## Universality in Oxygen Evolution Electrocatalysis on Ox

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Citation Report

#	Article	IF	CITATIONS
13	Density functional studies of functionalized graphitic materials with late transition metals for oxygen reduction reactions. Physical Chemistry Chemical Physics, 2011, 13, 15639.	2.8	454
14	Electrical conductivity in Li2O2 and its role in determining capacity limitations in non-aqueous Li-O2 batteries. Journal of Chemical Physics, 2011, 135, 214704.	3.0	502
15	Optimizing Perovskites for the Water-Splitting Reaction. Science, 2011, 334, 1355-1356.	12.6	349
16	A Perovskite Oxide Optimized for Oxygen Evolution Catalysis from Molecular Orbital Principles. Science, 2011, 334, 1383-1385.	12.6	4,230
17	Trends in oxygen reduction and methanol activation on transition metal chalcogenides. Electrochimica Acta, 2011, 56, 9783-9788.	5.2	53
18	Tailoring the Activity for Oxygen Evolution Electrocatalysis on Rutile TiO <sub>2</sub> (110) by Transitionâ€Metal Substitution. ChemCatChem, 2011, 3, 1607-1611.	3.7	169
19	Tailoring the electronic structure of graphene for catalytic and nanoelectronic applications. , 2011, , .		0
20	3.3 Fuel Cells. , 2012, , 163-184.		2
21	Nanocomposite stability in Fe-, Co-, and Mn-based perovskite/spinel systems. Journal of Materials Research, 2012, 27, 1462-1470.	2.6	14
22	Searching for active binary rutile oxide catalyst for water splitting from first principles. Physical Chemistry Chemical Physics, 2012, 14, 16612.	2.8	22
23	First-principles computational electrochemistry: Achievements and challenges. Electrochimica Acta, 2012, 84, 3-11.	5.2	180
24	Effect of the Support on the Photocatalytic Water Oxidation Activity of Cobalt Oxide Nanoclusters. ACS Catalysis, 2012, 2, 2753-2760.	11.2	91
25	Advanced alkaline water electrolysis. Electrochimica Acta, 2012, 82, 384-391.	5.2	430
27	Design of an Active Site towards Optimal Electrocatalysis: Overlayers, Surface Alloys and Near‧urface Alloys of Cu/Pt(111). Angewandte Chemie - International Edition, 2012, 51, 11845-11848.	13.8	94
28	Toward solar fuels: Water splitting with sunlight and "rust�. Coordination Chemistry Reviews, 2012, 256, 2521-2529.	18.8	209
29	Importance of Correlation in Determining Electrocatalytic Oxygen Evolution Activity on Cobalt Oxides. Journal of Physical Chemistry C, 2012, 116, 21077-21082.	3.1	305
30	First-Principles Structural and Electronic Characterization of Ordered SiO <sub>2</sub> Nanowires. Journal of Physical Chemistry C, 2012, 116, 18973-18982.	3.1	22
31	Unifying the 2e <sup>–</sup> and 4e <sup>–</sup> Reduction of Oxygen on Metal Surfaces. Journal of Physical Chemistry Letters, 2012, 3, 2948-2951.	4.6	276

#	Article	IF	CITATIONS
32	Physical and Chemical Nature of the Scaling Relations between Adsorption Energies of Atoms on Metal Surfaces. Physical Review Letters, 2012, 108, 116103.	7.8	233
33	Alignment of electronic energy levels at electrochemical interfaces. Physical Chemistry Chemical Physics, 2012, 14, 11245.	2.8	233
34	Identifying active surface phases for metal oxide electrocatalysts: a study of manganese oxide bi-functional catalysts for oxygen reduction and water oxidation catalysis. Physical Chemistry Chemical Physics, 2012, 14, 14010.	2.8	332
35	Electrocatalytic Oxygen Evolution Reaction (OER) on Ru, Ir, and Pt Catalysts: A Comparative Study of Nanoparticles and Bulk Materials. ACS Catalysis, 2012, 2, 1765-1772.	11.2	2,019
36	Preparation of Inorganic Photocatalytic Materials for Overall Water Splitting. ChemCatChem, 2012, 4, 1485-1497.	3.7	92
37	Role of Water in the Chlorine Evolution Reaction at RuO <sub>2</sub> â€Based Electrodes—Understanding Electrocatalysis as a Resonance Phenomenon. ChemSusChem, 2012, 5, 1897-1904.	6.8	53
38	Water Adsorption and Oxidation at the Co <sub>3</sub> O <sub>4</sub> (110) Surface. Journal of Physical Chemistry Letters, 2012, 3, 2808-2814.	4.6	97
39	Synthesis and evaluation of ATO as a support for Pt–IrO2 in a unitized regenerative fuel cell. International Journal of Hydrogen Energy, 2012, 37, 13522-13528.	7.1	51
40	Influence of Oxygen Evolution during Water Oxidation on the Surface of Perovskite Oxide Catalysts. Journal of Physical Chemistry Letters, 2012, 3, 3264-3270.	4.6	562
41	The road from animal electricity to green energy: combining experiment and theory in electrocatalysis. Energy and Environmental Science, 2012, 5, 9246.	30.8	224
42	Solution-Cast Metal Oxide Thin Film Electrocatalysts for Oxygen Evolution. Journal of the American Chemical Society, 2012, 134, 17253-17261.	13.7	1,403
43	Synthesis and Activities of Rutile IrO <sub>2</sub> and RuO <sub>2</sub> Nanoparticles for Oxygen Evolution in Acid and Alkaline Solutions. Journal of Physical Chemistry Letters, 2012, 3, 399-404.	4.6	2,912
44	Towards practical implementation. Nature Materials, 2012, 11, 100-101.	27.5	128
45	Spectroscopic Characterization of Mixed Fe–Ni Oxide Electrocatalysts for the Oxygen Evolution Reaction in Alkaline Electrolytes. ACS Catalysis, 2012, 2, 1793-1801.	11.2	423
46	Understanding the electrocatalysis of oxygen reduction on platinum and its alloys. Energy and Environmental Science, 2012, 5, 6744.	30.8	991
47	Water Oxidation on Pure and Doped Hematite (0001) Surfaces: Prediction of Co and Ni as Effective Dopants for Electrocatalysis. Journal of the American Chemical Society, 2012, 134, 13296-13309.	13.7	492
48	Wateroxidation catalysed by manganese compounds: from complexes to †biomimetic rocks'. Dalton Transactions, 2012, 41, 21-31.	3.3	177
49	Electrocatalysts for Nonaqueous Lithium–Air Batteries: Status, Challenges, and Perspective. ACS Catalysis, 2012, 2, 844-857.	11.2	443

#	Article	IF	CITATIONS
50	Surface Chemistry of Ruthenium Dioxide in Heterogeneous Catalysis and Electrocatalysis: From Fundamental to Applied Research. Chemical Reviews, 2012, 112, 3356-3426.	47.7	580
51	Trends in activity for the water electrolyser reactions on 3d M(Ni,Co,Fe,Mn) hydr(oxy)oxide catalysts. Nature Materials, 2012, 11, 550-557.	27.5	2,423
52	In Situ Electrochemical Electron Microscopy Study of Oxygen Evolution Activity of Doped Manganite Perovskites. Advanced Functional Materials, 2012, 22, 3378-3388.	14.9	79
53	Volcano Relations for Oxidation of Hydrogen Halides over Rutile Oxide Surfaces. ChemCatChem, 2012, 4, 1856-1861.	3.7	11
54	Water Oxidation by Electrodeposited Cobalt Oxides—Role of Anions and Redoxâ€Inert Cations in Structure and Function of the Amorphous Catalyst. ChemSusChem, 2012, 5, 542-549.	6.8	149
55	Universality in Oxygen Reduction Electrocatalysis on Metal Surfaces. ACS Catalysis, 2012, 2, 1654-1660.	11.2	456
56	Search Directions for Direct H2O2 Synthesis Catalysts Starting from Au12 Nanoclusters. Topics in Catalysis, 2012, 55, 336-344.	2.8	44
57	Oxygen evolution in alkali with gas diffusion electrodes. International Journal of Hydrogen Energy, 2013, 38, 11496-11506.	7.1	21
59	Theoretical Investigation of the Activity of Cobalt Oxides for the Electrochemical Oxidation of Water. Journal of the American Chemical Society, 2013, 135, 13521-13530.	13.7	1,093
60	Theory of multiple proton–electron transfer reactions and its implications for electrocatalysis. Chemical Science, 2013, 4, 2710.	7.4	581
61	Tailoring structural and electronic properties of RuO2 nanotubes: a many-body approach and electronic transport. Physical Chemistry Chemical Physics, 2013, 15, 14715.	2.8	23
62	Catalysis of Redox Reactions. , 2013, , 459-474.		1
63	Co <sub>3</sub> O <sub>4</sub> Nanoparticle Water-Oxidation Catalysts Made by Pulsed-Laser Ablation in Liquids. ACS Catalysis, 2013, 3, 2497-2500.	11.2	190
64	Active copper delafossite anode for oxygen evolution reaction. Electrochemistry Communications, 2013, 35, 142-145.	4.7	26
65	Oxygen Reduction Activity on Perovskite Oxide Surfaces: A Comparative First-Principles Study of LaMnO <sub>3</sub> , LaFeO <sub>3</sub> , and LaCrO <sub>3</sub> . Journal of Physical Chemistry C, 2013, 117, 2106-2112.	3.1	140
66	Electroreduction of Methanediol on Copper. Catalysis Letters, 2013, 143, 631-635.	2.6	21
67	Revisiting the Redox Properties of Hydrous Iridium Oxide Films in the Context of Oxygen Evolution. Journal of Physical Chemistry C, 2013, 117, 20975-20981.	3.1	78
68	On the chemical state of Co oxide electrocatalysts during alkaline water splitting. Physical Chemistry Chemical Physics, 2013, 15, 17460.	2.8	89

