organic framework thin films (SURMOFs) for electrocatalytic applications. Nanoscale, 2020, 12, 12712-12730.	2.8	35
2489	Rational prediction of multifunctional bilayer single atom catalysts for the hydrogen evolution, oxygen evolution and oxygen reduction reactions. Nanoscale, 2020, 12, 20413-20424.	2.8	17
2490	One-step fabrication of a self-supported Co@CoTe₂ electrocatalyst for efficient and durable oxygen evolution reactions. Inorganic Chemistry Frontiers, 2020, 7, 2523-2532.	3.0	37
2491	NaV₆O₁₅ microflowers as a stable cathode material for high-performance aqueous zinc-ion batteries. RSC Advances, 2020, 10, 6807-6813.	1.7	23
2492	Electrosynthesis of CuO nanocrystal array as a highly efficient and stable electrocatalyst for oxygen evolution reaction. Chinese Journal of Chemical Physics, 2018, 31, 806-812.	0.6	3
2493	Ideal design of air electrodeâ€”A step closer toward robust rechargeable Znâ€“air battery. APL Materials, 2020, 8, .	2.2	27
2494	Grain boundary engineering of Co₃O₄ nanomeshes for efficient electrochemical oxygen evolution. Nanotechnology, 2020, 31, 455401.	1.3	11
2495	Carbon-Decorated Fe₃S₄-Fe₇Se₈ Hetero-Nanowires: Interfacial Engineering for Bifunctional Electrocatalysis Toward Hydrogen and Oxygen Evolution Reactions. Journal of the Electrochemical Society, 2020, 167, 086501.	1.3	14

#	Article	IF	Citations
2496	Transition-Metal Chalcogenides for Oxygen-Evolution Reaction. Materials Research Foundations, 2019, , 141-168.	0.2	1
2497	Controlled Deposition of Iridium Oxide Nanoparticles on Graphene. Electrochemistry, 2020, 88, 392-396.	0.6	2
2498	Particle size-controlled synthesis of high-performance MnCo-based materials for alkaline OER at fluctuating potentials. Catalysis Science and Technology, 2021, 11, 7278-7286.	2.1	8
2499	Stabilizing oxygen intermediates on redox-flexible active sites in multimetallic Niâ€“Feâ€“Alâ€“Co layered double hydroxide anodes for excellent alkaline and seawater electrolysis. Journal of Materials Chemistry A, 2021, 9, 27332-27346.	5.2	33
2500	Atmosphere-sensitive photoluminescence of CoxFe3â^'xO4 metal oxide nanoparticles. RSC Advances, 2021, 11, 33905-33915.	1.7	1
2501	Positive self-reconstruction in an FeNiMo phosphide electrocatalyst for enhanced overall water splitting. Sustainable Energy and Fuels, 2021, 5, 5789-5797.	2.5	5
2502	A graphene-like nanoribbon for efficient bifunctional electrocatalysts. Journal of Materials Chemistry A, 2021, 9, 26688-26697.	5.2	10
2503	Enhanced activity towards oxygen electrocatalysis for rechargeable Znâ€“air batteries by alloying Fe and Co in N-doped carbon. Dalton Transactions, 2021, 50, 16185-16190.	1.6	6
2504	Self-supported Cu₃P nanowire electrode as an efficient electrocatalyst for the oxygen evolution reaction. RSC Advances, 2021, 11, 34137-34143.	1.7	10
2505	Fundamental understanding of electrochemical catalytic performance of carbonized natural wood: wood species and carbonization temperature. Sustainable Energy and Fuels, 2021, 5, 6077-6084.	2.5	9
2506	Enhanced oxygen evolution activity on mesoporous cobaltâ€“iron oxides. Chemical Communications, 2021, 57, 11843-11846.	2.2	11
2507	Modular design of an efficient heterostructured FeS₂/TiO₂ oxygen evolution electrocatalyst via sulfidation of natural ilmenites. Journal of Materials Chemistry A, 2021, 9, 25032-25041.	5.2	26
2508	Design principles of noble metal-free electrocatalysts for hydrogen production in alkaline media: combining theory and experiment. Nanoscale Advances, 2021, 3, 6797-6826.	2.2	23
2509	Multianion Transition Metal Compounds: Synthesis, Regulation, and Electrocatalytic Applications. Accounts of Materials Research, 2021, 2, 1082-1092.	5.9	13
2510	Activity Origins of Graphdiyne Based Bifunctional Atom Catalysts for Hydrogen Evolution and Water Oxidation. Chemical Research in Chinese Universities, 2021, 37, 1334-1340.	1.3	4
2511	A self-healing catalyst for electrocatalytic and photoelectrochemical oxygen evolution in highly alkaline conditions. Nature Communications, 2021, 12, 5980.	5.8	88
2512	Progress in Development of Nanostructured Manganese Oxide as Catalyst for Oxygen Reduction and Evolution Reaction. Energies, 2021, 14, 6385.	1.6	13
2513	A highly efficient A-site deficient perovskite interlaced within two dimensional MXene nanosheets as an active electrocatalyst for hydrogen production. International Journal of Hydrogen Energy, 2022, 47, 37476-37489.	3.8	20

#	Article	IF	Citations
2514	Research Progress of Oxygen Evolution Reaction Catalysts for Electrochemical Water Splitting. ChemSusChem, 2021, 14, 5359-5383.	3.6	70
2515	Synergistic Effect of Bimetallic Sulfide Synthesized by a Simple Solvothermal Method for High-Efficiency Oxygen Evolution Reaction. Energy & Fuels, 2021, 35, 17869-17875.	2.5	5
2516	Gel-like State of Nickel Hydroxide Created by Electrochemical Aging under Alkaline Conditions. ACS Applied Energy Materials, 2021, 4, 10668-10681.	2.5	1
2517	Si-Based Metalâ€“Insulatorâ€“Semiconductor Structures with RuO₂â€“(IrO₂) Films for Photoelectrochemical Water Oxidation. ACS Applied Energy Materials, 2021, 4, 11162-11172.	2.5	7
2518	Recent Progress of Metal Organic Frameworksâ€Based Electrocatalysts for Hydrogen Evolution, Oxygen Evolution, and Oxygen Reduction Reaction. Energy and Environmental Materials, 2022, 5, 1084-1102.	7.3	24
2519	Improved Interface Charge Transfer and Redistribution in CuOâ€CoOOH pâ€n Heterojunction Nanoarray Electrocatalyst for Enhanced Oxygen Evolution Reaction. Advanced Science, 2021, 8, e2103314.	5.6	100
2520	NiFe-layered double hydroxideÂarrays for oxygen evolution reaction in fresh water and seawater. Materials Today Energy, 2021, 22, 100883.	2.5	26
2521	Emerging Electrocatalysts for Water Oxidation under Nearâ€Neutral CO₂ Reduction Conditions. Advanced Materials, 2022, 34, e2105852.	11.1	34
2522	Metallic Gold-Incorporated Ni(OH)₂ for Enhanced Water Oxidation in an Alkaline Medium: A Simple Wet-Chemical Approach. Inorganic Chemistry, 2021, 60, 15818-15829.	1.9	18
2523	Defect-Engineered NiCo-S Composite as a Bifunctional Electrode for High-Performance Supercapacitor and Electrocatalysis. ACS Applied Materials & Interfaces, 2021, 13, 47717-47727.	4.0	61
2524	Surface-coordinated metal-organic framework thin films (SURMOFs): From fabrication to energy applications. EnergyChem, 2021, 3, 100065.	10.1	25
2525	Graphene composites with Ru-RuO2 heterostructures: Highly efficient Mottâ€“Schottky-type electrocatalysts for pH-universal water splitting and flexible zincâ€“air batteries. Applied Catalysis B: Environmental, 2022, 302, 120838.	10.8	124
2526	Recent advances in Niâ€Fe (Oxy)hydroxide electrocatalysts for the oxygen evolution reaction in alkaline electrolyte targeting industrial applications. Nano Select, 2022, 3, 766-791.	1.9	16
2527	Chemical Kinetics of Parallel Consuming Processes for Photogenerated Charges at the Semiconductor Surfaces: A Theoretical Classical Calculation. Catalysis Letters, 0, , 1.	1.4	4
2528	Recent advances and perspectives of metal/covalent-organic frameworks in metal-air batteries. Journal of Energy Chemistry, 2021, 63, 113-129.	7.1	25
2529	Scalable Synthesis of Sm₂O₃/Fe₂O₃ Hierarchical Oxygen Vacancy-Based Gyroid-Inspired Morphology: With Enhanced Electrocatalytic Activity for Oxygen Evolution Performance. Energy & Fuels, 2021, 35, 17820-17832.	2.5	32
2530	Solar-Driven Water Splitting at 13.8% Solar-to-Hydrogen Efficiency by an Earth-Abundant Electrolyzer. ACS Sustainable Chemistry and Engineering, 2021, 9, 14070-14078.	3.2	15
2531	Identification of the Active-Layer Structures for Acidic Oxygen Evolution from 9R-BaIrO₃ Electrocatalyst with Enhanced Iridium Mass Activity. Journal of the American Chemical Society, 2021, 143, 18001-18009.	6.6	73

#	Article	IF	Citations
2532	Compensating Electronic Effect Enables Fast Siteâ€toâ€Site Electron Transfer over Ultrathin RuMn Nanosheet Branches toward Highly Electroactive and Stable Water Splitting. Advanced Materials, 2021, 33, e2105308.	11.1	73
2534	Resorcinol/Formaldehyde polymer derived carbon protected CoSe 2 nanocubes: A nonâ€precious, efficient, and durable electrocatalyst for oxygen evolution reaction. Electrochemical Science Advances, 0, , e2100064.	1.2	0
2535	Synergistic Role of Eg Filling and Anionâ€“Cation Hybridization in Enhancing the Oxygen Evolution Reaction Activity in Nickelates. ACS Applied Energy Materials, 0, , .	2.5	7
2536	Recent progress on bimetallic NiCo and CoFe based electrocatalysts for alkaline oxygen evolution reaction: A review. Journal of Energy Chemistry, 2022, 67, 101-137.	7.1	109
2537	Torsion strained iridium oxide for efficient acidic water oxidation in proton exchange membrane electrolyzers. Nature Nanotechnology, 2021, 16, 1371-1377.	15.6	197
2538	Construction of two-dimensional CoPS3@defective N-doped carbon composites for enhanced oxygen evolution reaction. International Journal of Hydrogen Energy, 2021, , .	3.8	10
2539	Degradation: A critical challenge for Mâ€“Nâ€“C electrocatalysts. Journal of Energy Chemistry, 2021, 63, 667-674.	7.1	21
2540	Concurrent H₂ Generation and Formate Production Assisted by CO₂ Absorption in One Electrolyzer. Small Methods, 2021, 5, e2100871.	4.6	9
2541	Graphitic Carbon Nitride Composites with MoO₃-Decorated Co₃O₄ Nanorods as Catalysts for Oxygen and Hydrogen Evolution. ACS Applied Nano Materials, 2021, 4, 12672-12681.	2.4	49
2542	N, H Dualâ€Doped Black Anatase TiO₂ Thin Films toward Significant Selfâ€Activation in Electrocatalytic Hydrogen Evolution Reaction in Alkaline Media. Advanced Energy and Sustainability Research, 2022, 3, 2100137.	2.8	8
2543	A comprehensive review on the recent developments in transition metal-based electrocatalysts for oxygen evolution reaction. Applied Surface Science Advances, 2021, 6, 100184.	2.9	66
2544	Nanostructured Co3O4 electrocatalyst for OER: The role of organic polyelectrolytes as soft templates. Electrochimica Acta, 2021, 398, 139338.	2.6	30
2545	One-pot synthesis of Ni3S2/Co3S4/FeOOH flower-like microspheres on Ni foam: An efficient binder-free bifunctional electrode towards overall water splitting. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 631, 127689.	2.3	9
2546	Strengthening oxygen reduction activity and stability of carbon-supported platinum nanoparticles by fluorination. Electrochimica Acta, 2021, 399, 139409.	2.6	7
2547	Artificial Photosynthesis: An Approach for a Sustainable Future. , 2018, , 1-25.		1
2548	Design of Metal-free Nanocatalysts. RSC Catalysis Series, 2019, , 163-183.	0.1	0
2549	Artificial Photosynthesis: An Approach for a Sustainable Future. , 2019, , 1909-1933.		0
2550	Development of Energy Conversion Catalytic Materials Based on Surface Scientific Approach. Materia Japan, 2019, 58, 328-332.	0.1	0

#	Article	IF	Citations
2551	Self-supported Electrocatalysts. Engineering Materials, 2020, , 177-209.	0.3	1
2552	Strain-Induced Microstructure Damage in SrCoO_{3â^Î´} Thin Films during the Oxygen Evolution Reaction. ACS Applied Energy Materials, 2021, 4, 12696-12702.	2.5	5
2553	In Situ Fabrication of Nickelâ€“Iron Oxalate Catalysts for Electrochemical Water Oxidation at High Current Densities. ACS Applied Materials & Interfaces, 2021, 13, 52620-52628.	4.0	36
2554	Novel fluorine-doped cobalt molybdate nanosheets with enriched oxygen-vacancies for improved oxygen evolution reaction activity. Applied Catalysis B: Environmental, 2022, 303, 120871.	10.8	69
2555	Tuning metal catalysts via nitrogen-doped nanocarbons for energy chemistry: From metal nanoparticles to single metal sites. EnergyChem, 2021, 3, 100066.	10.1	31
2558	Recent advances in structural engineering of 2D hexagonal boron nitride electrocatalysts. Nano Energy, 2022, 91, 106661.	8.2	49
2559	Platinum Nanocrystal Assisted by Lowâ€Content Iridium for Highâ€Performance Flexible Electrode: Applications on Neural Interface, Water Oxidation, and Antiâ€Microbial Contamination. Advanced Materials Interfaces, 2021, 8, 2100965.	1.9	7
2560	In Situ Electrocatalytic Infrared Spectroscopy for Dynamic Reactions. Journal of Physical Chemistry C, 2021, 125, 24289-24300.	1.5	23
2561	Nickel Iron Phosphide/Phosphate as an Oxygen Bifunctional Electrocatalyst for High-Power-Density Rechargeable Znâ€“Air Batteries. ACS Applied Materials & Interfaces, 2021, 13, 52487-52497.	4.0	28
2562	Surface Reconstruction of Perovskites for Water Oxidation: The Role of Initial Oxidesâ€™ Bulk Chemistry. Small Science, 2022, 2, 2100048.	5.8	21
2565	Enhanced oxygen evolution reaction on polyethyleneimine functionalized graphene oxide in alkaline medium. Molecular Catalysis, 2021, 516, 111960.	1.0	1
2566	A synergistic charge-transfer mechanism to improve the electrocatalytic oxygen evolution reaction on a novel Pt-MOF composite. MRS Advances, 2021, 6, 856.	0.5	0
2567	Double-atom catalysts as a molecular platform for heterogeneous oxygen evolution electrocatalysis. Nature Energy, 2021, 6, 1054-1066.	19.8	159
2568	The evolution of bimetal hydroxide fragments from brucite to goethite in metal-organic frameworks for enhanced oxygen evolution reaction. Journal of Solid State Chemistry, 2020, 292, 121751.	1.4	0
2569	Recent advances of anion regulated NiFe-based electrocatalysts for water oxidation. Sustainable Energy and Fuels, 2021, 5, 6298-6309.	2.5	7
2570	Exploiting the flexibility of the pyrochlore composition for acid-resilient iridium oxide electrocatalysts in proton exchange membranes. Journal of Materials Chemistry A, 2021, 9, 25114-25127.	5.2	8
2571	Bimetallic metalâ€“organic frameworks and MOF-derived composites: Recent progress on electro- and photoelectrocatalytic applications. Coordination Chemistry Reviews, 2022, 451, 214264.	9.5	203
2572	Sacrificial templating synthesis of metal-organic framework hybrid nanosheets as efficient pre-electrocatalyst for oxygen evolution reaction in alkaline. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 632, 127745.	2.3	7

#	Article	IF	Citations
2573	PBA composites and their derivatives in energy and environmental applications. Coordination Chemistry Reviews, 2022, 451, 214260.	9.5	80
2574	Self-reconstruction of a MOF-derived chromium-doped nickel disulfide in electrocatalytic water oxidation. Chemical Engineering Journal, 2022, 430, 133046.	6.6	22
2575	Structurally engineered vitamin B12 on graphene as a bioinspired metalâ€“Nâ€“C-based electrocatalyst for effective overall water splitting in alkaline media. Applied Surface Science, 2022, 575, 151729.	3.1	9
2576	MOF-Derived Nanoparticles and Single Atoms for Electrochemical Reactions. ACS Symposium Series, 2020, , 127-149.	0.5	0
2577	Controllable synthesis of N-doped carbon nanohorns: tip from closed to half-closed, used as efficient electrocatalysts for oxygen evolution reaction. RSC Advances, 2021, 11, 35463-35471.	1.7	10
2578	Synergistic optimization promoted overall water splitting of CoSe@NiSe₂@MoS₂ heterostructured composites. Chemical Communications, 2021, 57, 12516-12519.	2.2	14
2579	Functionalized nanomaterials for electronics and electrical and energy industries. , 2020, , 269-296.		2
2580	Bifunctional nanocatalysts for water splitting and its challenges. , 2020, , 59-95.		1
2581	Supported Vanadium Catalysts: Heterogeneous Molecular Complexes, Electrocatalysis and Biomass Transformation. RSC Catalysis Series, 2020, , 241-284.	0.1	0
2582	Transcription methodology for rationally designed morphological complex metal oxides: a versatile strategy for improved electrocatalysis. Sustainable Energy and Fuels, 2021, 5, 6392-6405.	2.5	3
2583	Electronic configuration modulation of tin dioxide by phosphorus dopant for pathway change in electrocatalytic water oxidation. Inorganic Chemistry Frontiers, 2021, 9, 83-89.	3.0	5
2584	Preparation of CoSOH/Co(OH)2 composite nanosheets and its catalytic performance for oxygen evolution. Journal of Fuel Chemistry and Technology, 2021, 49, 1549-1557.	0.9	3
2585	Recent advances of two-dimensional CoFe layered-double-hydroxides for electrocatalytic water oxidation. Chinese Chemical Letters, 2022, 33, 2845-2855.	4.8	15
2586	Ce-Doped FeNi-Layered Double Hydroxide Nanosheets Grown on an Open-Framework Nickel Phosphate Nanorod Array for Oxygen Evolution Reaction. ACS Applied Energy Materials, 2021, 4, 12836-12847.	2.5	13
2587	Rechargeable aqueous Zn-based energy storage devices. Joule, 2021, 5, 2845-2903.	11.7	201
2588	Self-templated formation of twin-like metal-organic framework nanobricks as pre-catalysts for efficient water oxidation. Nano Research, 2022, 15, 2887-2894.	5.8	12
2589	Highâ€Entropy Alloys for Electrocatalysis: Design, Characterization, and Applications. Small, 2022, 18, e2104339.	5.2	82
2590	Nickel-foam supported cobalt fluoride hydroxide crystallites as an efficient and durable electrocatalyst for oxygen evolution reaction. Materials Letters, 2022, 308, 131207.	1.3	2

#	Article	IF	Citations
2591	Bimetallic cobalt-nickel coordination polymer electrocatalysts for enhancing oxygen evolution reaction. Chinese Chemical Letters, 2022, 33, 2928-2932.	4.8	24
2592	Construction of Ni(CN)₂/NiSe₂ Heterostructures by Stepwise Topochemical Pathways for Efficient Electrocatalytic Oxygen Evolution. Advanced Materials, 2022, 34, e2104405.	11.1	73
2593	In Situ/Operando Insights into the Stability and Degradation Mechanisms of Heterogeneous Electrocatalysts. Small, 2022, 18, e2104205.	5.2	14
2594	Why shouldnâ€™t double-layer capacitance (Cdl) be always trusted to justify Faradaic electrocatalytic activity differences?. Journal of Electroanalytical Chemistry, 2021, 903, 115842.	1.9	42
2595	Reduction of CO2 by photoelectrochemical process using nonâ€oxide twoâ€dimensional nanomaterials â€•a review. ChemElectroChem, 2021, 8, 4305.	1.7	8
2596	Facile Synthesis of Mesoporous Co3O4/CoO on rGO Nanocomposites as Highly Active and Stable Oxygen Bi-Functional Electrocatalysts. Journal of the Electrochemical Society, 2020, 167, 134509.	1.3	0
2597	The Effect of Cation Mixing in LiNiO 2 toward the Oxygen Evolution Reaction. ChemElectroChem, 2021, 8, 70-76.	1.7	4
2598	Recent advances in carbon substrate supported nonprecious nanoarrays for electrocatalytic oxygen evolution. Journal of Materials Chemistry A, 2021, 9, 25773-25795.	5.2	71
2599	Metal halide perovskites for photocatalysis applications. Journal of Materials Chemistry A, 2022, 10, 407-429.	5.2	61
2600	In situ studies of energy-related electrochemical reactions using Raman and X-ray absorption spectroscopy. Chinese Journal of Catalysis, 2022, 43, 33-46.	6.9	28
2601	Defective high-entropy rocksalt oxide with enhanced metalâ€'oxygen covalency for electrocatalytic oxygen evolution. Chinese Journal of Catalysis, 2022, 43, 122-129.	6.9	50
2602	Epitaxial oxide thin films for oxygen electrocatalysis: A tutorial review. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2022, 40, 010801.	0.9	12
2603	Tracking high-valent surface iron species in the oxygen evolution reaction on cobalt iron (oxy)hydroxides. Energy and Environmental Science, 2022, 15, 206-214.	15.6	59
2604	Simultaneously achieving fast sulfur redox kinetics and high-loading in lithiumâ€“sulfur batteries. Carbon, 2022, 187, 451-461.	5.4	19
2605	Recycling spent water treatment adsorbents for efficient electrocatalytic water oxidation reaction. Resources, Conservation and Recycling, 2022, 178, 106037.	5.3	48
2606	Hierarchical sulphide - phosphide NiSP /NF catalyst prepared by gradient electrodeposition for oxygen evolution reaction. Journal of Alloys and Compounds, 2022, 895, 162675.	2.8	12
2607	Metal-organic framework-derived FeS2/CoNiSe2 heterostructure nanosheets for highly-efficient oxygen evolution reaction. Applied Surface Science, 2022, 578, 152016.	3.1	17
2608	Unveiling the Impact of Fe Incorporation on Intrinsic Performance of Reconstructed Water Oxidation Electrocatalyst. ACS Energy Letters, 2021, 6, 4345-4354.	8.8	67

#	Article	IF	Citations
2609	Epitaxially Grown Ru Clustersâ€“Nickel Nitride Heterostructure Advances Water Electrolysis Kinetics in Alkaline and Seawater Media. Energy and Environmental Materials, 2023, 6, .	7.3	48
2610	Critical Review, Recent Updates on Zeolitic Imidazolate Frameworkâ€67 (ZIFâ€67) and Its Derivatives for Electrochemical Water Splitting. Advanced Materials, 2022, 34, e2107072.	11.1	183
2611	Aerosol-Assisted Chemical Vapor Deposition Growth of NiMoO₄ Nanoflowers on Nickel Foam as Effective Electrocatalysts toward Water Oxidation. ACS Omega, 2021, 6, 31339-31347.	1.6	17
2612	Plasmon-Accelerated Water Oxidation at Ni-Modified Au Nanodimers on TiO₂ Single Crystals. ACS Energy Letters, 2021, 6, 4374-4382.	8.8	14
2613	Engineering Efficient NiIr_x/CNT Hybrid Nanostructures for pH-Universal Oxygen Evolution. Journal of Physical Chemistry C, 2021, 125, 26003-26012.	1.5	6
2614	A Pacmanâ€Like Titaniumâ€Doped Cobalt Sulfide Hollow Superstructure for Electrocatalytic Oxygen Evolution. Small, 2022, 18, e2103106.	5.2	28
2615	An overview on advances in design and development of materials for electrochemical generation of hydrogen and oxygen. Materials Today Energy, 2022, 23, 100902.	2.5	33
2616	Highly Mesoporous Cobalt-Hybridized 2D Cu₃P Nanosheet Arrays as Boosting Janus Electrocatalysts for Water Splitting. Inorganic Chemistry, 2021, 60, 18325-18336.	1.9	8
2617	Synergistic electronic and morphological modulation by trace Ir introduction boosting oxygen evolution performance over a wide pH range. Chemical Engineering Journal, 2022, 433, 133577.	6.6	7
2618	Observation of 4th-order water oxidation kinetics by time-resolved photovoltage spectroscopy. IScience, 2021, 24, 103500.	1.9	8
2619	Hollow CoP Encapsulated in an N-Doped Carbon Nanocage as an Efficient Bifunctional Electrocatalyst for Overall Water Splitting. ACS Applied Nano Materials, 2021, 4, 13450-13458.	2.4	20
2620	Surface chemical reconstruction of hierarchical hollow inverse-spinel manganese cobalt oxide boosting oxygen evolution reaction. Chemical Engineering Journal, 2022, 431, 133829.	6.6	72
2621	Manipulation on Two-Dimensional Amorphous Nanomaterials for Enhanced Electrochemical Energy Storage and Conversion. Nanomaterials, 2021, 11, 3246.	1.9	7
2622	Metal-containing covalent organic framework: a new type of photo/electrocatalyst. Rare Metals, 2022, 41, 1160-1175.	3.6	16
2623	Fluoride Perovskite (KNi_xCo_{1â€“x}F₃) Oxygen-Evolution Electrocatalyst with Highly Polarized Electronic Configuration. ACS Applied Energy Materials, 2021, 4, 13425-13430.	2.5	12
2624	Construction of SbVO4@Co Foam Heterostructure as Efficient (Photo)electrocatalyst for Oxygen Evolution Reaction. Journal of Electronic Materials, 0, , 1.	1.0	1
2625	Electrochemical incorporation of heteroatom into surface reconstruction induced Ni vacancy of NixO nanosheet for enhanced water oxidation. Journal of Colloid and Interface Science, 2022, 608, 3030-3039.	5.0	9
2626	1T-Phase molybdenum sulfide/cobalt oxide nanopillars hybrid nanostructure coupled with nitrogen-doped carbon thin-film as high efficiency electrocatalyst for oxygen evolution. Journal of Colloid and Interface Science, 2022, 608, 3040-3048.	5.0	2

#	Article	IF	Citations
2627	High-purity and high-concentration liquid fuels through CO2 electroreduction. Nature Catalysis, 2021, 4, 943-951.	16.1	143
2628	Critical aspects in the development of anodes for use in seawater electrolysis. International Journal of Hydrogen Energy, 2022, 47, 3532-3549.	3.8	30
2629	Crystallinity-Modulated Co_{2â€“x}V_xO₄ Nanoplates for Efficient Electrochemical Water Oxidation. ACS Catalysis, 2021, 11, 14884-14891.	5.5	23
2630	Self-supported 2D Fe-doped Ni-MOF nanosheets as highly efficient and stable electrocatalysts for benzylamine oxidation. Applied Surface Science, 2022, 578, 152065.	3.1	15
2631	Electrochemically Fabricated Superhydrophilic/Superaerophobic Manganese Oxide Nanowires at Discontinuous Solidâ€“Liquid Interfaces for Enhanced Oxygen Evolution Performances. Advanced Materials Interfaces, 2022, 9, 2101478.	1.9	8
2632	Ionomer-Free Nickel-Iron bimetallic electrodes for efficient anion exchange membrane water electrolysis. Chemical Engineering Journal, 2022, 433, 133774.	6.6	22
2633	In-situ generated hydroxides realize near-unity CO selectivity for electrochemical CO2 reduction. Chemical Engineering Journal, 2022, 433, 133785.	6.6	9
2634	Hybrid electrocatalyst of CoFe2O4 decorating carbon spheres for alkaline oxygen evolution reaction. Ceramics International, 2022, 48, 5442-5449.	2.3	17
2635	Non-precious hydrogen evolution reaction catalysts: Stepping forward to practical polymer electrolyte membrane-based zero-gap water electrolyzers. Chemical Engineering Journal, 2022, 433, 133681.	6.6	28
2636	Unveiling the boosting of metal organic cage leaching substance on the electrocatalytic oxygen evolution reaction. Journal of Colloid and Interface Science, 2022, 610, 1035-1042.	5.0	6
2637	Pt⁴⁺ as an Active Site for Oxygen Evolution Reaction in La_{1â€“x}Sr_xCo_{1â€“y}Pt_yO₃. Journal of Physical Chemistry C, 2021, 125, 25488-25496.	3.7	8
2638	Dechlorination-facilitated deprotonation of CoFe (Oxy)hydroxide catalysts under electrochemical oxygen evolution. Chemical Engineering Science, 2022, 252, 117270.	1.9	4
2639	Hofmannâ€type Metalâ€Organic Framework Based Bimetal/Carbon Nanosheets for Efficient Electrocatalytic Oxygen Evolution. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 0, , .	0.6	2
2640	Excellent HER and OER Catalyzing Performance of Seâ€Vacancies in Defectsâ€Engineered PtSe₂: From Simulation to Experiment. Advanced Energy Materials, 2022, 12, 2102359.	10.2	59
2641	Atomicâ€Scale Observations of the Manganese Porphyrin/Au Catalyst Interface Under the Electrocatalytic Process Revealed with Electrochemical Scanning Tunneling Microscopy. Advanced Materials Interfaces, 2021, 8, 2100873.	1.9	6
2642	Vanadium-phosphorus incorporation induced interfacial modification on cobalt catalyst and its super electrocatalysis for water splitting in alkaline media. Applied Catalysis B: Environmental, 2022, 304, 120985.	10.8	29
2643	Ternary Mo₂NiB₂ as a Superior Bifunctional Electrocatalyst for Overall Water Splitting. Small, 2022, 18, e2104303.	5.2	70
2644	Strategies of designing electrocatalysts for seawater splitting. Journal of Solid State Chemistry, 2022, 306, 122799.	1.4	17

#	Article	IF	Citations
2645	2D amorphous bi-metallic NiFe nitrides for a high-efficiency oxygen evolution reaction. Chemical Communications, 2021, 57, 13170-13173.	2.2	9
2646	Recent advances in photo-assisted electrocatalysts for energy conversion. Journal of Materials Chemistry A, 2021, 9, 27193-27214.	5.2	19
2647	Recent advances in the heteroatom doping of perovskite oxides for efficient electrocatalytic reactions. Nanoscale, 2021, 13, 19840-19856.	2.8	36
2648	Shining Light on Anion-Mixed Nanocatalysts for Efficient Water Electrolysis: Fundamentals, Progress, and Perspectives. Nano-Micro Letters, 2022, 14, 43.	14.4	62
2649	Role of crystal structure and electrical polarization of an electrocatalyst in enhancing oxygen evolution performance: Bi-Fe-O system as a case study. Electrochimica Acta, 2022, 407, 139887.	2.6	4
2650	NiMoFe/Cu nanowire coreâ€“shell catalysts for high-performance overall water splitting in neutral electrolytes. Chemical Communications, 2022, 58, 1569-1572.	2.2	14
2651	Novel FeNiâ€Based Nanowires Network Catalyst Involving Hydrophilic Channel for Oxygen Evolution Reaction. Small, 2022, 18, e2106378.	5.2	28
2652	Fundamental understanding of electrocatalysis over layered double hydroxides from the aspects of crystal and electronic structures. Nanoscale, 2022, 14, 1107-1122.	2.8	6
2653	Porous organic polymers for electrocatalysis. Chemical Society Reviews, 2022, 51, 761-791.	18.7	154
2654	Electrocatalysis enabled transformation of earth-abundant water, nitrogen and carbon dioxide for a sustainable future. Materials Advances, 2022, 3, 1359-1400.	2.6	17
2655	A newly synthesized bipyridineâ€containing manganese(<scp>II</scp>) complex immobilized on graphene oxide as active electrocatalyst for hydrogen gas production from alkaline solutions: Experimental and theoretical studies. International Journal of Energy Research, 2022, 46, 6577-6593.	2.2	2
2656	Structural Changes of Spinel MCo₂O₄ (M = Mn, Fe, Co, Ni, and Zn) Electrocatalysts during the Oxygen Evolution Reaction Investigated by In Situ X-ray Absorption Spectroscopy. ACS Applied Energy Materials, 2022, 5, 278-294.	2.5	41
2657	One-step dealloying of Ni-Y-Al metallic glass for fabrication of nanoporous hybrid toward efficient water splitting reaction. Ionics, 2022, 28, 1367-1376.	1.2	5
2658	Highly efficient construction of hollow Coâ€“N_x nanocube cage dispersion implanted with porous carbonized nanofibers for Liâ€“O₂ batteries. Journal of Materials Chemistry A, 2022, 10, 740-751.	5.2	13
2659	Recent advances in the pre-oxidation process in electrocatalytic urea oxidation reactions. Chemical Communications, 2022, 58, 2430-2442.	2.2	71
2660	Glycine-nitrate derived cobalt-doped BiPO4: An efficient OER catalyst for alkaline electrochemical cells. Solid State Sciences, 2022, 124, 106803.	1.5	6
2661	Construction of NiCo2S4/Fe2O3 hybrid nanostructure as a highly efficient electrocatalyst for the oxygen evolution reaction. Electrochimica Acta, 2022, 405, 139793.	2.6	18
2662	CoFeP nanocube-arrays based on Prussian blue analogues for accelerated oxygen evolution electrocatalysis. Journal of Power Sources, 2022, 520, 230884.	4.0	21