#	Article	IF	CITATIONS
69	Generalized trends in the formation energies of perovskite oxides. Physical Chemistry Chemical Physics, 2013, 15, 7526.	2.8	85
70	CHAPTER 10. Photoelectrochemical Water Splitting: A First Principles Approach. RSC Energy and Environment Series, 0, , 266-288.	0.5	2
71	Theoretical design and experimental implementation of Ag/Au electrodes for the electrochemical reduction of nitrate. Physical Chemistry Chemical Physics, 2013, 15, 3196.	2.8	98
72	Number of outer electrons as descriptor for adsorption processes on transition metals and their oxides. Chemical Science, 2013, 4, 1245.	7.4	273
73	Oxygen reduction and evolution at single-metal active sites: Comparison between functionalized graphitic materials and protoporphyrins. Surface Science, 2013, 607, 47-53.	1.9	121
74	New concepts and modeling strategies to design and evaluate photo-electro-catalysts based on transition metal oxides. Chemical Society Reviews, 2013, 42, 2401-2422.	38.1	225
75	Mechanistic Studies of the Oxygen Evolution Reaction Mediated by a Nickel–Borate Thin Film Electrocatalyst. Journal of the American Chemical Society, 2013, 135, 3662-3674.	13.7	430
76	Electrochemical water splitting by gold: evidence for an oxide decomposition mechanism. Chemical Science, 2013, 4, 2334.	7.4	229
77	Li–O <sub>2</sub> Kinetic Overpotentials: Tafel Plots from Experiment and First-Principles Theory. Journal of Physical Chemistry Letters, 2013, 4, 556-560.	4.6	153
78	Ordered Mesoporous Cobalt Oxide as Highly Efficient Oxygen Evolution Catalyst. Journal of the American Chemical Society, 2013, 135, 4516-4521.	13.7	378
79	Structural Changes of Cobalt-Based Perovskites upon Water Oxidation Investigated by EXAFS. Journal of Physical Chemistry C, 2013, 117, 8628-8635.	3.1	292
80	Highly Active, Nonprecious Metal Perovskite Electrocatalysts for Bifunctional Metal–Air Battery Electrodes. Journal of Physical Chemistry Letters, 2013, 4, 1254-1259.	4.6	294
81	On the Similarity and Dissimilarity between Photocatalytic Water Splitting and Photocatalytic Degradation of Pollutants. ChemPhysChem, 2013, 14, 2059-2070.	2.1	70
82	Tandem cathode for proton exchange membrane fuel cells. Physical Chemistry Chemical Physics, 2013, 15, 9326.	2.8	53
83	Tailoring the catalytic activity of electrodes with monolayer amounts of foreign metals. Chemical Society Reviews, 2013, 42, 5210.	38.1	202
84	Size-Dependent Subnanometer Pd Cluster (Pd <sub>4</sub> , Pd <sub>6</sub> , and Pd <sub>17</sub> ) Water Oxidation Electrocatalysis. ACS Nano, 2013, 7, 5808-5817.	14.6	137
85	What Makes a Good Catalyst for the Deacon Process?. ACS Catalysis, 2013, 3, 1034-1046.	11.2	69
86	Theoretical evidence for low kinetic overpotentials in Li-O2 electrochemistry. Journal of Chemical Physics, 2013, 138, 034703.	3.0	211

#	Article	IF	CITATIONS
87	Theoretical Considerations on the Electroreduction of CO to C <sub>2</sub> Species on Cu(100) Electrodes. Angewandte Chemie - International Edition, 2013, 52, 7282-7285.	13.8	677
88	First Principles Study of Cobalt (Hydr)oxides under Electrochemical Conditions. Journal of Physical Chemistry C, 2013, 117, 20002-20006.	3.1	89
89	Oxygen Evolution Activity and Stability of Ba <sub>6</sub> Mn <sub>5</sub> O <sub>16</sub> , Sr <sub>4</sub> Mn <sub>2</sub> CoO <sub>9</sub> , and Sr <sub>6</sub> Co <sub>5</sub> O <sub>15</sub> : The Influence of Transition Metal Coordination. Journal of Physical Chemistry C, 2013, 117, 25926-25932.	3.1	108
90	Effective Reversible Potentials and Onset Potentials for O <sub>2</sub> Electroreduction on Transition Metal Electrodes: Theoretical Analysis. Journal of Physical Chemistry C, 2013, 117, 41-48.	3.1	27
91	Water Oxidation on MnOx and IrOx: Why Similar Performance?. Journal of Physical Chemistry C, 2013, 117, 288-292.	3.1	38
92	Modeling Non-Precious Metal Catalyst Structures and Their Relationship to ORR. ECS Transactions, 2013, 58, 1869-1875.	0.5	1
93	Water oxidation surface mechanisms replicated by a totally inorganic tetraruthenium–oxo molecular complex. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 4917-4922.	7.1	80
94	Energetic basis of catalytic activity of layered nanophase calcium manganese oxides for water oxidation. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 8801-8806.	7.1	99
95	Some reflections on the understanding of the oxygen reduction reaction at Pt(111). Beilstein Journal of Nanotechnology, 2013, 4, 956-967.	2.8	65
96	Trends in the Adsorption and Dissociation of Water Clusters on Flat and Stepped Metallic Surfaces. Journal of Physical Chemistry C, 2014, 118, 29990-29998.	3.1	27
98	Electrochemical Characterization of Gel Electrolytes for Aqueous Lithiumâ€lon Batteries. ChemPlusChem, 2014, 79, 1507-1511.	2.8	19
99	How to Chemically Tailor Metal-Porphyrin-Like Active Sites on Carbon Nanotubes and Graphene for Minimal Overpotential in the Electrochemical Oxygen Evolution and Oxygen Reduction Reactions. Journal of Physical Chemistry C, 2014, 118, 29482-29491.	3.1	36
100	Embedded-cluster calculations in a numeric atomic orbital density-functional theory framework. Journal of Chemical Physics, 2014, 141, 024105.	3.0	38
101	Oxygen reduction reaction at Pt single crystals: a critical overview. Catalysis Science and Technology, 2014, 4, 1685.	4.1	167
102	Au–Co <sub>3</sub> O <sub>4</sub> /C as an Efficient Electrocatalyst for the Oxygen Evolution Reaction. ChemPlusChem, 2014, 79, 1569-1572.	2.8	26
103	Firstâ€Principles Modeling of Electrochemical Water Oxidation on MnO:ZnO(001). ChemElectroChem, 2014, 1, 407-415.	3.4	19
105	Oxygen Electrochemistry as a Cornerstone for Sustainable Energy Conversion. Angewandte Chemie - International Edition, 2014, 53, 102-121.	13.8	1,186
106	Water Oxidation Catalysis: Effects of Nickel Incorporation on the Structural and Chemical Properties of the α-Fe <sub>2</sub> O <sub>3</sub> (0001) Surface. ACS Applied Materials & amp; Interfaces, 2014, 6, 22289-22296.	8.0	9

	CITATION R	EPORT	
#	Article	IF	CITATIONS
107	Organic Pollutants for Wastewater Treatment, Reductive Dechlorination. , 2014, , 1398-1402.		0
109	In Situ XANES/XPS Investigation of Doped Manganese Perovskite Catalysts. Catalysts, 2014, 4, 129-145.	3.5	71
110	Oxygen Reduction Reaction in Alkaline Solution. , 2014, , 1491-1496.		3
111	Titania Nanotubes by Electrochemical Anodization for Solar Energy Conversion. Journal of the Electrochemical Society, 2014, 161, D3066-D3077.	2.9	31
112	Precise oxygen evolution catalysts: Status and opportunities. Scripta Materialia, 2014, 74, 25-32.	5.2	165
113	Modeling the Oxygen Evolution Reaction on Metal Oxides: The Infuence of Unrestricted DFT Calculations. Journal of Physical Chemistry C, 2014, 118, 4095-4102.	3.1	117
114	Synthesis of Monodispere Au@Co <sub>3</sub> O <sub>4</sub> Core‧hell Nanocrystals and Their Enhanced Catalytic Activity for Oxygen Evolution Reaction. Advanced Materials, 2014, 26, 3950-3955.	21.0	418
115	The Lithium Air Battery. , 2014, , .		111
116	N-doped graphene as catalysts for oxygen reduction and oxygen evolution reactions: Theoretical considerations. Journal of Catalysis, 2014, 314, 66-72.	6.2	537
117	DFT Simulations of Water Adsorption and Activation on Lowâ€Index αâ€Ga <sub>2</sub> O <sub>3</sub> Surfaces. Chemistry - A European Journal, 2014, 20, 6915-6926.	3.3	32
118	Nanostructured Manganese Oxide Supported onto Particulate Glassy Carbon as an Active and Stable Oxygen Reduction Catalyst in Alkaline-Based Fuel Cells. Journal of the Electrochemical Society, 2014, 161, D3105-D3112.	2.9	20
119	What Can Density Functional Theory Tell Us about Artificial Catalytic Water Splitting?. Inorganic Chemistry, 2014, 53, 6386-6397.	4.0	126
120	Analysis of Porphyrines as Catalysts for Electrochemical Reduction of O <sub>2</sub> and Oxidation of H <sub>2</sub> O. Journal of the American Chemical Society, 2014, 136, 1320-1326.	13.7	124
121	Nonaqueous Li–Air Batteries: A Status Report. Chemical Reviews, 2014, 114, 11721-11750.	47.7	848
122	<i>In Situ</i> Electrochemical Stress Measurements Examining the Oxygen Evolution Reaction in Basic Electrolytes. Analytical Chemistry, 2014, 86, 11290-11297.	6.5	13
123	Understanding the Reactivity of Layered Transition-Metal Sulfides: A Single Electronic Descriptor for Structure and Adsorption. Journal of Physical Chemistry Letters, 2014, 5, 3884-3889.	4.6	70
124	Probing the Coverage Dependence of Site and Adsorbate Configurational Correlations on (111) Surfaces of Late Transition Metals. Journal of Physical Chemistry C, 2014, 118, 25597-25602.	3.1	29
125	Bond-Making and Breaking between Carbon, Nitrogen, and Oxygen in Electrocatalysis. Journal of the American Chemical Society, 2014, 136, 15694-15701.	13.7	168

#	Article	IF	CITATIONS
126	Mn and Co co-substituted Fe <sub>3</sub> O <sub>4</sub> nanoparticles on nitrogen-doped reduced graphene oxide for oxygen electrocatalysis in alkaline solution. Journal of Materials Chemistry A, 2014, 2, 16217-16223.	10.3	118
127	A lithium peroxide precursor on the α-MnO <sub>2</sub> (100) surface. Journal of Materials Chemistry A, 2014, 2, 16538-16546.	10.3	25
128	Metallicity enhancement in core–shell SiO2@RuO2nanowires. RSC Advances, 2014, 4, 34696-34700.	3.6	1
129	Graphene and its composites with nanoparticles for electrochemical energy applications. Nano Today, 2014, 9, 668-683.	11.9	230
130	Highly Active Mixed-Metal Nanosheet Water Oxidation Catalysts Made by Pulsed-Laser Ablation in Liquids. Journal of the American Chemical Society, 2014, 136, 13118-13121.	13.7	278
131	Computational electrochemistry: prediction of liquid-phase reduction potentials. Physical Chemistry Chemical Physics, 2014, 16, 15068-15106.	2.8	407
132	Rational design of the electrode morphology for oxygen evolution – enhancing the performance for catalytic water oxidation. RSC Advances, 2014, 4, 9579.	3.6	117
133	IrOx core-shell nanocatalysts for cost- and energy-efficient electrochemical water splitting. Chemical Science, 2014, 5, 2955-2963.	7.4	278
134	H <sub>2</sub> production through electro-oxidation of SO <sub>2</sub> : identifying the fundamental limitations. Physical Chemistry Chemical Physics, 2014, 16, 9572-9579.	2.8	36
135	On the faradaic selectivity and the role of surface inhomogeneity during the chlorine evolution reaction on ternary Ti–Ru–Ir mixed metal oxide electrocatalysts. Physical Chemistry Chemical Physics, 2014, 16, 13741-13747.	2.8	97
136	Trends in electrochemical CO2 reduction activity for open and close-packed metal surfaces. Physical Chemistry Chemical Physics, 2014, 16, 4720.	2.8	375
137	Active Sites and Mechanisms for Oxygen Reduction Reaction on Nitrogen-Doped Carbon Alloy Catalysts: Stone–Wales Defect and Curvature Effect. Journal of the American Chemical Society, 2014, 136, 13629-13640.	13.7	273
138	A hierarchical Ni–Co–O@Ni–Co–S nanoarray as an advanced oxygen evolution reaction electrode. Physical Chemistry Chemical Physics, 2014, 16, 20402-20405.	2.8	54
139	Electrocatalytic Oxygen Evolution with an Immobilized TAML Activator. Journal of the American Chemical Society, 2014, 136, 5603-5606.	13.7	71
140	Ti atoms in Ru0.3Ti0.7O2 mixed oxides form active and selective sites for electrochemical chlorine evolution. Electrochimica Acta, 2014, 146, 733-740.	5.2	44
141	Enabling Silicon for Solar-Fuel Production. Chemical Reviews, 2014, 114, 8662-8719.	47.7	329
142	An Approach to Understanding the Electrocatalytic Activity Enhancement by Superexchange Interaction toward OER in Alkaline Media of Ni–Fe LDH. Journal of Physical Chemistry C, 2014, 118, 22432-22438.	3.1	185
143	Challenges in reduction of dinitrogen by proton and electron transfer. Chemical Society Reviews, 2014, 43, 5183-5191.	38.1	1,234

#	Article	IF	CITATIONS
144	Theoretical Insights into the Mechanism of Water Oxidation on Nonstoichiometric and Titanium-Doped Fe <sub>2</sub> O <sub>3</sub> (0001). Journal of Physical Chemistry C, 2014, 118, 23162-23167.	3.1	52
145	Oxygen Reduction at a Cu-Modified Pt(111) Model Electrocatalyst in Contact with Nafion Polymer. ACS Catalysis, 2014, 4, 3772-3778.	11.2	47
146	Density-Functional-Theory Calculation Analysis of Active Sites for Four-Electron Reduction of O <sub>2</sub> on Fe/N-Doped Graphene. ACS Catalysis, 2014, 4, 4170-4177.	11.2	215
147	Evaluation of Perovskites as Electrocatalysts for the Oxygen Evolution Reaction. ChemPhysChem, 2014, 15, 2810-2816.	2.1	70
148	Theoretical Model of Oxidative Adsorption of Water on a Highly Reduced Reconstructed Oxide Surface. Journal of Physical Chemistry Letters, 2014, 5, 3408-3414.	4.6	25
149	Exfoliation of layered double hydroxides for enhanced oxygen evolution catalysis. Nature Communications, 2014, 5, 4477.	12.8	1,900
150	Developments and perspectives of oxide-based catalysts for the oxygen evolution reaction. Catalysis Science and Technology, 2014, 4, 3800-3821.	4.1	1,006
151	Dissolution of Noble Metals during Oxygen Evolution in Acidic Media. ChemCatChem, 2014, 6, 2219-2223.	3.7	394
152	Electrocatalytic Oxygen Evolution over Supported Small Amorphous Ni–Fe Nanoparticles in Alkaline Electrolyte. Langmuir, 2014, 30, 7893-7901.	3.5	234
153	Unifying Solution and Surface Electrochemistry: Limitations and Opportunities in Surface Electrocatalysis. Topics in Catalysis, 2014, 57, 215-221.	2.8	35
154	La <sub>0.8</sub> Sr <sub>0.2</sub> MnO <sub>3â~î^</sub> Decorated with Ba <sub>0.5</sub> Sr <sub>0.5</sub> Co <sub>0.8</sub> Fe <sub>0.2</sub> O <sub>3â~î^</sub> : A Bifunctional Surface for Oxygen Electrocatalysis with Enhanced Stability and Activity. Journal of the American Chemical Society, 2014, 136, 5229-5232.	13.7	196
155	A Strongly Coupled Graphene and FeNi Double Hydroxide Hybrid as an Excellent Electrocatalyst for the Oxygen Evolution Reaction. Angewandte Chemie - International Edition, 2014, 53, 7584-7588.	13.8	694
156	A Functionally Stable Manganese Oxide Oxygen Evolution Catalyst in Acid. Journal of the American Chemical Society, 2014, 136, 6002-6010.	13.7	474
157	Understanding Interactions between Manganese Oxide and Gold That Lead to Enhanced Activity for Electrocatalytic Water Oxidation. Journal of the American Chemical Society, 2014, 136, 4920-4926.	13.7	205
158	Amorphous FeOOH Oxygen Evolution Reaction Catalyst for Photoelectrochemical Water Splitting. Journal of the American Chemical Society, 2014, 136, 2843-2850.	13.7	524
159	Mechanism and Activity of Water Oxidation on Selected Surfaces of Pure and Fe-Doped NiO <sub><i>x</i></sub> . ACS Catalysis, 2014, 4, 1148-1153.	11.2	403
160	First-principles study of crystalline CoWO4 as oxygen evolution reaction catalyst. RSC Advances, 2014, 4, 24692.	3.6	68
161	Nanoscale Limitations in Metal Oxide Electrocatalysts for Oxygen Evolution. Nano Letters, 2014, 14, 5853-5857.	9.1	69