#	Article	IF	Citations
2663	Cobalt fluoride/nitrogen-doped carbon derived from ZIF-67 for oxygen evolution reaction. Catalysis Communications, 2022, 162, 106394.	1.6	17
2664	Mechanistic understanding of pH effects on the oxygen evolution reaction. Electrochimica Acta, 2022, 405, 139810.	2.6	31
2665	Precursor-mediated synthesis of interconnected ultrathin NiFe-layered double hydroxides nanosheets for efficient oxygen evolution electrocatalysis. Materials Letters, 2022, 309, 131470.	1.3	0
2666	Low-temperature and anhydrous preparation of NixFey-LDHs as an efficient electrocatalyst for water and urea electrolysis. Catalysis Communications, 2022, 162, 106390.	1.6	11
2667	Hierarchical CoNb2O6@CoOOH core-shell composite on carbon fabric for aqueous supercapacitor anode with high capacitance and super-long life. Electrochimica Acta, 2022, 406, 139845.	2.6	12
2668	Controllable atom implantation for achieving Coulomb-force unbalance toward lattice distortion and vacancy construction for accelerated water splitting. Journal of Colloid and Interface Science, 2022, 610, 194-201.	5.0	41
2669	Electronic reconfiguration induced by neighboring exchange interaction at double perovskite oxide interface for highly efficient oxygen evolution reaction. Chemical Engineering Journal, 2022, 432, 134330.	6.6	15
2670	Tuning the microphase behavior of carbon-precursor polymer blends with surfactant-like nanotubes: Toward catalyst support for water splitting. Chemical Engineering Journal, 2022, 431, 134027.	6.6	4
2671	Nickel-Tungsten Nano-Alloying for High-Performance hydrogen Electro-Catalytic oxidation. Chemical Engineering Journal, 2022, 432, 134189.	6.6	17
2672	Achieving highly efficient pH-universal hydrogen evolution by superhydrophilic amorphous/crystalline Rh(OH)3/NiTe coaxial nanorod array electrode. Applied Catalysis B: Environmental, 2022, 305, 121088.	10.8	71
2673	Switching from two-electron to four-electron photocatalytic pure water splitting via band bending engineering with boosted activity. Applied Catalysis B: Environmental, 2022, 305, 121054.	10.8	13
2674	Deeply self-reconstructing CoFe(H3O)(PO4)2 to low-crystalline Fe0.5Co0.5OOH with Fe3+â€“Oâ€“Fe3+ motifs for oxygen evolution reaction. Applied Catalysis B: Environmental, 2022, 304, 120986.	10.8	36
2675	In situ unraveling surface reconstruction of Ni5P4@FeP nanosheet array for superior alkaline oxygen evolution reaction. Applied Catalysis B: Environmental, 2022, 305, 121033.	10.8	104
2676	Photovoltaic powered solar hydrogen production coupled with waste SO2 valorization enabled by MoP electrocatalysts. Applied Catalysis B: Environmental, 2022, 305, 121045.	10.8	11
2677	Electrocatalytic decarboxylation of carboxylic acids over RuO2 and Pt nanoparticles. Applied Catalysis B: Environmental, 2022, 305, 121060.	10.8	18
2678	The impact of drying temperature on the crystalline domain and the electrochemical performance of NiCoAl-LDH. Energy Reports, 2022, 8, 1151-1158.	2.5	12
2679	Boosting oxygen evolution over inverse spinel Fe-Co-Mn oxide nanocubes through electronic structure engineering. Chemical Engineering Journal, 2022, 433, 134446.	6.6	16
2680	Synergetic electronic modulation and nanostructure engineering of heterostructured RuO₂/Co₃O₄ as advanced bifunctional electrocatalyst for zincâ€“air batteries. Journal of Materials Chemistry A, 2021, 9, 26669-26675.	5.2	24

#	Article	IF	Citations
2681	Rational design of metal oxide catalysts for electrocatalytic water splitting. Nanoscale, 2021, 13, 20324-20353.	2.8	38
2682	Layered Double Hydroxide Catalysts Preparation, Characterization and Applications for Process Development: An Environmentally Green Approach. Bulletin of Chemical Reaction Engineering and Catalysis, 2022, 17, 163-193.	0.5	2
2683	Polyaniline coating enables electronic structure engineering in Fe3O4 to promote alkaline oxygen evolution reaction. Nanotechnology, 2022, 33, 155402.	1.3	1
2684	Design and Synthesis of Hollow Nanostructures for Electrochemical Water Splitting. Advanced Science, 2022, 9, e2105135.	5.6	110
2685	Oxygen Vacancy and Coreâ€“Shell Heterojunction Engineering of Anemoneâ€Like CoP@CoOOH Bifunctional Electrocatalyst for Efficient Overall Water Splitting. Small, 2022, 18, e2106012.	5.2	82
2686	Double-atom catalysts for energy-related electrocatalysis applications: a theoretical perspective. Journal Physics D: Applied Physics, 2022, 55, 203001.	1.3	57
2687	Realizing electrochemical transformation of a metalâ€“organic framework precatalyst into a metal hydroxideâ€“oxy(hydroxide) active catalyst during alkaline water oxidation. Journal of Materials Chemistry A, 2022, 10, 3843-3868.	5.2	44
2688	Green heterogeneous catalysis. , 2022, , 193-242.		1
2689	Anti-Ferromagnetic RuO₂: A Stable and Robust OER Catalyst over a Large Range of Surface Terminations. Journal of Physical Chemistry C, 2022, 126, 1337-1345.	1.5	21
2690	Studies on Co3O4â€“NiO nanocomposites for potential electrocatalyst for alkaline water electrolysis. Applied Physics A: Materials Science and Processing, 2022, 128, 1.	1.1	2
2691	Fabrication, Microstructure, Mechanical, and Electrochemical Properties of NiMnFeCu High Entropy Alloy from Elemental Powders. Metals, 2022, 12, 167.	1.0	6
2692	Highly Efficient and Stable Iridium Oxygen Evolution Reaction Electrocatalysts Based on Porous Nickel Nanotube Template Enabling Tandem Devices with Solarâ€toâ€Hydrogen Conversion Efficiency Exceeding 10%. Advanced Science, 2022, 9, e2104938.	5.6	6
2693	Transition metal chalcogenides-based electrocatalysts for ORR, OER, and HER. , 2022, , 83-111.		3
2694	Synergistically enhanced single-atomic site catalysts for clean energy conversion. Journal of Materials Chemistry A, 2022, 10, 5673-5698.	5.2	12
2695	Multicomponent transition metal phosphide for oxygen evolution. International Journal of Minerals, Metallurgy and Materials, 2022, 29, 503-512.	2.4	14
2696	Intermolecular Energy Gapâ€Induced Formation of Highâ€Valent Cobalt Species in CoOOH Surface Layer on Cobalt Sulfides for Efficient Water Oxidation. Angewandte Chemie, 2022, 134, .	1.6	39
2697	Safeguarding the RuO₂ phase against lattice oxygen oxidation during acidic water electrooxidation. Energy and Environmental Science, 2022, 15, 1119-1130.	15.6	66
2698	An A-site management and oxygen-deficient regulation strategy with a perovskite oxide electrocatalyst for the oxygen evolution reaction. Journal of Materials Chemistry A, 2022, 10, 1336-1342.	5.2	27

#	Article	IF	Citations
2700	Worrisome Exaggeration of Activity of Electrocatalysts Destined for Steady-State Water Electrolysis by Polarization Curves from Transient Techniques. Journal of the Electrochemical Society, 2022, 169, 014508.	1.3	35
2701	Semiconducting Polymers for Oxygen Evolution Reaction under Light Illumination. Chemical Reviews, 2022, 122, 4204-4256.	23.0	180
2702	Advances of the functionalized carbon nitrides for electrocatalysis. , 2022, 4, 211-236.		33
2703	S incorporated RuO2-based nanorings for active and stable water oxidation in acid. Nano Research, 2022, 15, 3964-3970.	5.8	10
2704	Recent advances in non-precious group metal-based catalysts for water electrolysis and beyond. Journal of Materials Chemistry A, 2021, 10, 50-88.	5.2	44
2705	Cobalt chromium vanadium layered triple hydroxides as an efficient oxygen electrocatalyst for alkaline seawater splitting. Chemical Communications, 2022, 58, 1104-1107.	2.2	28
2706	Strategies for designing more efficient electrocatalysts towards the urea oxidation reaction. Journal of Materials Chemistry A, 2022, 10, 3296-3313.	5.2	80
2707	Iridiumâ€based electrocatalysts toward sustainable energy conversion. EcoMat, 2022, 4, .	6.8	16
2708	Fe doped NiS nanosheet arrays grown on carbon fiber paper for a highly efficient electrocatalytic oxygen evolution reaction. Nanoscale Advances, 2022, 4, 1220-1226.	2.2	19
2709	Flash-thermochemical engineering of phase and surface activity on metal oxides. CheM, 2022, 8, 1014-1033.	5.8	14
2710	Enhanced Surface Kinetics and Charge Transfer of BiVO₄ Photoanodes by Rh₂O₃ Cocatalyst Loading for Improved Solar Water Oxidation. Chemistry - an Asian Journal, 2022, 17, .	1.7	6
2711	Oxygen Evolution Reaction Driven by Charge Transfer from a Cr Complex to Co-Containing Polyoxometalate in a Porous Ionic Crystal. Journal of the American Chemical Society, 2022, 144, 2980-2986.	6.6	32
2712	In situ/operando analysis of surface reconstruction of transition metal-based oxygen evolution electrocatalysts. Cell Reports Physical Science, 2022, 3, 100729.	2.8	29
2713	A multifunctional cobalt iron sulfide electrocatalyst for high performance Znâ€“air batteries and overall water splitting. Journal of Materials Chemistry A, 2022, 10, 4720-4730.	5.2	17
2714	Fe/Ni bimetallic organic framework with varying anions as robust electrocatalyst for oxygen evolution reaction. International Journal of Hydrogen Energy, 2022, 47, 9295-9300.	3.8	8
2715	N-doped hollow porous carbon spheres@Co Cu Fe alloy nanospheres as novel non-precious metal electrocatalysts for HER and OER. International Journal of Hydrogen Energy, 2022, 47, 5947-5960.	3.8	30
2716	Catalytic Production of Renewable Hydrogen for Use in Fuel Cells: A Review Study. Topics in Catalysis, 0, , 1.	1.3	6
2717	Unraveling Electron Structure and Reaction Mechanisms of Functionalized Nickel-Based Complexes for Efficient Hydrogen Evolution. Journal of Physical Chemistry C, 2022, 126, 1857-1871.	1.5	4

#	Article	IF	Citations
2718	Graphitic carbon nitride for electrocatalysis. , 2022, , 193-224.		2
2719	CeO₂ decorated bimetallic phosphide nanowire arrays for enhanced oxygen evolution reaction electrocatalysis via interface engineering. Dalton Transactions, 2022, 51, 2923-2931.	1.6	12
2720	Toward an e-chemistree: Materials for electrification of the chemical industry. MRS Bulletin, 2021, 46, 1187-1196.	1.7	31
2721	Magnetic field assisted electrocatalytic oxygen evolution reaction of nickel-based materials. Journal of Materials Chemistry A, 2022, 10, 1760-1767.	5.2	57
2722	Co@C,MnO-NAC via selective wrapping for effective oxygen electrocatalysis in rechargeable Znâ€“air batteries. Sustainable Energy and Fuels, 2022, 6, 791-799.	2.5	2
2723	Intermolecular Energy Gapâ€Induced Formation of Highâ€Valent Cobalt Species in CoOOH Surface Layer on Cobalt Sulfides for Efficient Water Oxidation. Angewandte Chemie - International Edition, 2022, 61, .	7.2	97
2724	Improved Oxygen Evolution and Oxygen Reduction Behavior of NiCo₂O₄: Revisiting the Use of Mesocarbon Microbeads. Journal of the Electrochemical Society, 2022, 169, 026515.	1.3	3
2725	Synergistic Effect of Nickel Oxyhydroxide and Tungsten Carbide in Electrocatalytic Alcohol Oxidation. Chemistry of Materials, 2022, 34, 959-969.	3.2	16
2727	A 3D hierarchical network derived from 2D Fe-doped NiSe nanosheets/carbon nanotubes with enhanced OER performance for overall water splitting. Journal of Materials Chemistry A, 2022, 10, 3102-3111.	5.2	48
2728	Positive and Negative Synergistic Effects of Feâ€“Co Mixing on the Oxygen and Hydrogen Evolution Reaction Activities of the Quadruple Perovskite CaCu₃Fe_{4â€“x}Co_xO₁₂. ACS Applied Energy Materials, 2022, 5, 214-226.	2.5	4
2729	B2O and B4N monolayers supported single-metal atom as highly efficient bifunctional electrocatalyst for OER and ORR. Journal of Materials Science, 2022, 57, 398-410.	1.7	4
2730	Electronic properties of double-atom catalysts for electrocatalytic oxygen evolution reaction in alkaline solution: a DFT study. Nanoscale, 2021, 14, 187-195.	2.8	17
2731	Recent progress in water-splitting and supercapacitor electrode materials based on MOF-derived sulfides. Journal of Materials Chemistry A, 2022, 10, 430-474.	5.2	54
2732	Avoiding Pyrolysis and Calcination: Advances in the Benign Routes Leading to MOFâ€Derived Electrocatalysts. ChemElectroChem, 2022, 9, .	1.7	12
2733	Toward Excellence of Electrocatalyst Design by Emerging Descriptorâ€Oriented Machine Learning. Advanced Functional Materials, 2022, 32, .	7.8	43
2734	Formation of Highly Active NiO(OH) Thin Films from Electrochemically Deposited Ni(OH)₂ by a Simple Thermal Treatment at a Moderate Temperature: A Combined Electrochemical and Surface Science Investigation. ACS Catalysis, 2022, 12, 1508-1519.	5.5	34
2735	Facile deposition of NiFe-LDH ultrathin film on pyrolytic graphite sheet for oxygen evolution reaction in alkaline electrolyte. International Journal of Hydrogen Energy, 2022, 47, 8786-8798.	3.8	12
2736	Metal vs. Metalâ€Free Catalysts for Oxidation of 5â€Hydroxymethylfurfural and Levoglucosenone to Biosourced Chemicals. ChemSusChem, 2022, 15, .	3.6	4

#	Article	IF	Citations
2737	Constructing nickel sulfide heterojunctions by W-doping-induced structural transition for enhanced oxygen evolution. Journal of Materials Chemistry A, 2022, 10, 3341-3345.	5.2	24
2738	CoTe₂â€“NiTe₂ heterojunction directly grown on CoNi alloy foam for efficient oxygen evolution reaction. Inorganic Chemistry Frontiers, 2022, 9, 332-342.	3.0	14
2739	Recent progress on MXenes and MOFs hybrids: Structure, synthetic strategies and catalytic water splitting. International Journal of Hydrogen Energy, 2023, 48, 6560-6574.	3.8	58
2740	Cu vacancy engineering on facet dependent CuO to enhance water oxidation efficiency. International Journal of Hydrogen Energy, 2022, 47, 9261-9272.	3.8	9
2741	First principles evaluation of the OER properties of TMâ^'X (TMÂ=ÂCr, Mn, Fe, Mo, Ru, W and Os, and XÂ=ÂF) Tj ETQq0 0 0 rgBT /Overlo	2.6	17
2742	Electro-Reforming Polyethylene Terephthalate Plastic to Co-Produce Valued Chemicals and Green Hydrogen. Journal of Physical Chemistry Letters, 2022, 13, 622-627.	2.1	58
2743	Engineering of P vacancies and phosphate on Fe-doped Ni2P nanosheet arrays for enhanced oxygen evolution. Journal of Alloys and Compounds, 2022, 905, 164023.	2.8	9
2744	Island-Type Hybrid Catalysts Applied for Anion Exchange Membrane Water Electrolysis. Catalysts, 2022, 12, 102.	1.6	2
2745	Cobalt Nanocluster-Decorated N-Rich Hierarchical Carbon Architectures Efficiently Catalyze Oxygen Reduction and Hydrogen Evolution Reactions. ACS Sustainable Chemistry and Engineering, 2022, 10, 2001-2009.	3.2	8
2746	Nickel-Rich Ni₃N Particles Stimulated by Defective Graphitic Carbon Nitrides for the Effective Oxygen Evolution Reaction. Industrial & Engineering Chemistry Research, 2022, 61, 2081-2090.	1.8	21
2747	Coâ€“N Active Sites between Co Nanoparticles and N-Doped Carbon toward Remarkably Enhanced Electrocatalytic Oxygen Evolution and Hydrogen Evolution Reactions. Energy & Fuels, 2022, 36, 1688-1696.	2.5	8
2748	Influence of the crystalline phase on the electrocatalytic behaviour of Sm_{2â^'x}Sr_xNiO_{4â^'Î´} (x = 0.4 to 1.0) Ruddlesdenâ€“Popper-based systems: a comparative study of bulk and thin electrocatalysts. Physical Chemistry Chemical Physics, 2022, 24, 5330-5342.	1.3	3
2749	Electrode reconstruction strategy for oxygen evolution reaction: maintaining Fe-CoOOH phase with intermediate-spin state during electrolysis. Nature Communications, 2022, 13, 605.	5.8	149
2750	Effect of synthesis route on electrocatalytic water-splitting activity of MoS2/UiO-66 hybrid. Molecular Catalysis, 2022, 519, 112136.	1.0	12
2751	Dualâ€metal singleâ€atomic catalyst: The challenge in synthesis, characterization, and mechanistic investigation for electrocatalysis. SmartMat, 2022, 3, 533-564.	6.4	35
2752	Electrodeposition of nanoporous nickel selenide on graphite rod as a bifunctional electrocatalyst for hydrogen and oxygen evolution reactions. Journal of Electroanalytical Chemistry, 2022, 907, 116066.	1.9	10
2753	First-principles study of the oxygen evolution reaction on Ni3Fe-layered double hydroxides surfaces with varying sulfur coverage. Molecular Catalysis, 2022, 519, 112116.	1.0	1
2754	Morphology-controlled synthesis of Cu2S for efficient oxygen evolution reaction. Journal of Electroanalytical Chemistry, 2022, 907, 116020.	1.9	7

#	Article	IF	Citations
2755	Facile synthesis of self support Fe doped Ni3S2 nanosheet arrays for high performance alkaline oxygen evolution. Journal of Electroanalytical Chemistry, 2022, 907, 116047.	1.9	6
2756	FexNi(1-x) coatings electrodeposited from choline chloride-urea mixture: Magnetic and electrocatalytic properties for water electrolysis. Materials Chemistry and Physics, 2022, 279, 125738.	2.0	7
2757	Exfoliated Fe3GeTe2 and Ni3GeTe2 materials as water splitting electrocatalysts. FlatChem, 2022, 32, 100334.	2.8	11
2758	Advanced porous borocarbonitride nanoarchitectonics: Their structural designs and applications. Carbon, 2022, 190, 142-169.	5.4	24
2759	Porous metal oxide electrocatalytic nanomaterials for energy conversion: Oxygen defects and selection techniques. Coordination Chemistry Reviews, 2022, 457, 214389.	9.5	46
2760	Zn constructs micro/nano porous structure to boost efficient oxygen evolution reaction for bulk NiFe alloy. Journal of Alloys and Compounds, 2022, 903, 164004.	2.8	7
2761	Controlled moderative sulfidation-fabricated hierarchical heterogeneous nickel sulfides-based electrocatalyst with tripartite Mo doping for efficient oxygen evolution. Journal of Energy Chemistry, 2022, 68, 780-788.	7.1	10
2762	Boron, nitrogen co-doped biomass-derived carbon aerogel embedded nickel-cobalt-iron nanoparticles as a promising electrocatalyst for oxygen evolution reaction. Journal of Colloid and Interface Science, 2022, 613, 126-135.	5.0	30
2763	Effects of Fe on electrocatalytic oxygen evolution reaction activity for CoFe layered double hydroxide nanosheets. Journal of Alloys and Compounds, 2022, 903, 163994.	2.8	12
2764	Enabling methanol oxidation by an interacting hybrid nanosystem of spinel Co₃O₄ nanoparticle decorated MXenes. Dalton Transactions, 2022, 51, 4324-4337.	1.6	8
2765	Developing reactors for electrifying bio-methanation: a perspective from bio-electrochemistry. Sustainable Energy and Fuels, 2022, 6, 1249-1263.	2.5	3
2766	Photoelectrochemical energy storage materials: design principles and functional devices towards direct solar to electrochemical energy storage. Chemical Society Reviews, 2022, 51, 1511-1528.	18.7	113
2767	Nanosized high entropy spinel oxide (FeCoNiCrMn)₃O₄ as a highly active and ultra-stable electrocatalyst for the oxygen evolution reaction. Sustainable Energy and Fuels, 2022, 6, 1479-1488.	2.5	31
2768	Variable-valence ion and heterointerface accelerated electron transfer kinetics of electrochemical water splitting. Journal of Materials Chemistry A, 2022, 10, 12391-12399.	5.2	21
2769	Cationâ€Tuning Induced dâ€Band Center Modulation on Coâ€Based Spinel Oxide for Oxygen Reduction/Evolution Reaction. Angewandte Chemie, 2022, 134, .	1.6	14
2770	Fast and Deep Reconstruction of Coprecipitated Fe Phosphates on Nickel Foams for an Alkaline Oxygen Evolution Reaction. Journal of Physical Chemistry Letters, 2022, 13, 1446-1452.	2.1	7
2771	Assisting the formation of S-doped FeMoO4 in lieu of an iron oxide/molybdenum sulfide heterostructure: A unique approach towards attaining excellent electrocatalytic water splitting activity. International Journal of Hydrogen Energy, 2022, 47, 11128-11142.	3.8	10
2772	Oxygen Vacancies and Interface Engineering on Amorphous/Crystalline CrO_xâ€Ni₃N Heterostructures toward Highâ€Durability and Kinetically Accelerated Water Splitting. Small, 2022, 18, e2106554.	5.2	71

#	Article	IF	Citations
2773	Cationâ€Tuning Induced dâ€Band Center Modulation on Coâ€Based Spinel Oxide for Oxygen Reduction/Evolution Reaction. Angewandte Chemie - International Edition, 2022, 61, .	7.2	156
2774	Electronic and Structural Modification of Mn₃O₄ Nanosheets for Selective and Sustained Seawater Oxidation. ACS Applied Materials & Interfaces, 2022, 14, 20443-20454.	4.0	33
2775	Alkali-Induced In Situ Formation of Amorphous Ni_xFe_{1â€“x}(OH)₂ from a Linear [M₃(COO)₆]-Based MOF Template for Overall Electrochemical Water Splitting. Inorganic Chemistry, 2022, 61, 3327-3336.	1.9	11
2776	The regulation mechanism of cationic substitution in morphology-controlled oxy-spinel for oxygen evolution reaction. Journal of Catalysis, 2022, 407, 221-231.	3.1	14
2777	Co3Mo3N nanosheets arrays on nickel foam as highly efficient bifunctional electrocatalysts for overall urea electrolysis. International Journal of Hydrogen Energy, 2022, 47, 11447-11455.	3.8	17
2778	Catalytic Kinetics Regulation for Enhanced Electrochemical Nitrogen Oxidation by Ruâ€Nanoclustersâ€Coupled Mn₃O₄ Catalysts Decorated with Atomically Dispersed Ru Atoms. Advanced Materials, 2022, 34, e2108180.	11.1	57
2779	Iron regulates the interfacial charge distribution of transition metal phosphides for enhanced oxygen evolution reaction. Journal of Colloid and Interface Science, 2022, 615, 725-731.	5.0	16
2780	In-situ reconstructed Ru atom array on Î±-MnO2 with enhanced performance for acidic water oxidation. Nature Catalysis, 2021, 4, 1012-1023.	16.1	324
2781	Single Co3O4 Nanocubes Electrocatalyzing the Oxygen Evolution Reaction: Nano-Impact Insights into Intrinsic Activity and Support Effects. International Journal of Molecular Sciences, 2021, 22, 13137.	1.8	13
2782	Phase-Controlled NiO Nanoparticles on Reduced Graphene Oxide as Electrocatalysts for Overall Water Splitting. Nanomaterials, 2021, 11, 3379.	1.9	15
2783	Computational screening of single-atom catalysts supported by VS₂ monolayers for electrocatalytic oxygen reduction/evolution reactions. Nanoscale, 2022, 14, 6902-6911.	2.8	30
2784	Photothermal-effect-promoted interfacial OH^{â”} filling and the conversion of carrier type in (Co_{1â”x}Ni_x)₃C during water oxidation. Journal of Materials Chemistry A, 2022, 10, 8258-8267.	5.2	6
2785	Reaction site exchange in hierarchical bimetallic Mn/Ni catalysts triggered by the electron pump effect to boost urea electrocatalytic oxidation. Journal of Materials Chemistry A, 2022, 10, 10417-10426.	5.2	23
2786	Facile Hybrid Strategy of Srco0.5fe0.3mo0.2o3-Î”/Co3o4 Heterostructure for Efficient Oxygen Evolution Reaction. SSRN Electronic Journal, 0, , .	0.4	0
2787	Water Oxidation on Crmnfeconi High Entropy Alloy: Improvement Through Rejuvenation and Spin Polarization. SSRN Electronic Journal, 0, , .	0.4	0
2788	Interfacial Nanobubbles' Growth at the Initial Stage of Electrocatalytic Hydrogen Evolution. SSRN Electronic Journal, 0, , .	0.4	0
2789	Biomass upgrading coupled with H₂ production via a nonprecious and versatile Cu-doped nickel nanotube electrocatalyst. Journal of Materials Chemistry A, 2022, 10, 10181-10191.	5.2	23
2790	Tracking the in situ generation of hetero-metalâ€“metal bonds in phosphide electrocatalysts for electrocatalytic hydrogen evolution. Catalysis Science and Technology, 2022, 12, 3234-3239.	2.1	3

#	Article	IF	Citations
2791	Research progress in improving the oxygen evolution reaction by adjusting the 3d electronic structure of transition metal catalysts. Nanoscale, 2022, 14, 5639-5656.	2.8	24
2792	Ruthenium Composited Nico2o4 Spinel Nanocones with Oxygen Vacancies as a High-Efficient Bifunctional Catalyst for Overall Water Splitting. SSRN Electronic Journal, 0, , .	0.4	0
2793	Dual-metal atom incorporated N-doped graphenes as oxygen evolution reaction electrocatalysts: high activities achieved by site synergies. Journal of Materials Chemistry A, 2022, 10, 8309-8323.	5.2	18
2794	Sustainable and safer nanoclay composites for multifaceted applications. Green Chemistry, 2022, 24, 3081-3114.	4.6	28
2795	Tailoring defects in 2D materials for electrocatalysis. , 2022, , 303-337.		0
2796	Tuning the Electronic Structure and Inverse Degree of Inverse Spinel Ferrites by Integrating Samarium Orthoferrite for Efficient Water Oxidation. SSRN Electronic Journal, 0, , .	0.4	0
2797	Exploiting heat transfer to achieve efficient photoelectrochemical CO₂ reduction under light concentration. Energy and Environmental Science, 2022, 15, 2061-2070.	15.6	12
2798	Partially delocalized charge in crystalline Coâ€“Sâ€“Se/NiO_x nanocomposites for boosting electrocatalytic oxygen evolution. Physical Chemistry Chemical Physics, 2022, 24, 10838-10850.	1.3	4
2799	Design of NiCo₂O₄@NiMoO₄ coreâ€“shell nanoarrays on nickel foam to explore the application in both energy storage and electrocatalysis. Materials Chemistry Frontiers, 2022, 6, 1056-1067.	3.2	11
2800	Three-dimensional CoOOH nanoframes confining high-density Mo single atoms for large-current-density oxygen evolution. Journal of Materials Chemistry A, 2022, 10, 6242-6250.	5.2	20
2801	The role of synthesis vis-Ã-vis the oxygen vacancies of Co₃O₄ in the oxygen evolution reaction. New Journal of Chemistry, 2022, 46, 6539-6548.	1.4	6
2802	A tetra Co(<scp>ii</scp>/<scp>iii</scp>) complex with an open cubane Co₄O₄ core and square-pyramidal Co(<scp>ii</scp>) and octahedral Co(<scp>iii</scp>) centres: bifunctional electrocatalytic activity towards water splitting at neutral pH. Dalton Transactions, 2022, 51, 4510-4521.	1.6	9
2803	Theoretical Understanding and Brief Insight into Heterogeneous Single Atom Catalysis. SSRN Electronic Journal, 0, , .	0.4	0
2804	Exploiting the Multifunctionality of M²⁺/Imidazoleâ€“Etidronates for Proton Conductivity (Zn²⁺) and Electrocatalysis (Co²⁺, Ni²⁺) toward the HER, OER, and ORR. ACS Applied Materials & Interfaces, 2022, 14, 11273-11287.	4.0	8
2805	Nickel-Based Electrocatalysts for Water Electrolysis. Energies, 2022, 15, 1609.	1.6	21
2806	MXene Nanoarchitectonics: Defectâ€Engineered 2D MXenes towards Enhanced Electrochemical Water Splitting. Advanced Energy Materials, 2022, 12, .	10.2	125
2807	Ni(II)-Based Coordination Polymer with Pi-Conjugated Organic Linker as Catalyst for Oxygen Evolution Reaction Activity. Energy & Fuels, 2022, 36, 2722-2730.	2.5	9
2808	Solar-Driven Hydrogen Production: Recent Advances, Challenges, and Future Perspectives. ACS Energy Letters, 2022, 7, 1043-1065.	8.8	247

#	Article	IF	Citations
2809	Amorphous FeCoNi-S as efficient bifunctional electrocatalysts for overall water splitting reaction. Chinese Chemical Letters, 2023, 34, 107241.	4.8	30
2810	Nickel-Based Metal-Organic Frameworks as Electrocatalysts for the Oxygen Evolution Reaction (OER). Molecules, 2022, 27, 1241.	1.7	28
2811	Molecular-Scale Manipulation of Layer Sequence in Heteroassembled Nanosheet Films toward Oxygen Evolution Electrocatalysts. ACS Nano, 2022, 16, 4028-4040.	7.3	29
2812	Hierarchical Architecture of Wellâ€Aligned Nanotubes Supported Bimetallic Catalysis for Efficient Oxygen Redox. Advanced Functional Materials, 2022, 32, .	7.8	20
2813	A sandwich structure of cobalt pyrophosphate/nickel phosphite@C: one step synthesis and its good electrocatalytic performance. Journal of Solid State Electrochemistry, 2022, 26, 1221-1230.	1.2	2
2814	IrO₂â€“ZnO Composite Nanorod Array as an Acid-Stable Electrocatalyst with Superior Activity for the Oxygen Evolution Reaction. ACS Applied Energy Materials, 2022, 5, 3810-3820.	2.5	3
2815	Strategies To Construct n-Type Si-Based Heterojunctions for Photoelectrochemical Water Oxidation. , 2022, 4, 779-804.		10
2816	In situ growth Fe and V co-doped Ni3S2 for efficient oxygen evolution reaction at large current densities. International Journal of Hydrogen Energy, 2022, 47, 14422-14431.	3.8	11
2817	Metalâ€“organic frameworkâ€derived phosphide nanomaterials for electrochemical applications. , 2022, 4, 246-281.		48
2818	What is Next in Anionâ€Exchange Membrane Water Electrolyzers? Bottlenecks, Benefits, and Future. ChemSusChem, 2022, 15, .	3.6	77
2819	Surface oxidation of cobalt carbonate and oxide nanowires by electrocatalytic oxygen evolution reaction in alkaline solution. Materials Research Express, 2022, 9, 034001.	0.8	5
2820	Carbon Nanotubes Interconnected NiCo Layered Double Hydroxide Rhombic Dodecahedral Nanocages for Efficient Oxygen Evolution Reaction. Nanomaterials, 2022, 12, 1015.	1.9	4
2821	Impact of Bubbles on Electrochemically Active Surface Area of Microtextured Gas-Evolving Electrodes. Langmuir, 2022, 38, 3276-3283.	1.6	16
2822	Polar Layered Intermetallic LaCo₂P₂ as a Water Oxidation Electrocatalyst. ACS Applied Materials & Interfaces, 2022, 14, 14120-14128.	4.0	4
2823	New Undisputed Evidence and Strategy for Enhanced Latticeâ€Oxygen Participation of Perovskite Electrocatalyst through Cation Deficiency Manipulation. Advanced Science, 2022, 9, e2200530.	5.6	75
2824	Transition-metal hydroxide nanosheets with peculiar double-layer structures as efficient electrocatalysts. Chem Catalysis, 2022, 2, 867-882.	2.9	10
2825	Understanding the reaction mechanism of Kolbe electrolysis on Pt anodes. Chem Catalysis, 2022, 2, 1100-1113.	2.9	14
2826	Operando Photo-Electrochemical Catalysts Synchrotron Studies. Nanomaterials, 2022, 12, 839.	1.9	4

#	Article	IF	Citations
2827	Aldehyde replacement advances efficient hydrogen production in electrolyser. , 2022, , 100001.		0
2828	Self-healing oxygen evolution catalysts. Nature Communications, 2022, 13, 1243.	5.8	46
2829	Highly efficient water oxidation via a bimolecular reaction mechanism on rutile structured mixed-metal oxyfluorides. Chem Catalysis, 2022, 2, 1114-1127.	2.9	5
2830	Ambipolar Enhanced Oxygen Evolution Reaction in Flexible van der Waals LaNiO₃ Membrane. ACS Catalysis, 2022, 12, 4119-4124.	5.5	16
2831	Iron single-atom catalysts confined in covalent organic frameworks for efficient oxygen evolution reaction. Cell Reports Physical Science, 2022, 3, 100804.	2.8	22
2832	Mixed B-site ruddlesden-popper phase Sr2(Ru Ir1-)O4 enables enhanced activity for oxygen evolution reaction. Journal of Energy Chemistry, 2022, 70, 623-629.	7.1	21
2833	Heterointerface Created on Auâ€Clusterâ€Loaded Unilamellar Hydroxide Electrocatalysts as a Highly Active Site for the Oxygen Evolution Reaction. Advanced Materials, 2022, 34, e2110552.	11.1	36
2834	Hierarchical FeOOH@NiCo₂S₄ Core-Shell Heterostructure Supported on Nickel Foam as an Efficient Electrocatalyst for Oxygen Evolution Reaction. Journal of the Electrochemical Society, 2022, 169, 034533.	1.3	1
2835	Recent advances in solidâ€“liquidâ€“gas threeâ€phase interfaces in electrocatalysis for energy conversion and storage. EcoMat, 2022, 4, .	6.8	25
2836	Engineering Sulfur Vacancies in Spinel-Phase Co₃S₄ for Effective Electrocatalysis of the Oxygen Evolution Reaction. ACS Omega, 2022, 7, 12430-12441.	1.6	26
2837	Interface design and composition regulation of cobalt-based electrocatalysts for oxygen evolution reaction. International Journal of Hydrogen Energy, 2022, 47, 10547-10572.	3.8	34
2838	Advanced Selfâ€Standing Electrodes for Water Electrolysis: A Review on Strategies for Further Performance Enhancement. ChemElectroChem, 2022, 9, .	1.7	8
2839	Hollow Coâ€Based Layered Double Hydroxide Decorated with Ag Nanoparticles for the Oxygen Evolution Reaction. ChemElectroChem, 2022, 9, .	1.7	5
2840	A universal chemical-induced tensile strain tuning strategy to boost oxygen-evolving electrocatalysis on perovskite oxides. Applied Physics Reviews, 2022, 9, .	5.5	67
2841	Effect of Plating Variables on Oxygen Evolution Reaction of Niâ€“Znâ€“Fe Electrodes for Alkaline Water Electrolysis. Catalysts, 2022, 12, 346.	1.6	2
2842	Nanostructuring Matters: Stabilization of Electrocatalytic Oxygen Evolution Reaction Activity of ZnCo₂O₄ by Zinc Leaching. ACS Applied Materials & Interfaces, 2022, 14, 15165-15175.	4.0	22
2843	An inclusive perspective on the recent development of tungstenâ€based catalysts for overall <scp>waterâ€splitting</scp> : A review. International Journal of Energy Research, 2022, 46, 10228-10258.	2.2	6
2844	Compositional Engineering of Co(II)MOF/Carbon-Based Overall Water Splitting Electrocatalysts: From Synergistic Effects to Structureâ€“Activity Relationships. Crystal Growth and Design, 2022, 22, 2775-2792.	1.4	15