#	Article	IF	CITATIONS
162	TiO2 /Ferroelectric Heterostructures as Dynamic Polarization-Promoted Catalysts for Photochemical and Electrochemical Oxidation of Water. Physical Review Letters, 2014, 112, 196102.	7.8	63
163	Beyond the volcano limitations in electrocatalysis – oxygen evolution reaction. Physical Chemistry Chemical Physics, 2014, 16, 13682-13688.	2.8	292
164	Uniform Doping of Metal Oxide Nanowires Using Solid State Diffusion. Journal of the American Chemical Society, 2014, 136, 10521-10526.	13.7	50
165	Nickel–Iron Oxyhydroxide Oxygen-Evolution Electrocatalysts: The Role of Intentional and Incidental Iron Incorporation. Journal of the American Chemical Society, 2014, 136, 6744-6753.	13.7	2,659
166	Electrocatalytic performances of LaNi1â^'Mg O3 perovskite oxides as bi-functional catalysts for lithium air batteries. Journal of Power Sources, 2014, 265, 91-96.	7.8	119
167	Revealing onset potentials using electrochemical microscopy to assess the catalytic activity of gas-evolving electrodes. Electrochemistry Communications, 2014, 38, 142-145.	4.7	22
168	Relating the electronic structure and reactivity of the 3d transition metal monoxide surfaces. Catalysis Communications, 2014, 52, 60-64.	3.3	19
169	Scaling relations between adsorption energies for computational screening and design of catalysts. Catalysis Science and Technology, 2014, 4, 3748-3761.	4.1	225
170	Water Splitting over Graphene-Based Catalysts: Ab Initio Calculations. ACS Catalysis, 2014, 4, 2016-2021.	11.2	55
171	Unifying Kinetic and Thermodynamic Analysis of 2 e <sup>–</sup> and 4 e <sup>–</sup> Reduction of Oxygen on Metal Surfaces. Journal of Physical Chemistry C, 2014, 118, 6706-6718.	3.1	337
172	Tuning the Electrocatalytic Activity of Perovskites through Active Site Variation and Support Interactions. Chemistry of Materials, 2014, 26, 3368-3376.	6.7	229
173	Synthesis, structure, and photocatalytic properties of ordered mesoporous metal-doped Co3O4. Journal of Catalysis, 2014, 310, 2-9.	6.2	70
176	Toward an Active and Stable Catalyst for Oxygen Evolution in Acidic Media: Ti‣tabilized MnO <sub>2</sub> . Advanced Energy Materials, 2015, 5, 1500991.	19.5	177
177	Roughened Znâ€Doped Ru–Ti Oxide Water Oxidation Electrocatalysts by Blending Active and Activated Passive Components. ChemElectroChem, 2015, 2, 1839-1846.	3.4	22
178	Design Principles for Heteroatomâ€Doped Carbon Nanomaterials as Highly Efficient Catalysts for Fuel Cells and Metal–Air Batteries. Advanced Materials, 2015, 27, 6834-6840.	21.0	490
180	The Challenge of Electrochemical Ammonia Synthesis: A New Perspective on the Role of Nitrogen Scaling Relations. ChemSusChem, 2015, 8, 2180-2186.	6.8	1,018
181	Silicone Nanofilament Supported Nickel Oxide: A New Concept for Oxygen Evolution Catalysts in Water Electrolyzers. Advanced Materials Interfaces, 2015, 2, 1500216.	3.7	10
183	Hazardous Doping for Photo-Electrochemical Conversion: The Case of Nb-Doped Fe2O3 from First Principles. Molecules, 2015, 20, 19900-19906.	3.8	27

ARTICLE IF CITATIONS Water Oxidation by Ru-Polyoxometalate Catalysts: Overpotential Dependency on the Number and 184 2.7 8 Charge of the Metal Centers. Inorganics, 2015, 3, 374-387. Mixed-valent, heteroleptic homometallic diketonates as templates for the design of volatile 7.4 heterometallic precursors. Chemical Science, 2015, 6, 2835-2842. Oxide-supported Ir nanodendrites with high activity and durability for the oxygen evolution reaction 186 7.4 332 in acid PEM water electrolyzers. Chemical Science, 2015, 6, 3321-3328. Photoinduced Water Oxidation at the Aqueous GaN (1011...0) Interface: Deprotonation Kinetics of the 11.2 First Proton-Coupled Electron-Transfer Step. ACS Catalysis, 2015, 5, 2317-2323. Platinum-Doped α-Fe<sub>2</sub>O<sub>3</sub>for Enhanced Water Splitting Efficiency: A 188 3.1 73 DFT+<i>U</i>Study. Journal of Physical Chemistry C, 2015, 119, 5836-5847. Surface modification of semiconductor photoelectrodes. Physical Chemistry Chemical Physics, 2015, 189 2.8 17, 15655-15674 <i>Ab initio</i>defect energetics of perovskite (001) surfaces for solid oxide fuel cells: A comparative study of < mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>LaMn</mml:mi><mml:msub><mml:mi 190 39 mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>versus<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>SrTi</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>and<mml:math NiCoO2 nanowires grown on carbon fiber paper for highly efficient water oxidation. Electrochimica 5.2 90 Acta, 2015, 174, 246-253. Efficient Electrocatalytic Water Oxidation by Using Amorphous Ni–Co Double Hydroxides Nanocages. 192 19.5 307 Advanced Energy Materials, 2015, 5, 1401880. Water interaction with perfect and fluorine-doped Co3O4 (100) surface. Solid State lonics, 2015, 277, 24 77-82. Mechanistic Pathway in the Electrochemical Reduction of CO2 on RuO2. ACS Catalysis, 2015, 5, 194 11.2 123 4075-4081. In Situ Observation of Active Oxygen Species in Fe-Containing Ni-Based Oxygen Evolution Catalysts: The Effect of pH on Electrochemical Activity. Journal of the American Chemical Society, 2015, 137, 459 15112-15121. Investigating the Energetic Ordering of Stable and Metastable TiO<sub>2</sub> Polymorphs Using 196 3.181 DFT+<i>U</i>V</i>And Hybrid Functionals. Journal of Physical Chemistry C, 2015, 119, 21060-21071. Thermodynamic Descriptors for Molecules That Catalyze Efficient CO<sub>2</sub> 11.2 46 Electroreductions. ACS Catalysis, 2015, 5, 1123-1130 Photocatalytic Water-Splitting Reaction from Catalytic and Kinetic Perspectives. Catalysis Letters, 199 210 2.6 2015, 145, 95-108. High-pressure water electrolysis: Electrochemical mitigation of product gas crossover. 5.2 Electrochimica Acta, 2015, 156, 321-327. Influence of the alkali metal cations on the activity of Pt(111) towards model electrocatalytic 201 4.4 33 reactions in acidic sulfuric media. Catalysis Today, 2015, 244, 96-102. Synergistic Oxygen Evolving Activity of a TiO<sub>2</sub>-Rich Reconstructed 58 SrTiO<sub>3</sub>(001) Surface. Journal of the American Chemical Society, 2015, 137, 2939-2947.

#	Article	IF	Citations
	A high-performance three-dimensional Ni–Fe layered double hydroxide/graphene electrode for water		
203	oxidation. Journal of Materials Chemistry A, 2015, 3, 6921-6928.	10.3	291
204	Design of electrocatalysts for oxygen- and hydrogen-involving energy conversion reactions. Chemical Society Reviews, 2015, 44, 2060-2086.	38.1	4,323
205	Benchmarking Hydrogen Evolving Reaction and Oxygen Evolving Reaction Electrocatalysts for Solar Water Splitting Devices. Journal of the American Chemical Society, 2015, 137, 4347-4357.	13.7	3,158
206	Molecular bonding-based descriptors for surface adsorption and reactivity. Journal of Catalysis, 2015, 324, 50-58.	6.2	17
207	Nanoarray based "superaerophobic―surfaces for gas evolution reaction electrodes. Materials Horizons, 2015, 2, 294-298.	12.2	146
208	Electrocatalytic Oxygen Evolution at Surface-Oxidized Multiwall Carbon Nanotubes. Journal of the American Chemical Society, 2015, 137, 2901-2907.	13.7	495
209	Transition metal carbides (WC, Mo2C, TaC, NbC) as potential electrocatalysts for the hydrogen evolution reaction (HER) at medium temperatures. International Journal of Hydrogen Energy, 2015, 40, 2905-2911.	7.1	177
210	Heterogeneous Catalysis. Angewandte Chemie - International Edition, 2015, 54, 3465-3520.	13.8	754
211	ALD of Ultrathin Ternary Oxide Electrocatalysts for Water Splitting. ACS Catalysis, 2015, 5, 1609-1616.	11.2	41
212	A Linear Response DFT+ <i>U</i> Study of Trends in the Oxygen Evolution Activity of Transition Metal Rutile Dioxides. Journal of Physical Chemistry C, 2015, 119, 4827-4833.	3.1	86
213	Uncovering Structure–Activity Relationships in Manganeseâ€Oxideâ€Based Heterogeneous Catalysts for Efficient Water Oxidation. ChemSusChem, 2015, 8, 776-785.	6.8	96
214	Photoelectrochemical Behavior of Nanoporous Oxide of FeNdB Alloy. Journal of the Electrochemical Society, 2015, 162, H220-H228.	2.9	3
215	Kinetic modelling of heterogeneous catalytic systems. Journal of Physics Condensed Matter, 2015, 27, 013001.	1.8	85
216	Improving Oxygen Electrochemistry through Nanoscopic Confinement. ChemCatChem, 2015, 7, 738-742.	3.7	106
217	Hierarchical porous Co <sub>3</sub> O <sub>4</sub> @Co <sub>x</sub> Fe <sub>3â^'x</sub> O <sub>4</sub> film as an advanced electrocatalyst for oxygen evolution reaction. RSC Advances, 2015, 5, 8882-8886.	3.6	8
218	Role of Strain and Conductivity in Oxygen Electrocatalysis on LaCoO <sub>3</sub> Thin Films. Journal of Physical Chemistry Letters, 2015, 6, 487-492.	4.6	152
219	Identification of Highly Active Fe Sites in (Ni,Fe)OOH for Electrocatalytic Water Splitting. Journal of the American Chemical Society, 2015, 137, 1305-1313.	13.7	2,018
220	The Revolution Continues: Energiewende 2.0. Angewandte Chemie - International Edition, 2015, 54, 4436-4439.	13.8	56

#	Article	IF	CITATIONS
221	Calculated Descriptors of Catalytic Activity for Water Electrolysis Anode: Application to Delafossite Oxides. Journal of Physical Chemistry C, 2015, 119, 6495-6501.	3.1	53
222	Activity of N-coordinated multi-metal-atom active site structures for Pt-free oxygen reduction reaction catalysis: Role of *OH ligands. Scientific Reports, 2015, 5, 9286.	3.3	109
223	Theoretical and Experimental Study on M <sup>II</sup> M <sup>III</sup> -Layered Double Hydroxides as Efficient Photocatalysts toward Oxygen Evolution from Water. Journal of Physical Chemistry C, 2015, 119, 18823-18834.	3.1	170
224	Prediction of Ir0.5M0.5O2 (MÂ=ÂCr, Ru or Pb) Mixed Oxides as Active Catalysts for Oxygen Evolution Reaction from First-Principles Calculations. Topics in Catalysis, 2015, 58, 675-681.	2.8	15
225	Towards superior oxygen evolution through graphene barriers between metal substrates and hydroxide catalysts. Journal of Materials Chemistry A, 2015, 3, 16183-16189.	10.3	54
226	Heteroatom-Doped Graphene-Based Materials for Energy-Relevant Electrocatalytic Processes. ACS Catalysis, 2015, 5, 5207-5234.	11.2	800
227	High activity and durability of novel perovskite electrocatalysts for water oxidation. Materials Horizons, 2015, 2, 495-501.	12.2	128
228	Solar Water Splitting Using Semiconductor Photocatalyst Powders. Topics in Current Chemistry, 2015, 371, 73-103.	4.0	52
229	Reactivity of Perovskites with Water: Role of Hydroxylation in Wetting and Implications for Oxygen Electrocatalysis. Journal of Physical Chemistry C, 2015, 119, 18504-18512.	3.1	88
230	Ab initio GGA+U study of oxygen evolution and oxygen reduction electrocatalysis on the (001) surfaces of lanthanum transition metal perovskites LaBO <sub>3</sub> (B = Cr, Mn, Fe, Co and Ni). Physical Chemistry Chemical Physics, 2015, 17, 21643-21663.	2.8	98
231	Solvation Effects on OH Adsorbates on Stepped Pt Surfaces. Journal of Physical Chemistry C, 2015, 119, 16743-16753.	3.1	24
232	High Catalytic Activity of Amorphous Ir-Pi for Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2015, 7, 15765-15776.	8.0	55
233	Effects of electrolyte, catalyst, and membrane composition and operating conditions on the performance of solar-driven electrochemical reduction of carbon dioxide. Physical Chemistry Chemical Physics, 2015, 17, 18924-18936.	2.8	312
234	A First-Principles Study of Oxygen Formation Over NiFe-Layered Double Hydroxides Surface. Catalysis Letters, 2015, 145, 1541-1548.	2.6	61
235	Design of Highly Active Perovskite Oxides for Oxygen Evolution Reaction by Combining Experimental and ab Initio Studies. ACS Catalysis, 2015, 5, 4337-4344.	11.2	107
236	An efficiently tuned d-orbital occupation of IrO <sub>2</sub> by doping with Cu for enhancing the oxygen evolution reaction activity. Chemical Science, 2015, 6, 4993-4999.	7.4	208
237	Impacts of electrode potentials and solvents on the electroreduction of CO <sub>2</sub> : a comparison of theoretical approaches. Physical Chemistry Chemical Physics, 2015, 17, 13949-13963.	2.8	90
238	Effect of the mass transport limitations on the stability window of electrolytes for metal-ion batteries. Electrochimica Acta, 2015, 167, 262-267.	5.2	12

#	Article	IF	CITATIONS
239	Pyrolyzed cobalt porphyrin-modified carbon nanomaterial as an active catalyst for electrocatalytic water oxidation. International Journal of Hydrogen Energy, 2015, 40, 6538-6545.	7.1	45
240	First-Principles Study of Oxygen Evolution Reaction on the Oxygen-Containing Species Covered Coll-Exposing Co3O4 (100) Surface. Catalysis Letters, 2015, 145, 1169-1176.	2.6	18
241	Ab Initio Approach for Prediction of Oxide Surface Structure, Stoichiometry, and Electrocatalytic Activity in Aqueous Solution. Journal of Physical Chemistry Letters, 2015, 6, 1785-1789.	4.6	64
242	A systematic study of metal-supported boron nitride materials for the oxygen reduction reaction. Physical Chemistry Chemical Physics, 2015, 17, 12722-12727.	2.8	65
243	Tuning the Electrocatalytic Water Oxidation Properties of AB <sub>2</sub> O <sub>4</sub> Spinel Nanocrystals: A (Li, Mg, Zn) and B (Mn, Co) Site Variants of LiMn <sub>2</sub> O <sub>4</sub> . ACS Catalysis, 2015, 5, 3403-3410.	11.2	74
244	Relationships between the surface electronic and chemical properties of doped 4d and 5d late transition metal dioxides. Journal of Chemical Physics, 2015, 142, 104703.	3.0	28
245	Toward the rational design of non-precious transition metal oxides for oxygen electrocatalysis. Energy and Environmental Science, 2015, 8, 1404-1427.	30.8	1,628
246	Effect of oleylamine concentration on the structure and oxygen reduction activity of carbon-supported surface-Pt-enriched Pt 3 Au electrocatalysts. Journal of Power Sources, 2015, 290, 130-135.	7.8	6
247	Multiphase Nanostructure of a Quinary Metal Oxide Electrocatalyst Reveals a New Direction for OER Electrocatalyst Design. Advanced Energy Materials, 2015, 5, 1402307.	19.5	85
248	Facile, Rapid, and Large-Area Periodic Patterning of Semiconductor Substrates with Submicron Inorganic Structures. Journal of the American Chemical Society, 2015, 137, 3739-3742.	13.7	5
249	DFT calculation analysis of oxygen reduction activity and stability of bimetallic catalysts with Pt-segregated surface. Science China Chemistry, 2015, 58, 586-592.	8.2	12
250	Design Insights for Tuning the Electrocatalytic Activity of Perovskite Oxides for the Oxygen Evolution Reaction. Journal of Physical Chemistry C, 2015, 119, 8004-8013.	3.1	44
251	A Theoretical and Experimental Approach for Correlating Nanoparticle Structure and Electrocatalytic Activity. Accounts of Chemical Research, 2015, 48, 1351-1357.	15.6	78
252	Applications of ALD MnO to electrochemical water splitting. Physical Chemistry Chemical Physics, 2015, 17, 14003-14011.	2.8	44
253	Iron-Doped Nickel Oxide Nanocrystals as Highly Efficient Electrocatalysts for Alkaline Water Splitting. ACS Nano, 2015, 9, 5180-5188.	14.6	446
254	Introducing structural sensitivity into adsorption–energy scaling relations by means of coordination numbers. Nature Chemistry, 2015, 7, 403-410.	13.6	600
255	A metal-free bifunctional electrocatalyst for oxygen reduction and oxygen evolution reactions. Nature Nanotechnology, 2015, 10, 444-452.	31.5	2,782
256	Co <sub>3</sub> O <sub>4</sub> nanocrystal ink printed on carbon fiber paper as a large-area electrode for electrochemical water splitting. Chemical Communications, 2015, 51, 8066-8069.	4.1	163