#	Article	IF	Citations
2845	V₂O₃/MnS Arrays as Bifunctional Air Electrode for Longâ€Lasting and Flexible Rechargeable Znâ€Air Batteries. Small, 2022, 18, e2104411.	5.2	16
2846	Interface and M³⁺/M²⁺ Valence Dualâ€Engineering on Nickel Cobalt Sulfoselenide/Black Phosphorus Heterostructure for Efficient Water Splitting Electrocatalysis. Energy and Environmental Materials, 2023, 6, .	7.3	23
2847	Cobalt-based oxygen electrocatalysts for zinc-air batteries: Recent progress, challenges, and perspectives. Nano Research, 2022, 15, 5038-5063.	5.8	25
2848	^{â€œ}Inâ€Situ Grown Nickelâ€Cobalt (NiCo) Alloy Nanoparticles Decorated on Petalâ€Like Nitrogenâ€Doped Carbon Spheres for Efficient OER Activity^{â€}**. ChemistrySelect, 2022, 7, .	0.7	12
2849	Enhanced oxygen and hydrogen evolution activities of Pt/LaCoO3 perovskite oxide via in-situ exsolution of Pt nanoparticles. Journal of Chemical Sciences, 2022, 134, 1.	0.7	8
2850	The nature of synergistic effects in transition metal oxides/in-situ intermediate-hydroxides for enhanced oxygen evolution reaction. Current Opinion in Electrochemistry, 2022, 34, 100987.	2.5	7
2851	Nanostructured Metal Phosphide Based Catalysts for Electrochemical Water Splitting: A Review. Small, 2022, 18, e2107572.	5.2	100
2852	Perspective of hydrogen energy and recent progress in electrocatalytic water splitting. Chinese Journal of Chemical Engineering, 2022, 43, 282-296.	1.7	75
2853	Combinatorial Synthesis and Screening of a Ternary NiFeCoO_x Library for the Oxygen Evolution Reaction. ACS Applied Energy Materials, 2022, 5, 4017-4024.	2.5	5
2854	Hierarchical Fe Doped Co Oxide/Hydroxide Nanosheet Arrays as Highly Efficient Oxygen Evolution Catalysts Prepared by Hydrothermal Etching of FeCo Prussian Blue Analogue. European Journal of Inorganic Chemistry, 0, , .	1.0	0
2855	Theoretical and experimental study of the effects of cobalt and nickel doping within IrO2 on the acidic oxygen evolution reaction. Journal of Catalysis, 2022, 408, 64-80.	3.1	10
2856	High-Energy Batteries: Beyond Lithium-Ion and Their Long Road to Commercialisation. Nano-Micro Letters, 2022, 14, 94.	14.4	79
2857	The modulated oxygen evolution reaction performance in La2/3Sr1/3CoO3 by a design of stoichiometry offset. Journal of Electroanalytical Chemistry, 2022, 911, 116235.	1.9	3
2858	NiPN/Ni Nanoparticle-Decorated Carbon Nanotube Forest as an Efficient Bifunctional Electrocatalyst for Overall Water Splitting in an Alkaline Electrolyte. ACS Applied Nano Materials, 2022, 5, 5335-5345.	2.4	4
2859	Simulations of the Electrochemical Oxidation of Pt Nanoparticles of Various Shapes. Journal of Physical Chemistry C, 2022, 126, 6773-6781.	1.5	5
2860	Ternary copper molybdenum sulfide (Cu₂MoS₄) nanoparticles anchored on PANI/rGO as electrocatalysts for oxygen evolution reaction (OER). Applied Organometallic Chemistry, 2022, 36, .	1.7	4
2861	Amorphous CoV Phosphate Nanosheets as Efficient Oxygen Evolution Electrocatalyst. Chemistry - an Asian Journal, 2022, , .	1.7	1
2862	Electrocatalysis for Continuous Multiâ€Step Reactions in Quasiâ€Solidâ€State Electrolytes Towards Highâ€Energy and Longâ€Life Aluminumâ€“Sulfur Batteries. Angewandte Chemie - International Edition, 2022, 61, .	7.2	21

#	Article	IF	Citations
2863	Characteristics of anodic TiO2 nanotube arrays mediated IrO2 Active Anode in the Oxygen Evolution Reaction. International Journal of Electrochemical Science, 0, , ArticleID:220461.	0.5	0
2864	Efficient Electrocatalytic Overall Water Splitting on a Copper-Rich Alloy: An Electrochemical Study. Energy & Fuels, 2022, 36, 4502-4509.	2.5	11
2865	Cooperative effect of bimetallic MOF-derived CoNi(OH)₂@NiCo₂S₄ nanocomposite electrocatalysts with boosted oxygen evolution activity. Nanotechnology, 2022, 33, 265701.	1.3	2
2866	A Functionally Stable RuMn Electrocatalyst for Oxygen Evolution Reaction in Acid. Advanced Functional Materials, 2022, 32, .	7.8	38
2867	Efficient Alkaline Water/Seawater Hydrogen Evolution by a Nanorodâ€Nanoparticleâ€Structured Niâ€MoN Catalyst with Fast Waterâ€Dissociation Kinetics. Advanced Materials, 2022, 34, e2201774.	11.1	165
2868	Electrocatalysis for Continuous Multiâ€Step Reactions in Quasiâ€Solidâ€State Electrolytes Towards Highâ€Energy and Longâ€Life Aluminumâ€“Sulfur Batteries. Angewandte Chemie, 2022, 134, .	1.6	3
2869	Coâ€“Ni Layered Double Hydroxide for the Electrocatalytic Oxidation of Organic Molecules: An Approach to Lowering the Overall Cell Voltage for the Water Splitting Process. ACS Applied Materials & Interfaces, 2022, 14, 16222-16232.	4.0	21
2870	Reviewâ€”Single-Atom Catalysts as Promising Candidates for Electrochemical Applications. Journal of the Electrochemical Society, 2022, 169, 046504.	1.3	12
2871	Modulating electronic structure of multilayer flake-like Niâ€“CoxP bimetallic catalyst for highly efficient hydrogen evolution reaction in alkaline and acidic medium. Ionics, 2022, 28, 2895-2902.	1.2	1
2872	Effect of Se content on the oxygen evolution reaction activity and capacitive performance of MoSe2 nanoflakes. Electrochimica Acta, 2022, 412, 140109.	2.6	25
2873	Self-supported Co9S8-Ni3S2-CNTs/NF electrode with superwetting multistage micro-nano structure for efficient bifunctional overall water splitting. Journal of Colloid and Interface Science, 2022, 616, 287-297.	5.0	33
2874	Two-step electrochemical deposition of Ni(OH)2/FeOOH bilayer electrocatalyst for oxygen evolution reaction. Materials Letters, 2022, 317, 132118.	1.3	5
2875	Novel microporous organic-inorganic hybrid metal phosphonates as electrocatalysts towards water oxidation reaction. Electrochimica Acta, 2022, 416, 140277.	2.6	9
2876	Enhancing activity and stability of Co-MOF-74 for oxygen evolution reaction by wrapping polydopamine. Electrochimica Acta, 2022, 416, 140293.	2.6	19
2877	Single noble metals (Pd, Pt and Ir) anchored Janus MoSSe monolayers: Efficient oxygen reduction/evolution reaction bifunctional electrocatalysts and harmful gas detectors. Journal of Colloid and Interface Science, 2022, 616, 177-188.	5.0	10
2878	A review on the electrocatalytic dissociation of water over stainless steel: Hydrogen and oxygen evolution reactions. Renewable and Sustainable Energy Reviews, 2022, 161, 112323.	8.2	20
2879	Modulating electronic structure of Ni2P pre-catalyst by doping trace iron for enhanced oxygen evolution reaction in alkaline. Journal of Alloys and Compounds, 2022, 908, 164603.	2.8	12
2880	One-step microwave synthesis of in situ grown NiTe nanosheets for solid-state asymmetric supercapacitors and oxygen evolution reaction. Journal of Alloys and Compounds, 2022, 909, 164786.	2.8	8

#	Article	IF	Citations
2881	Morphological modulation of iron carbide embedded nitrogen-doped hierarchically porous carbon by manganese doping as highly efficient bifunctional electrocatalysts for overall water splitting. Journal of Colloid and Interface Science, 2022, 618, 149-160.	5.0	19
2882	Structural design for electrocatalytic water splitting to realize industrial-scale deployment: Strategies, advances, and perspectives. Journal of Energy Chemistry, 2022, 70, 129-153.	7.1	60
2883	3D core-shell structured NiFe layered double hydroxide with NiCo2O4 as an efficient electrocatalysts for oxygen evolution reaction. Journal of Physics and Chemistry of Solids, 2022, 166, 110730.	1.9	5
2884	Ni3S2 nanostrips@FeNi-NiFe2O4 nanoparticles embedded in N-doped carbon microsphere: An improved electrocatalyst for oxygen evolution reaction. Journal of Colloid and Interface Science, 2022, 617, 1-10.	5.0	25
2885	N-doped bimetallic sulfides hollow spheres derived from metal-organic frameworks toward cost-efficient and high performance oxygen evolution reaction. Applied Surface Science, 2022, 591, 153173.	3.1	10
2886	Recent advances of functional heterometallic-organic framework (HMOF) materials: Design strategies and applications. Coordination Chemistry Reviews, 2022, 463, 214521.	9.5	45
2887	A universal, green, and self-reliant electrolytic approach to high-entropy layered (oxy)hydroxide nanosheets for efficient electrocatalytic water oxidation. Journal of Colloid and Interface Science, 2022, 617, 500-510.	5.0	10
2888	Rapid screening of NixFe1â^'x/Fe2O3/Ni(OH)2 complexes with excellent oxygen evolution reaction activity and durability by a two-step electrodeposition method. Applied Surface Science, 2022, 592, 153251.	3.1	9
2889	Optically transparent ultrathin NiCo alloy oxide film: Precise oxygen vacancy modulation and control for enhanced electrocatalysis of water oxidation. Applied Catalysis B: Environmental, 2022, 310, 121301.	10.8	33
2890	Electronic modulation and vacancy engineering of Ni9S8 to synergistically boost efficient water splitting: Active vacancy-metal pairs. Applied Catalysis B: Environmental, 2022, 310, 121356.	10.8	41
2891	Engineering crystalline CoMP-decorated (MÂ=ÂMn, Fe, Ni, Cu, Zn) amorphous CoM LDH for high-rate alkaline water splitting. Chemical Engineering Journal, 2022, 441, 136031.	6.6	28
2892	Improving intrinsic electrocatalytic activity of layered transition metal chalcogenides as electrocatalysts for water splitting. Current Opinion in Electrochemistry, 2022, 34, 100982.	2.5	7
2893	Silver decorated hydroxides electrocatalysts for efficient oxygen evolution reaction. Chemical Engineering Journal, 2022, 442, 136168.	6.6	11
2894	Hofmann-Type Metalâ€“Organic Framework Nanosheets for Oxygen Evolution. ACS Applied Nano Materials, 2021, 4, 14161-14168.	2.4	7
2895	Topochemical Transformation of Two-Dimensional VSe₂ into Metallic Nonlayered VO₂ for Water Splitting Reactions in Acidic and Alkaline Media. ACS Nano, 2022, 16, 351-367.	7.3	23
2896	Insights into lithium manganese oxideâ€“water interfaces using machine learning potentials. Journal of Chemical Physics, 2021, 155, 244703.	1.2	18
2897	3D Urchin-like Hierarchical Black TiO₂ Hollow Nanospheres: A Highly Active and Stable Electrocatalyst for Water Oxidation in Alkaline and Neutral Media. ACS Applied Energy Materials, 2022, 5, 674-684.	2.5	3
2898	Realizing High and Stable Electrocatalytic Oxygen Evolution for Ironâ€Based Perovskites by Coâ€Dopingâ€Induced Structural and Electronic Modulation. Advanced Functional Materials, 2022, 32, .	7.8	28

#	Article	IF	Citations
2899	Metal-Free Pyrene-Based Conjugated Microporous Polymer Catalyst Bearing N- and S-Sites for Photoelectrochemical Oxygen Evolution Reaction. Frontiers in Chemistry, 2021, 9, 803860.	1.8	8
2900	Carbon Dots as New Building Blocks for Electrochemical Energy Storage and Electrocatalysis. Advanced Energy Materials, 2022, 12, .	10.2	81
2901	Electrocatalytic Water Splitting: From Harsh and Mild Conditions to Natural Seawater. Small, 2022, 18, e2105830.	5.2	103
2902	Halfâ€sandwich ruthenium complex with a very low overpotential and excellent activity for water oxidation under acidic conditions. Applied Organometallic Chemistry, 2022, 36, .	1.7	2
2904	Hydrogen production coupled with water and organic oxidation based on layered double hydroxides. Exploration, 2021, 1, .	5.4	79
2905	Deep eutectic solvent-induced synthesis of Niâ€“Fe catalyst with excellent mass activity and stability for water oxidation. Green Energy and Environment, 2023, 8, 852-863.	4.7	11
2907	Carbon-Based Quantum Dots for Photovoltaic Devices: A Review. ACS Applied Electronic Materials, 2022, 4, 27-58.	2.0	27
2908	Carboxylated carbon nanotubes with high electrocatalytic activity for oxygen evolution in acidic conditions. InformaĂnÃ-MateriÃ¡ly, 2022, 4, .	8.5	21
2909	Recent progress and future perspectives of flexible metalâ€air batteries. SmartMat, 2021, 2, 519-553.	6.4	43
2910	Switchable wetting of oxygen-evolving oxide catalysts. Nature Catalysis, 2022, 5, 30-36.	16.1	62
2911	Thermally encapsulated phenothiazine@MWCNT cathode for aqueous zinc ion battery. Materials Advances, 2022, 3, 4310-4321.	2.6	7
2912	Effect of doping TiO₂ with Mn for electrocatalytic oxidation in acid and alkaline electrolytes. Energy Advances, 2022, 1, 357-366.	1.4	4
2913	Fabrication of vertical graphene-loaded nickel-iron nanoparticles and their oxygen evolution reaction performance. Chinese Science Bulletin, 2022, 67, 2950-2957.	0.4	4
2914	Synergetic Effects of Mixed-Metal Polyoxometalates@Carbon-Based Composites as Electrocatalysts for the Oxygen Reduction and the Oxygen Evolution Reactions. Catalysts, 2022, 12, 440.	1.6	3
2915	In Situ Identification and Time-Resolved Observation of the Interfacial State and Reactive Intermediates on a Cobalt Oxide Nanocatalyst for the Oxygen Evolution Reaction. ACS Catalysis, 2022, 12, 5345-5355.	5.5	25
2916	Properties and applications of quantum dots derived from two-dimensional materials. Advances in Physics: X, 2022, 7, .	1.5	11
2917	Several Key Factors for Efficient Electrocatalytic Water Splitting: Active Site Coordination Environment, Morphology Changes and Intermediates Identification. Chemistry - A European Journal, 2022, 28, .	1.7	5
2918	High Configuration Entropy Activated Lattice Oxygen for O₂ Formation on Perovskite Electrocatalyst. Advanced Functional Materials, 2022, 32, .	7.8	96

#	Article	IF	Citations
2919	Superlattice-Like Co-Doped Mn Oxide and NiFe Hydroxide Nanosheets toward an Energetic Oxygen Evolution Reaction. ACS Sustainable Chemistry and Engineering, 0, , .	3.2	9
2920	Au-Doped CuO_x Nanoparticles as Electrocatalysts for Oxygen Evolution Reaction. ACS Applied Nano Materials, 2022, 5, 6500-6504.	2.4	5
2921	Peat as a carbon source for non-platinum group metal oxygen electrocatalysts and AEMFC cathodes. International Journal of Hydrogen Energy, 2022, 47, 16908-16920.	3.8	9
2922	Impact of Atomic Rearrangement and Single Atom Stabilization on MoSe₂@NiCo₂Se₄ Heterostructure Catalyst for Efficient Overall Water Splitting. Small, 2022, 18, e2200622.	5.2	42
2923	Trifunctional Catalysts for Overall Water Splitting and Oxygen Reduction Reaction Derived from Co,Ni MOFs. Topics in Catalysis, 2022, 65, 887-901.	1.3	4
2924	Controlled Atmosphere Corrosion Engineering toward Inhomogeneous NiFe-LDH for Energetic Oxygen Evolution. ACS Nano, 2022, 16, 7794-7803.	7.3	51
2925	Comparison of hydrothermal and electrodeposition methods for the synthesis of CoSe2/CeO2 nanocomposites as electrocatalysts toward oxygen evolution reaction. International Journal of Hydrogen Energy, 2022, 47, 17650-17661.	3.8	15
2926	Oxygen activation on Ba-containing perovskite materials. Science Advances, 2022, 8, eabn4072.	4.7	29
2927	DNA Origami-Templated Bimetallic Coreâ€“Shell Nanostructures for Enhanced Oxygen Evolution Reaction. Journal of Physical Chemistry C, 2022, 126, 6915-6924.	1.5	9
2928	Sr3Mn2O6 and Sr3FeMnO6 for oxygen and hydrogen evolution electrocatalysis. Journal of Solid State Electrochemistry, 2022, 26, 1303.	1.2	2
2929	Two-Dimensionally Assembled Pdâ€“Ptâ€“Ir Supernanosheets with Subnanometer Interlayer Spacings toward High-Efficiency and Durable Water Splitting. ACS Catalysis, 2022, 12, 5305-5315.	5.5	26
2930	A trace of Pt can significantly boost RuO2 for acidic water splitting. Chinese Journal of Catalysis, 2022, 43, 1493-1501.	6.9	22
2931	2D materials modulating layered double hydroxides for electrocatalytic water splitting. Chinese Journal of Catalysis, 2022, 43, 1380-1398.	6.9	33
2932	Low-temperature synthesized Mo2C and novel Mo2Câ€“MnO2 heterostructure for highly efficient hydrogen evolution reaction and high-performance capacitors. Journal of Power Sources, 2022, 535, 231450.	4.0	21
2933	Optimization studies for nickel oxide/tin oxide (NiO/Xg SnO2, X: 0.5, 1) based heterostructured composites to design high-performance supercapacitor electrode. Physica B: Condensed Matter, 2022, 638, 413931.	1.3	26
2938	Reinforced Layered Double Hydroxide Oxygenâ€Evolution Electrocatalysts: A Polyoxometallic Acid Wetâ€Etching Approach and Synergistic Mechanism. Advanced Materials, 2022, 34, e2110696.	11.1	57
2939	Electrochemistry in Magnetic Fields. Angewandte Chemie - International Edition, 2022, 61, .	7.2	64
2940	Freestanding Metalâ€“Organic Frameworks and Their Derivatives: An Emerging Platform for Electrochemical Energy Storage and Conversion. Chemical Reviews, 2022, 122, 10087-10125.	23.0	126

#	Article	IF	Citations
2941	Iron and Nickel Phthalocyanine-Modified Nanocarbon Materials as Cathode Catalysts for Anion-Exchange Membrane Fuel Cells and Zinc-Air Batteries. SSRN Electronic Journal, 0, , .	0.4	0
2942	Highly efficient oxygen evolution catalysis achieved by NiFe oxyhydroxide clusters anchored on carbon black. Journal of Materials Chemistry A, 2022, 10, 10342-10349.	5.2	13
2943	Enhancing Activity and Stability of Co-Mof-74 for Oxygen Evolution Reaction by Wrapping Polydopamine. SSRN Electronic Journal, 0, , .	0.4	0
2944	Acceleration of the pre-oxidation process by tuning the degree of sulfurization for promoted oxygen evolution reaction. Chemical Communications, 2022, 58, 6360-6363.	2.2	23
2945	A N-doped NbO_x nanoparticle electrocatalyst deposited on carbon black for oxygen reduction and evolution reactions in alkaline media. Materials Advances, 2022, 3, 5315-5324.	2.6	2
2946	Electrochemical preparation of nano/micron structure transition metal-based catalysts for the oxygen evolution reaction. Materials Horizons, 2022, 9, 1788-1824.	6.4	32
2947	Concurrent In-Situ Oxidation State Engineering of Heterostructured Catalyst Toward Near-Optimal Water Oxidation. SSRN Electronic Journal, 0, , .	0.4	0
2948	Mesoporous K-doped NiCo₂O₄ derived from a Prussian blue analog: high-yielding synthesis and assessment as oxygen evolution reaction catalyst. RSC Advances, 2022, 12, 12371-12376.	1.7	3
2949	Electronic modulation and surface reconstruction of cactus-like CoB₂O₄@FeOOH heterojunctions for synergistically triggering oxygen evolution reactions. Journal of Materials Chemistry A, 2022, 10, 11386-11393.	5.2	24
2950	Recent development in MOFs for oxygen evolution reactions. , 2022, , 135-163.		0
2951	Enhancing Activity and Stability of Co-Mof-74 for Oxygen Evolution Reaction by Wrapping Polydopamine. SSRN Electronic Journal, 0, , .	0.4	0
2952	Simple solution route to synthesize NiFe oxide/nanocarbon composite catalysts for the oxygen evolution reaction. New Journal of Chemistry, 0, , .	1.4	0
2953	Ni3fe Nanoparticles Encapsulated by N-Doped Carbon Derived from Mofs for Oxygen Evolution Reaction. SSRN Electronic Journal, 0, , .	0.4	0
2954	Catalysts for hydrogen and oxygen evolution reactions (HER/OER) in cells. , 2022, , 457-470.		1
2955	Iron and Nickel Phthalocyanine-Modified Nanocarbon Materials as Cathode Catalysts for Anion-Exchange Membrane Fuel Cells and Zinc-Air Batteries. SSRN Electronic Journal, 0, , .	0.4	0
2956	Interfaces joining for modifying transition metal oxides. , 2022, , 191-216.		0
2957	Structure and basic properties of transition metal oxides designed for application in water splitting. , 2022, , 131-160.		0
2958	The synergetic effect of the mixed phase of NiMoO₄ with a 1Dâ€“2Dâ€“3D hierarchical structure for a highly efficient and stable urea oxidation reaction. Materials Chemistry Frontiers, 2022, 6, 1477-1486.	3.2	8

#	Article	IF	Citations
2959	Precursor-converted formation of bimetallicâ€“organic framework nanosheets for efficient oxygen evolution reaction. Inorganic Chemistry Frontiers, 2022, 9, 3148-3155.	3.0	3
2960	Progress on the anode catalysts for proton exchange membrane water electrolysis. Chinese Science Bulletin, 2022, 67, 2889-2905.	0.4	2
2961	Cobalt Phosphotungstate-Based Composites as Bifunctional
Electrocatalysts for Oxygen Reactions. Catalysts, 2022, 12, 357.	1.6	7
2962	Self-supporting and hierarchically porous NixFeâ€”S/NiFe2O4 heterostructure as a bifunctional electrocatalyst for fluctuating overall water splitting. International Journal of Minerals, Metallurgy and Materials, 2022, 29, 1120-1131.	2.4	7
2963	Two-dimensional transition metal-based electrocatalyst and their application in water splitting. Materials Science and Technology, 2022, 38, 535-555.	0.8	9
2964	SnS₂ Monolayer-Supported Transition Metal Atoms as Efficient Bifunctional Oxygen Electrocatalysts: A Theoretical Investigation. Energy & Fuels, 2022, 36, 4992-4998.	2.5	9
2965	Rapid and Energetic Solid-State Metathesis Reactions for Iron, Cobalt, and Nickel Boride Formation and Their Investigation as Bifunctional Water Splitting Electrocatalysts. ACS Materials Au, 2022, 2, 489-504.	2.6	11
2966	Observation of oxygen evolution over a {Ni12}-cluster-based metal-organic framework. Science China Chemistry, 2022, 65, 1088-1093.	4.2	11
2967	Efficient Modulation of Electrocatalyst Interfaces by Atomic Layer Deposition: Fundamentals to Application. Advanced Energy and Sustainability Research, 2022, 3, .	2.8	5
2968	Amorphous Iron Boride in Situ Grown on Black Phosphorus Sheets: A Promising Electrocatalyst for OER. Journal of Electronic Materials, 2022, 51, 3705-3713.	1.0	5
2969	Fabrication of Fe2O3 nanostructure on CNT for oxygen evolution reaction. Ceramics International, 2022, 48, 29081-29086.	2.3	21
2970	Piezo-assisted photoelectric catalysis degradation for dyes and antibiotics by Ag dots-modified NaNbO3 powders. Ceramics International, 2022, 48, 23182-23194.	2.3	23
2971	One-Step Synthesis of Highly Active NiFe Electrocatalysts for the Oxygen Evolution Reaction. Langmuir, 2022, 38, 5525-5531.	1.6	8
2972	Interfacial engineering of carbon-based materials for efficient electrocatalysis: Recent advances and future. EnergyChem, 2022, 4, 100074.	10.1	20
2973	Rugaeâ€like Nâ€doped porous carbon incorporated with <scp> Feâ€N _x </scp> and <scp> Fe ₃ O ₄ </scp> dual active sites as a powerful oxygen reduction catalyst for zincâ€air batteries. International Journal of Energy Research, 2022, 46, 12378-12390.	2.2	2
2974	Fabrication of Alkaline Electrolyzer Using Ni@MWCNT as an Effective Electrocatalyst and Composite Anion Exchange Membrane. ACS Omega, 2022, 7, 15467-15477.	1.6	4
2975	Water-Based Electrophoretic Deposition of Ternary Cobalt-Nickel-Iron Oxides on AISI304 Stainless Steel for Oxygen Evolution. Catalysts, 2022, 12, 490.	1.6	1
2976	Hydrogen as a carrier of renewable energies toward carbon neutrality: State-of-the-art and challenging issues. International Journal of Minerals, Metallurgy and Materials, 2022, 29, 1073-1089.	2.4	27

#	Article	IF	Citations
2977	Design and Synthesis of Lead(II)-Based Electrocatalysts for Oxygen Evolution Reaction. Inorganic Chemistry, 2022, 61, 7579-7589.	1.9	2
2978	NC/Niâ€“Co3O4@Co1â^'xS Nanosheet Prepared from Metal Organic Framework for Highly Efficient Overall Water Splitting. Catalysis Letters, 2023, 153, 779-789.	1.4	3
2979	Electrochemistry in Magnetic Fields. Angewandte Chemie, 2022, 134, .	1.6	6
2980	MoSe2 regulates Ce-doped NiFe layered double hydroxide for efficient oxygen evolution reaction: The increase of active sites. International Journal of Hydrogen Energy, 2022, 47, 18688-18699.	3.8	11
2981	NiFe single atom catalysts anchored on carbon for oxygen evolution reaction. International Journal of Hydrogen Energy, 2022, 47, 18955-18962.	3.8	9
2982	Selfâ€Supported Goldâ€Silkâ€Chrysanthemumâ€Like Superstructures Arrays Derived from Mnâ€doped CoPS Nanowires with Superhydrophilic and Superaerophobic Surface for Enhanced Oxygen Evolution. Advanced Materials Interfaces, 2022, 9, .	1.9	4
2983	Recent progress on layered double hydroxides: comprehensive regulation for enhanced oxygen evolution reaction. Materials Today Energy, 2022, , 101036.	2.5	6
2984	Dandelionâ€like Nanospheres Synthesized by CoO@CuO Nanowire Arrays for Highâ€Performance Asymmetric Supercapacitors. ChemElectroChem, 2022, 9, .	1.7	4
2985	Merging operando and computational X-ray spectroscopies to study the oxygen evolution reaction. Current Opinion in Electrochemistry, 2022, 35, 101039.	2.5	3
2986	Magnetic-Field-Induced Strain Enhances Electrocatalysis of FeCo Alloys on Anode Catalysts for Water Splitting. Metals, 2022, 12, 800.	1.0	4
2987	Sonoactivated polycrystalline Ni electrodes for alkaline oxygen evolution reaction. Ultrasonics Sonochemistry, 2022, 86, 106013.	3.8	2
2988	Ni-Mo based metal/oxide heterostructured nanosheets with largely exposed interfacial atoms for overall water-splitting. Applied Surface Science, 2022, 597, 153597.	3.1	12
2989	Role of Noble- and Base-Metal Speciation and Surface Segregation in Ni_{2â€“x}Rh_xP Nanocrystals on Electrocatalytic Water Splitting Reactions in Alkaline Media. Chemistry of Materials, 2022, 34, 4414-4427.	3.2	10
2990	Recent Advancement in Metalâ€Organic Framework for Water Electrolysis: A Review. ChemNanoMat, 2022, 8, .	1.5	8
2991	Breaking the Relation between Activity and Stability of the Oxygen-Evolution Reaction by Highly Doping Ru in Wide-Band-Gap SrTiO₃ as Electrocatalyst. ACS Catalysis, 2022, 12, 6132-6142.	5.5	19
2992	MgO as promoter for electrocatalytic activities of Co3O4â€“MgO composite via abundant oxygen vacancies and Co2+ ions towards oxygen evolution reaction. International Journal of Hydrogen Energy, 2023, 48, 12672-12682.	3.8	30
2993	Black phosphorous dots phosphatized bio-based carbon nanofibers/bimetallic organic framework as catalysts for oxygen evolution reaction. International Journal of Hydrogen Energy, 2022, 47, 17194-17203.	3.8	6
2994	Tuning the electronic structure and inverse degree of inverse spinel ferrites by integrating samarium orthoferrite for efficient water oxidation. Applied Catalysis B: Environmental, 2022, 315, 121504.	10.8	15

#	Article	IF	Citations
2995	Electrocatalytic Water Oxidation: An Overview With an Example of Translation From Lab to Market. Frontiers in Chemistry, 2022, 10, .	1.8	15
2996	Transformation of waste onion peels into core-shell Fe3C@ N-doped carbon as a robust electrocatalyst for oxygen evolution reaction. Electrochimica Acta, 2022, 422, 140545.	2.6	12
2997	Recent Developments on Crâ€Based Electrocatalysts for the Oxygen Evolution Reaction in Alkaline Media. ChemCatChem, 2022, 14, .	1.8	9
2998	Recent Development and Future Perspectives of Amorphous Transition Metalâ€Based Electrocatalysts for Oxygen Evolution Reaction. Advanced Energy Materials, 2022, 12, .	10.2	158
2999	In situ construction of CoFe-LDH by regulating the Co/Fe molar ratio for promoting oxygen evolution reaction. Molecular Catalysis, 2022, 525, 112339.	1.0	7
3000	Constructing nickelâ€“iron oxyhydroxides integrated with iron oxides by microorganism corrosion for oxygen evolution. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2202812119.	3.3	21
3001	Selenium-doped copper oxide nanoarrays: Robust electrocatalyst for the oxygen evolution reaction with ultralow overpotential. Applied Materials Today, 2022, 27, 101485.	2.3	4
3002	Improved performance of cobalt hydroxychloride nanoparticles on poly (3-bromo thiophene) template for electrochemical oxygen evolution reaction. Journal of Electroanalytical Chemistry, 2022, 916, 116365.	1.9	4
3003	Hierarchical nanocomposites of nickel/iron-layered double hydroxide ultrathin nanosheets strong-coupled with nanocarbon networks for enhanced oxygen evolution reaction. Electrochimica Acta, 2022, 420, 140455.	2.6	14
3004	Recent progress in Biomass-derived nanoelectrocatalysts for the sustainable energy development. Fuel, 2022, 323, 124349.	3.4	22
3005	Efficient FeCoNiCuPd thin-film electrocatalyst for alkaline oxygen and hydrogen evolution reactions. Applied Catalysis B: Environmental, 2022, 313, 121472.	10.8	107
3006	Laser-synthesized ultrafine NiO nanoparticles with abundant oxygen vacancies for highly efficient oxygen evolution. Materials Letters, 2022, 321, 132409.	1.3	4
3007	Revealing the surface structure-performance relationship of interface-engineered NiFe alloys for oxygen evolution reaction. Journal of Colloid and Interface Science, 2022, 622, 986-994.	5.0	23
3008	Spin state engineering of spinel oxides by integration of Cr doping and a pâ€“n junction for water oxidation. Chemical Communications, 2022, 58, 6642-6645.	2.2	15
3009	Morphological and Electronic Optimization of Nanostructured FeCoNi-Based Electrocatalysts by Al Dopants for Neutral/Alkaline Water Splitting. ACS Applied Energy Materials, 2022, 5, 5886-5900.	2.5	4
3010	Rational Regulation of Crystalline/Amorphous Microprismsâ€Nanochannels Based on Molecular Sieve (VSBâ€5) for Electrochemical Overall Water Splitting. Small, 2022, 18, e2200832.	5.2	15
3011	NiO_xâ€“FeO_x Nanoclusters Anchored on g-C₃N₄ Sheets for Selective Seawater Oxidation with High Corrosion Resistance. ACS Sustainable Chemistry and Engineering, 2022, 10, 6622-6632.	3.2	22
3012	Toward enhanced oxygen evolution on NaBH4 treated Ba0.5Sr0.5Co0.8Fe0.2O3â¯Î´ nanofilm: Insights into the facilitated surface reconstruction. Materials Today Energy, 2022, 27, 101046.	2.5	5