		CITATION RE	EPORT	
#	Article		IF	CITATIONS
257	Recent Advances of Lanthanum-Based Perovskite Oxides for Catalysis. ACS Catalysis, 201	5, 5, 6370-6385.	11.2	384
258	Oxygen Evolution Reaction on La <sub>1–<i>x</i></sub> Sr <sub><i>x</i></sub> CoO <s Perovskites: A Combined Experimental and Theoretical Study of Their Structural, Electron Electrochemical Properties. Chemistry of Materials, 2015, 27, 7662-7672.</s 		6.7	259
259	Three dimensional nickel oxides/nickel structure by in situ electro-oxidation of nickel foan electrocatalyst for oxygen evolution reaction. Applied Surface Science, 2015, 359, 172-1		6.1	106
260	Guidelines for the Rational Design of Ni-Based Double Hydroxide Electrocatalysts for the Evolution Reaction. ACS Catalysis, 2015, 5, 5380-5387.	Oxygen	11.2	472
261	Photochemical Outcomes of Adsorbed Oxygen: Desorption, Dissociation, and Passivatior Coadsorbed Water. Journal of Physical Chemistry C, 2015, 119, 19976-19986.	ı by	3.1	5
262	Structure Sensitivity of the Oxygen Evolution Reaction Catalyzed by Cobalt(II,III) Oxide. Ja American Chemical Society, 2015, 137, 14660-14672.	burnal of the	13.7	116
263	Selective Electrochemical Generation of Hydrogen Peroxide from Water Oxidation. Journa Physical Chemistry Letters, 2015, 6, 4224-4228.	al of	4.6	142
264	Enhancement Effect of Noble Metals on Manganese Oxide for the Oxygen Evolution Read of Physical Chemistry Letters, 2015, 6, 4178-4183.	tion. Journal	4.6	89
265	Facile synthesis of Fe/Ni bimetallic oxide solid-solution nanoparticles with superior electro activity for oxygen evolution reaction. Nano Research, 2015, 8, 3815-3822.	ocatalytic	10.4	94
266	Carbon-based electrocatalysts for advanced energy conversion and storage. Science Adva e1500564.	ances, 2015, 1,	10.3	567
267	Oxygen Evolution Reaction Electrocatalysis on Transition Metal Oxides and (Oxy)hydroxic Trends and Design Principles. Chemistry of Materials, 2015, 27, 7549-7558.	des: Activity	6.7	944
268	Reversible adapting layer produces robust single-crystal electrocatalyst for oxygen evolut Nature Communications, 2015, 6, 8106.	ion.	12.8	377
269	Nonstoichiometric Oxides as Low-Cost and Highly-Efficient Oxygen Reduction/Evolution ( Low-Temperature Electrochemical Devices. Chemical Reviews, 2015, 115, 9869-9921.	Catalysts for	47.7	770
270	Coordination tuning of cobalt phosphates towards efficient water oxidation catalyst. Nat Communications, 2015, 6, 8253.	ure	12.8	352
271	Linear scaling relationships and volcano plots in homogeneous catalysis – revisiting the reaction. Chemical Science, 2015, 6, 6754-6761.	? Suzuki	7.4	98
272	Revised Oxygen Evolution Reaction Activity Trends for First-Row Transition-Metal (Oxy)hy Alkaline Media. Journal of Physical Chemistry Letters, 2015, 6, 3737-3742.	droxides in	4.6	417
273	Performance evaluation of a membraneless divergent electrode-flow-through (DEFT) alka electrolyser based on optimisation of electrolytic flow and electrode gap. Journal of Powe 2015, 293, 228-235.		7.8	58
274	An oxygen evolution catalyst on an antimony doped tin oxide nanowire structured suppo proton exchange membrane liquid water electrolysis. Journal of Materials Chemistry A, 20 20791-20800.	rt for 015, 3,	10.3	79

#	Article	IF	CITATIONS
275	CoTiO <sub>x</sub> Catalysts for the Oxygen Evolution Reaction. Journal of the Electrochemical Society, 2015, 162, H841-H846.	2.9	14
276	Method for Enhancing the Bifunctional Activity and Durability of Oxygen Electrodes with Mixed Oxide Electrocatalysts: Potential Driven Intercalation of Potassium. Journal of the Electrochemical Society, 2015, 162, F1356-F1366.	2.9	32
277	MoO <sub>2</sub> –CoO coupled with a macroporous carbon hybrid electrocatalyst for highly efficient oxygen evolution. Nanoscale, 2015, 7, 16704-16714.	5.6	51
278	Activity and stability of the oxygen evolution reaction on electrodeposited Ru and its thermal oxides. Applied Surface Science, 2015, 359, 227-235.	6.1	31
279	Fe (Oxy)hydroxide Oxygen Evolution Reaction Electrocatalysis: Intrinsic Activity and the Roles of Electrical Conductivity, Substrate, and Dissolution. Chemistry of Materials, 2015, 27, 8011-8020.	6.7	395
280	Tuning oxide activity through modification of the crystal and electronic structure: from strain to potential polymorphs. Physical Chemistry Chemical Physics, 2015, 17, 28943-28949.	2.8	31
281	Influence of Adsorbed Water on the Oxygen Evolution Reaction on Oxides. Journal of Physical Chemistry C, 2015, 119, 1032-1037.	3.1	66
282	Selective Heterogeneous CO <sub>2</sub> Electroreduction to Methanol. ACS Catalysis, 2015, 5, 965-971.	11.2	167
283	Selective Chlorine Evolution Catalysts Based on Mg-Doped Nanoparticulate Ruthenium Dioxide. Journal of the Electrochemical Society, 2015, 162, H23-H31.	2.9	32
284	Oxygen reduction on nanostructured platinum surfaces in acidic media: Promoting effect of surface steps and ideal response of Pt(1 1 1). Catalysis Today, 2015, 244, 172-176.	4.4	49
285	Perfluorinated Cobalt Phthalocyanine Effectively Catalyzes Water Electrooxidation. European Journal of Inorganic Chemistry, 2015, 2015, 49-52.	2.0	37
286	Why Is Bulk Thermochemistry a Good Descriptor for the Electrocatalytic Activity of Transition Metal Oxides?. ACS Catalysis, 2015, 5, 869-873.	11.2	189
287	Co intake mediated formation of ultrathin nanosheets of transition metal LDH—an advanced electrocatalyst for oxygen evolution reaction. Chemical Communications, 2015, 51, 1120-1123.	4.1	195
288	Water Oxidation at Electrodes Modified with Earthâ€Abundant Transitionâ€Metal Catalysts. ChemElectroChem, 2015, 2, 37-50.	3.4	213
289	Oxygen reduction on nanocrystalline ruthenia – local structure effects. RSC Advances, 2015, 5, 1235-1243.	3.6	24
290	Theoretical evaluation of the surface electrochemistry of perovskites with promising photon absorption properties for solar water splitting. Physical Chemistry Chemical Physics, 2015, 17, 2634-2640.	2.8	58
291	A flexible high-performance oxygen evolution electrode with three-dimensional NiCo2O4 core-shell nanowires. Nano Energy, 2015, 11, 333-340.	16.0	291
292	Equilibrium coverage of halides on metal electrodes. Surface Science, 2015, 631, 17-22.	1.9	72

ARTICLE IF CITATIONS # Characterization of Layered LiMO<sub>2</sub> Oxides for the Oxygen Evolution Reaction of 293 2.8 13 Metal–Air Batteries (M=Mn, Co, Ni). ChemPlusChem, 2015, 80, 422-427. Oxygen evolution on well-characterized mass-selected Ru and RuO<sub>2</sub>nanoparticles. 294 7.4 298 Chemical Science, 2015, 6, 190-196. Advancing the Electrochemistry of the Hydrogenâ€Evolution Reaction through Combining Experiment 295 13.8 1.616 and Theory. Angewandte Chemie - International Edition, 2015, 54, 52-65. Enhancing Activity for the Oxygen Evolution Reaction: The Beneficial Interaction of Gold with 114 Manganese and Cobalt Oxides. ChemCatChem, 2015, 7, 149-154. Visible-Light-Active NiV<sub>2</sub>O<sub>6</sub> Films for Photoelectrochemical Water Oxidation. 297 3.1 24 Journal of Physical Chemistry C, 2015, 119, 14524-14531. Semiconductor-based photocatalysts and photoelectrochemical cells for solar fuel generation: a review. Catalysis Science and Technology, 2015, 5, 1360-1384. 298 4.1 824 An Efficient CeO<sub>2</sub>/CoSe<sub>2</sub>Nanobelt Composite for Electrochemical Water 299 10.0 325 Oxidation. Small, 2015, 11, 182-188. Theory of surface chemistry and reactivity of reducible oxides. Catalysis Today, 2015, 244, 63-84. 300 4.4 67 Rapid Synthesis of Cobalt Nitride Nanowires: Highly Efficient and Lowâ€Cost Catalysts for Oxygen 301 13.8 624 Evolution. Angewandte Chemie - International Edition, 2016, 55, 8670-8674. Modelling materials for solar fuel synthesis by artificial photosynthesis; predicting the optical, electronic and redox properties of photocatalysts. Journal of Physics Condensed Matter, 2016, 28, 1.8 074001. Advances in Hybrid Electrocatalysts for Oxygen Evolution Reactions: Rational Integration of NiFe 303 Layered Double Hydroxides and Nanocarbon. Particle and Particle Systems Characterization, 2016, 33, 106 2.3473-486. Following the Reduction of Oxygen on TiO<sub>2</sub> Anatase (101) Step by Step. Journal of the American Chemical Society, 2016, 138, 9565-9571. Direct Growth of MoS<sub>2</sub> Microspheres on Ni Foam as a Hybrid Nanocomposite Efficient for 305 10.0 114 Oxygen Evolution Reaction. Small, 2016, 12, 2975-2981. Exfoliated 2D Transition Metal Disulfides for Enhanced Electrocatalysis of Oxygen Evolution Reaction in Acidic Medium. Advanced Materials Interfaces, 2016, 3, 1500669. 306 Thermodynamics of the oxygen evolution electrocatalysis in a functionalized UiOâ€66 metalâ€organic 307 2.0 9 frameworks. International Journal of Quantum Chemistry, 2016, 116, 1153-1159. Phosphorusâ€Doped Perovskite Oxide as Highly Efficient Water Oxidation Electrocatalyst in Alkaline 308 14.9 271 Solution. Advanced Functional Materials, 2016, 26, 5862-5872. Rapid Synthesis of Cobalt Nitride Nanowires: Highly Efficient and Low ost Catalysts for Oxygen 309 2.0 132 Evolution. Angewandte Chemie, 2016, 128, 8812-8816. Polarization-driven catalysis via ferroelectric oxide surfaces. Physical Chemistry Chemical Physics, 2.8 2016, 18, 19676-19695.

#	Article	IF	Citations
311	Design and Synthesis of FeOOH/CeO <sub>2</sub> Heterolayered Nanotube Electrocatalysts for the Oxygen Evolution Reaction. Advanced Materials, 2016, 28, 4698-4703.	21.0	592
312	MOF-Derived Noble Metal Free Catalysts for Electrochemical Water Splitting. ACS Applied Materials & Interfaces, 2016, 8, 35390-35397.	8.0	151
313	Orientation Sensitivity of Oxygen Evolution Reaction on Hematite. Journal of Physical Chemistry C, 2016, 120, 28694-28700.	3.1	42
314	OER activity manipulated by IrO6 coordination geometry: an insight from pyrochlore iridates. Scientific Reports, 2016, 6, 38429.	3.3	92
315	Two-dimensional boron: Lightest catalyst for hydrogen and oxygen evolution reaction. Applied Physics Letters, 2016, 109, .	3.3	86
317	Au-NiCo2O4 supported on three-dimensional hierarchical porous graphene-like material for highly effective oxygen evolution reaction. Scientific Reports, 2016, 6, 23398.	3.3	62
319	Oxygen Evolution Reaction Dynamics, Faradaic Charge Efficiency, and the Active Metal Redox States of Ni–Fe Oxide Water Splitting Electrocatalysts. Journal of the American Chemical Society, 2016, 138, 5603-5614.	13.7	888
320	Bifunctional Perovskite Oxide Catalysts for Oxygen Reduction and Evolution in Alkaline Media. Chemistry - an Asian Journal, 2016, 11, 10-21.	3.3	190
321	Dual-valence nickel nanosheets covered with thin carbon as bifunctional electrocatalysts for full water splitting. Journal of Materials Chemistry A, 2016, 4, 7297-7304.	10.3	73
322	The mechanism of hydrogen and oxygen evolution reactionÂinÂNi–NiO/β-Ga2O3 photocatalyst. International Journal of Hydrogen Energy, 2016, 41, 5670-5681.	7.1	27
323	Linking structure to function: The search for active sites in non-platinum group metal oxygen reduction reaction catalysts. Nano Energy, 2016, 29, 54-64.	16.0	116
324	Performance of titanium oxynitrides in the electrocatalytic oxygen evolution reaction. Nano Energy, 2016, 29, 136-148.	16.0	26
325	Universality in Nonaqueous Alkali Oxygen Reduction on Metal Surfaces: Implications for Li–O <sub>2</sub> and Na–O <sub>2</sub> Batteries. ACS Energy Letters, 2016, 1, 162-168.	17.4	39
326	First-Principles Study on Nitrobenzene-Doped Graphene as a Metal-Free Electrocatalyst for Oxygen Reduction Reaction. Journal of Physical Chemistry C, 2016, 120, 8804-8812.	3.1	42
327	Experimental and Computational Evidence of Highly Active Fe Impurity Sites on the Surface of Oxidized Au for the Electrocatalytic Oxidation of Water in Basic Media. ChemElectroChem, 2016, 3, 66-73.	3.4	44
328	Atomic-Scale Analysis of the RuO <sub>2</sub> /Water Interface under Electrochemical Conditions. Journal of Physical Chemistry C, 2016, 120, 8096-8103.	3.1	41
329	High catalytic activity of oxygen-induced (200) surface of Ta2O5 nanolayer towards durable oxygen evolution reaction. Nano Energy, 2016, 25, 60-67.	16.0	36
330	Iron and nickel co-doped cobalt hydroxide nanosheets with enhanced activity for oxygen evolution reaction. RSC Advances, 2016, 6, 42255-42262.	3.6	37

#	Article	IF	CITATIONS
331	Cobalt phosphide-based nanoparticles as bifunctional electrocatalysts for alkaline water splitting. Journal of Materials Chemistry A, 2016, 4, 7549-7554.	10.3	53
332	Rational design of graphitic carbon based nanostructures for advanced electrocatalysis. Journal of Materials Chemistry A, 2016, 4, 8497-8511.	10.3	73
333	Electrocatalysis and bioelectrocatalysis – Distinction without a difference. Nano Energy, 2016, 29, 466-475.	16.0	53
334	Beyond the top of the volcano? – A unified approach to electrocatalytic oxygen reduction and oxygen evolution. Nano Energy, 2016, 29, 126-135.	16.0	248
335	The Oxygen Evolution Reaction: Mechanistic Concepts and Catalyst Design. , 2016, , 41-104.		81
336	In situ Grown Pyramid Structures of Nickel Diselenides Dependent on Oxidized Nickel Foam as Efficient Electrocatalyst for Oxygen Evolution Reaction. Electrochimica Acta, 2016, 205, 77-84.	5.2	96
337	An efficient bifunctional two-component catalyst for oxygen reduction and oxygen evolution in reversible fuel cells, electrolyzers and rechargeable air electrodes. Energy and Environmental Science, 2016, 9, 2020-2024.	30.8	221
338	Nanosized CoWO 4 and NiWO 4 as efficient oxygen-evolving electrocatalysts. Electrochimica Acta, 2016, 209, 75-84.	5.2	70
339	Ultrafine NiO Nanosheets Stabilized by TiO <sub>2</sub> from Monolayer NiTi-LDH Precursors: An Active Water Oxidation Electrocatalyst. Journal of the American Chemical Society, 2016, 138, 6517-6524.	13.7	597
340	Electrochemical Preparation of Ru/Co Biâ€layered Catalysts on Ti Substrates for the Oxygen Evolution Reaction. Bulletin of the Korean Chemical Society, 2016, 37, 1270-1277.	1.9	5
341	Facile Synthesis of Mesoporous Manganese–Iron Nanorod Arrays Efficient for Water Oxidation. ACS Sustainable Chemistry and Engineering, 2016, 4, 5398-5403.	6.7	23
342	Acidic or Alkaline? Towards a New Perspective on the Efficiency of Water Electrolysis. Journal of the Electrochemical Society, 2016, 163, F3197-F3208.	2.9	232
343	In situ anchoring of Co9S8 nanoparticles on N and S co-doped porous carbon tube as bifunctional oxygen electrocatalysts. NPG Asia Materials, 2016, 8, e308-e308.	7.9	164
344	Metal-organic-framework-derived bi-metallic sulfide on N, S-codoped porous carbon nanocomposites as multifunctional electrocatalysts. Journal of Power Sources, 2016, 334, 112-119.	7.8	69
345	Activity and Durability of Iridium Nanoparticles in the Oxygen Evolution Reaction. Journal of the Electrochemical Society, 2016, 163, F3105-F3112.	2.9	154
346	Activity of Water Oxidation on Pure and (Fe, Ni, and Cu)-Substituted Co <sub>3</sub> O <sub>4</sub> . ACS Energy Letters, 2016, 1, 858-862.	17.4	59
347	Graphitic carbon nitride supported single-atom catalysts for efficient oxygen evolution reaction. Chemical Communications, 2016, 52, 13233-13236.	4.1	176
348	Two-dimensional nanostructures of non-layered ternary thiospinels and their bifunctional electrocatalytic properties for oxygen reduction and evolution: the case of CuCo <sub>2</sub> S <sub>4</sub> nanosheets. Inorganic Chemistry Frontiers, 2016, 3, 1501-1509.	6.0	69