#	Article	IF	Citations
3013	Magnetic Field Enhancing OER Electrocatalysis of NiFe Layered Double Hydroxide. Catalysis Letters, 2023, 153, 673-681.	1.4	15
3014	Water electrolysis: from textbook knowledge to the latest scientific strategies and industrial developments. Chemical Society Reviews, 2022, 51, 4583-4762.	18.7	453
3015	Low-temperature water electrolysis: fundamentals, progress, and new strategies. Materials Advances, 2022, 3, 5598-5644.	2.6	50
3016	Phosphate Group Dependent Metallic Co(OH)₂ toward Hydrogen Evolution in Alkali for the Industrial Current Density. ACS Sustainable Chemistry and Engineering, 2022, 10, 7100-7107.	3.2	7
3017	Isolating Single and Few Atoms for Enhanced Catalysis. Advanced Materials, 2022, 34, e2201796.	11.1	84
3018	In Situ Anchoring Massive Isolated Pt Atoms at Cationic Vacancies of Î±â€Ni_xFe_{1â€x}(OH)₂ to Regulate the Electronic Structure for Overall Water Splitting. Advanced Functional Materials, 2022, 32, .	7.8	63
3019	Ruthenium composited NiCo2O4 spinel nanocones with oxygen vacancies as a high-efficient bifunctional catalyst for overall water splitting. Chemical Engineering Journal, 2022, 446, 137037.	6.6	14
3020	Enhanced Water Oxidation reaction activity of Mn3O4 nanocrystals in alkaline medium by doping Transition-metal Ions. Nano Futures, 0, , .	1.0	0
3021	Coâ€“Feâ€“P Nanosheet Arrays as a Highly Synergistic and Efficient Electrocatalyst for Oxygen Evolution Reaction. Inorganic Chemistry, 2022, 61, 8283-8290.	1.9	11
3022	Structural and Electronic Modulations of Imidazolium Covalent Organic Framework-Derived Electrocatalysts for Oxygen Redox Reactions in Rechargeable Znâ€“Air Batteries. ACS Applied Materials & Interfaces, 2022, 14, 24404-24414.	4.0	12
3023	Regulating the electronic structures of mixed B-site pyrochlore to enhance the turnover frequency in water oxidation. Nano Convergence, 2022, 9, 22.	6.3	6
3024	Improved OER performance of an Anderson-supported cobalt coordination polymer by assembling with acetylene black. Journal of Materials Chemistry A, 2022, 10, 12805-12810.	5.2	11
3025	Organic redox polymers as electrochemical energy materials. Green Chemistry, 2022, 24, 4650-4679.	4.6	18
3026	Electrochemical H2 Production using Polypyrazole based Zinc(II) Complex in Alkaline Medium. Asian Journal of Chemistry, 2022, 34, 1366-1372.	0.1	0
3027	Development of New Mixed-Metal Ruthenium and Iridium Oxides as Electrocatalysts for Oxygen Evolution: Part I. Johnson Matthey Technology Review, 2022, 66, 393-405.	0.5	5
3028	NiCo-sulfide hetero-structured interface induced highly active nickel-dominated metal sites for oxygen evolution reaction. International Journal of Hydrogen Energy, 2022, 47, 21352-21360.	3.8	9
3029	Heatâ€Triggered Ferriâ€toâ€Paramagnetic Transition Accelerates Redox Coupleâ€Mediated Electrocatalytic Water Oxidation. Advanced Functional Materials, 2022, 32, .	7.8	8
3030	Innovative strategies in design of transition metal-based catalysts for large-current-density alkaline water/seawater electrolysis. Materials Today Physics, 2022, 26, 100727.	2.9	41

#	Article	IF	Citations
3031	Nickel Site Modification by High-Valence Doping: Effect of Tantalum Impurities on the Alkaline Water Electro-Oxidation by NiO Probed by Operando Raman Spectroscopy. ACS Catalysis, 2022, 12, 6506-6516.	5.5	25
3032	Oxygen-Plasma-Induced Hetero-Interface NiFe2O4/NiMoO4 Catalyst for Enhanced Electrochemical Oxygen Evolution. Materials, 2022, 15, 3688.	1.3	3
3033	Sputtered Irâ€“Ru based catalysts for oxygen evolution reaction: Study of iridium effect on stability. International Journal of Hydrogen Energy, 2022, 47, 21033-21043.	3.8	14
3034	Stoichiometry design in hierarchical CoNiFe phosphide for highly efficient water oxidation. Science China Materials, 2022, 65, 2685-2693.	3.5	12
3035	Electrochemical Preparation of Iridium Hydroxide Nanosheets with Ordered Honeycomb Structures for the Oxygen Evolution Reaction in Acid. ACS Applied Energy Materials, 2022, 5, 6869-6877.	2.5	6
3036	Amorphous Ni-P-S@FeOOH/CC catalyst for high oxygen evolution Activity: Preparation, characterization and modeling. Chemical Engineering Science, 2022, 258, 117761.	1.9	9
3037	Uniform cobalt nanoparticles embedded in nitrogen-doped graphene with abundant defects as high-performance bifunctional electrocatalyst in overall water splitting. International Journal of Hydrogen Energy, 2022, 47, 21191-21203.	3.8	10
3038	CoSe2 grafted on 2D gC3N4: A promising material for wastewater treatment, electrocatalysis and energy storage. Chemical Engineering Journal, 2022, 446, 137023.	6.6	18
3039	Znâ€“air batteries for electric vehicles. Tungsten, 2024, 6, 164-173.	2.0	9
3040	Efficient syngas production via CO2 reforming and electroreduction reactions through catalyst design. Energy Conversion and Management, 2022, 265, 115744.	4.4	20
3041	Co3-O4/NiO with abundant Ni3+ active sites for boosting oxygen evolution reaction. Chemical Engineering Journal, 2022, 446, 137036.	6.6	15
3042	Multiscale design of 3D metalâ€“organic frameworks (Mâ”BTC, M: Cu, Co, Ni) via PLAL enabling bifunctional electrocatalysts for robust overall water splitting. Chemical Engineering Journal, 2022, 446, 137045.	6.6	95
3043	A review on biomass-derived N-doped carbons as electrocatalysts in electrochemical energy applications. Chemical Engineering Journal, 2022, 446, 137116.	6.6	39
3044	First-row transition metal-based materials derived from bimetallic metalâ€“organic frameworks as highly efficient electrocatalysts for electrochemical water splitting. Energy and Environmental Science, 2022, 15, 3119-3151.	15.6	125
3045	Cobalt-Based Co-Ordination Complex-Derived Nanostructure for Efficient Oxygen Evolution Reaction in Acidic and Alkaline Medium. SSRN Electronic Journal, 0, , .	0.4	0
3046	Rationally Designed Multifunctional Ti3c2ÂMxene@Graphene Composite Aerogel Integrated with Bimetallic Selenides for Enhanced Supercapacitor Performance and Overall Water Splitting. SSRN Electronic Journal, 0, , .	0.4	0
3047	Highly efficient OER catalyst enabled by in situ generated manganese spinel on polyaniline with strong coordination. Dalton Transactions, 2022, 51, 9116-9126.	1.6	8
3048	Multi-interfacial engineering of a coil-like NiSâ€“Ni₂P/Ni hybrid to efficiently boost electrocatalytic hydrogen generation in alkaline and neutral electrolyte. Journal of Materials Chemistry A, 2022, 10, 13410-13417.	5.2	16

#	Article	IF	Citations
3049	Chromium-rich Cr_xIr_{1â^'x}O₂ wire-in-tube alloys for boosted water oxidation with long standing electrocatalytic activity. Journal of Materials Chemistry A, 2022, 10, 13803-13813.	5.2	10
3050	Nickel hydroxide array coated with NiFe alloy nanosheets for overall mixed water splitting. Journal of Alloys and Compounds, 2022, 918, 165564.	2.8	8
3051	Controlling the Cation Exsolution of Perovskite to Customize Heterostructure Active Site for Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2022, 14, 25638-25647.	4.0	26
3052	Poly(3â€hexylthiophene) stabilized ultrafine nickel oxide nanoparticles as superior electrocatalyst for oxygen evolution reaction: Catalyst design through synergistic combination of <scp>Ï€</scp> â€conjugated polymers and metalâ€based nanoparticles. Journal of Applied Polymer Science, 0, , .	1.3	0
3053	Ruâ€“Co Pair Sites Catalyst Boosts the Energetics for the Oxygen Evolution Reaction. Angewandte Chemie - International Edition, 2022, 61, .	7.2	154
3054	Nitrogenâ€Rich Carbonaceous Materials for Advanced Oxygen Electrocatalysis: Synthesis, Characterization, and Activity of Nitrogen Sites. Advanced Functional Materials, 2022, 32, .	7.8	59
3055	éžè´µé‡'å±žåŸºå,¬åŒ–å‰‰ç"¨äºŽç"Ÿç‰©è¯ç"µæ°§åŒ–é«˜â€¼åŒ–å^©ç"¨çš„ ç"©¶è¿›å±•. Science China Materials, 2022, 65, 3273-	3.9	2
3056	Efficient synthesis of sulfur-modified cobalt hydroxide self-supported electrocatalysts for enhanced oxygen evolution. Advanced Composites and Hybrid Materials, 2022, 5, 2491-2499.	9.9	22
3057	Accelerated oxygen evolution kinetics on Ir-doped SrTiO₃ perovskite by NH₃ plasma treatment. Chinese Physics B, 0, , .	0.7	0
3058	Performance Characteristics of Polymer Electrolyte Membrane CO₂ Electrolyzer: Effect of CO₂ Dilution, Flow Rate and Pressure. Journal of the Electrochemical Society, 2022, 169, 064510.	1.3	2
3059	Hydrogen production byÂelectrocatalysis using the reaction ofÂacidic oxygen evolution: a review. Environmental Chemistry Letters, 2022, 20, 3429-3452.	8.3	18
3060	Rational design of bimetallic atoms supported on C3N monolayer to break the linear relations for efficient electrochemical nitrogen reduction. Nano Research, 2022, 15, 8656-8664.	5.8	9
3061	Probing oxygen vacancy-induced mixed-valence states of nickel in LaNiO3 and their influence on electrocatalytic and magnetic properties. Materials Chemistry and Physics, 2022, 288, 126331.	2.0	12
3062	Ruâ€Co Pair Sites Catalyst Boosts the Energetics for Oxygen Evolution Reaction. Angewandte Chemie, 0, , .	1.6	12
3063	The Role of Steps on Silver Nanoparticles in Electrocatalytic Oxygen Reduction. Catalysts, 2022, 12, 576.	1.6	9
3064	Hetero MOFâ€onâ€MOFâ€derived carbon nanotube interconnected nitrogenâ€doped carbonâ€encapsulated FeNi/FeF₂ for efficient oxygen evolution reaction. , 2022, 4, 924-938.		36
3065	Binary spindle-like cobaltâ€“iron layered-double hydroxide as an efficient electrocatalyst for oxygen evaluation reaction. International Journal of Hydrogen Energy, 2022, 47, 21344-21351.	3.8	4
3066	Recent advances in cobalt phosphide-based materials for electrocatalytic water splitting: From catalytic mechanism and synthesis method to optimization design. Nano Materials Science, 2022, , .	3.9	9

#	Article	IF	Citations
3067	Recent Advances in Porphyrin-Based Systems for Electrochemical Oxygen Evolution Reaction. International Journal of Molecular Sciences, 2022, 23, 6036.	1.8	19
3068	Coupling LaNiO3 Nanorods with FeOOH Nanosheets for Oxygen Evolution Reaction. Catalysts, 2022, 12, 594.	1.6	7
3069	New microporous nickel phosphonate derivatives N, P-codoped nickel oxides and N, O-codoped nickel phosphides: Potential electrocatalysts for water oxidation. Catalysis Today, 2023, 424, 113771.	2.2	4
3070	Hyperbranched NixPy/NiCoP Arrays Based on Nickel Foam Electrode for Efficient and Stable Electrocatalytic Hydrogen Evolution. Electrocatalysis, 2022, 13, 611-621.	1.5	5
3071	Ultrafast Preparation of Nonequilibrium FeNi Spinels by Magnetic Induction Heating for Unprecedented Oxygen Evolution Electrocatalysis. Research, 2022, 2022, .	2.8	7
3072	Hierarchically hollow interconnected rings of nickel substituted cobalt carbonate hydroxide hydrate as promising oxygen evolution electrocatalyst. International Journal of Hydrogen Energy, 2022, 47, 22430-22441.	3.8	8
3073	Configurationâ€Dependent Bimetallic Metalâ€Organic Frameworks Nanorods for Efficient Electrocatalytic Water Oxidation. ChemElectroChem, 0, , .	1.7	0
3074	Electrocatalytic activity on single atoms catalysts: Synthesis strategies, characterization, classification, and energy conversion applications. Coordination Chemistry Reviews, 2022, 467, 214600.	9.5	16
3075	Modulating surface charges of bismuth tantalum oxychloride nanoplates for promoting photogenerated charge separation. Journal of Materials Chemistry A, 2022, 10, 14293-14299.	5.2	5
3076	Design strategies for markedly enhancing energy efficiency in the electrocatalytic CO₂ reduction reaction. Energy and Environmental Science, 2022, 15, 3603-3629.	15.6	75
3077	Porphyrins and phthalocyanines as biomimetic tools for photocatalytic H₂production and CO₂reduction. Chemical Society Reviews, 2022, 51, 6965-7045.	18.7	116
3078	Clean energy for sustainable development: Importance of new materials. , 2022, , 1-15.		0
3079	Pd doped carbon nitride (Pd-g-C₃N₄): an efficient photocatalyst for hydrogenation via an Alâ€“H₂O system and an electrocatalyst towards overall water splitting. Green Chemistry, 2022, 24, 5535-5546.	4.6	18
3080	Band Bending Induced Charge Redistribution on the Amorphous Mil-53(Al)/Co-Ldh Conjunction to Boost the Supercapacitive and Oxygen Evolution Performance. SSRN Electronic Journal, 0, , .	0.4	0
3081	Dos and donâ€™ts in screening water splitting electrocatalysts. Energy Advances, 2022, 1, 511-523.	1.4	23
3082	An anionic regulation mechanism for the structural reconstruction of sulfide electrocatalysts under oxygen evolution conditions. Energy and Environmental Science, 2022, 15, 3257-3264.	15.6	74
3083	Flower-like Co3Ni1B nanosheets based on reduced graphene oxide (rGO) as an efficient electrocatalyst for the oxygen evolution reaction. New Journal of Chemistry, 2022, 46, 13524-13532.	1.4	10
3084	Constructing Hollow Nanocages of Co3o4-Comoo4 Heterostructure for Efficient Electrocatalytic Oxygen Evolution Reaction. SSRN Electronic Journal, 0, , .	0.4	0

#	Article	IF	Citations
3085	Layered 2D transition metal (W, Mo, and Pt) chalcogenides for hydrogen evolution reaction. , 2022, , 495-525.		2
3086	Confined interface transformation of metalâ€“organic frameworks for highly efficient oxygen evolution reactions. Energy and Environmental Science, 2022, 15, 3830-3841.	15.6	32
3087	Recent Advances in Perovskite Catalysts for Efficient Overall Water Splitting. Catalysts, 2022, 12, 601.	1.6	17
3088	Empirical analysis and recent advances in metal-organic framework-derived electrocatalysts for oxygen reduction, hydrogen and oxygen evolution reactions. Materials Chemistry and Physics, 2022, 289, 126438.	2.0	7
3089	In situ growth of NiCoFe-layered double hydroxide through etching Ni foam matrix for highly enhanced oxygen evolution reaction. International Journal of Hydrogen Energy, 2022, 47, 23644-23652.	3.8	12
3090	Tailoring the spin state of active sites in amorphous transition metal sulfides to promote oxygen electrocatalysis. Science China Materials, 2022, 65, 3479-3489.	3.5	7
3091	Oxygen Corrosion Engineering of Nonprecious Ternary Metal Hydroxides toward Oxygen Evolution Reaction. ACS Sustainable Chemistry and Engineering, 2022, 10, 8597-8604.	3.2	8
3092	Potentialities of nanostructured SnS2 for electrocatalytic water splitting: A review. Journal of Alloys and Compounds, 2022, 921, 166018.	2.8	10
3093	Microcrystallization and lattice contraction of NiFe LDHs for enhancing water electrocatalytic oxidation. , 2022, 4, 901-913.		49
3094	Ternary NiCoFe nanosheets for oxygen evolution in anion exchange membrane water electrolysis. International Journal of Hydrogen Energy, 2022, 47, 23483-23497.	3.8	13
3096	Anodic corrosion of heteroatom doped graphene oxide supports and its influence on the electrocatalytic oxygen evolution reaction. International Journal of Hydrogen Energy, 2022, 47, 22738-22751.	3.8	13
3097	Sulfur Doping Triggering Enhanced Ptâ€“N Coordination in Graphitic Carbon Nitride-Supported Pt Electrocatalysts toward Efficient Oxygen Reduction Reaction. ACS Catalysis, 2022, 12, 7406-7414.	5.5	40
3098	Development of a Binder-Free Tetra-Metallic Oxide Electrocatalyst for Efficient Oxygen Evolution Reaction. Sustainable Chemistry, 2022, 3, 286-299.	2.2	0
3099	Mechanochemical Synthesis of Nitrogen-Doped and Sulfur-Doped Multilayer Graphene for Use in Bifunctional Oxygen Electrodes. Journal of the Electrochemical Society, 2022, 169, 064515.	1.3	0
3100	In Situ Grown Mn(II) MOF upon Nickel Foam Acts as a Robust Self-Supporting Bifunctional Electrode for Overall Water Splitting: A Bimetallic Synergistic Collaboration Strategy. ACS Applied Materials & Interfaces, 2022, 14, 29722-29734.	4.0	30
3101	Facile Surface Treatment of Industrial Stainless Steel Waste Meshes at Mild Conditions to Produce Efficient Oxygen Evolution Catalysts. Energy & Fuels, 2022, 36, 7025-7034.	2.5	19
3102	Transition Metal Nonâ€Oxides as Electrocatalysts: Advantages and Challenges. Small, 2022, 18, .	5.2	47
3103	One-step synthesis of Ni3N@C hybrid and its catalytic activity for overall water splitting. Korean Journal of Chemical Engineering, 2022, 39, 1788-1795.	1.2	5

#	Article	IF	Citations
3104	Surface Design Strategy of Catalysts for Water Electrolysis. Small, 2022, 18, .	5.2	138
3105	In situ coupling of ligninâ€derived carbonâ€encapsulated CoFeâ€Co_xN heterojunction for oxygen evolution reaction. AIChE Journal, 2022, 68, .	1.8	34
3106	Effect of Experimental Parameters on the Electrocatalytic Performance in Rotating Disc Electrode Measurements: Case Study of Oxygen Evolution on Niâ^'Coâ€Oxide in Alkaline Media. ChemElectroChem, 2022, 9, .	1.7	4
3107	Improving Câ€“Nâ€“FeO_x Oxygen Evolution Electrocatalysts through Hydroxyl-Modulated Local Coordination Environment. ACS Catalysis, 2022, 12, 7443-7452.	5.5	12
3108	A novel approach for the fabrication of Cobalt ferrite and Nickel ferrite nanoparticlesâ€”magnetic and electrocatalytic studies. Journal of Materials Science: Materials in Electronics, 2022, 33, 17100-17112.	1.1	4
3109	CuxO-Modified Nanoporous Cu Foil as a Self-Supporting Electrode for Supercapacitor and Oxygen Evolution Reaction. Nanomaterials, 2022, 12, 2121.	1.9	3
3110	Phase transition of SrCo_{0.9}Fe_{0.1}O₃ electrocatalysts and their effects on oxygen evolution reaction. SusMat, 2022, 2, 445-455.	7.8	10
3111	Serpentine Ni₃Ge₂O₅(OH)₄ Nanosheets Grow on Porous Mo₂N for an Efficient Oxygen Evolution Reaction. Energy & Fuels, 2022, 36, 11467-11476.	2.5	4
3112	Ultralight, Safe, Economical, and Portable Oxygen Generators with Low Energy Consumption Prepared by Air-Breathing Electrochemical Extraction. ACS Applied Materials & Interfaces, 2022, 14, 28114-28122.	4.0	2
3113	Dynamic Co(Âµâ€O)₂Ru Moiety Endowed Efficiently Catalytic Hydrogen Evolution. Advanced Energy Materials, 2022, 12, .	10.2	33
3114	Flower-like nickel-cobalt aluminum composite prepared by hydrothermal method and its application as electrocatalyst for oxygen evolution reaction. International Journal of Electrochemical Science, 0, , ArticleID:220750.	0.5	0
3115	One stone, two birds: Multifunctional hierarchical iron sulfide nanosheet arrays enabling self-powered solar thermoelectric water electrolysis. Renewable Energy, 2022, 195, 230-237.	4.3	4
3116	MXenes for electrocatalysis applications: Modification and hybridization. Chinese Journal of Catalysis, 2022, 43, 2057-2090.	6.9	76
3117	Universal avenue to metal-transition metal carbide grafted N-doped carbon framework as efficient dual Mott-Schottky electrocatalysts for water splitting. Sustainable Materials and Technologies, 2022, 33, e00451.	1.7	10
3118	Fe doped NiSe2 nanoarrays to boost electrocatalytic oxygen evolution reaction. Electrochimica Acta, 2022, 425, 140711.	2.6	22
3119	Ni3Fe nanoparticles encapsulated by N-doped carbon derived from MOFs for oxygen evolution reaction. Journal of Alloys and Compounds, 2022, 919, 165799.	2.8	9
3120	Pulse electrodeposited FeCoNiMnW high entropy alloys as efficient and stable bifunctional electrocatalysts for acidic water splitting. Chemical Engineering Journal, 2022, 446, 137452.	6.6	37
3121	Catalytic and pseudocapacitive energy storage performance of metal (Co, Ni, Cu and Mn) ferrite nanostructures and nanocomposites. Progress in Materials Science, 2022, 130, 100995.	16.0	25

#	Article	IF	Citations
3122	Deep reconstruction of transition metal molybdate@hydroxide heterostructure triggered by anion-exchange reaction as high efficiency water oxidation electrocatalyst. Chemical Engineering Journal, 2022, 447, 137540.	6.6	25
3123	Transformation of CoFe2O4 spinel structure into active and robust CoFe alloy/N-doped carbon electrocatalyst for oxygen evolution reaction. Journal of Colloid and Interface Science, 2022, 625, 70-82.	5.0	14
3124	CuCo2O4/Ti3C2Tx MXene hybrid electrocatalysts for oxygen evolution reaction of water splitting. Journal of Alloys and Compounds, 2022, 920, 165811.	2.8	8
3125	MOF-derived CoFe alloy nanoparticles encapsulated within N,O Co-doped multilayer graphitized shells as an efficient bifunctional catalyst for zinc–air batteries. Journal of Materials Chemistry A, 2022, 10, 14866-14874.	5.2	12
3126	Key roles of surface Fe sites and Sr vacancies in the perovskite for an efficient oxygen evolution reactionvialattice oxygen oxidation. Energy and Environmental Science, 2022, 15, 3912-3922.	15.6	95
3128	Introductory chapter: Fundamentals of photocatalysis and electrocatalysis. , 2022, , 1-30.		0
3129	Heterointerface-Rich Sn/Mo/NiÂTrimetallicÂSulfide Porous Nanosheets WithÂEnhanced Electrocatalytic H2-EvolutionÂActivity. SSRN Electronic Journal, 0, , .	0.4	0
3130	Synthesis of NiFeOx nanocatalysts from metalâ€“organic precursors for the oxygen evolution reaction. Dalton Transactions, 2022, 51, 11457-11466.	1.6	3
3131	Hierarchical NiFeV hydroxide nanotubes: synthesis, topotactic transformation and electrocatalysis towards the oxygen evolution reaction. Dalton Transactions, 2022, 51, 11098-11107.	1.6	3
3132	Amorphous Fe Hydroxide Nanoparticles Embedded in Ni3s2 as High-Efficiency and Low-Cost Electrocatalysts for Oxygen Evolution Reaction. SSRN Electronic Journal, 0, , .	0.4	0
3133	Electronic structure modification and N-doped carbon shell nanoarchitectonics of Ni₃FeN@NC for overall water splitting performance evaluation. Journal of Materials Chemistry A, 2022, 10, 16704-16713.	5.2	21
3134	Graphene oxide-based materials in electrocatalysis. , 2022, , 189-238.		0
3135	ÐšÐ†ÐÐ•Ð¢Ð˜ÐšÐ•Ð† ÐœÐ•Ð¥ÐÐ†Ð—Ðœ Ð•Ð›Ð•ÐšÐ¢ÐÐžÐ¥Ð†ÐœÐ†Ð§ÐÐžÐ“Ðž Ð’Ð˜Ð”Ð†Ð›Ð•ÐÐ¯ ÐšÐ˜Ð¡ÐÐ® Ð£ Ð›Ð£Ð–ÐÐž		
3136	Role of Nanoscale Inhomogeneities in Co₂FeO₄ Catalysts during the Oxygen Evolution Reaction. Journal of the American Chemical Society, 2022, 144, 12007-12019.	6.6	52
3137	Carbon Nanotube-Coupled Seaweed-like Cobalt Sulfide as a Dual-Functional Catalyst for Overall Water Splitting. ACS Applied Materials & Interfaces, 2022, 14, 30847-30856.	4.0	10
3138	A holistic green system coupling hydrogen production with wastewater valorisation. EcoMat, 0, , .	6.8	1
3139	Djurleite Copper Sulfide-Coupled Cobalt Sulfide Interface for a Stable and Efficient Electrocatalyst. ACS Applied Materials & Interfaces, 2022, 14, 30812-30823.	4.0	22
3140	In Situ Growth of NiSe2-MoSe2 Heterostructures on Graphene Nanosheets as High-Performance Electrocatalyst for Hydrogen Evolution Reaction. Catalysts, 2022, 12, 701.	1.6	4

#	Article	IF	Citations
3141	Srâ€doped Double Perovskite La2CoMnO6 to Promote the Oxygen Evolution Reaction Activity. ChemElectroChem, 0, , .	1.7	1
3142	Ambient Fast Synthesis of Superaerophobic/Superhydrophilic Electrode for Superior Electrocatalytic Water Oxidation. Energy and Environmental Materials, 2023, 6, .	7.3	4
3143	Constructing abundant active interfaces in ultrafine Ru nanoparticles doped nickelâ€“iron layered double hydroxide to promote electrocatalytic oxygen evolution. Electrochimica Acta, 2022, 427, 140835.	2.6	4
3144	Improvement in Oxygen Evolution Performance of NiFe Layered Double Hydroxide Grown in the Presence of 1T-Rich MoS₂. ACS Applied Materials & Interfaces, 2022, 14, 31951-31961.	4.0	8
3145	Polyol Synthesis of Ni and Fe Co-Incorporated Tungsten Oxide for Highly Efficient and Durable Oxygen Evolution Reaction. Journal of the Electrochemical Society, 2022, 169, 076510.	1.3	3
3146	Interfacial Heterojunction-Engineered Fe₂O₃/CoFe-Layered Double Hydroxide Catalyst for the Electrocatalytic Oxygen Evolution Reaction. Energy & Fuels, 2022, 36, 11584-11590.	2.5	12
3147	Coordination compound-derived Fe4N/Fe3N/Fe/CNT for efficient electrocatalytic oxygen evolution: a facile one-step synthesis in absence of extra nitrogen source. Nanotechnology, 0, , .	1.3	0
3148	Construction of amorphous CoFeOx(OH)y/MoS2/CP electrode for superior OER performance. International Journal of Hydrogen Energy, 2022, 47, 28859-28868.	3.8	16
3149	Three-dimensionally ordered macroporous materials for photo/electrocatalytic sustainable energy conversion, solar cell and energy storage. EnergyChem, 2022, 4, 100081.	10.1	12
3150	Preparation of high entropy alloys and application to catalytical water electrolysis. APL Materials, 2022, 10, .	2.2	45
3151	Supporting electrolyte interaction with the AACVD synthesized Rh thin film influences the OER activity. International Journal of Hydrogen Energy, 2022, 47, 28740-28751.	3.8	8
3152	The Utilization of Iridium Nanoparticles Impregnated on Metal Oxides (Ceria, Titania, and Zirconia) with a Simple and Ecologically Safe Synthesis Approach in Oxygen Evolution Reactions. Journal of the Electrochemical Society, 0, , .	1.3	0
3153	Accelerating electrochemical hydrogen production on binder-free electrodeposited V- doped Ni-Mo-P nanospheres. Journal of Electroanalytical Chemistry, 2022, 920, 116627.	1.9	7
3154	Hierarchical anions at the electrode-electrolyte interface for synergized neutral water oxidation. CheM, 2022, 8, 2700-2714.	5.8	20
3155	Compositionâ€Dependent Morphology, Structure, and Catalytical Performance of Nickelâ€“Iron Layered Double Hydroxide as Highlyâ€Efficient and Stable Anode Catalyst in Anion Exchange Membrane Water Electrolysis. Advanced Functional Materials, 2022, 32, .	7.8	34
3156	Spin-related symmetry breaking induced by half-disordered hybridization in BixEr2-xRu2O7 pyrochlores for acidic oxygen evolution. Nature Communications, 2022, 13, .	5.8	66
3157	Exposing Single Ni Atoms in Hollow S/Nâ€Doped Carbon Macroporous Fibers for Highly Efficient Electrochemical Oxygen Evolution. Advanced Materials, 2022, 34, .	11.1	42
3158	Elaboration of Ni₂P@C Composites with Hollow Porous Structure for Enhanced Overall Water Splitting. Advanced Materials Interfaces, 2022, 9, .	1.9	8

#	Article	IF	Citations
3159	Mixed Transition Metal Carbonate Hydroxideâ€Based Nanostructured Electrocatalysts for Alkaline Oxygen Evolution: Status and Perspectives. Advanced Energy and Sustainability Research, 2022, 3, .	2.8	7
3160	Enhanced Oxygen Evolution Reaction of Zr-Cu-Ni-Al Metallic Glass with an Oxide Layer in Alkaline Media. ACS Catalysis, 2022, 12, 9190-9200.	5.5	4
3161	Interface-Coupling of NiFe-LDH on Exfoliated Black Phosphorus for the High-Performance Electrocatalytic Oxygen Evolution Reaction. Frontiers in Chemistry, 0, 10, .	1.8	2
3162	Calculation screening of Janus WSSe monolayer modified with single platinum group metal atom as efficient bifunctional oxygen electrocatalysts. Applied Catalysis A: General, 2022, 643, 118777.	2.2	6
3163	Hierarchical TiO2@Ru0.9Ir0.1O2 as Highly-durable Electro- catalyst for Oxygen Evolution Reaction. International Journal of Electrochemical Science, 0, , ArticleID:220830.	0.5	0
3164	On the shifting peak of volcano plots for oxygen reduction and evolution. Electrochimica Acta, 2022, 426, 140799.	2.6	11
3165	Composite nanoarchitectonics of ZIF-67 derived CoSe2/rGO with superior charge transfer for oxygen evolution reaction. Electrochimica Acta, 2022, 426, 140785.	2.6	11
3166	Phosphorus-doping promotes the electrochemical etching of metals to nanoporous electrodes for efficient and durable overall water splitting. Journal of Power Sources, 2022, 542, 231774.	4.0	3
3167	Operando identification of active sites in Co-Cr oxyhydroxide oxygen evolution electrocatalysts. Nano Energy, 2022, 101, 107562.	8.2	14
3168	Recent advances of micro-nanofiber materials for rechargeable zinc-air batteries. Energy Storage Materials, 2022, 51, 181-211.	9.5	19
3169	Bimetallic-ZIFs derived quaternary amorphous LDHs decorated with crystalline Ag nanoparticles for highly efficient oxygen evolution reaction. Chemical Engineering Journal, 2022, 449, 137901.	6.6	18
3170	Soft Templateâ€Based Synthesis of Mesoporous Phosphorusâ€and Boronâ€Codoped NiFeâ€Based Alloys for Efficient Oxygen Evolution Reaction. Small, 2022, 18, .	5.2	43
3171	Understanding of Oxygen Redox in the Oxygen Evolution Reaction. Advanced Materials, 2022, 34, .	11.1	109
3172	Spontaneous synthesis of silver nanoparticles on cobalt-molybdenum layer double hydroxide nanocages for improved oxygen evolution reaction. Journal of Colloid and Interface Science, 2022, 628, 299-307.	5.0	23
3173	Co-Doped Ni₉S₈ Nanostructures for Electrocatalytic Water Splitting over a Wide pH Range. ACS Applied Nano Materials, 2022, 5, 11823-11838.	2.4	14
3174	Alloy electrocatalysts. EnergyChem, 2023, 5, 100083.	10.1	24
3175	Bimetal-anchored covalent organic frameworks derivatives for efficient alkaline electrolyte oxygen evolution. Journal of Alloys and Compounds, 2022, 924, 166442.	2.8	9
3176	Nanoarchitectonics of binary transition metal phosphides embedded in carbon fibers as a bifunctional electrocatalysts for electrolytic water splitting. Journal of Alloys and Compounds, 2022, 923, 166472.	2.8	10

#	Article	IF	Citations
3177	Machine Learning for Electrocatalyst and Photocatalyst Design and Discovery. Chemical Reviews, 2022, 122, 13478-13515.	23.0	120
3178	Ru Nanoparticles on Carbon Skeletons for an Efficient Hydrogen Evolution Reaction in Alkaline Electrolyte. ChemistrySelect, 2022, 7, .	0.7	1
3179	Pyridineâ€functionalized Nâ€heterocyclic carbene gold(I) binuclear complexes as molecular electrocatalysts for oxygen evolution reactions. Applied Organometallic Chemistry, 2022, 36, .	1.7	3
3180	Oxygen Plasma-Activated NiFe Prussian Blue Analogues Interconnected N-Doped Carbon Nanotubes as a Bifunctional Electrocatalyst for a Rechargeable Zincâ€“Air Battery. ACS Applied Energy Materials, 2022, 5, 9801-9810.	2.5	10
3181	Heterogenization of Molecular Electrocatalytic Active Sites through Reticular Chemistry. Advanced Materials, 2023, 35, .	11.1	11
3182	FeP-CoP Nanocubes In Situ Grown on Ti₃C₂T_x MXene as Efficient Electrocatalysts for the Oxygen Evolution Reaction. Industrial & Engineering Chemistry Research, 2022, 61, 10837-10845.	1.8	10
3183	Iridium-Incorporated Strontium Tungsten Oxynitride Perovskite for Efficient Acidic Hydrogen Evolution. Journal of the American Chemical Society, 2022, 144, 13547-13555.	6.6	11
3184	Amorphous Fe hydroxide nanoparticles embedded in Ni3S2 as high-efficiency and low-cost electrocatalysts for oxygen evolution reaction. Electrochimica Acta, 2022, 427, 140889.	2.6	10
3185	Oriented interlayered charge transfer in NiCoFe layered double hydroxide/MoO3 stacked heterostructure promoting the oxygen-evolving behavior. Journal of Colloid and Interface Science, 2022, 627, 891-899.	5.0	21
3186	Co-prosperity of electrocatalytic activity and stability in high entropy spinel (Cr_{0.2}Mn_{0.2}Fe_{0.2}Ni_{0.2}Zn_{0.2})₃O₄ for the oxygen evolution reaction. Journal of Materials Chemistry A, 2022, 10, 17633-17641.	5.2	37
3187	Topologic Transition-Induced Abundant Undercoordinated Fe Active Sites in Nifeooh for Superior Oxygen Evolution. SSRN Electronic Journal, 0, , .	0.4	0
3188	Efficient Synthesis of Pdir Nanocatalysts with Controllable Surface Composition for Electrochemical Oxidation of Methanol. SSRN Electronic Journal, 0, , .	0.4	0
3189	Ultrafast transformation of metalâ€“organic frameworks into advanced oxygen evolution electrocatalysts with good universality and scalability. Journal of Materials Chemistry A, 2022, 10, 17552-17560.	5.2	9
3190	Titanium Substitution Effects on the Structure, Activity, and Stability of Nanoscale Ruthenium Oxide Oxygen Evolution Electrocatalysts: Experimental and Computational Study. ACS Applied Nano Materials, 2022, 5, 11752-11775.	2.4	8
3191	Promising water splitting applications of synergistically assembled robust orthorhombic CoSe2 and 2D Ti3C2Tx MXene hybrid. Catalysis Today, 2023, 424, 113853.	2.2	10
3192	Boosting the Oxygen Evolution Reaction by Controllably Constructing FeNi3/C Nanorods. Nanomaterials, 2022, 12, 2525.	1.9	3
3193	Design of metalâ€substituted tungsten diboride as an efficient bifunctional electrocatalyst for hydrogen and oxygen evolution. International Journal of Energy Research, 2022, 46, 17540-17555.	2.2	4
3194	Recent Advances Regarding Precious Metal-Based Electrocatalysts for Acidic Water Splitting. Nanomaterials, 2022, 12, 2618.	1.9	8

#	Article	IF	Citations
3195	Lightest Metal Leads to Big Change: Lithiumâ€Mediated Metal Oxides for Oxygen Evolution Reaction. Advanced Energy Materials, 2022, 12, .	10.2	13
3196	Water Oxidation Performance Enhanced by Electrochemically Designed Vacancies on a Prussian Blue Catalyst. ACS Applied Energy Materials, 2022, 5, 9447-9454.	2.5	2
3197	Electrochemically Activated Ni-Fe Oxyhydroxide for Mimic Saline Water Oxidation. ACS Sustainable Chemistry and Engineering, 2022, 10, 11232-11241.	3.2	10
3198	Bifunctional nanoporous ruthenium-nickel alloy nanowire electrocatalysts towards oxygen/hydrogen evolution reaction. International Journal of Hydrogen Energy, 2022, 47, 31330-31341.	3.8	11
3199	Hierarchical Thiospinel NiCo₂S₄/Polyaniline Hybrid Nanostructures as a Bifunctional Electrocatalyst for Highly Efficient and Durable Overall Water Splitting. Advanced Materials Interfaces, 2022, 9, .	1.9	6
3200	Sputteraâ€Deposited High Entropy Alloy Thin Film Electrocatalyst for Enhanced Oxygen Evolution Reaction Performance. Small, 2022, 18, .	5.2	16
3201	Cobalt sulfide nanoparticles supported on beryllium copper needles as advanced catalysts for hydrogen evolution reaction. International Journal of Hydrogen Energy, 2022, 47, 28773-28781.	3.8	5
3202	Constructing hollow nanocages of Co3O4-CoMoO4 heterostructure for efficient electrocatalytic oxygen evolution reaction. Applied Surface Science, 2022, 606, 154562.	3.1	8
3203	Electrocatalyst with Dynamic Formation of the Dual-Active Site from the Dual Pathway Observed by In Situ Raman Spectroscopy. ACS Catalysis, 2022, 12, 10276-10284.	5.5	40
3204	Unveiling the Coercivity-Induced Electrocatalytic Oxygen Evolution Activity of Single-Domain CoFe₂O₄ Nanocrystals under a Magnetic Field. Journal of Physical Chemistry Letters, 2022, 13, 7476-7482.	2.1	13
3205	Dynamic coordination structure evolutions of atomically dispersed metal catalysts for electrocatalytic reactions. Materials Reports Energy, 2022, , 100145.	1.7	0
3206	Nd₆Ir₂O₁₃ as an Efficient Electrocatalyst Boosts the Oxygen Evolution Reaction in Acidic Media. ACS Sustainable Chemistry and Engineering, 2022, 10, 10658-10665.	3.2	11
3207	Facile Solvent-Free Synthesis of Metal Thiophosphates and Their Examination as Hydrogen Evolution Electrocatalysts. Molecules, 2022, 27, 5053.	1.7	5
3208	A Synthesis Strategy of Double-Atom Catalysts on a Carbon Surface. Journal of Physical Chemistry C, 2022, 126, 13520-13526.	1.5	4
3209	<scp> MoS ₂ </scp> nanosheets as bifunctional electrode for oxygen evolution reaction and electrochemical supercapacitor. International Journal of Energy Research, 2022, 46, 18312-18327.	2.2	6
3210	Studies on the effect of crystalline Fe2O3 on OER performance of amorphous NiOOH electrodeposited on stainless steel substrate. Chemical Papers, 2022, 76, 7195-7203.	1.0	5
3211	How properly are we interpreting the Tafel lines in energy conversion electrocatalysis?. Materials Today Energy, 2022, 29, 101123.	2.5	24
3212	Single-Step Synthesis of Fe-Doped Ni₃S₂/FeS₂ Nanocomposites for Highly Efficient Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2022, 14, 39917-39926.	4.0	28

#	Article	IF	Citations
3213	Unsaturated coordination Cu-doped Ni3S2 enhanced OER activity by promoting in situ surface electro-oxidation. Journal of Materials Research, 2022, 37, 2417-2427.	1.2	2
3214	Surface engineering of reduced graphene oxide onto the nanoforest-like nickel selenide as a high performance electrocatalyst for OER and HER. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 654, 130024.	2.3	10
3215	Energy-Saving Electrochemical Hydrogen Production on Dynamic Hydrogen Bubble-Template Electrodeposited Ni-Cu-Mn Nano-Micro Dendrite. Journal of the Electrochemical Society, 2022, 169, 096508.	1.3	10
3216	Recent Progress of Non-Noble Metal Catalysts for Oxygen Electrode in Zn-Air Batteries: A Mini Review. Catalysts, 2022, 12, 843.	1.6	15
3217	Synergistic effect of V and Fe in Ni/Fe/V ternary layered double hydroxides for efficient and durable oxygen evolution reaction. Frontiers of Chemical Science and Engineering, 2023, 17, 102-115.	2.3	6
3218	Recent advances in nonâ€precious Niâ€based promising catalysts for water splitting application. International Journal of Energy Research, 2022, 46, 17829-17847.	2.2	17
3219	Recent Progress on Bimetallicâ€Based Spinels as Electrocatalysts for the Oxygen Evolution Reaction. Small, 2022, 18, .	5.2	45
3220	Nanostructured Iridium Oxide: State of the Art. Inorganics, 2022, 10, 115.	1.2	4
3221	Quantum confinement in chalcogenides 2D nanostructures from first principles. Journal of Physics Condensed Matter, 2022, 34, 405301.	0.7	1
3222	Effects of Electrochemical Conditioning on Nickel-Based Oxygen Evolution Electrocatalysts. ACS Catalysis, 2022, 12, 10384-10399.	5.5	38
3223	Hydrogen Evolution, Oxygen Evolution, and Oxygen Reduction at Polarizable Liquid|Liquid Interfaces. ChemElectroChem, 2022, 9, .	1.7	6
3224	Te-mediated electro-driven oxygen evolution reaction. , 2022, 1, e9120029.		165
3225	Operando Direct Observation of Stable Water-Oxidation Intermediates on Ca_{2â€“x}IrO₄ Nanocrystals for Efficient Acidic Oxygen Evolution. Nano Letters, 2022, 22, 6988-6996.	4.5	18
3226	Benzoate anions-intercalated NiFe-layered double hydroxide nanosheet array with enhanced stability for electrochemical seawater oxidation. , 2022, 1, e9120028.		193
3227	Strategies of Anode Design for Seawater Electrolysis: Recent Development and Future Perspective. Small Science, 2022, 2, .	5.8	31
3228	Recent Research Advances in Rutheniumâ€Based Electrocatalysts for Water Electrolysis Across the pHâ€Universal Conditions. Energy Technology, 2022, 10, .	1.8	3
3229	Anion-modulation in CoMoO4 electrocatalyst for urea-assisted energy-saving hydrogen production. International Journal of Hydrogen Energy, 2022, 47, 33167-33176.	3.8	15
3230	High Performance Bifunctional Electrocatalysts Designed Based on Transitionâ€Metal Sulfides for Rechargeable Znâ€“Air Batteries. Chemistry - A European Journal, 2022, 28, .	1.7	9

#	Article	IF	Citations
3231	CoNi Nanoparticle-Decorated ZIF-67-Derived Hollow Carbon Cubes as a Bifunctional Electrocatalyst for Znâ€“Air Batteries. ACS Applied Nano Materials, 2022, 5, 12496-12505.	2.4	6
3232	Improving the Electrocatalytic Activity of a Nickelâ€Organic Framework toward the Oxygen Evolution Reaction through Vanadium Doping. Chemistry - A European Journal, 2022, 28, .	1.7	8
3233	Vanadium-Based Trimetallic Metal-Organic-Framework Family as Extremely High-Performing and Ultrastable Electrocatalysts for Water Splitting. ACS Applied Materials & Interfaces, 2022, 14, 37804-37813.	4.0	19
3234	Supported Iridiumâ€based Oxygen Evolution Reaction Electrocatalysts â€•Recent Developments. ChemCatChem, 2022, 14, .	1.8	14
3235	Surface functionalization of carbon cloth with conductive Ni/Fe-MOFs for highly efficient oxygen evolution. Surfaces and Interfaces, 2022, 33, 102294.	1.5	7
3236	Ordered macroporous MOF-based materials for catalysis. Molecular Catalysis, 2022, 529, 112568.	1.0	16
3237	Anion Exchange Membrane Water Electrolyzer: Electrode Design, Lab-Scaled Testing System and Performance Evaluation. EnergyChem, 2022, 4, 100087.	10.1	64
3238	Facile synthesis of Co-doped SnS2 as a pre-catalyst for efficient oxygen evolution reaction. Current Applied Physics, 2022, 42, 50-59.	1.1	4
3239	Co-Nx-enriched porous carbon nanofibers as efficient oxygen electrocatalyst for flexible Zn-air batteries. Journal of Power Sources, 2022, 544, 231865.	4.0	10
3240	Trimetallic Co-Ni-Mn metal-organic framework as an efficient electrocatalyst for alkaline oxygen evolution reaction. Journal of Electroanalytical Chemistry, 2022, 922, 116720.	1.9	11
3241	Ultrafast detection of ammonia at room temperature and subsequent electrochemical water splitting via the ionic liquid templated nano nickel oxide. Materials Chemistry and Physics, 2022, 290, 126537.	2.0	0
3242	Fabrication of copper-cobalt heterostructures confined inside N-doped carbon nanocages for long-lasting Zn-air batteries. Journal of Power Sources, 2022, 545, 231908.	4.0	12
3243	Nanopetals shaped CuNi alloy with defects abundant active surface for efficient electrocatalytic oxygen evolution reaction and high performance supercapacitor applications. Journal of Energy Storage, 2022, 55, 105488.	3.9	13
3244	Flower-like superhydrophilic and superaerophobic B-doped NiMoO4@NF as self-supported electrode for highly efficient hydrogen evolution. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 653, 129972.	2.3	2
3245	Highly efficient oxygen evolution reaction enabled by phosphorus-boron facilitating surface reconstruction of amorphous high-entropy materials. Journal of Colloid and Interface Science, 2022, 628, 242-251.	5.0	12
3246	Tailoring B-site of lead-ruthenate pyrochlore for boosting acidic water oxidation activity and stability. Applied Catalysis B: Environmental, 2022, 318, 121884.	10.8	7
3247	Self-supported molybdenum nickel oxide catalytic electrode designed via molecular cluster-mediated electroplating and electrochemical activation for an efficient and durable oxygen evolution reaction. Journal of Colloid and Interface Science, 2022, 628, 607-618.	5.0	9
3248	Recent advancements in the synthesis and electrocatalytic activity of two-dimensional metalâ€“organic framework with bimetallic nodes for energy-related applications. Coordination Chemistry Reviews, 2022, 472, 214782.	9.5	12

#	Article	IF	Citations
3249	Ligand-free synthesis of noble metal nanocatalysts for electrocatalysis. Chemical Engineering Journal, 2023, 451, 138668.	6.6	52
3250	Interface-induced contraction of coreâ€“shell Prussian blue analogues toward hollow Ni-Co-Fe phosphide nanoboxes for efficient oxygen evolution electrocatalysis. Chemical Engineering Journal, 2023, 451, 138515.	6.6	13
3251	Design strategies of perovskite nanofibers electrocatalysts for water splitting: A mini review. Chemical Engineering Journal, 2023, 451, 138710.	6.6	33
3252	Metalâ€“Organic Frameworkâ€Based Nanomaterials for Electrocatalytic Oxygen Evolution. Small Methods, 2022, 6, .	4.6	53
3253	Superoxo and Peroxo Complexes on Single-Atom Catalysts: Impact on the Oxygen Evolution Reaction. ACS Catalysis, 2022, 12, 11682-11691.	5.5	33
3254	Effect of constituent cations on the electrocatalytic oxygen evolution reaction in high-entropy oxide (Mg0.2Fe0.2Co0.2Ni0.2Cu0.2)O. Journal of Electroanalytical Chemistry, 2022, 922, 116737.	1.9	7
3255	Supercapacitor and oxygen evolution reaction performances based on rGO and Mn2V2O7 nanomaterials. Electrochimica Acta, 2022, 430, 141106.	2.6	11
3256	Investigation of oxygen evolution reaction with Ni foam and stainless-steel mesh electrodes in alkaline seawater electrolysis. Journal of Environmental Chemical Engineering, 2022, 10, 108486.	3.3	20
3257	Chemical synthesis of metallic silver-based nanopowder catalysts on the conductive carbon black particles as the active materials applied in a Zn-Ag/Zn-air hybrid energy storage system. Journal of the Taiwan Institute of Chemical Engineers, 2022, 139, 104530.	2.7	1
3258	Bifunctional petal-like carbonâ€“nitrogen covered NiFeOx/nickel foam nanohybrid electrocatalyst for efficient overall water splitting. Journal of Electroanalytical Chemistry, 2022, 922, 116764.	1.9	1
3259	Rationally designed multifunctional Ti3C2 MXene@Graphene composite aerogel integrated with bimetallic selenides for enhanced supercapacitor performance and overall water splitting. Electrochimica Acta, 2022, 431, 141103.	2.6	47
3260	Coordination environment engineering of graphene-supported single/dual-Pd-site catalysts improves the electrocatalytic ORR activity. Applied Surface Science, 2022, 606, 154749.	3.1	7
3261	A review on oxygen evolution electrocatalysts based on the different Ni-Fe matrix composites. Journal of Environmental Chemical Engineering, 2022, 10, 108591.	3.3	4
3262	Preparation of NiMoO4 nanoarrays electrodes with optimized morphology and internal crystal water for efficient supercapacitors and water splitting. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 655, 130119.	2.3	10
3263	Redox-active ligands for chemical, electrochemical, and photochemical molecular conversions. Coordination Chemistry Reviews, 2022, 473, 214804.	9.5	16
3264	Novel FeNi-FeCo-C composite nanofibers: Highly efficient electrocatalysts for oxygen evolution from water splitting. Journal of Alloys and Compounds, 2022, 926, 166910.	2.8	1
3265	Nitrogen-rich three-dimensional metal-organic framework microrods as an efficient electrocatalyst for oxygen evolution reaction and supercapacitor applications. Fuel, 2023, 331, 125746.	3.4	5
3266	Recent progress of hollow structure platform in assisting oxygen evolution reaction. Chemical Engineering Journal, 2023, 452, 139232.	6.6	5

#	Article	IF	Citations
3267	Fabrication of manganese borate/iron carbide encapsulated in nitrogen and boron co-doped carbon nanowires as the accelerated alkaline full water splitting bi-functional electrocatalysts. Journal of Colloid and Interface Science, 2023, 629, 179-192.	5.0	15
3268	Understanding the role of Cl doping in the oxygen evolution reaction on cuprous oxide by DFT. Physical Chemistry Chemical Physics, 2022, 24, 25347-25355.	1.3	2
3269	Thein situformation of defective CoOOH catalysts from semi-oxidized Co for alkaline oxygen evolution reaction. Journal of Materials Chemistry A, 2022, 10, 20011-20017.	5.2	12
3270	Carbon-Based Nanomaterials for Oxygen Evolution Reaction. Springer Series in Materials Science, 2022, , 147-167.	0.4	0
3271	Î²- and Î³-NiFeOOH electrocatalysts for an efficient oxygen evolution reaction: an electrochemical activation energy aspect. Journal of Materials Chemistry A, 2022, 10, 20847-20855.	5.2	19
3272	Mn-doped Co₃O₄ for acid, neutral and alkaline electrocatalytic oxygen evolution reaction. RSC Advances, 2022, 12, 26846-26858.	1.7	4
3273	Catalytic centers with multiple oxidation states: a strategy for breaking the overpotential ceiling from the linear scaling relation in oxygen evolution. Journal of Materials Chemistry A, 2022, 10, 23079-23086.	5.2	2
3274	Enhanced electrocatalytic activity of low-cost NiO microflowers on graphene paper for the oxygen evolution reaction. Sustainable Energy and Fuels, 2022, 6, 4498-4505.	2.5	9
3275	High-frequency ultrasonic pyrolysis of 200 nm ultrafine Fe-doped NiO hollow spheres for efficient oxygen evolution catalysis. New Journal of Chemistry, 2022, 46, 19685-19693.	1.4	2
3276	Recent progress in ZnCo₂O₄ and its composites for energy storage and conversion: a review. Energy Advances, 2022, 1, 793-841.	1.4	12
3277	Heteroatom-doped carbon materials derived from covalent triazine framework@MOFs for the oxygen reduction reaction. Dalton Transactions, 2022, 51, 14482-14490.	1.6	1
3278	Heterogeneous N-coordinated single-atom photocatalysts and electrocatalysts. Chinese Journal of Catalysis, 2022, 43, 2453-2483.	6.9	33
3279	Synergistic effect of nanosheet-array-like NiFe-LDH and reduced graphene oxide modified Ni foam for greatly enhanced oxygen evolution reaction and hydrogen evolution reaction. Materials Advances, 2022, 3, 6887-6896.	2.6	4
3280	Realizing the Synergy of Interface Engineering and SurfaceÂReconstruction in Ni(Oh)2 for Superior Water Oxidation. SSRN Electronic Journal, 0, , .	0.4	0
3281	Effects of Heat Treatment Temperature on the Morphology, Composition, and Electrocatalytic ÂProperties of Electrodeposited Nib Thin Films Towards Oer. SSRN Electronic Journal, 0, , .	0.4	0
3282	Regulating the coordination environment of a metalâ€“organic framework for an efficient electrocatalytic oxygen evolution reaction. Energy Advances, 2022, 1, 641-647.	1.4	2
3283	Bias-induced surface reconstruction of a MOF-derived bimetallic (Co & V) oxide as an electrocatalyst for water oxidation. Sustainable Energy and Fuels, 2022, 6, 4779-4786.	2.5	1
3284	Water oxidation at low potential exploiting a nitroxide/oxoammonium ion redox couple as mediator. Materials Advances, 0, , .	2.6	0

#	Article	IF	Citations
3285	Multi-functional O₂â€“H₂ electrochemistry by an abundant mineral: a novel and sustainable alternative for noble metals in electrolyzers and metalâ€“air batteries. Energy Advances, 2022, 1, 886-899.	1.4	5
3286	Nano-interfaced tungsten oxide decorated on layered double hydroxides for the oxygen evolution reaction. Sustainable Energy and Fuels, 2022, 6, 4429-4436.	2.5	4
3287	Alkali metal-mediated interfacial charge redistribution toward near-optimal water oxidation. Journal of Materials Chemistry A, 0, , .	5.2	0
3288	Challenges and prospects of high-voltage aqueous electrolytes for energy storage applications. Physical Chemistry Chemical Physics, 2022, 24, 20674-20688.	1.3	3
3289	Strain-mediated oxygen evolution reaction on magnetic two-dimensional monolayers. Nanoscale Horizons, 2022, 7, 1404-1410.	4.1	6
3290	CHAPTER 8. Photoelectrochemical CO2 Conversion Through the Utilization of Non-oxide Two-dimensional Nanomaterials. , 2022, , 230-243.		0
3291	Electrocatalyst design for the conversion of energy molecules: electronic state modulation and mass transport regulation. Chemical Communications, 2022, 58, 10907-10924.	2.2	11
3292	Feooh-Carbon Nanotube-Feco/Nitrogen-Doped Porous Carbon as an Excellent Bifunctional Catalyst for High Power Rechargeable Zinc-Air Batteries. SSRN Electronic Journal, 0, , .	0.4	0
3293	Rapid Fabrication of Nife(Oh)X/Fe0.2co-Se Complexes for Oxygen Evolution Reaction Electrocatalysis. SSRN Electronic Journal, 0, , .	0.4	0
3294	Suppression of H2 bubble formation on an electrified Pt electrode interface in an acidic â€œwater-in-saltâ€•electrolyte solution. Journal of Materials Chemistry A, 0, , .	5.2	0
3295	An efficient vanadium/cobalt metaphosphate electrocatalyst for hydrogen and oxygen evolution in alkaline water splitting. Inorganic Chemistry Frontiers, 2022, 9, 4808-4816.	3.0	4
3296	Defect-Rich Ruthenium-Oxygen Sites Enabled by Electronic Reservoir Effect of Carbonized Polymer Dot for Remarkable Ph-Universal Electrochemical Oxygen Evolution. SSRN Electronic Journal, 0, , .	0.4	0
3297	Accelerating the reaction kinetics of lithiumâ€“oxygen chemistry by modulating electron acceptanceâ€“donation interaction in electrocatalysts. Journal of Materials Chemistry A, 2022, 10, 17267-17278.	5.2	18
3298	Isovalent anion-induced electrochemical activity of doped Co₃V₂O₈ for oxygen evolution reaction application. Dalton Transactions, 2022, 51, 15312-15321.	1.6	4
3299	In-situ corrosion induced Zr-doped Ni/Fe (oxy)hydroxide layer on Ni-Fe foam realizing efficient electrocatalysis for oxygen evolution reaction. Applied Surface Science, 2023, 607, 155043.	3.1	4
3300	Vacancy engineering and hydrophilic construction of CoFe-MOF for boosting water splitting by in situ phytic acid treatment. Applied Surface Science, 2023, 607, 155079.	3.1	7
3301	Self-sacrificial reconstruction of MoO42â^' intercalated NiFe LDH/Co2P heterostructures enabling interfacial synergies and oxygen vacancies for triggering oxygen evolution reaction. Journal of Colloid and Interface Science, 2023, 629, 896-907.	5.0	16
3302	Efficient synthesis of PdIr nanocatalysts with controllable surface composition for electrochemical oxidation of methanol. Fuel, 2023, 332, 126105.	3.4	10

#	Article	IF	Citations
3303	Triethanolamine-assisted synthesis of NiFe layered double hydroxide ultrathin nanosheets for efficient oxygen evolution reaction. Journal of Colloid and Interface Science, 2023, 629, 610-619.	5.0	9
3304	Modulating coordination structures and metal environments of MOFs-Engineered electrocatalysts for water electrolysis. Chemical Engineering Journal, 2023, 452, 139475.	6.6	19
3305	Preparation and Properties Research of Manganese Dioxide-polyaniline Electrode. Journal of Physics: Conference Series, 2022, 2329, 012038.	0.3	0
3306	Controlling Interfacial Structural Evolution in Aqueous Electrolyte via Antiâ€Electrolytic Zwitterionic Waterproofing. Advanced Functional Materials, 2022, 32, .	7.8	7
3307	Metalâ€“Organic Framework Integrating Ionic Framework and Bimetallic Coupling Effect for Highly Efficient Oxygen Evolution Reaction. Advanced Science, 2022, 9, .	5.6	11
3308	Identifying high-efficiency Ni-based alloys/(oxy)hydroxides electrocatalysts for oxygen evolution reaction through a rapid screening method. International Journal of Hydrogen Energy, 2022, 47, 33754-33764.	3.8	10
3309	Heteroâ€Atomic Pairs with a Distal Fe³⁺â€Site Boost Water Oxidation. Angewandte Chemie, 2022, 134, .	1.6	4
3310	Low-pressure-plasma-processed NiFe-MOFs/nickel foam as an efficient electrocatalyst for oxygen evolution reaction. International Journal of Hydrogen Energy, 2022, 47, 35990-35998.	3.8	8
3312	High-Performance RuO_x Catalyst with Advanced Mesoporous Structure for Oxygen Evolution Reaction. Langmuir, 2022, 38, 12118-12123.	1.6	3
3313	Development of IrO₂â€“WO₃ Composite Catalysts from Waste WCâ€“Co Wire Drawing Die for PEM Water Electrolyzersâ€™ Oxygen Evolution Reactions. ACS Sustainable Chemistry and Engineering, 2022, 10, 13100-13111.	3.2	5
3314	Layered double hydroxide nanomaterials for bifunctional ORR/OER electro-catalyst. Journal of the Korean Ceramic Society, 2022, 59, 763-774.	1.1	11
3315	Hollow CoP microspheres as superior bifunctional electrocatalysts for hydrogen evolution in a broad pH range and oxygen evolution reactions. Journal of Solid State Chemistry, 2022, 316, 123499.	1.4	3
3316	Direct Oâ€“O Coupling Promoted the Oxygen Evolution Reaction by Dual Active Sites from Ag/LaNiO₃ Interfaces. ACS Applied Energy Materials, 2022, 5, 14658-14668.	2.5	8
3317	Review of High Entropy Alloys Electrocatalysts for Hydrogen Evolution, Oxygen Evolution, and Oxygen Reduction Reaction. Chemical Record, 2022, 22, .	2.9	16
3318	Heteroâ€Atomic Pairs with a Distal Fe³⁺â€Site Boost Water Oxidation. Angewandte Chemie - International Edition, 2022, 61, .	7.2	29
3319	Controlled Selfâ€Assembly of Hollow Coreâ€Shell FeMn/CoNi Prussian Blue Analogs with Boosted Electrocatalytic Activity. Small, 2022, 18, .	5.2	10
3320	Oxygen reactivity regulation via doubleâ€exchange interaction for enhanced water oxidation. EcoMat, 2023, 5, .	6.8	9
3321	Solarâ€Driven Coâ€Production of Hydrogen and Valueâ€Add Conductive Polyaniline Polymer. Advanced Functional Materials, 2022, 32, .	7.8	3

#	Article	IF	Citations
3322	FeSe/FeSe₂ Heterostructure as a Lowâ€Cost and Highâ€Performance Electrocatalyst for Oxygen Evolution Reaction. ChemElectroChem, 2022, 9, .	1.7	11
3323	Unveiling the role of Ni in Ru-Ni oxide for oxygen evolution: Lattice oxygen participation enhanced by structural distortion. Journal of Energy Chemistry, 2023, 77, 54-61.	7.1	14
3324	Gradient Heating Epitaxial Growth Well Latticeâ€Matched Mo2Câ€Mo2N Heterointerfaces Boost Both Electrocatalytic Hydrogen Evolution and Water Vapor Splitting. Angewandte Chemie, 0, , .	1.6	0
3325	Gradient Heating Epitaxial Growth Gives Well Latticeâ€Matched Mo₂Câ^'Mo₂N Heterointerfaces that Boost Both Electrocatalytic Hydrogen Evolution and Water Vapor Splitting. Angewandte Chemie - International Edition, 2022, 61, .	7.2	17
3326	Adsorption Energy in Oxygen Electrocatalysis. Chemical Reviews, 2022, 122, 17028-17072.	23.0	45
3327	Structural and electronic engineering of zirconium-induced bimetallic phosphides supported by nitrogen-doped carbon fibers for highly efficient oxygen evolution reaction. International Journal of Hydrogen Energy, 2022, 47, 35254-35264.	3.8	4
3328	Unraveling the Role of Defects in Electrocatalysts for Water Splitting: Recent Advances and Perspectives. Energy & Fuels, 2022, 36, 11660-11690.	2.5	15
3329	Recent Advances in Engineered Ruâ€Based Electrocatalysts for the Hydrogen/Oxygen Conversion Reactions. Advanced Energy Materials, 2022, 12, .	10.2	58
3330	Surface reconstruction-derived heterostructures for electrochemical water splitting. EnergyChem, 2023, 5, 100091.	10.1	36
3331	Dual-oxidation-induced lattice disordering in a Prussian blue analog for ultrastable oxygen evolution reaction performance. Journal of Colloid and Interface Science, 2023, 630, 257-265.	5.0	18
3332	Polar Bear Hair Inspired Supra-Photothermal Promoted Water Splitting. , 2022, 4, 1912-1920.		2
3334	MnO2-Ir Nanowires: Combining Ultrasmall Nanoparticle Sizes, O-Vacancies, and Low Noble-Metal Loading with Improved Activities towards the Oxygen Reduction Reaction. Nanomaterials, 2022, 12, 3039.	1.9	8
3335	Multistage Electron Distribution Engineering of Iridium Oxide byÂCodoping W and Sn for Enhanced Acidic Water Oxidation Electrocatalysis. Small, 2022, 18, .	5.2	15
3336	Surface microstructures and oxygen evolution properties of cobalt oxide deposited on Ir(111) and Pt(111) single crystal substrates. Electrochemical Science Advances, 0, , .	1.2	2
3337	Layered Double Hydroxides for Oxygen Evolution Reaction towards Efficient Hydrogen Generation. Energy Material Advances, 2022, 2022, .	4.7	16
3338	Electronic and Nano-structural Modulation of Co(OH)2 Nanosheets by Fe-Benzenedicarboxylate for Efficient Oxygen Evolution. Chemical Research in Chinese Universities, 2023, 39, 219-223.	1.3	4
3339	Enhancing Reversible Reactions via Phase Engineering on Bi-Crystal GeS₂ Nanosheets for Superior Sodium-Ion Storage. ACS Sustainable Chemistry and Engineering, 2022, 10, 12679-12688.	3.2	1
3340	Tuning the electronic structure of a metalâ€“organic framework for an efficient oxygen evolution reaction by introducing minor atomically dispersed ruthenium. , 2023, 5, .		88

#	Article	IF	Citations
3341	Alternatives to Water Photooxidation for Photoelectrochemical Solar Energy Conversion and Green H₂ Production. Advanced Energy Materials, 2022, 12, .	10.2	39
3342	Effect of Components and Operating Conditions on the Performance of PEM Electrolyzers: A Review. Electrochem, 2022, 3, 581-612.	1.7	16
3343	Ultra-fast surface reconstruction enabled by the built-in electric field in heterostructured CoS2/CuS for water electrolysis. Cell Reports Physical Science, 2022, , 101059.	2.8	3
3344	Anodization of a NiFe Foam: An Efficient and Stable Electrode for Oxygen-Evolution Reaction. ACS Applied Energy Materials, 2022, 5, 11098-11112.	2.5	19
3345	Interfacial Carbon Makes Nanoâ€Particulate RuO₂ an Efficient, Stable, pHâ€Universal Catalyst for Splitting of Seawater. Small, 2022, 18, .	5.2	18
3346	High valence metals engineering strategies of Fe/Co/Ni-based catalysts for boosted OER electrocatalysis. Journal of Energy Chemistry, 2023, 76, 195-213.	7.1	114
3347	Structural Fineâ€Tuning and Inâ€situ Generation of P, O Vacancies in Hollow Coâ€Ferroceneâ€MOFs Derived Phosphides for Efficient Water Oxidation. ChemCatChem, 2022, 14, .	1.8	3
3348	Tuning the Interface of Co_{1â€“x}S/Co(OH)F by Atomic Replacement Strategy toward High-Performance Electrocatalytic Oxygen Evolution. ACS Nano, 2022, 16, 15460-15470.	7.3	37
3349	In Situ/Operando Soft X-ray Spectroscopic Identification of a Co⁴⁺ Intermediate in the Oxygen Evolution Reaction of Defective Co₃O₄ Nanosheets. Journal of Physical Chemistry Letters, 2022, 13, 8386-8396.	2.1	10
3350	Cation Defect Engineering of Transition Metal Electrocatalysts for Oxygen Evolution Reaction. Advanced Energy Materials, 2022, 12, .	10.2	61
3351	Magnetic Fieldâ€Assisted Construction and Enhancement of Electrocatalysts. ChemSusChem, 2022, 15, .	3.6	18
3352	Facile Synthesis of Transition-Metal-Doped (Fe, Co, and Ni) CuS/CuO/CS Nanorod Arrays for Superior Electrocatalytic Oxygen Evolution Reaction. ACS Applied Energy Materials, 2022, 5, 12039-12048.	2.5	6
3353	CuO Nanosheets Prepared by Dielectric Barrier Discharge Microplasma as Catalysts for the Oxygen Evolution Reaction. ACS Applied Nano Materials, 2022, 5, 14689-14696.	2.4	4
3354	Iron and Nickel Phthalocyanineâ€Modified Nanocarbon Materials as Cathode Catalysts for Anionâ€Exchange Membrane Fuel Cells and Zincâ€Air Batteries**. ChemElectroChem, 2022, 9, .	1.7	23
3355	Plasma-modified iron-doped Ni3S2 nanosheet arrays as efficient electrocatalysts for hydrogen evolution reaction. Arabian Journal of Chemistry, 2022, 15, 104317.	2.3	1
3356	Cobalt-based co-ordination complex-derived nanostructure for efficient oxygen evolution reaction in acidic and alkaline medium. Heliyon, 2022, 8, e10939.	1.4	0
3357	Vacancy Defects in 2D Transition Metal Dichalcogenide Electrocatalysts: From Aggregated to Atomic Configuration. Advanced Materials, 2023, 35, .	11.1	27
3358	Ni-B-Co nanoparticles based on ZIF-67 as efficient electrocatalyst for oxygen evolution reaction. Journal of Electroanalytical Chemistry, 2022, 923, 116838.	1.9	3

#	Article	IF	Citations
3359	Laser-derived porous carbon as a metal-free electrocatalyst for oxygen evolution reaction. Carbon Trends, 2022, 9, 100221.	1.4	6
3360	FeNiS2/reduced graphene oxide electrocatalysis with reconstruction to generate FeNi oxo/hydroxide as a highly-efficient water oxidation electrocatalyst. Rare Metals, 2022, 41, 4127-4137.	3.6	19
3361	Boron-Doped Platinum-Group Metals in Electrocatalysis: A Perspective. ACS Catalysis, 2022, 12, 12750-12764.	5.5	31
3362	Catalytic synergism in Mn-heterostructured molybdenum oxysulfide hybridized with transition metal phosphides: A robust amorphous water oxidation catalyst. Electrochimica Acta, 2022, 433, 141249.	2.6	3
3363	Water oxidation on CrMnFeCoNi high entropy alloy: Improvement through rejuvenation and spin polarization. Journal of Alloys and Compounds, 2022, 929, 167344.	2.8	10
3364	High-valence chromium accelerated interface electron transfer for water oxidation. Dalton Transactions, 2022, 51, 16890-16897.	1.6	2
3365	Application Research and Prospect of High Efficiency and High-Entropy Alloy Electro Catalysts. Hans Journal of Nanotechnology, 2022, 12, 243-257.	0.1	0
3366	Coupling photocatalytic overall water splitting with hydrogenation of organic molecules: a strategy for using water as a hydrogen source and an electron donor to enable hydrogenation. Green Chemistry, 2022, 24, 9211-9219.	4.6	10
3367	Iron-modulated Ni₃S₂derived from a Ni-MOF-based Prussian blue analogue for a highly efficient oxygen evolution reaction. Dalton Transactions, 2022, 51, 17283-17291.	1.6	5
3368	Free-standing P-doped Fe₂O₃/ZnO nanotubes as a bifunctional electrocatalyst for electrochemical water splitting. Sustainable Energy and Fuels, 2022, 6, 5579-5590.	2.5	2
3369	Numerical modeling investigations of the impact of a thin p-type cocatalyst modifier on an n-type photon absorber for unbiased overall solar water splitting. Materials Advances, 0, , .	2.6	0
3370	Recent reports on hydrogen evolution reactions and catalysis. Results in Chemistry, 2022, 4, 100613.	0.9	7
3371	Enhancing the catalytic OER performance of MoS₂ via Fe and Co doping. Nanoscale, 2022, 14, 16148-16155.	2.8	24
3372	A dual-strategy of interface and reconstruction engineering to boost efficient alkaline water and seawater oxidation. Sustainable Energy and Fuels, 2022, 6, 5521-5530.	2.5	2
3373	Unravelling faradaic electrochemical efficiencies over Fe/Co spinel metal oxides using surface spectroscopy and microscopy techniques. Nanoscale, 2022, 14, 15928-15941.	2.8	6
3374	FeII, CoII and NiII complexes based on 1-chloro-3-(pyridin-2-yl)imidazo[1,5-a]pyridine: synthesis, structures, single-molecule magnetic and electrocatalytic properties. New Journal of Chemistry, 0, , .	1.4	0
3375	Synergy between isolated Fe and Co sites accelerates oxygen evolution. Nano Research, 2023, 16, 2218-2223.	5.8	26
3376	Potential dependence of OER/EOP performance on heteroatom-doped carbon materials by grand canonical density functional theory. Journal of Chemical Physics, 2022, 157, .	1.2	4

#	Article	IF	Citations
3377	Morphology Effect of Co₃O₄ Nanooctahedron in Boosting Oxygen Reduction and Oxygen Evolution Reactions. Energy & Fuels, 2022, 36, 13863-13872.	2.5	3
3378	First-Principles Study on the Electrocatalytic Oxygen Evolution Reaction on the (110) Surfaces of Layered Double Hydroxides. Journal of Physical Chemistry C, 2022, 126, 18351-18365.	1.5	5
3379	Studies on oxygen evolution reaction performance of porous Co3O4â€“NiOâ€“B2O3 composites. Chemical Papers, 0, , .	1.0	1
3380	CoFeNiMnZnB as a High-Entropy Metal Boride to Boost the Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2022, 14, 48212-48219.	4.0	11
3381	Emerging chemical driving force in electrocatalytic water splitting. EcoMat, 2023, 5, .	6.8	18
3382	Surface Reconstruction of Cobalt-Based Polyoxometalate and CNT Fiber Composite for Efficient Oxygen Evolution Reaction. Catalysts, 2022, 12, 1242.	1.6	13
3383	Three-dimensional carbon-based endogenous-exogenous MoO2 composites as high-performance negative electrode in asymmetric supercapacitors and efficient electrocatalyst for oxygen evolution reaction. Ceramics International, 2023, 49, 5646-5656.	2.3	8
3384	Coupling photocatalytic water oxidation with reductive transformations of organic molecules. Nature Communications, 2022, 13, .	5.8	17
3385	Model Uncertainty and Correctability for Directed Graphical Models. SIAM-ASA Journal on Uncertainty Quantification, 2022, 10, 1461-1512.	1.1	0
3386	Amorphous Iron-Doped Nickel Selenide Film on Nickel Foam via One-Step Electrodeposition Method for Overall Water Splitting. Electrocatalysis, 0, , .	1.5	0
3387	Au-TiO2/Ti Hybrid Coating as a Liquid and Gas Diffusion Layer with Improved Performance and Stability in Proton Exchange Membrane Water Electrolyzer. Molecules, 2022, 27, 6644.	1.7	4
3388	Modulation of IrO₆ Chemical Environment for Highly Efficient Oxygen Evolution in Acid. Small, 2022, 18, .	5.2	14
3389	Emerging noble metal-free Mo-based bifunctional catalysts for electrochemical energy conversion. Nano Research, 2022, 15, 10234-10267.	5.8	9
3390	Advances in nonprecious metal catalysts for efficient water oxidation in alkaline media. Ionics, 2023, 29, 9-32.	1.2	3
3391	Reducing energy barriers by multi-interface design on MXene with confined Fe-doped CoSe₂ for ultra-efficient OER electrocatalysis. Applied Physics Letters, 2022, 121, 173902.	1.5	1
3392	Construction of Niâ€Coâ€Fe Hydr(oxy)oxide@Niâ€Co Layered Double Hydroxide Yolkâ€Shelled Microrods for Enhanced Oxygen Evolution. Angewandte Chemie - International Edition, 2022, 61, .	7.2	57
3393	Improved Activity of PdO Supported over Co₃O₄ in the Electrocatalytic Oxygen Evolution Reaction in a Wide pH Range. Energy & Fuels, 2022, 36, 12719-12728.	2.5	2
3394	Fabrication and evaluation of a self-standing reduced graphene-tungsten oxides hybrid electrode for acidic water splitting. International Journal of Hydrogen Energy, 2022, 47, 36381-36396.	3.8	5

#	Article	IF	Citations
3395	Controlled Electrophoretic Deposition Strategy of Binder-Free CoFe₂O₄ Nanoparticles as an Enhanced Electrocatalyst for the Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2022, 14, 48598-48608.	4.0	4
3396	Ternary FeCo₂Mo₅ Oxyhydroxide Nanosheets Integrate on the Surface-Vulcanized Ni Foam for Excellent Electrocatalytic Oxygen Evolution. ACS Applied Energy Materials, 2022, 5, 12937-12944.	2.5	0
3397	Promoting nickel oxidation state transitions in single-layer NiFeB hydroxide nanosheets for efficient oxygen evolution. Nature Communications, 2022, 13, .	5.8	101
3398	Electrodeposition of Metalâ€Free Polyaniline Electrocatalyst for Efficient Oxygen Evolution in Acid. ChemElectroChem, 2022, 9, .	1.7	4
3399	Polymerâ€derived ceramics for electrocatalytic energy conversion reactions. International Journal of Applied Ceramic Technology, 0, , .	1.1	1
3400	Overall water splitting realized by overall sputtering thin-film technology for a bifunctional MoNiFe electrode: A green technology for green hydrogen. Applied Catalysis B: Environmental, 2023, 322, 122103.	10.8	26
3401	Single-Atomic Ir and Mo Co-Confined in a Co Layered Hydroxide Nanobox Mutually Boost Oxygen Evolution. ACS Catalysis, 2022, 12, 13513-13522.	5.5	7
3402	Construction of Niâ€Coâ€Fe Hydr(oxy)oxide@Niâ€Co Layered Double Hydroxide Yolkâ€Shelled Microrods for Enhanced Oxygen Evolution. Angewandte Chemie, 2022, 134, .	1.6	3
3403	Ceria-Promoted Reconstruction of Ni-Based Electrocatalysts toward Efficient Oxygen Evolution. ACS Catalysis, 2022, 12, 13951-13960.	5.5	36
3404	Rational Design and Engineering of Metalâ€“Organic Framework-Derived Trimetallic NiCoFe-Layered Double Hydroxides as Efficient Electrocatalysts for Water Oxidation Reaction. ACS Sustainable Chemistry and Engineering, 2022, 10, 14693-14704.	3.2	6
3405	Spray-flame-synthesized Sr- and Fe-substituted LaCoO3 perovskite nanoparticles with enhanced OER activities. Journal of Materials Science, 2022, 57, 18923-18936.	1.7	1
3406	Assessing the Transformations of Supported Nanocatalysts Used in the Oxygen Evolution Reaction: A Case Study Using NiFe₂O₄ Nanoparticles Supported on Textured Ni Electrodes. ACS Applied Energy Materials, 2022, 5, 13222-13233.	2.5	2
3407	Iron adsorption engineering facilitated by Cu doping on cobalt hydroxide host with enhanced oxygen evolution reaction. Nano Research, 2023, 16, 2111-2118.	5.8	2
3408	Plasmaâ€induced Moâ€doped Co₃O₄ with enriched oxygen vacancies for electrocatalytic oxygen evolution in water splitting. , 2023, 5, .		79
3409	Enhancing OER Activity of Ni/Co Oxides via Fe/Mn Substitution within Tailored Mesoporous Frameworks. ACS Applied Energy Materials, 2022, 5, 13385-13397.	2.5	13
3410	Iron Single Atomsâ€Assisted Cobalt Nitride Nanoparticles to Strengthen the Cycle Life of Rechargeable Znâ€“Air Battery. Small, 2022, 18, .	5.2	14
3411	Nickel hydroxide anchored CNT-Co3O4-N-carbon bifunctional catalyst for rechargeable zinc-air batteries. Journal of the Taiwan Institute of Chemical Engineers, 2022, 140, 104559.	2.7	6
3412	Average metal ion electronegativity as a general descriptor for screening Ni-based double hydroxides with high electrocatalytic water oxidation activity. Journal of Electroanalytical Chemistry, 2022, 925, 116901.	1.9	0

#	Article	IF	Citations
3413	Application of Oxygen Reduction Reaction, Oxygen Evolution Reaction and Hydrogen Evolution Reaction in Electrochemical Biosensing. International Journal of Electrochemical Science, 0, , ArticleID:221152.	0.5	0
3414	Rational design of advanced oxygen electrocatalysts for high-performance zinc-air batteries. Chem Catalysis, 2022, 2, 3357-3394.	2.9	7
3415	A versatile artificial metalloenzyme scaffold enabling direct bioelectrocatalysis in solution. Science Advances, 2022, 8, .	4.7	2
3416	Nitrogen-doped carbon decorated-Ni3Fe@Fe3O4 electrocatalyst with enhanced oxygen evolution reaction performance. Journal of Electroanalytical Chemistry, 2022, 925, 116887.	1.9	8
3417	Heat-Induced Magnetic Transition for Water Electrolysis on NiFeN@NiFeOOH Coreâ€“Shell Assembly. Nano Letters, 2022, 22, 9131-9137.	4.5	4
3418	Heterointerface engineering of Ni3S2@NiCo-LDH core-shell structure for efficient oxygen evolution reaction under intermittent conditions. Electrochimica Acta, 2022, 435, 141438.	2.6	10
3419	Facile synthesis of Er-MOF/FeO nanocomposite for oxygen evolution reaction. Materials Chemistry and Physics, 2022, 292, 126861.	2.0	10
3420	Charged matrix stabilized cobalt oxide electrocatalyst with extraordinary oxygen evolution performance at pH 7. Electrochimica Acta, 2022, 436, 141448.	2.6	3
3421	New high-entropy transition-metal sulfide nanoparticles for electrochemical oxygen evolution reaction. Electrochimica Acta, 2022, 436, 141444.	2.6	17
3422	Irreversible oxidation of hydroxide ion in the light of negative capacitance by fast scan voltammetry. Journal of Electroanalytical Chemistry, 2022, 926, 116919.	1.9	0
3423	Hierarchical NiCo2S4@NiMoO4 nanotube arrays on nickel foam as an advanced bifunctional electrocatalyst for efficient overall water splitting. Electrochimica Acta, 2022, 436, 141393.	2.6	10
3424	In-situ hydrothermal synthesis of NiCo(X)Se compound on nickel foam for efficient performance of water splitting reaction in alkaline media. Journal of Electroanalytical Chemistry, 2022, 926, 116929.	1.9	6
3425	Tunable active-sites of Coâ€“ nanoparticles encapsulated in carbon nanofiber as high performance bifunctional OER/ORR electrocatalyst. Journal of Colloid and Interface Science, 2023, 630, 140-149.	5.0	36
3426	Moâ€“Ag nanocomposite catalysts for the oxygen evolution reaction. Journal of Physics and Chemistry of Solids, 2023, 172, 111041.	1.9	2
3427	Water splitting performance of metal and non-metal-doped transition metal oxide electrocatalysts. Coordination Chemistry Reviews, 2023, 474, 214864.	9.5	90
3428	Nickel-iron layered silicate nanomembrane as efficient electrocatalyst for oxygen evolution reaction in alkaline media. Fuel, 2023, 332, 126209.	3.4	5
3429	Single molecule reactivity studies of metallo-porphyrins at solid-liquid interfaces. , 2024, , 14-22.		0
3430	N, S co-doped carbon with embedment of FeNi alloy as bifunctional oxygen electrocatalysts for rechargeable Zinc-air batteries. Carbon, 2023, 202, 141-149.	5.4	18

#	Article	IF	Citations
3431	Electrocatalytic activity of layered oxides SrLaAl1/2M1/2O4 (M = Mn, Fe, Co) for hydrogen- and oxygen-evolution reactions. Materials Chemistry and Physics, 2023, 293, 126942.	2.0	6
3432	Designing catalysts via evolutionary-based optimization techniques. Computational Materials Science, 2023, 216, 111833.	1.4	4
3433	Electrochemical hydroxidation of sulfide for preparing sulfur-doped NiFe (oxy) hydroxide towards efficient oxygen evolution reaction. Chemical Engineering Journal, 2023, 454, 140030.	6.6	7
3434	Controlled synthesis of highly active bifunctional electrocatalysts for overall water splitting using coal-based activated carbons. Journal of Materials Chemistry A, 0, , .	5.2	10
3435	Improving the electrocatalytic oxygen evolution byin situconstructing 1D Co₉S₈/Co(OH)F heterointerfaces. New Journal of Chemistry, 2022, 46, 23060-23065.	1.4	1
3436	Fabrication of nanocage structured based electrocatalyst for oxygen evolution reactions. Materials Letters, 2023, 331, 133416.	1.3	4
3437	Designing dual-dimensional Co4N/Co nanoheterostructures by molybdenum incorporation for boosted alkaline hydrogen evolution catalysis. Journal of Alloys and Compounds, 2023, 935, 167989.	2.8	6
3439	Efficient Ternary Mnâ€Based Spinel Oxide with Multiple Active Sites for Oxygen Evolution Reaction Discovered via Highâ€Throughput Screening Methods. Small, 0, , 2204520.	5.2	0
3440	Promoted oxygen evolution reaction efficiency by Ni3S2/WO3 nanocomposite anchored over rGO. International Journal of Hydrogen Energy, 2023, 48, 3373-3384.	3.8	2
3441	Atmospheric-Water-Induced Reversible Structural Transformation of a Two-Dimensional Ni(II)-Based Ferromagnetic MOF: A Highly Efficient Water Oxidation Electrocatalyst and Colorimetric Water Sensor. ACS Sustainable Chemistry and Engineering, 2022, 10, 16657-16669.	3.2	5
3442	Strong Electron Coupling Effect at the CoO/CeO₂ Interface Enables Efficient Oxygen Evolution Reaction. , 2022, 4, 2572-2578.		16
3443	Diffusion-Mediated Morphological Transformation in Bifunctional Mn₂O₃/CuOâ€“(VO)₃(PO₄)₂·6H₂O for Enhanced Electrochemical Water Splitting. ACS Applied Materials & Interfaces, 2022, 14, 52204-52215.	4.0	6
3444	Tuning the d-Band States of Ni-Based Serpentine Materials via Fe³⁺ Doping for Efficient Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2022, 14, 52857-52867.	4.0	11
3445	Manifold improvement of water oxidation activity of NaCoO2 by selective cation exchange. International Journal of Hydrogen Energy, 2022, , .	3.8	1
3446	Identifying the geometric catalytic active sites of crystalline cobalt oxyhydroxides for oxygen evolution reaction. Nature Communications, 2022, 13, .	5.8	36
3447	IrPt Alloy Nanoparticles with Controllable Compositions as Catalysts for Electrochemical Oxygen and Hydrogen Evolution. ACS Applied Nano Materials, 2022, 5, 17152-17158.	2.4	3
3448	Scalable Oxygen-assisted-Fe2+ Etching Approach towards Amorphous/Crystalline Structure Fe-Ni2P Nanoarray for Efficient Water Splitting. Journal of Alloys and Compounds, 2022, , 168073.	2.8	2
3449	LaCoO₃ Perovskite Nanoparticles Embedded in NiCo₂O₄ Nanoflowers as Electrocatalysts for Oxygen Evolution. ACS Applied Nano Materials, 2022, 5, 16344-16353.	2.4	18

#	Article	IF	Citations
3450	Growth of Multiple Island Layers during Iron Oxide Atomic Layer Deposition: An Electron Microscopy and Spectroscopic Ellipsometry Investigation. Journal of Physical Chemistry C, 2022, 126, 19883-19894.	1.5	0
3451	Modulation to favorable surface adsorption energy for oxygen evolution reaction intermediates over carbon-tunable alloys towards sustainable hydrogen production. Materials for Renewable and Sustainable Energy, 2022, 11, 169-213.	1.5	3
3452	Engineering Amorphous/Crystalline Rod-like Coreâ€“Shell Electrocatalysts for Overall Water Splitting. ACS Applied Materials & Interfaces, 2022, 14, 50783-50793.	4.0	17
3453	In-situ growth of nanostructured nickel sulphides on nickel foam platform for boosting the electrocatalytic activity of overall water splitting. Journal of Alloys and Compounds, 2023, 935, 168056.	2.8	7
3454	Challenges and Opportunities of Transition Metal Oxides as Electrocatalysts. Chemistry - A European Journal, 2023, 29, .	1.7	30
3455	Advances in Graphene-Supported Single-Atom Catalysts for Clean Energy Conversion. Electrochemical Energy Reviews, 2022, 5, .	13.1	17
3456	In Situ Quantification of the Active Sites, Turnover Frequency, and Stability of Niâ€“Fe (Oxy)hydroxides for the Oxygen Evolution Reaction. ACS Catalysis, 2022, 12, 14280-14289.	5.5	16
3457	Twoâ€Dimensional Multicomponent Quasicrystal as Bifunctional Electrocatalysts for Alkaline Oxygen and Hydrogen Evolution Reactions. Energy Technology, 2023, 11, .	1.8	3
3458	Regulated Bimetal-Doped Polyaniline: Amorphous-Crumple-Structured Viable Electrocatalyst for an Efficient Oxygen Evolution Reaction. Energy & Fuels, 2022, 36, 14349-14360.	2.5	11
3459	Efficient Alkaline Water/Seawater Electrolysis by Development of Ultra-Low IrO₂ Nanoparticles Decorated on Hierarchical MnO₂/rGO Nanostructure. ACS Sustainable Chemistry and Engineering, 2022, 10, 15068-15081.	3.2	33
3460	Aerogels-Inspired based Photo and Electrocatalyst for Water Splitting to Produce Hydrogen. Applied Materials Today, 2022, 29, 101670.	2.3	4
3461	Designing cactus-like Fe-P doped CoNi-S arrays as highly efficient electrocatalyst for overall water splitting. Journal of Industrial and Engineering Chemistry, 2023, 118, 383-392.	2.9	1
3462	Tuning the Spin State of Co³⁺ by Crystal Facet Engineering for Enhancing the Oxygen Evolution Reaction Activity. Chemistry of Materials, 2022, 34, 10509-10516.	3.2	7
3463	Unveiling Chemically Robust Bimetallic Squarateâ€Based Metalâ€“Organic Frameworks for Electrocatalytic Oxygen Evolution Reaction. Advanced Energy Materials, 2023, 13, .	10.2	22
3464	Direct Visualization of Atomic Structure in Multivariate Metalâ€Organic Frameworks (MOFs) for Guiding Electrocatalysts Design. Angewandte Chemie - International Edition, 2023, 62, .	7.2	13
3465	Self-Supporting Metal-Organic Framework-Based Nanoarrays for Electrocatalysis. ACS Nano, 2022, 16, 19913-19939.	7.3	31
3466	Direct Visualization of Atomic Structure in Multivariate Metalâ€Organic Frameworks (MOFs) for Guiding Electrocatalysts Design. Angewandte Chemie, 2023, 135, .	1.6	7
3467	Water oxidation couples to electrocatalytic hydrogenation of carbonyl compounds and unsaturated carbonâ€“carbon bonds by nickel. Scientific Reports, 2022, 12, .	1.6	2

#	Article	IF	Citations
3468	Interface engineering of iron-doped multiphase nickel hydroxide as an effective electrocatalyst for oxygen evolution reaction. Applied Surface Science, 2023, 611, 155781.	3.1	4
3469	Laser irradiation synthesized carbon encapsulating ultrafine transition metal nanoparticles for highly efficient oxygen evolution. Journal of Electroanalytical Chemistry, 2023, 928, 117007.	1.9	1
3470	Interference effect of nitrogen-doped CQDs on tailoring nanostructure of CoMoP for improving high-effective water splitting. Electrochimica Acta, 2023, 438, 141595.	2.6	7
3471	Metal-doped nickel-based chalcogenides and phosphochalcogenides for electrochemical water splitting. Energy Advances, 0, , .	1.4	3
3472	Magnetic-field-regulated Ni-Fe-Mo ternary alloy electrocatalysts with enduring spin polarization enhanced oxygen evolution reaction. Chemical Engineering Journal, 2023, 455, 140821.	6.6	16
3473	Self-sacrificial growth of hierarchical P(Ni, Co, Fe) for enhanced asymmetric supercapacitors and oxygen evolution reactions. Electrochimica Acta, 2023, 438, 141582.	2.6	10
3474	Synergistic copper nanoparticles and adjacent single atoms on biomass-derived N-doped carbon toward overall water splitting. Inorganic Chemistry Frontiers, 2023, 10, 443-453.	3.0	10
3475	High-performing catalysts for energy-efficient commercial alkaline water electrolysis. Sustainable Energy and Fuels, 2022, 7, 31-60.	2.5	18
3476	ZnFe2O4 nanoparticles decorated on rectangular ZnO nanosheets for enhanced photo-induced current generation via photoelectrochemical process. Journal of Electroanalytical Chemistry, 2023, 928, 117075.	1.9	2
3477	Tuning electrocatalytic water oxidation by MnO_x through the incorporation of abundant metal cations. Sustainable Energy and Fuels, 2022, 7, 92-105.	2.5	3
3478	Efficient interlayer confined nitrate reduction reaction and oxygen generation enabled by interlayer expansion. Nanoscale, 2022, 15, 204-214.	2.8	4
3479	Screen-printed nickel hydroxide electrodes: Semiconducting, electrocatalytic, and electrochromic properties. Journal of Electroanalytical Chemistry, 2023, 928, 117052.	1.9	1
3480	Boosting electrocatalytic water oxidation of NiFe layered double hydroxide via the synergy of 3dâ€“4f electron interaction and citrate intercalation. Journal of Materials Chemistry A, 2023, 11, 1944-1953.	5.2	11
3481	Topologic transition-induced abundant undercoordinated Fe active sites in NiFeOOH for superior oxygen evolution. Nano Energy, 2023, 106, 108044.	8.2	10
3482	Metal-glycerolates and their derivatives as electrode materials: A review on recent developments, challenges, and future perspectives. Coordination Chemistry Reviews, 2023, 477, 214954.	9.5	13
3483	Research progress on high entropy alloys and high entropy derivatives as OER catalysts. Journal of Environmental Chemical Engineering, 2023, 11, 109080.	3.3	13
3484	Anion exchange membrane: A valuable perspective inÂemerging technologies of low temperature water electrolysis. Current Opinion in Electrochemistry, 2023, 37, 101178.	2.5	5
3485	The role of various components in Ru-NiCo alloys in boosting the performance of overall water splitting. Journal of Colloid and Interface Science, 2023, 633, 189-198.	5.0	16

#	Article	IF	Citations
3486	Realizing the synergy of interface engineering and surface reconstruction in Ni(OH)2 for superior water oxidation. Journal of Alloys and Compounds, 2023, 936, 168175.	2.8	2
3487	Electrodeposition of Ni - Fe on graphite rod as an efficient and binder-free electrocatalyst for oxygen and hydrogen evolution reactions. Journal of Alloys and Compounds, 2023, 937, 168400.	2.8	12
3488	Nitrogen-doped carbon fibers loaded with Co/Co2Mn3O8 alloy nanoparticles as bifunctional oxygen electrocatalysts for rechargeable zinc-air batteries. Journal of Alloys and Compounds, 2023, 936, 168210.	2.8	3
3489	Fluidized nanoparticles catalyzed oxygen evolution reaction: Enhanced stability, kinetics and electrocatalytic activity. Chemical Engineering Journal, 2023, 455, 140574.	6.6	1
3490	The boosting electrocatalytic OER and 4-nitrophenol oxidation over bimetallic ZIF-67/Fe2O3 p-n conjunction: Experiments and DFT calculations. Journal of Alloys and Compounds, 2023, 937, 168373.	2.8	4
3491	Anion-tuning of cobalt-based chalcogenides for efficient oxygen evolution in weakly alkaline seawater. Chemical Engineering Science, 2023, 267, 118366.	1.9	8
3492	Ambiguities and best practices in the determination of active sites and real surface area of monometallic electrocatalytic interfaces. Journal of Colloid and Interface Science, 2023, 634, 169-175.	5.0	7
3493	Constructing abundant phase interfaces of the sulfides/metal-organic frameworks p-p heterojunction array for efficient overall water splitting and urea electrolysis. Journal of Colloid and Interface Science, 2023, 634, 630-641.	5.0	11
3494	Interfacial electronic coupling in Mn3O4/C@FeOOH nano-octahedrals regulates intermediate adsorption for highly efficient oxygen evolution reaction. Applied Surface Science, 2023, 612, 155951.	3.1	8
3495	Amorphous FeCoNiBO_x nanosheets as highly active and durable electrocatalysts for oxygen evolution reaction in alkaline electrolyte. New Journal of Chemistry, 2022, 46, 22989-22993.	1.4	3
3496	MoO₂ nanosheets anchored with Co nanoparticles as a bifunctional electrocatalytic platform for overall water splitting. RSC Advances, 2022, 12, 34760-34765.	1.7	5
3497	Applied Potential Effect on ZnFe2O4-Fe2O3 Heterostructure for Generation of Photocurrents under Irradiation. Crystals, 2022, 12, 1726.	1.0	0
3498	Highly Efficient and Durable Anion Exchange Membrane Water Electrolyzer Enabled by a Feâ€“Ni₃S₂ Anode Catalyst. Advanced Energy and Sustainability Research, 2023, 4, .	2.8	6
3499	Improving the Oxygen Evolution Activity of Layered Doubleâ€Hydroxide via Erbiumâ€Induced Electronic Engineering. Small, 2023, 19, .	5.2	53
3500	Effect of Electrolytes on the BiOI/SnO2 Heterostructure to Achieve Stable Photo-Induced Carrier Generation. Crystals, 2022, 12, 1727.	1.0	0
3501	Metal sulfide heterojunction with tunable interfacial electronic structure as an efficient catalyst for lithium-oxygen batteries. Science China Materials, 2023, 66, 1341-1351.	3.5	3
3502	Acid-stable antimonate based catalysts for the electrocatalytic oxygen evolution reaction. Nano Research, 2023, 16, 4691-4697.	5.8	4
3503	Recent Advances and Future Perspectives of Metalâ€Based Electrocatalysts for Overall Electrochemical Water Splitting. Chemical Record, 2023, 23, .	2.9	16

#	Article	IF	Citations
3504	NiFe Layered Double Hydroxide Electrocatalyst Prepared via an Electrochemical Deposition Method for the Oxygen Evolution Reaction. Catalysts, 2022, 12, 1470.	1.6	6
3505	Calculation of the Tafel slope and reaction order of the oxygen evolution reaction between pH 12 and pH 14 for the adsorbate mechanism. Electrochemical Science Advances, 2023, 3, .	1.2	10
3506	Electrocatalytic Oxygen Reduction Reaction on 48-Tungsto-8-Phosphate Wheel Anchored on Carbon Nanomaterials. Electrocatalysis, 2023, 14, 294-305.	1.5	3
3507	Structure-Induced Catalytic Activity of Nickel- and Cobalt-Substituted Layered MoB₂ toward Hydrogen Evolution. ACS Sustainable Chemistry and Engineering, 2022, 10, 15909-15925.	3.2	6
3508	Minireview: Niâ€“Fe and Niâ€“Co Metalâ€“Organic Frameworks for Electrocatalytic Waterâ€Splitting Reactions. Small Structures, 2023, 4, .	6.9	17
3509	Nonâ€Kinetic Effects Convolute Activity and Tafel Analysis for the Alkaline Oxygen Evolution Reaction on NiFeOOH Electrocatalysts. Angewandte Chemie, 2023, 135, .	1.6	11
3510	Nonâ€Kinetic Effects Convolute Activity and Tafel Analysis for the Alkaline Oxygen Evolution Reaction on NiFeOOH Electrocatalysts. Angewandte Chemie - International Edition, 2023, 62, .	7.2	27
3511	Recent developments and future perspectives on energy storage and conversion applications of nickel molybdates. Energy Storage, 2023, 5, .	2.3	1
3512	Y and Fe co-doped LaNiO3 perovskite as a novel bifunctional electrocatalyst for rechargeable zinc-air batteries. International Journal of Hydrogen Energy, 2023, 48, 8082-8092.	3.8	11
3513	Metal Doping and Ligand Engineering as Tools for Tailoring the Electronic Structure of Coordination Polymers and their Oxygen Evolution Electrocatalytic Activity. European Journal of Inorganic Chemistry, 2023, 26, .	1.0	2
3514	Self-supported ultrathin Co3O4 nanoarray enabling efficient paired electrolysis of 5-hydroxymethylfurfural for simultaneous dihydroxymethylfuran (DHMF) and furandicarboxylic acid (FDCA) production. Chinese Chemical Letters, 2023, 34, 108034.	4.8	3
3515	Bilayer MN4-O-MN4 by bridge-bonded oxygen ligands: Machine learning to accelerate the design of bifunctional electrocatalysts. Renewable Energy, 2023, 203, 445-454.	4.3	8
3516	Tuning of eg electron occupancy of MnCo2O4 spinel for oxygen evolution reaction by partial substitution of Co by Fe at octahedral sites. International Journal of Hydrogen Energy, 2023, 48, 8854-8866.	3.8	7
3517	Surface-neutralization engineered NiCo-LDH/phosphate hetero-sheets toward robust oxygen evolution reaction. Green Energy and Environment, 2022, , .	4.7	10
3518	Remarkably Low Oxygen Evolution Reaction Overpotentials using Two-Dimensional Ternary Vanadium Compounds. Applied Surface Science, 2023, 614, 156236.	3.1	2
3519	Designing bifunctional ZIF-67 derivatives decorated N-doped carbon nanotubes as an electrocatalyst for oxygen conversion reaction in rechargeable zinc-air battery. Journal of the Taiwan Institute of Chemical Engineers, 2022, 141, 104598.	2.7	4
3520	Electrodeposition of nickelâ€“iron on stainless steel as an efficient electrocatalyst coating for the oxygen evolution reaction in alkaline conditions. Journal of Applied Electrochemistry, 0, , .	1.5	2
3521	Magnetoelectric Coupling for Metalâ€“Air Batteries. Advanced Functional Materials, 2023, 33, .	7.8	8

#	Article	IF	Citations
3522	Introduction to Electrocatalysts. ACS Symposium Series, 0, , 1-29.	0.5	0
3523	Operando identification of a side-on nickel superoxide intermediate and the mechanism of oxygen evolution on nickel oxyhydroxide. Chem Catalysis, 2023, 3, 100475.	2.9	13
3524	Selectively Enhanced Electrocatalytic Oxygen Evolution within Nanoscopic Channels Fitting a Specific Reaction Intermediate for Seawater Splitting. Small, 2023, 19, .	5.2	11
3525	Longâ€Term Stability Challenges and Opportunities in Acidic Oxygen Evolution Electrocatalysis. Angewandte Chemie, 2023, 135, .	1.6	2
3526	Non-noble-metal electrocatalysts for oxygen evolution reaction toward seawater splitting: A review. ChemPhysMater, 2023, 2, 185-196.	1.4	12
3527	In-Situ Decoration of Platinum Nanoparticles on Nb₂CT_x MXene: An Electrochemical Sensor for L-Cysteine and an Efficient Catalyst for Oxygen Evolution Reaction. ECS Journal of Solid State Science and Technology, 2022, 11, 127002.	0.9	1
3528	Tailoring Spin State of Perovskite Oxides by Fluorine Atom Doping for Efficient Oxygen Electrocatalysis. Small, 2023, 19, .	5.2	13
3529	Partial Sulphidation to Regulate Coordination Structure of Single Nickel Atoms on Graphitic Carbon Nitride for Efficient Solar H₂ Evolution. Small, 2023, 19, .	5.2	6
3530	Ru tailored hydrous cobalt phosphate as a rational approach for high-performance alkaline oxygen evolution reaction. Materials Today Chemistry, 2022, 26, 101267.	1.7	2
3531	Electrocatalysts for the Oxygen Evolution Reaction in Acidic Media. Advanced Materials, 2023, 35, .	11.1	35
3532	Electrocatalysts for Flexible Devices. ACS Symposium Series, 0, , 237-257.	0.5	0
3533	Preparation of N _x â"Fe/Fe ₃ C/KVO ₃ composites by heat treatment for highâ€performance electrocatalytic oxygen evolution. ChemistrySelect, 2022, 7, .	0.7	1
3534	Electrochemical Oxidation of Primary Alcohols Using a Co₂NiO₄ Catalyst: Effects of Alcohol Identity and Electrochemical Bias on Product Distribution. ACS Catalysis, 2023, 13, 515-529.	5.5	9
3535	Identification of the Origin for Reconstructed Active Sites on Oxyhydroxide for Oxygen Evolution Reaction. Advanced Materials, 2023, 35, .	11.1	54
3536	Accelerate oxygen evolution reaction by adding chemical mediator and utilizing solar energy. International Journal of Hydrogen Energy, 2023, 48, 8898-8908.	3.8	1
3537	Hot carrier photochemistry on metal nanoparticles. Journal of Applied Physics, 2022, 132, .	1.1	5
3538	Rational design of carbon-based electrocatalysts for enhancing redox reactions in rechargeable metal batteries. Nano Research, 2023, 16, 4246-4276.	5.8	10
3539	Recent progress in non-noble metal-based electrocatalysts for urea-assisted electrochemical hydrogen production. International Journal of Hydrogen Energy, 2023, 48, 7219-7259.	3.8	20

#	Article	IF	Citations
3540	Thin Film-Based Electrocatalysts for Water-Splitting Applications. ACS Symposium Series, 0, , 53-76.	0.5	0
3542	Semiconductor Catalysts for Oxygen and Hydrogen Evolution Reactions. ACS Applied Energy Materials, 2022, 5, 14593-14604.	2.5	4
3543	Research Advances in Amorphousâ€Crystalline Heterostructures Toward Efficient Electrochemical Applications. Small, 2023, 19, .	5.2	25
3544	Application of HTS in Green Hydrogen and Fuel Cells. Nanostructure Science and Technology, 2023, , 13-54.	0.1	0
3545	High-Entropy Materials: Controllable Synthesis, Deep Characterization, Electrochemical Energy Application, and Outlook. Energy & Fuels, 2023, 37, 36-57.	2.5	7
3546	Constructing the heterostructure of sulfide and layered double hydroxide as bifunctional electrocatalyst for overall water splitting. Journal of Solid State Electrochemistry, 2023, 27, 575-583.	1.2	1
3547	Longâ€Term Stability Challenges and Opportunities in Acidic Oxygen Evolution Electrocatalysis. Angewandte Chemie - International Edition, 2023, 62, .	7.2	61
3548	Dynamic Coordination Structure Evolutions of Atomically Dispersed Metal Catalysts for Electrocatalytic Reactions. Advanced Materials Interfaces, 2023, 10, .	1.9	8
3549	Undulated Ni(II)-Framework with In Situ-Grafted Open-Metal and Basic Sites for High-Performance Electrochemical Water Oxidation and Flexible Composite-Driven Size-Exclusive Autotandem Catalysis. ACS Sustainable Chemistry and Engineering, 2023, 11, 979-993.	3.2	11
3550	CoFe-loaded P, N co-doped carbon foam derived from petroleum pitch waste: An efficient electrocatalyst for oxygen evolution reaction. Catalysis Today, 2023, 423, 113991.	2.2	1
3551	Highâ€Density NiMnFe Hydroxide Nanoparticleâ€Nanosheet Arrays for Industrialâ€Level Electrochemical Oxygen Evolution Reaction. ChemistrySelect, 2022, 7, .	0.7	0
3552	Mo modified Co3O4 nanosheets array by a rapid quenching strategy for efficient oxygen evolution electrocatalysis. Frontiers in Materials, 0, 9, .	1.2	0
3553	N-doped graphitic carbon encapsulating cobalt nanoparticles derived from novel metalâ€“organic frameworks for electrocatalytic oxygen evolution reaction. Chinese Chemical Letters, 2023, 34, 108056.	4.8	3
3554	Active Surface Area and Intrinsic Catalytic Oxygen Evolution Reactivity of NiFe LDH at Reactive Electrode Potentials Using Capacitances. ACS Catalysis, 2023, 13, 1186-1196.	5.5	36
3555	Controlled fabrication of Ruâ€“Oâ€“Se composites for enhanced acidic oxygen evolution. Advanced Composites and Hybrid Materials, 2023, 6, .	9.9	2
3556	Dual-Cation-Coordinated CoFe-Layered Double-Hydroxide Nanosheets Using the Pulsed Laser Ablation Technique for Efficient Electrochemical Water Splitting: Mechanistic Screening by In Situ/Operando Raman and Density Functional Theory Calculations. ACS Catalysis, 2023, 13, 1477-1491.	5.5	32
3557	Recent advances in Ru-based electrocatalysts for oxygen evolution reaction. Journal of Materials Chemistry A, 2023, 11, 1634-1650.	5.2	33
3558	The Influence of Loadings and Substrates on the Performance of Nickelâ€Based Catalysts for the Oxygen Evolution Reaction. ChemElectroChem, 2023, 10, .	1.7	3

#	Article	IF	Citations
3559	Constructing LaNiO3/NiO heterostructure via selective dissolution of A-site cations from La1â^'xSrxNiO3 for promoting oxygen evolution reaction. Journal of Alloys and Compounds, 2023, 941, 168908.	2.8	6
3560	Nickelâ€doped Co₃O₄ electrocatalyst derived from bimetal zeolitic imidazolate frameworks for the oxygen evolution reaction of electrolysis. Applied Organometallic Chemistry, 2023, 37, .	1.7	1
3561	Electrolyte Engineering Stabilizes Photoanodes Decorated with Molecular Catalysts. ChemSusChem, 2023, 16, .	3.6	0
3562	Mechanisms of Oxygen Evolution Reaction in Metal Oxides: Adsorbate Evolution Mechanism versus Lattice Oxygen Mechanism. , 0, 2, .		0
3563	iRs-corrections induce potentially misjudging toward electrocatalytic water oxidation. Materials Today Energy, 2023, 32, 101246.	2.5	4
3564	Overview of Zinc-Air Battery. , 2023, , 1-21.		0
3565	One dimensional nickel phosphide polymorphic heterostructure as carbon-free functional support loading single-atom iridium for promoted electrocatalytic water oxidation. Journal of Energy Chemistry, 2023, 79, 410-417.	7.1	7
3566	Regulating the Electronic State of Ni in an Alloy Phase by Heterogeneous Structures of FeNi3-WC/C to Reach a High Performance for Oxygen Evolution Reaction. Journal of the Electrochemical Society, 2023, 170, 016505.	1.3	0
3567	Ionic liquids: Promisingly functional mediators in electrocatalysts for water splitting. Nano, 0, , .	0.5	0
3568	Heteroatom Doped Amorphous/Crystalline Ruthenium Oxide Nanocages as a Remarkable Bifunctional Electrocatalyst for Overall Water Splitting. Small, 2023, 19, .	5.2	10
3569	Construction of FeOOH modified CoM_xO_y (M = Mo, W, V) on nickel foam for highly efficient oxygen evolution reaction. Sustainable Energy and Fuels, 2023, 7, 977-985.	2.5	2
3570	MOF-Derived Urchin-like Co9S8-Ni3S2 Composites on Ni Foam as Efficient Self-Supported Electrocatalysts for Oxygen Evolution Reaction. Batteries, 2023, 9, 46.	2.1	1
3571	Recent Progress of Hollow Carbon Nanocages: General Design Fundamentals and Diversified Electrochemical Applications. Advanced Science, 2023, 10, .	5.6	23
3572	Hydrogen Evolution Reaction Activities of Room-Temperature Self-Grown Glycerol-Assisted Nickel Chloride Nanostructures. Catalysts, 2023, 13, 177.	1.6	3
3573	Role of Ir Decoration in Activating a Multiscale Fractal Surface in Porous Ni for the Oxygen Evolution Reaction. ACS Catalysis, 2023, 13, 1726-1739.	5.5	2
3574	Crystal Face Dominated Fabrication of Prussian Blue Analogue with Oriented Growth and Naturally Nonpreferred Unsaturated Coordination Center. Small, 2023, 19, .	5.2	1
3575	The adjacent Fe oxidation greatly enhancing OER activity on the Ni active site: S plays the role in optimizing local coordination and electronic structure. Materials Today Chemistry, 2023, 27, 101330.	1.7	2
3576	Optimization of oxygen evolution activity by tuning e*g band broadening in nickel oxyhydroxide. Energy and Environmental Science, 2023, 16, 641-652.	15.6	31

#	Article	IF	Citations
3577	Interface engineering and heterometal-doped FeOOH/Ga-Ni₃S₂nanosheet arrays for efficient electrocatalytic oxygen evolution. Inorganic Chemistry Frontiers, 2023, 10, 1348-1356.	3.0	12
3578	Synthesis of Ethane-disulfonate Pillared Layered Cobalt Hydroxide towards Electrocatalytic Oxygen Evolution Reaction. Dalton Transactions, 0, , .	1.6	1
3579	Growth of Ultrathin Well-Defined and Crystalline Films of Co₃O₄ and CoOOH by Electrodeposition. Journal of the Electrochemical Society, 2023, 170, 012501.	1.3	2
3580	Tailoring Pore Size and Catalytic Activity in Cobalt Iron Layered Double Hydroxides and Spinels by Microemulsionâ€Assisted pHâ€Controlled Coâ€Precipitation. ChemSusChem, 2023, 16, .	3.6	2
3581	Evolution of Carbonateâ€Intercalated Î³â€NiOOH from a Molecularly Derived Nickel Sulfide (Pre)Catalyst for Efficient Water and Selective Organic Oxidation. Small, 2023, 19, .	5.2	13
3582	Demonstrating the source of inherent instability in NiFe LDH-based OER electrocatalysts. Journal of Materials Chemistry A, 2023, 11, 4067-4077.	5.2	34
3583	Phosphate-decorated Ni3Fe-LDHs@CoPx nanoarray for near-neutral seawater splitting. Chemical Engineering Journal, 2023, 460, 141413.	6.6	20
3584	Covalent Organic Frameworks (COFs) as Multi-Target Multifunctional Frameworks. Polymers, 2023, 15, 267.	2.0	14
3585	Bifunctional Water Splitting Performance of NiFe LDH Improved by Pd²⁺ Doping. ChemElectroChem, 2023, 10, .	1.7	3
3586	Bifunctional electrocatalytic activity of two-dimensional multilayered vanadium carbide (MXene) for ORR and OER. Materials Chemistry and Physics, 2023, 296, 127272.	2.0	11
3587	Construction of CoFe bimetallic phosphide microflowers electrocatalyst for highly efficient overall water splitting. Catalysis Communications, 2023, 175, 106607.	1.6	10
3588	A novel lead-based pseudo dimensional stable anode toward efficient and clean extraction of metallic manganese. Journal of Cleaner Production, 2023, 386, 135806.	4.6	6
3589	Auto-programmed construction of an iron-incorporated cobalt-molybdenum complex towards enhanced electrocatalytic water oxidation. Chemical Engineering Journal, 2023, 457, 140464.	6.6	3
3590	Construction of single tungsten/copper atom oxide supported on the surface of TiO2 for the higher activity of electrocatalytic water splitting and photodegradation of organic pollutant. Chemosphere, 2023, 314, 137694.	4.2	4
3591	FeCoS2/Co4S3/N-doped graphene composite as efficient electrocatalysts for overall water splitting. Electrochimica Acta, 2023, 441, 141790.	2.6	11
3592	Cobalt single atom anchored on N-doped carbon nanoboxes as typical single-atom catalysts (SACs) for boosting the overall water splitting. Chemical Engineering Journal, 2023, 458, 141435.	6.6	27
3593	Dynamically-evolved surface heterojunction in iridium nanocrystals boosting acidic oxygen evolution and overall water splitting. Journal of Energy Chemistry, 2023, 78, 374-380.	7.1	19
3594	Enhanced electrocatalytic activity with an incorporation of oxygen on the surface of di-nickel di-selenide for water splitting: A DFT-based computational design. Applied Surface Science, 2023, 614, 156255.	3.1	2

#	Article	IF	Citations
3595	LSTN (La0.4Sr0.4Ti0.9Ni0.1O3-&) perovskite and graphitic carbon nitride (g-C3N4) hybrids as a bifunctional electrocatalyst for water-splitting applications. Journal of Alloys and Compounds, 2023, 939, 168668.	2.8	13
3596	Preparation of metal-organic framework from in situ self-sacrificial stainless-steel matrix for efficient water oxidation. Applied Catalysis B: Environmental, 2023, 325, 122343.	10.8	11
3597	NiFeCo selenide nanosheets as promising electrocatalysts for oxygen evolution reaction. Journal of Alloys and Compounds, 2023, 939, 168753.	2.8	6
3598	Synergism and anion-cation dual chemical substitution in heterostructure sprouted on MXene enable high-efficiency and stable overall water splitting. Journal of Materials Science and Technology, 2023, 147, 207-216.	5.6	7
3599	Machine-Learning-Assisted Discovery of High-Efficient Oxygen Evolution Electrocatalysts. Journal of Physical Chemistry Letters, 2023, 14, 170-177.	2.1	5
3600	Ternary Copper Tungsten Sulfide (Cu2WS4) Nanoparticles Obtained through a Solvothermal Approach: A Bi-Functional Electrocatalyst for the Hydrogen Evolution Reaction (HER) and Oxygen Evolution Reaction (OER). Materials, 2023, 16, 299.	1.3	1
3601	A Highly Active, Longâ€Lived Oxygen Evolution Electrocatalyst Derived from Openâ€Framework Iridates. Advanced Materials, 2023, 35, .	11.1	20
3602	Tuning OER Electrocatalysts toward LOM Pathway through the Lens of Multi-Descriptor Feature Selection by Artificial Intelligence-Based Approach. , 2023, 5, 299-320.		10
3603	Modern Technologies of Hydrogen Production. Processes, 2023, 11, 56.	1.3	17
3604	Designing In Situ Grown Ternary Oxide/2D Ni-BDC MOF Nanocomposites on Nickel Foam as Efficient Electrocatalysts for Electrochemical Water Splitting. ACS Materials Au, 2023, 3, 143-163.	2.6	14
3605	Excellent CoO_xH_y/C Oxygen Evolution Catalysts Evolved from the Rapid In Situ Electrochemical Reconstruction of Cobalt Transition Metals Doped into the V₂SnC MAX Phase at A Layers. ACS Applied Energy Materials, 2023, 6, 1116-1125.	2.5	1
3606	Electrocatalyst of RuO2 decorating TiO2 nanowire arrays for acidic oxygen evolution. International Journal of Hydrogen Energy, 2023, 48, 10737-10754.	3.8	9
3607	Double Perovskite Oxides Bringing a Revelation in Oxygen Evolution Reaction Electrocatalyst Design. ChemElectroChem, 2023, 10, .	1.7	8
3608	Dual Integrating Oxygen and Sulphur on Surface of CoTe Nanorods Triggers Enhanced Oxygen Evolution Reaction. Advanced Science, 2023, 10, .	5.6	14
3609	Alloyingâ€Triggered Phase Engineering of NiFe System via Laserâ€Assisted Al Incorporation for Full Water Splitting. Angewandte Chemie, 0, , .	1.6	0
3610	Effect of mixed-valence of manganese on water oxidation activity of La1-xCaxMnO3 (0 â‰¤ x â‰¤ 1) solid solutions. International Journal of Hydrogen Energy, 2023, 48, 15092-15104.	3.8	0
3611	Synthesis of amorphous trimetallic PdCuNiP nanoparticles for enhanced OER. Frontiers in Chemistry, 0, 11, .	1.8	2
3612	Recent developments of MXene-based catalysts for hydrogen production by water splitting. Green Chemistry, 2023, 25, 1749-1789.	4.6	24

#	Article	IF	Citations
3613	A review on electrocatalysis for alkaline oxygen evolution reaction (OER) by Fe-based catalysts. Journal of Materials Science, 0, , .	1.7	3
3614	A Comparison of Photodeposited RuO_x for Alkaline Water Electrolysis. ACS Applied Energy Materials, 2023, 6, 1449-1458.	2.5	2
3615	Construction of an FeNi-Mo₂C@SiO₂monolith electrocatalyst with an increased number of active sites and enhanced intrinsic activity toward water oxidation. New Journal of Chemistry, 2023, 47, 4529-4536.	1.4	4
3616	One-pot synthesis of NiFe nanoarrays under an external magnetic field as an efficient oxygen evolution reaction catalyst. RSC Advances, 2023, 13, 4249-4254.	1.7	1
3617	Expediting Oxygen Evolution by Optimizing Cation and Anion Complexity in Electrocatalysts Based on Metal Phosphorous Trichalcogenides. Angewandte Chemie, 2023, 135, .	1.6	2
3618	Theoretical study of single-nonmetal-modified V2CO2 MXene as an efficient electrocatalyst for overall water splitting. International Journal of Hydrogen Energy, 2023, 48, 15473-15482.	3.8	4
3619	Transition Metalâ€based Perovskite Oxides: Emerging Electrocatalysts for Oxygen Evolution Reaction. ChemCatChem, 2023, 15, .	1.8	16
3620	Construction of a S and Fe co-regulated metal Ni electrocatalyst for efficient alkaline overall water splitting. Journal of Materials Chemistry A, 2023, 11, 4661-4671.	5.2	13
3621	Alloyingâ€Triggered Phase Engineering of NiFe System via Laserâ€Assisted Al Incorporation for Full Water Splitting. Angewandte Chemie - International Edition, 2023, 62, .	7.2	14
3622	Strongâ€Protonâ€Adsorption Coâ€Based Electrocatalysts Achieve Active and Stable Neutral Seawater Splitting. Advanced Materials, 2023, 35, .	11.1	41
3623	IrO₂ Nanoparticle-Decorated Ir-Doped W₁₈O₄₉ Nanowires with High Mass Specific OER Activity for Proton Exchange Membrane Electrolysis. ACS Applied Materials & Interfaces, 2023, 15, 6912-6922.	4.0	13
3624	Self-supporting NiMo-Fe-P nanowire arrays as bifunctional catalysts for efficient overall water splitting. Dalton Transactions, 0, , .	1.6	0
3625	Protruding N-doped carbon nanotubes on elongated hexagonal Coâ€“Nâ€“C nanoplates as bifunctional oxygen electrocatalysts for Znâ€“air batteries. Materials Chemistry Frontiers, 2023, 7, 946-954.	3.2	4
3626	Expediting Oxygen Evolution by Optimizing Cation and Anion Complexity in Electrocatalysts Based on Metal Phosphorous Trichalcogenides. Angewandte Chemie - International Edition, 2023, 62, .	7.2	7
3627	Modular electrochemical production of hydrogen using Mottâ€“Schottky Co9S8/Ni3S2 heterojunction as a redox mediator. International Journal of Hydrogen Energy, 2023, 48, 16184-16197.	3.8	4
3628	Influence of Element Doping and Surface Oxidation on CoP for Overall Water Splitting: A First-Principles Study. Journal of Physical Chemistry C, 2023, 127, 1808-1821.	1.5	4
3629	Striking Stabilization Effect of Spinel Cobalt Oxide Oxygen Evolution Electrocatalysts in Neutral pH by Dualâ€Sites Iron Incorporation. Energy and Environmental Materials, 0, , .	7.3	2
3630	Iridium-based electrocatalysts for the acidic oxygen evolution reaction: engineering strategies to enhance the activity and stability. Materials Chemistry Frontiers, 2023, 7, 1248-1267.	3.2	6

#	Article	IF	Citations
3631	Rapid synthesis of doped metal oxidesviaJoule heating for oxygen electrocatalysis regulation. Journal of Materials Chemistry A, 2023, 11, 10267-10276.	5.2	6
3632	Synergistic Effect in a Metalâ€“Organic Framework Boosting the Electrochemical CO₂ Overall Splitting. Journal of the American Chemical Society, 2023, 145, 2439-2447.	6.6	19
3633	Ag Nanoparticle-Decorated V₂CT_x MXene Nanosheets as Catalysts for Water Splitting. ACS Applied Nano Materials, 2023, 6, 2374-2384.	2.4	13
3634	FeOOH-carbon nanotube-FeCo/nitrogen-doped porous carbon as an excellent bifunctional catalyst for achieving high power performance in rechargeable zinc-air batteries. Journal of Industrial and Engineering Chemistry, 2023, 121, 338-347.	2.9	7
3635	Promoting the electrocatalytic oxygen evolution reaction on NiCo2O4 with infrared-thermal effect: A strategy to utilize the infrared solar energy to reduce activation energy during water splitting. Journal of Colloid and Interface Science, 2023, 638, 54-62.	5.0	8
3636	High-entropy alloys in water electrolysis: Recent advances, fundamentals, and challenges. Science China Materials, 2023, 66, 1681-1701.	3.5	24
3637	In situ modification of metal electrode by integrated microbial corrosion and microbial mineralization using Shewanella oneidensis for efficient oxygen evolution. Catalysis Science and Technology, 0, , .	2.1	1
3638	Î³-CD-MOF-derived heterostructures as bifunctional electrocatalysts for rechargeable zincâ€“air batteries. Sustainable Energy and Fuels, 2023, 7, 1656-1663.	2.5	0
3639	Facile surface defect engineering on perovskite oxides for enhanced OER performance. Dalton Transactions, 2023, 52, 4207-4213.	1.6	5
3640	Defect engineering of two-dimensional materials for advanced energy conversion and storage. Chemical Society Reviews, 2023, 52, 1723-1772.	18.7	66
3641	Structural transformation of metalâ€“organic frameworks and identification of electrocatalytically active species during the oxygen evolution reaction under neutral conditions. Inorganic Chemistry Frontiers, 2023, 10, 2961-2977.	3.0	4
3642	Facile and scalable synthesis of 2D porous Ni/C via a salt-template assisted approach for enhanced urea oxidation reaction and energy-saving hydrogen production. New Journal of Chemistry, 2023, 47, 7399-7409.	1.4	2
3643	Pomegranate-like Ni-doped cobalt boride implanted in B, N-doped carbon nanocages for enhanced electrochemical oxygen evolution. International Journal of Hydrogen Energy, 2023, 48, 17468-17477.	3.8	2
3644	Cl modulation on boron-rich carbon embedded with NiFe alloys for efficient oxygen evolution reaction. Chemical Engineering Journal, 2023, 462, 142267.	6.6	2
3645	Electrocatalytic hydrogen and oxygen evolution reactions: Role of two-dimensional layered materials and their composites. Electrochimica Acta, 2023, 447, 142119.	2.6	15
3646	Recent developments on iron and nickel-based transition metal nitrides for overall water splitting: A critical review. Coordination Chemistry Reviews, 2023, 480, 215029.	9.5	43
3647	MoSn2Se4-decorated MXene/functionalized RGO nanohybrid for ultrastable supercapacitor and oxygen evolution catalyst. Materials Today Nano, 2023, 22, 100337.	2.3	0
3648	Syntheses and applications of single-atom catalysts for electrochemical energy conversion reactions. Chinese Journal of Catalysis, 2023, 47, 32-66.	6.9	9

#	Article	IF	Citations
3649	Unusual double ligand holes as catalytic active sites in LiNiO2. Nature Communications, 2023, 14, .	5.8	16
3650	Enhanced electrocatalytic activity of POM-derived CoMoS/FCP heterostructures for overall water splitting in alkaline media. International Journal of Electrochemical Science, 2023, 18, 100076.	0.5	1
3651	Electronic structure exquisite modulation of NiSe2 interface via rationally controlling Fe doping for boosting electrochemical oxygen evolution activity. Chemical Engineering Journal, 2023, 464, 142620.	6.6	8
3652	Mo, V and M (M=Mn, Fe, Co, Cu) Co-modulated Ni oxides in-situ derived from nickel foam as efficient electrocatalysts for alkaline hydrogen evolution and oxygen evolution. Molecular Catalysis, 2023, 542, 113132.	1.0	4
3653	Electrocatalytic oxygen evolution activities of metal chalcogenides and phosphides: Fundamentals, origins, and future strategies. Journal of Energy Chemistry, 2023, 81, 167-191.	7.1	31
3654	Enhanced electro-Fenton degradation of sulfamethazine using Co-based selenite modified graphite cathode via in-situ generation of â€¢OH. Chemical Engineering Journal, 2023, 463, 142419.	6.6	1
3655	Coordination chemistry in modulating electronic structures of perovskite-type oxide nanocrystals for oxygen evolution catalysis. Coordination Chemistry Reviews, 2023, 485, 215109.	9.5	10
3656	Phosphorus doping and Sulfur vacancies defect engineering for efficient electrocatalytic water-splitting by modulating the electronic structure of the Cobalt sulfide with synergy effect. Journal of Alloys and Compounds, 2023, 947, 169625.	2.8	3
3657	Green fabrication of nanostructured Ni(OH)2/Ni/Carbon felt electrodes with water-containing deep eutectic solvent for enhanced water electrolysis performance. Journal of Power Sources, 2023, 570, 233043.	4.0	5
3658	Investigation of oxygen evolution reaction with 316 and 304 stainless-steel mesh electrodes in natural seawater electrolysis. Journal of Environmental Chemical Engineering, 2023, 11, 109667.	3.3	7
3659	Facile synthesis of a NiMnFeCrCu high entropy alloy for electrocatalytic oxygen evolution reactions. Materials Today Sustainability, 2023, 22, 100360.	1.9	2
3660	p-n heterojunction constructed by Î³-Fe2O3 covering CuO with CuFe2O4 interface for visible-light-driven photoelectrochemical water oxidation. Journal of Colloid and Interface Science, 2023, 639, 464-471.	5.0	7
3661	Facile synthesis of CeSe2@CNs nanostructure for enhanced water oxidation. Materials Chemistry and Physics, 2023, 301, 127529.	2.0	4
3662	Natural reed leaves derived nickel-cobalt silicate hydroxides with phosphate modification enabling efficient oxygen evolution electrocatalysis. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2023, 667, 131370.	2.3	4
3663	Insight into the surface-reconstruction of metalâ€“organic framework-based nanomaterials for the electrocatalytic oxygen evolution reaction. Coordination Chemistry Reviews, 2023, 484, 215117.	9.5	7
3664	Nanostructured NiFe (oxy)hydroxide fabricated on nickel foams by laser-induced water plasma for enhanced alkaline oxygen evolution reaction. Applied Surface Science, 2023, 622, 156934.	3.1	4
3665	In situ formed Cu3P@CuOx as an efficient electrocatalyst for urea electrooxidation. Applied Surface Science, 2023, 622, 156925.	3.1	5
3666	Cobalt nanoparticles-embedded porous carbon nanocages uniformly dispersed hollow carbon fibers as the accelerated electrocatalysts toward water splitting. Journal of Alloys and Compounds, 2023, 947, 169488.	2.8	2

#	Article	IF	Citations
3667	Charge redistribution in FeOOH nanoarray by ecological oxygen-reduction deposition for boosting electrocatalytic water oxidation. Applied Catalysis B: Environmental, 2023, 330, 122595.	10.8	9
3668	Self-supported iridium-ruthenium oxides catalysts with enriched phase interfaces for boosting oxygen evolution reaction in acid. Applied Surface Science, 2023, 622, 156945.	3.1	6
3669	Spectroscopically unraveling high-valence Ni-Fe catalytic synergism in NiSe2/FeSe2 heterostructure. Applied Catalysis B: Environmental, 2023, 330, 122600.	10.8	10
3670	Synthesis, crystal structures and electrocatalytic properties of 2D and 3D Co(â…¡) Coordination polymers based on semi-rigid tricarboxylic acid ligand. Journal of Molecular Structure, 2023, 1284, 135371.	1.8	0
3671	Effect of calcination temperatures on the electrocatalytic performance of IrO2@RGO for oxygen evolution reaction. Ionics, 2023, 29, 2417-2425.	1.2	1
3672	Interfacial bond endowing FeS2/Bi2S3 composites superb OER performance. Materials Chemistry and Physics, 2023, 298, 127398.	2.0	5
3673	Flexible N-Doped Carbon Nanofiber-Polydimethylsiloxane Composite Containing La_{0.85}Sr₀.₁₅CoO_{3â^'Î´} Nanoparticles for Green EMI Shielding. ACS Applied Nano Materials, 2023, 6, 6024-6035.	2.4	11
3674	Au/TiO2 thin film with ultra-low content of gold: An efficient self-supported bifunctional electrocatalyst for oxygen and hydrogen evolution reaction. Catalysis Today, 2023, 418, 114078.	2.2	2
3675	Ni3N@Ni juncture layer enabled performance enhanced electrocatalytic water oxidation. Journal of Electroanalytical Chemistry, 2023, 938, 117470.	1.9	2
3676	Influence of bubble generation on the microchannel electrochemical gas evolution reaction. Chemical Engineering Journal, 2023, 463, 142453.	6.6	4
3677	Core-shell structured tungstocuprate@silver homobenzotrizoate complex for supercapacitor and oxygen evolution reaction. Journal of Energy Storage, 2023, 66, 107398.	3.9	5
3678	Regulating the thickness of the carbon coating layer in iron/carbon heterostructures to enhance the catalytic performance for oxygen evolution reaction. Journal of Colloid and Interface Science, 2023, 642, 120-128.	5.0	14
3679	Nanoarchitectonics with the amorphous rhenium phosphide compounds for enhanced catalytic activity of hydrogen evolution reaction. Journal of Alloys and Compounds, 2023, 941, 168961.	2.8	1
3680	Cr-added nickel sulfides as electrocatalysts for oxygen evolution reaction. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2023, 290, 116295.	1.7	0
3681	Synergistically boosting the oxygen evolution reaction activity of NiOOH nanosheets by Fe doping. Results in Chemistry, 2023, 5, 100808.	0.9	1
3682	One-pot synthesis of-carbon-supported MoO2 nanoparticles for efficient oxygen evolution reaction. Materials Chemistry and Physics, 2023, 298, 127432.	2.0	3
3683	Energy-efficient ultrafast microwave crystalline phase evolution for designing highly efficient oxygen evolution catalysts. Applied Surface Science, 2023, 617, 156622.	3.1	3
3684	Evaluating the stability of Ir single atom and Ru atomic cluster oxygen evolution reaction electrocatalysts. Electrochimica Acta, 2023, 444, 141982.	2.6	12

#	Article	IF	Citations
3685	MOF-derived ultrasmall Ru@RuO2 heterostructures as bifunctional and pH-universal electrocatalysts for 0.79ÂV asymmetric amphoteric overall water splitting. Chemical Engineering Journal, 2023, 460, 141672.	6.6	17
3686	Decoration of NiFeâ€LDH Nanodots Endows Lower Feâ€d Band Center of Fe₁â€Nâ€C Hollow Nanorods as Bifunctional Oxygen Electrocatalysts with Small Overpotential Gap. Advanced Energy Materials, 2023, 13, .	10.2	24
3687	In Situ Detection of Iron in Oxidation States â‰¥ IV in Cobaltâ€Iron Oxyhydroxide Reconstructed during Oxygen Evolution Reaction. Advanced Energy Materials, 2023, 13, .	10.2	16
3688	Interface-Enhanced SiO_x/Ru Heterocatalysts for Efficient Electrochemical Water Splitting. ACS Applied Materials & Interfaces, 2023, 15, 8200-8207.	4.0	8
3689	In Situ Immobilizing Atomically Dispersed Ru on Oxygen-Defective Co₃O₄ for Efficient Oxygen Evolution. ACS Catalysis, 2023, 13, 2462-2471.	5.5	25
3690	Amorphous to Crystalline Ni₃S₂ Nanostructures Anchored on N-Doped Carbon Nanofibers for Electrochemical Splitting of Water. ACS Applied Nano Materials, 2023, 6, 2336-2345.	2.4	3
3691	Water Electrolysis toward Elevated Temperature: Advances, Challenges and Frontiers. Chemical Reviews, 2023, 123, 7119-7192.	23.0	47
3692	Handily etching nickel foams into catalystâ€“substrate fusion selfâ€stabilized electrodes toward industrialâ€level water electrolysis. , 2023, 5, .		9
3693	Hydrochloric acid etching induced flower-like NiFe-layered double hydroxide as efficient electrocatalyst for oxygen evolution reaction. International Journal of Hydrogen Energy, 2023, 48, 17045-17054.	3.8	6
3694	Hierarchical Ni/Co-hydroxides on NiCo2O4 for boosting the electrocatalytic activity of the oxygen evolution reaction. International Journal of Hydrogen Energy, 2023, 48, 17097-17105.	3.8	3
3695	Electrodeposition of Hierarchical Nanosheet of NiCo2O4/CC as Highly Active and Stable Electrode for Water Oxidation. International Journal of Energy Research, 2023, 2023, 1-14.	2.2	0
3696	Roll-to-Roll Production of Electrocatalysts Achieving High-Current Alkaline Water Splitting. ACS Applied Materials & Interfaces, 0, , .	4.0	0
3697	Deciphering the Structural and Chemical Transformations of Oxide Catalysts during Oxygen Evolution Reaction Using Quick X-ray Absorption Spectroscopy and Machine Learning. Journal of the American Chemical Society, 2023, 145, 4065-4080.	6.6	16
3698	Cobalt nickel boride as electrocatalyst for the oxidation of alcohols in alkaline media. JPhys Energy, 2023, 5, 024005.	2.3	4
3699	Phase Purity Regulated by Mechano-Chemical Synthesis of Metalâ€“Organic Frameworks for the Electrocatalytic Oxygen Evolution Reaction. Inorganic Chemistry, 2023, 62, 3457-3463.	1.9	4
3700	Effects of heat treatment temperature on the morphology, composition, and electrocatalytic properties of electrodeposited NiB thin films towards OER. Electrochimica Acta, 2023, 444, 141968.	2.6	3
3701	Mechanistic insight into hydrothermally prepared molybdenum-based electrocatalyst for overall water splitting. Electrochimica Acta, 2023, 445, 142050.	2.6	8
3702	Recent Advances and New Challenges: Two-Dimensional Metalâ€“Organic Framework and Their Composites/Derivatives for Electrochemical Energy Conversion and Storage. International Journal of Energy Research, 2023, 2023, 1-47.	2.2	3

#	Article	IF	Citations
3703	Influence of CeO2 nanoparticles in the stability of electrodeposited Ni anodes for alkaline electrolysers. International Journal of Hydrogen Energy, 2023, 48, 18141-18153.	3.8	3
3704	Surface synergistic effect of sub-2Ânm NiFeCr hydroxide nanodots yielding high oxygen evolution mass activities. Chemical Engineering Journal, 2023, 461, 141917.	6.6	3
3705	In-situ/operando Raman techniques for in-depth understanding on electrocatalysis. Chemical Engineering Journal, 2023, 461, 141939.	6.6	26
3706	Facet Engineering of Advanced Electrocatalysts Toward Hydrogen/Oxygen Evolution Reactions. Nano-Micro Letters, 2023, 15, .	14.4	55
3707	MIL-88A derived CoFe-layered double hydroxides with optimized composition for the enhanced electrocatalytic oxygen evolution reaction. New Journal of Chemistry, 2023, 47, 5555-5563.	1.4	5
3708	Ambient Electrosynthesis toward Singleâ€Atom Sites for Electrocatalytic Green Hydrogen Cycling. Advanced Materials, 2023, 35, .	11.1	26
3709	Two-Dimensional Metal Nanostructures: From Theoretical Understanding to Experiment. Chemical Reviews, 2023, 123, 3443-3492.	23.0	11
3710	Synthesis, properties and catalytic performance of the novel, pseudo-spinel, multicomponent transition-metal selenides. Journal of Materials Chemistry A, 2023, 11, 5337-5349.	5.2	1
3711	Achieving Efficient Electrocatalytic Oxygen Evolution in Acidic Media on Yttrium Ruthenate Pyrochlore through Cobalt Incorporation. Advanced Functional Materials, 2023, 33, .	7.8	25
3712	Concepts Relevant for the Kinetic Analysis of Reversible Reaction Systems. Chemical Reviews, 2023, 123, 2950-3006.	23.0	8
3713	Iron-Doped Monoclinic Strontium Iridate as a Highly Efficient Oxygen Evolution Electrocatalyst in Acidic Media. Nanomaterials, 2023, 13, 797.	1.9	1
3714	Defective Metal Oxides: Lessons from CO₂RR and Applications in NO_xRR. Advanced Materials, 2023, 35, .	11.1	16
3715	In Situ Fabrication of Mn-Doped NiMoO4 Rod-like Arrays as High Performance OER Electrocatalyst. Nanomaterials, 2023, 13, 827.	1.9	1
3716	Defect-rich ruthenium dioxide electrocatalyst enabled by electronic reservoir effect of carbonized polymer dot for remarkable pH-universal oxygen evolution. Applied Catalysis B: Environmental, 2023, 328, 122546.	10.8	3
3717	Heterojunction of Metal Plasmas and CoO Nanofilms for Ultraefficient Activity to Oxygen Evolution Electrocatalysts. ACS Applied Energy Materials, 2023, 6, 2707-2718.	2.5	1
3718	Mo₂CT_xMXene supported nickel-iron alloy: an efficient and stable heterostructure to boost oxygen evolution reaction. 2D Materials, 2023, 10, 024005.	2.0	2
3719	Opportunities in the design of metal@oxide core-shell nanoparticles. Advances in Physics: X, 2023, 8, .	1.5	0
3720	Fe(II)-Based Metallo-Supramolecular Polymer Film for Electrochemical Detection of Nitrite: Studies of Kinetics and Reaction Mechanisms. Journal of the Electrochemical Society, 2023, 170, 037508.	1.3	4

#	Article	IF	Citations
3721	Exploring the oxygen evolution electrocatalysis of an amine-based cobalt metalâ€“organic framework. Molecular Systems Design and Engineering, 2023, 8, 1004-1012.	1.7	1
3722	Recent Advances of Transition Metal Basic Salts for Electrocatalytic Oxygen Evolution Reaction and Overall Water Electrolysis. Nano-Micro Letters, 2023, 15, .	14.4	44
3723	Interfacial nanobubblesâ€™ growth at the initial stage of electrocatalytic hydrogen evolution. Energy and Environmental Science, 2023, 16, 2068-2079.	15.6	15
3724	Research on engineered electrocatalysts for efficient water splitting: a comprehensive review. Physical Chemistry Chemical Physics, 2023, 25, 8992-9019.	1.3	4
3725	Effects of Group IB Metals of Au/Ag/Cu on Boosting Oxygen Evolution Reaction of Cobalt Hydroxide. ChemCatChem, 2023, 15, .	1.8	3
3726	Heterobimetallic NiFe Cooperative Molecular Water Oxidation Catalyst. Angewandte Chemie - International Edition, 2023, 62, .	7.2	20
3727	Heterobimetallic NiFe Cooperative Molecular Water Oxidation Catalyst. Angewandte Chemie, 2023, 135, .	1.6	3
3728	Recent advances and future prospects on Ni3S2-Based electrocatalysts for efficient alkaline water electrolysis. Green Energy and Environment, 2024, 9, 659-683.	4.7	1
3729	Coreâ€“Shell Nanostructures-Based Porous Carbon Nanomaterials for Oxygen Reduction Reaction. Materials Horizons, 2023, , 323-350.	0.3	0
3730	Design of Porous Carbon-Based Electro-Catalyst for Hydrogen Generation. Materials Horizons, 2023, , 285-322.	0.3	0
3731	The surface states of transition metal X-ides under electrocatalytic conditions. Journal of Chemical Physics, 2023, 158, .	1.2	23
3732	Constructing Amorphousâ€“Crystalline Interfaces of Nickelâ€“Iron Phosphides/Oxides for Oxygen Evolution Reaction. Industrial & Engineering Chemistry Research, 2023, 62, 4356-4363.	1.8	5
3733	æžæº§åå°”ä¸çš„ç££å¢žå¼ºæ•ˆå°”ä¸Žç”©ç©¶è¿›å±•. Chinese Science Bulletin, 2023, , .	0.4	0
3734	Elucidation of the Active Site for the Oxygen Evolution Reaction on a Single Pt Atom Supported on Indium Tin Oxide. Journal of Physical Chemistry Letters, 2023, 14, 2635-2643.	2.1	4
3735	Coupling interface constructions of FeOOH/NiCo2S4 by microwave-assisted method for efficient oxygen evolution reaction. Rare Metals, 2023, 42, 1847-1857.	3.6	8
3736	Electronic and Lattice Engineering of Ruthenium Oxide towards Highly Active and Stable Water Splitting. Advanced Energy Materials, 2023, 13, .	10.2	32
3737	Bifunctional oxygen electrocatalysts based on non-critical raw materials: Carbon nanostructures and iron-doped manganese oxide nanowires. Catalysis Today, 2023, 420, 114083.	2.2	3
3738	Biofuel production, hydrogen production and water remediation by photocatalysis, biocatalysis and electrocatalysis. Environmental Chemistry Letters, 2023, 21, 1315-1379.	8.3	27

#	Article	IF	Citations
3739	ZIF-67-derived nickelâ€“cobalt phosphide nanocubes/N-doped carbon/nickel form composite for efficient overall water splitting. International Journal of Hydrogen Energy, 2023, 48, 19995-20005.	3.8	11
3740	Development of a highly stable and active non-precious anode electrocatalyst for oxygen evolution reaction in acidic medium based on nickel and cobalt-containing antimony oxide. Journal of Electroanalytical Chemistry, 2023, 935, 117319.	1.9	1
3741	Photocatalytic Hydrogen Production Activity and Mechanism of New Nickelâ€Based Sulfur Complexes in Aqueous Solution. ChemPhysChem, 0, , .	1.0	0
3742	In Situ Construction of Cobalt-Doped High-Dispersive Heazlewoodite for Efficient Oxygen Evolution. Energy & Fuels, 2023, 37, 5441-5447.	2.5	3
3743	Electrocatalytic Properties of Co3O4 Prepared on Carbon Fibers by Thermal Metalâ€“Organic Deposition for the Oxygen Evolution Reaction in Alkaline Water Electrolysis. Nanomaterials, 2023, 13, 1021.	1.9	2
3744	Crystallineâ€“Amorphous Interface Coupling of Ni₃S₂/NiP_x/NF with Enhanced Activity and Stability for Electrocatalytic Oxygen Evolution. ACS Applied Materials & Interfaces, 2023, 15, 15533-15544.	4.0	12
3745	Modification of micro/nanoscaled manganese dioxide-based materials and their electrocatalytic applications toward oxygen evolution reaction. Journal of Materials Chemistry A, 2023, 11, 6688-6746.	5.2	13
3746	Metal-organic frameworks derived interfacing Fe2O3/ZnCo2O4 multimetal oxides as a bifunctional electrocatalyst for overall water splitting. Electrochimica Acta, 2023, 449, 142242.	2.6	7
3747	Supporting Trimetallic Metalâ€Organic Frameworks on S/Nâ€Doped Carbon Macroporous Fibers for Highly Efficient Electrocatalytic Oxygen Evolution. Advanced Materials, 2023, 35, .	11.1	44
3748	Construction of NiFe-Layered Double Hydroxides Arrays as Robust Electrocatalyst for Oxygen Evolution Reaction. Catalysts, 2023, 13, 586.	1.6	6
3749	Eliminating over-oxidation of ruthenium oxides by niobium for highly stable electrocatalytic oxygen evolution in acidic media. Joule, 2023, 7, 558-573.	11.7	64
3750	Interface engineering of CeO₂ nanoparticle/Bi₂WO₆ nanosheet nanohybrids with oxygen vacancies for oxygen evolution reactions under alkaline conditions. RSC Advances, 2023, 13, 8873-8881.	1.7	0
3751	Interface Engineering of Oxygen-Vacancy-Rich VO-NiFe2O4@Ni2P Heterostructure for Highly Efficient Oxygen Evolution Reaction. Catalysis Letters, 2024, 154, 593-600.	1.4	0
3752	Heterogeneous Cu_{1.92}S@Cu₃P/Ni₂P Nanospheres on Nickel Foam for Effective Electrocatalytic Oxygen Evolution Reaction**. European Journal of Inorganic Chemistry, 2023, 26, .	1.0	1
3753	Electrochemical Preparation of Crystalline Hydrous Iridium Oxide and Its Use in Oxygen Evolution Catalysis. ACS Applied Materials & Interfaces, 2023, 15, 15269-15278.	4.0	4
3754	A study of highly activated hydrogen evolution reaction performance in acidic media by 2D heterostructure of N and S doped graphene on MoO_x. , 2023, 5, .		3
3755	Improving Electrocatalytic Activity of MoO₃ for the Oxygen Evolution Reaction by Incorporation of Li Ions. , 2023, 5, 1196-1201.		8
3756	Optimizing dâ€Orbital Electronic Configuration via Metalâ€“Metal Oxide Coreâ€“Shell Charge Donation for Boosting Reversible Oxygen Electrocatalysis. Small, 2023, 19, .	5.2	13

#	Article	IF	Citations
3757	Trends and Prospects of Bulk and Singleâ€Atom Catalysts for the Oxygen Evolution Reaction. Advanced Energy Materials, 2023, 13, .	10.2	25
3758	Density Functional Theory Study of Oxygen Evolution Reaction Mechanism on Rare Earth Sc-Doped Graphene. Batteries, 2023, 9, 175.	2.1	3
3759	Superior oxygen evolution reaction performance of NiCoFe spinel oxide nanowires in situ grown on Î²-Ni(OH)₂ nanosheet-decorated Ni foam: case studies on stoichiometric and off-stoichiometric oxides. Journal of Materials Chemistry A, 2023, 11, 8972-8987.	5.2	7
3760	Tailoring the electrocatalytic activity of multicomponent (Co,Fe,Ni)₉S_{8â^'x}Se_x pentlandite solid electrodes. Journal of Materials Chemistry A, 2023, 11, 7526-7538.	5.2	1
3761	Hierarchical ironâ€“nickel oxyhydroxide nanosheets directly grown on porous TiFe₂-based intermetallics for robust oxygen evolution. Chemical Communications, 2023, 59, 4519-4522.	2.2	1
3762	Oxygen Evolution/Reduction Reaction Catalysts: From In Situ Monitoring and Reaction Mechanisms to Rational Design. Chemical Reviews, 2023, 123, 6257-6358.	23.0	81
3763	Elevating the d-Band Center of Ni₃S₂ Nanosheets by Fe Incorporation to Boost the Oxygen Evolution Reaction. Langmuir, 2023, 39, 5375-5383.	1.6	4
3764	Lattice-disordered high-entropy metal hydroxide nanosheets as efficient precatalysts for bifunctional electro-oxidation. Journal of Colloid and Interface Science, 2023, 642, 41-52.	5.0	19
3765	Manipulating the Dynamic Selfâ€Reconstruction of CoP Electrocatalyst Driven by Charge Transport and Ion Leaching. Small, 2023, 19, .	5.2	8
3766	Easy and Support-Free Synthesis of Bimetallic Borates for Boosting the Oxygen Evolution Reaction. ACS Applied Energy Materials, 2023, 6, 3735-3744.	2.5	3
3767	Nanostructured Ternary Nickelâ€Based Mixed Anionic (Telluro)â€Selenide as a Superior Catalyst for Oxygen Evolution Reaction. Energy Technology, 2023, 11, .	1.8	0
3768	Operando Scanning Electrochemical Probe Microscopy during Electrocatalysis. Chemical Reviews, 2023, 123, 4972-5019.	23.0	24
3769	Heterostructured Ultrathin Two-Dimensional Co-FeOOH Nanosheets@1D Ir-Co(OH)F Nanorods for Efficient Electrocatalytic Water Splitting. ACS Applied Materials & Interfaces, 2023, 15, 16702-16713.	4.0	15
3770	Diversity of platinum-sites at platinum/fullerene interface accelerates alkaline hydrogen evolution. Nature Communications, 2023, 14, .	5.8	30
3771	Surfactant-Free Colloidal Syntheses of Precious Metal Nanoparticles for Improved Catalysts. ACS Catalysis, 2023, 13, 4903-4937.	5.5	13
3772	Atomic design of carbon-based dual-metal site catalysts for energy applications. Nano Research, 2023, 16, 6477-6506.	5.8	25
3773	Bifunctional Catalysts with Morphology-Controllable Iron Sulfide Nanosheets for Overall Water Splitting. International Journal of Energy Research, 2023, 2023, 1-11.	2.2	0
3774	Highâ€Density Cationic Defects Coupling with Local Alkalineâ€Enriched Environment for Efficient and Stable Water Oxidation. Angewandte Chemie - International Edition, 2023, 62, .	7.2	8

#	Article	IF	Citations
3775	Highâ€Density Cationic Defects Coupling with Local Alkalineâ€Enriched Environment for Efficient and Stable Water Oxidation. Angewandte Chemie, 2023, 135, .	1.6	2
3776	Heterostructure iron selenide/cobalt phosphide films grown on nickel foam for oxygen evolution. Journal of Materials Chemistry A, 2023, 11, 8330-8341.	5.2	3
3777	CoP decorated 2D/2D red phosphorus/B doped g-C₃N₄ type II heterojunction for boosted pure water splitting activity via the two-electron pathway. Catalysis Science and Technology, 2023, 13, 2714-2727.	2.1	3
3778	Polyphosphate-Based Electrocatalysts for Oxygen Evolution. Engineering Materials, 2023, , 151-169.	0.3	1
3779	Modulating the Electronic Structure of Co in Coâ€“Co₆Mo₆C₂ for Effective Oxygen Evolution Reaction. Energy & Fuels, 2023, 37, 6025-6035.	2.5	1
3780	Constructing highly active interface between layered Ni(OH)2 and porous Mo2N for efficient electrocatalytic oxygen evolution reaction. International Journal of Hydrogen Energy, 2023, 48, 22091-22100.	3.8	2
3781	Ionic Liquids as Promisingly Multi-Functional Participants for Electrocatalyst of Water Splitting: A Review. Molecules, 2023, 28, 3051.	1.7	3
3782	Severe Plastic Deformation for Advanced Electrocatalysts for Electrocatalytic Hydrogen Production. Materials Transactions, 2023, 64, 1515-1525.	0.4	1
3784	Perovskite oxide composites for bifunctional oxygen electrocatalytic activity and zinc-air battery application- a mini-review. Energy Storage Materials, 2023, 58, 362-380.	9.5	12
3785	Solution Plasmaâ€Assisted Multivariate Metal Nanoalloys Encapsulated with Carbon Dots for Efficient Oxygen Evolution Reaction. ChemCatChem, 2023, 15, .	1.8	1
3786	A Mechanistic Overview of the Current Status and Future Challenges in Air Cathode for Aluminum Air Batteries. Chemical Record, 2024, 24, .	2.9	3
3787	SnO2 nanoparticles anchored on carbon spheres for enhanced charge generation and potentiodynamic effects. Journal of Electroanalytical Chemistry, 2023, 937, 117411.	1.9	1
3788	Recent progress of two-dimensional metal-organic-frameworks: From synthesis to electrocatalytic oxygen evolution. Nano Research, 2023, 16, 8614-8637.	5.8	6
3789	N-doped bimetallic phosphides composite catalysts derived from metalâ€“organic frameworks for electrocatalytic water splitting. Advanced Composites and Hybrid Materials, 2023, 6, .	9.9	11
3790	High-Spatiotemporal-Resolution Electrochemical Measurements of Electrocatalytic Reactivity. Analytical Chemistry, 2023, 95, 6477-6489.	3.2	12
3791	Electrolyte-Induced Restructuring of Acid-Stable Oxygen Evolution Catalysts. Chemistry of Materials, 2023, 35, 3218-3225.	3.2	1
3792	Interface engineering and heterometal doping Coâ€“Mo/FeS for oxygen evolution reaction. International Journal of Hydrogen Energy, 2023, 48, 25730-25740.	3.8	3
3793	Electronic structure tuning for enhanced oxygen evolution performance of a NiMnFeCr medium entropy alloy. International Journal of Hydrogen Energy, 2023, 48, 25755-25769.	3.8	0

#	Article	IF	Citations
3794	Synergistic Effect of Nâ€NiMoO₄/Ni Heterogeneous Interface with Oxygen Vacancies in Nâ€NiMoO₄/Ni/CNTs for Superior Overall Water Splitting. Small, 2023, 19, .	5.2	11
3795	Understanding the sulphur-oxygen exchange process of metal sulphides prior to oxygen evolution reaction. Nature Communications, 2023, 14, .	5.8	44
3796	Heterostructure of NiFe@NiCr-LDH for Active and Durable Oxygen Evolution Reactions in Alkaline Media. Materials, 2023, 16, 2968.	1.3	1
3797	Tuning the Electronic Structure of a Novel 3D Architectured Co-N-C Aerogel to Enhance Oxygen Evolution Reaction Activity. Gels, 2023, 9, 313.	2.1	0
3798	Surface-growing organophosphorus layer on layered double hydroxides enables boosted and durable electrochemical freshwater/seawater oxidation. Applied Catalysis B: Environmental, 2023, 332, 122749.	10.8	21
3799	Geometric and Electronic Engineering of Atomically Dispersed Copperâ€Cobalt Diatomic Sites for Synergistic Promotion of Bifunctional Oxygen Electrocatalysis in Zincâ€“Air Batteries. Advanced Materials, 2023, 35, .	11.1	48
3800	Hydrogen production via electrolysis: Operando monitoring and analyses. Chem Catalysis, 2023, , 100601.	2.9	0
3801	Designing electrocatalysts for seawater splitting: surface/interface engineering toward enhanced electrocatalytic performance. Green Chemistry, 2023, 25, 3767-3790.	4.6	20
3802	A Review of Cobalt-Based Metal Hydroxide Electrode for Applications in Supercapacitors. Advances in Materials Science and Engineering, 2023, 2023, 1-15.	1.0	3
3803	Recent Progress on Nonâ€Carbonâ€Supported Singleâ€Atom Catalysts for Electrochemical Conversion of Green Energy. Small Science, 2023, 3, .	5.8	3
3804	Multistep Dissolution of Lamellar Crystals Generates Superthin Amorphous Ni(OH)₂ Catalyst for UOR. Advanced Materials, 2023, 35, .	11.1	32
3805	Revealing Atomic Configuration and Synergistic Interaction of Singleâ€Atomâ€Based Znâ€Coâ€Fe Trimetallic Sites for Enhancing Oxygen Reduction and Evolution Reactions. Small, 2023, 19, .	5.2	15
3806	One-Step High-Temperature Electrodeposition of Fe-Based Films as Efficient Water Oxidation Catalysts. Langmuir, 2023, 39, 6088-6101.	1.6	4
3807	Design of chromium-doped spinel Mn3O4 modulated electronic structure as an efficient catalyst for Li-O2 batteries. Journal of Alloys and Compounds, 2023, 953, 170130.	2.8	6
3808	Oxygen Vacancies Unfold the Catalytic Potential of NiFe-Layered Double Hydroxides by Promoting Their Electronic Transport for Oxygen Evolution Reaction. ACS Catalysis, 2023, 13, 6000-6012.	5.5	26
3809	TiO2 nanotubes modified with cobalt oxyphosphide spheres for efficient electrocatalytic hydrogen evolution reaction in alkaline medium. Electrochimica Acta, 2023, 456, 142436.	2.6	3
3810	Self-reconstruction of (CoNiFeCuCr)Se high-entropy selenide for efficient oxygen evolution reaction. Applied Surface Science, 2023, 627, 157282.	3.1	4
3811	Engineering strategies and active site identification of MXene-based catalysts for electrochemical conversion reactions. Chemical Society Reviews, 2023, 52, 3215-3264.	18.7	36

#	Article	IF	Citations
3812	Schiff Base Derived CoPOâ€“CN for Electrocatalytic Oxygen Evolution, Urea Oxidation and Ascorbic Acid Sensing. Russian Journal of Electrochemistry, 2023, 59, 92-103.	0.3	0
3813	Nickel sulfide-based electrocatalysts for overall water splitting. International Journal of Hydrogen Energy, 2023, 48, 27992-28017.	3.8	8
3814	Preparation of CoFe₂O₄-Doped TiO₂ Nanofibers by Electrospinning and Annealing for Oxygen Electrocatalysis. Langmuir, 2023, 39, 6211-6221.	1.6	3
3815	Holistic functional biomimetic: A key to make efficient electrocatalyst for water oxidation. Journal of Materials Chemistry A, 0, , .	5.2	2
3816	CO electroreduction: What can we learn from its parent reaction, CO2 electroreduction?. EScience, 2023, 3, 100137.	25.0	1
3817	MOF-Derived Co₃S₄ Nanoparticles Embedded in Nitrogen-Doped Carbon for Electrochemical Oxygen Production. ACS Applied Nano Materials, 2023, 6, 7686-7693.	2.4	2
3818	Fabrication of Ni/NiFe-LDH Coreâ€“Shell Schottky Heterojunction as Ultrastable Bifunctional Electrocatalyst for Ampere-Level Current Density Water Splitting. ACS Applied Energy Materials, 2023, 6, 4683-4692.	2.5	5
3819	Controllable surface reconstruction of copper foam for electrooxidation of benzyl alcohol integrated with pure hydrogen production. SmartMat, 2024, 5, .	6.4	3
3820	An electrochemiluminescence immunosensor based on signal magnification of luminol using OER-activated NiFe2O4@C@CeO2/Au as effective co-reaction accelerator. Talanta, 2023, 260, 124580.	2.9	3
3821	Charge kinetics evaluation of Fe3O4/V2O5 nanowires under visible light for energy conversion applications. Materials Science in Semiconductor Processing, 2023, 162, 107533.	1.9	2
3822	A Stable Imideâ€Linked Metalphthalocyanine Framework with Atomically Dispersed Feâ€N₄ Sites and Ultrafine Nickel Oxide Nanoparticles to Boost Reversible Oxygen Electrocatalysis with a Recordâ€Low Î”E of 0.59ÂV. Advanced Energy Materials, 2023, 13, .	10.2	9
3830	Recent advances in interface engineering of Fe/Co/Ni-based heterostructure electrocatalysts for water splitting. Materials Horizons, 2023, 10, 2312-2342.	6.4	13
3851	Synthesis and catalytic applications of metal boride ceramics. , 2023, , 57-105.		0
3852	Catalytic applications of perovskites. , 2023, , 19-55.		1
3854	Understanding the complexity in bridging thermal and electrocatalytic methanation of CO₂. Chemical Society Reviews, 2023, 52, 3627-3662.	18.7	15
3861	Surface self-reconstruction of catalysts in electrocatalytic oxygen evolution reaction. , 2024, , 316-327.		0
3874	Application of machine learning approach for green hydrogen. , 2023, , 525-543.		0
3888	MXene and Their Composites for Oxygen Evolution Reactions. , 2022, , 1-33.		0

#	Article	IF	Citations
3891	Strategies for the design of ruthenium-based electrocatalysts toward acidic oxygen evolution reaction. , 2023, 1, 619-644.		2
3898	Facile route of fluorine incorporation into nickel (oxy)hydroxide for improving the oxygen evolution reaction. Chemical Communications, 2023, 59, 8298-8301.	2.2	0
3901	Nickel Based Metal Oxide Electrocatalysts: From Model to Operando Conditions Studied by XPS and Vibrational Spectroscopy. , 2023, , .		0
3905	Coreâ€“shell Fe₃O₄@CoFe₂O₄ nanoparticles as high-performance anode catalysts for enhanced oxygen evolution reaction. Sustainable Energy and Fuels, 2023, 7, 3239-3243.	2.5	3
3910	Engineering Iridium-Based Oxygen Evolution Reaction Electrocatalysts for Proton Exchange Membrane Water Electrolyzers. ACS Catalysis, 2023, 13, 8670-8691.	5.5	8
3921	Amorphous vanadium-doped cobalt oxyborate as an efficient electrocatalyst for urea-assisted H₂production from urine sewage. Dalton Transactions, 2023, 52, 9546-9552.	1.6	1
3938	Environmental applications of single-atom catalysts based on graphdiyne. Catalysis Science and Technology, 2023, 13, 5154-5174.	2.1	2
3941	Emerging transition metal and carbon nanomaterial hybrids as electrocatalysts for water splitting: a brief review. Materials Horizons, 2023, 10, 2764-2799.	6.4	5
3958	Recent Progress of Amorphous Nanomaterials. Chemical Reviews, 2023, 123, 8859-8941.	23.0	29
3965	A review on consequences of flexible layered double hydroxide-based electrodes: fabrication and water splitting application. Sustainable Energy and Fuels, 2023, 7, 3741-3775.	2.5	4
3972	Understanding the Structural Evolution of IrFeCoNiCu High-Entropy Alloy Nanoparticles under the Acidic Oxygen Evolution Reaction. Nano Letters, 2023, 23, 6637-6644.	4.5	10
3985	Renaissance of elemental phosphorus materials: properties, synthesis, and applications in sustainable energy and environment. Chemical Society Reviews, 2023, 52, 5388-5484.	18.7	9
3993	Shining light on layered metal phosphosulphide catalysts for efficient water electrolysis: preparation, promotion strategies, and perspectives. Green Chemistry, 2023, 25, 6170-6187.	4.6	2
4020	Chevrel phases: synthesis, structure, and electrocatalytic applications. Materials Chemistry Frontiers, 2023, 7, 5500-5518.	3.2	1
4022	Regulating nonmetallic species beyond the first coordination shell of single-atom catalysts for high-performance electrocatalysis. Energy and Environmental Science, 2023, 16, 3679-3710.	15.6	8
4029	Application of Carbonaceous Quantum dots in Energy Storage. , 2023, , 178-191.		0
4036	Recent advances of metal oxide catalysts for electrochemical NH₃ production from nitrogen-containing sources. Inorganic Chemistry Frontiers, 2023, 10, 5812-5838.	3.0	3
4038	Precise Control of Catalyst Interface at Atomic-level. Materials Chemistry Frontiers, 0, , .	3.2	0

#	Article	IF	Citations
4058	Fullerene-derived nanocomposite as efficient electrocatalyst for water splitting and Zn-air battery. Materials Chemistry Frontiers, 0, , .	3.2	0
4070	1-D arrays of porous Mn_{0.21}Co_{2.79}O₄ nanoneedles with an enhanced electrocatalytic activity toward the oxygen evolution reaction. Dalton Transactions, 2023, 52, 12185-12193.	1.6	3
4074	Current progress in metalâ€“organic frameworks and their derivatives for electrocatalytic water splitting. Inorganic Chemistry Frontiers, 2023, 10, 6489-6505.	3.0	2
4075	Advances in Cu nanocluster catalyst design: recent progress and promising applications. Nanoscale Horizons, 2023, 8, 1509-1522.	4.1	6
4080	Research progress on MOFs and their derivatives as promising and efficient electrode materials for electrocatalytic hydrogen production from water. RSC Advances, 2023, 13, 24393-24411.	1.7	2
4081	Research progress of spinel CoFe₂O₄ as an electrocatalyst for the oxygen evolution reaction. Catalysis Science and Technology, 0, , .	2.1	0
4083	Amazing enhancement of OER performances: creating a well-designed functional Ni and N-doped carbon layer as a support material for fabricating a NiFe-LDH electrocatalyst. Chemical Communications, 2023, 59, 11572-11575.	2.2	1
4091	Recent progress in anion exchange membranes (AEMs) in water electrolysis: synthesis, physio-chemical analysis, properties, and applications. Journal of Materials Chemistry A, 2023, 11, 20886-21008.	5.2	3
4095	The reformation of catalyst: From a trial-and-error synthesis to rational design. Nano Research, 0, , .	5.8	16
4113	3D Graphene as Electrocatalysts for Water Splitting. Carbon Nanostructures, 2023, , 341-358.	0.1	0
4116	Current Status of Hydrogen Energy Development. , 2023, , 19-56.		0
4123	Recent advances in single-atom catalysts for electrochemical water splitting. , 2023, , 199-231.		0
4138	Basics of Water Electrolysis. , 2023, , 1-32.		0
4142	Rh for HER electrocatalysis? A critical analysis of recent studies and thoughts on the same!. Journal of Materials Chemistry A, 2023, 11, 25216-25235.	5.2	0
4143	Defect engineering: the role of cationic vacancies in photocatalysis and electrocatalysis. Journal of Materials Chemistry A, 2023, 11, 23653-23682.	5.2	4
4175	High-entropy wire-on-sheet nanoarray catalyst with boosted pre-oxidation for efficient oxygen evolution reaction. Chemical Communications, 0, , .	2.2	0
4186	Modular design of solar-powered photocathodic metal protection device. , 2023, 2, .		0
4199	The Renaissance of Ferrocene-Based Electrocatalysts: Properties, Synthesis Strategies, and Applications. Topics in Current Chemistry, 2023, 381, .	3.0	0

#	Article	IF	Citations
4212	Advances in the mechanism investigation for the oxygen evolution reaction: fundamental theory and monitoring techniques. Materials Chemistry Frontiers, 2024, 8, 603-626.	3.2	1
4226	Recent progress in understanding the catalyst layer in anion exchange membrane electrolyzers â€“ durability, utilization, and integration. , 0, , .		1
4235	Regulating the electronic structure of metalâ€“organic frameworks via ion-exchanged Ir dispersion for robust overall water splitting. Chemical Communications, 2023, 59, 14459-14462.	2.2	5
4245	Metal nitrides for seawater electrolysis. Chemical Society Reviews, 0, , .	18.7	1
4275	Recent advances of bifunctional electrocatalysts and electrolyzers for overall seawater splitting. Journal of Materials Chemistry A, 2024, 12, 634-656.	5.2	4
4322	Application progress of NiMoO₄ electrocatalyst in basic oxygen evolution reaction. Catalysis Science and Technology, 2024, 14, 533-554.	2.1	0
4348	Local reaction environment in electrocatalysis. Chemical Society Reviews, 2024, 53, 2022-2055.	18.7	2
4362	Surpassing water-splitting potential in aqueous redox flow batteries: insights from kinetics and thermodynamics. , 2024, 2, 522-544.		0
4372	Molecular Metal Nanoclusters for Water Oxidation Catalysis and Future Potential. , 0, , .		0
4395	Recent development in metal-organic frameworks and their derivatives for electrocatalysis and fuel cells. , 2024, , 187-220.		0
4410	In situ/operando X-ray absorption spectroscopy in small moleculeâ€“based electrocatalysis. , 2024, , 199-214.		0
4412	Noble-Metal-Free Bifunctional Electrocatalysts for Overall Water Splitting in Alkaline Medium. Advances in Material Research and Technology, 2024, , 279-337.	0.3	0
4413	Porous coordination polymers in energy storage and conversion. , 2024, , 207-235.		0
4421	Cu-based catalysts for electrocatalytic nitrate reduction to ammonia: fundamentals and recent advances. , 0, , .		0
4460	Best Practices for Accurately Reporting Electrocatalytic Performance of Nanomaterials. Materials Horizons, 2024, , 95-117.	0.3	0
4462	Single-Atom Catalyst for Electrochemical Water Splitting. Materials Horizons, 2024, , 217-242.	0.3	0
4463	Electrochemical Methods for Measuring Water Splitting Efficiency. Materials Horizons, 2024, , 71-93.	0.3	0