#	Article	IF	CITATIONS
349	Fabrication of zero to three dimensional nanostructured molybdenum sulfides and their electrochemical and photocatalytic applications. Nanoscale, 2016, 8, 18250-18269.	5.6	79
350	Ionic Adsorbate Structures on Metal Electrodes Calculated from First-Principles. Industrial & Engineering Chemistry Research, 2016, 55, 11107-11113.	3.7	14
351	Toward Enhanced Oxygen Evolution on Perovskite Oxides Synthesized from Different Approaches: A Case Study of Ba 0.5 Sr 0.5 Co 0.8 Fe 0.2 O 3â^Î. Electrochimica Acta, 2016, 219, 553-559.	5.2	72
352	Growth of One-Dimensional RuO <sub>2</sub> Nanowires on g-Carbon Nitride: An Active and Stable Bifunctional Electrocatalyst for Hydrogen and Oxygen Evolution Reactions at All pH Values. ACS Applied Materials & Interfaces, 2016, 8, 28678-28688.	8.0	170
353	Legitimate intermediates of oxygen evolution on iridium oxide revealed by in situ electrochemical evanescent wave spectroscopy. Physical Chemistry Chemical Physics, 2016, 18, 15199-15204.	2.8	40
354	Reduced overpotentials for electrocatalytic water splitting over Fe- and Ni-modified BaTiO <sub>3</sub> . Physical Chemistry Chemical Physics, 2016, 18, 29561-29570.	2.8	29
355	Intercalation of Cobalt into the Interlayer of Birnessite Improves Oxygen Evolution Catalysis. ACS Catalysis, 2016, 6, 7739-7743.	11.2	79
356	Enhanced Water Oxidation Activity of the Cobalt(II,III) Oxide Electrocatalyst on an Earthâ€Abundantâ€Metalâ€Interlayered Hybrid Porous Carbon Support. ChemElectroChem, 2016, 3, 1899-1907.	3.4	23
357	From channeled to hollow CoO octahedra: controlled growth, structural evolution and energetic applications. CrystEngComm, 2016, 18, 6849-6859.	2.6	22
358	Designing efficient doped NiOOH catalysts for water splitting with first principles calculations. ChemistrySelect, 2016, 1, 911-916.	1.5	26
359	Structure and water oxidation activity of 3 <i>d</i> metal oxides. Wiley Interdisciplinary Reviews: Computational Molecular Science, 2016, 6, 47-64.	14.6	20
360	Critical role of interfacial effects on the reactivity of semiconductor-cocatalyst junctions for photocatalytic oxygen evolution from water. Catalysis Science and Technology, 2016, 6, 6836-6844.	4.1	11
361	Two-Dimensional Materials as Catalysts for Energy Conversion. Catalysis Letters, 2016, 146, 1917-1921.	2.6	58
362	Iridium Oxide for the Oxygen Evolution Reaction: Correlation between Particle Size, Morphology, and the Surface Hydroxo Layer from Operando XAS. Chemistry of Materials, 2016, 28, 6591-6604.	6.7	347
363	A highly active and stable IrO <i> <sub>x</sub> </i> /SrIrO <sub>3</sub> catalyst for the oxygen evolution reaction. Science, 2016, 353, 1011-1014.	12.6	1,606
364	Enantioselective cyanation of benzylic C–H bonds via copper-catalyzed radical relay. Science, 2016, 353, 1014-1018.	12.6	496
365	Porous FeNi oxide nanosheets as advanced electrochemical catalysts for sustained water oxidation. Journal of Materials Chemistry A, 2016, 4, 14939-14943.	10.3	63
366	Layered Antiferromagnetic Ordering in the Most Active Perovskite Catalysts for the Oxygen Evolution Reaction. ChemCatChem, 2016, 8, 2968-2974.	3.7	61

#	Article	IF	CITATIONS
367	Tandem Core–Shell Si–Ta <sub>3</sub> N <sub>5</sub> Photoanodes for Photoelectrochemical Water Splitting. Nano Letters, 2016, 16, 7565-7572.	9.1	99
368	Catalyst morphology matters for lithium–oxygen battery cathodes. Nanotechnology, 2016, 27, 495404.	2.6	12
369	Disclosing the High Activity of Ceramic Metallics in the Oxygen Evolution Reaction: Nickel Materials as a Case Study. ChemSusChem, 2016, 9, 2928-2932.	6.8	25
370	Synthesis of spindle-shaped AgI/TiO2 nanoparticles with enhanced photocatalytic performance. Applied Surface Science, 2016, 386, 337-344.	6.1	34
371	Synthesis and application of hexagonal perovskite BaNiO3 with quadrivalent nickel under atmospheric and low-temperature conditions. Chemical Communications, 2016, 52, 10731-10734.	4.1	13
372	Formation and Migration of Oxygen Vacancies in SrCoO <sub>3</sub> and Their Effect on Oxygen Evolution Reactions. ACS Catalysis, 2016, 6, 5565-5570.	11.2	96
373	Identification of Surface Reactivity Descriptor for Transition Metal Oxides in Oxygen Evolution Reaction. Journal of the American Chemical Society, 2016, 138, 9978-9985.	13.7	345
374	Computational electrochemistry of doped graphene as electrocatalytic material in fuel cells. International Journal of Quantum Chemistry, 2016, 116, 1623-1640.	2.0	28
375	NiFeâ€Based (Oxy)hydroxide Catalysts for Oxygen Evolution Reaction in Nonâ€Acidic Electrolytes. Advanced Energy Materials, 2016, 6, 1600621.	19.5	765
376	Surface Proton Hopping and Fast-Kinetics Pathway of Water Oxidation on Co <sub>3</sub> O <sub>4</sub> (001) Surface. ACS Catalysis, 2016, 6, 5610-5617.	11.2	83
377	Exploring the kinetic and thermodynamic aspects of four-electron electrochemical reactions: electrocatalysis of oxygen evolution by metal oxides and biological systems. Physical Chemistry Chemical Physics, 2016, 18, 22364-22372.	2.8	20
378	Nickel–vanadium monolayer double hydroxide for efficient electrochemical water oxidation. Nature Communications, 2016, 7, 11981.	12.8	808
379	Activity origin and catalyst design principles forÂelectrocatalytic hydrogen evolution on heteroatom-dopedÂgraphene. Nature Energy, 2016, 1, .	39.5	927
380	Gold-supported cerium-doped NiOx catalysts for water oxidation. Nature Energy, 2016, 1, .	39.5	458
381	Parameterization of Water Electrooxidation Catalyzed by Metal Oxides Using Fourier Transformed Alternating Current Voltammetry. Journal of the American Chemical Society, 2016, 138, 16095-16104.	13.7	48
382	In situ preparation of Ca <sub>0.5</sub> Mn <sub>0.5</sub> O/C as a novel high-activity catalyst for the oxygen reduction reaction. Journal of Materials Chemistry A, 2016, 4, 19147-19153.	10.3	17
383	Rotating Ring–Disk Electrode Study of Oxygen Evolution at a Perovskite Surface: Correlating Activity to Manganese Concentration. Journal of Physical Chemistry C, 2016, 120, 27746-27756.	3.1	85
384	Descriptors and Thermodynamic Limitations of Electrocatalytic Carbon Dioxide Reduction on Rutile Oxide Surfaces. ChemSusChem, 2016, 9, 3230-3243.	6.8	34

#	Article	IF	CITATIONS
385	Identification of catalytic sites for oxygen reduction and oxygen evolution in N-doped graphene materials: Development of highly efficient metal-free bifunctional electrocatalyst. Science Advances, 2016, 2, e1501122.	10.3	1,078
386	Generation of Transparent Oxygen Evolution Electrode Consisting of Regularly Ordered Nanoparticles from Self-Assembly Cobalt Phthalocyanine as a Template. ACS Applied Materials & Interfaces, 2016, 8, 32376-32384.	8.0	12
387	Functional Independent Scaling Relation for ORR/OER Catalysts. Journal of Physical Chemistry C, 2016, 120, 24910-24916.	3.1	119
388	Iridium-based double perovskites for efficient water oxidation in acid media. Nature Communications, 2016, 7, 12363.	12.8	353
389	Engineering surface atomic structure of single-crystal cobalt (II) oxide nanorods for superior electrocatalysis. Nature Communications, 2016, 7, 12876.	12.8	568
390	Recent Trends and Perspectives in Electrochemical Water Splitting with an Emphasis on Sulfide, Selenide, and Phosphide Catalysts of Fe, Co, and Ni: A Review. ACS Catalysis, 2016, 6, 8069-8097.	11.2	1,936
391	Effect of Sr doping on the electrochemical properties of bi-functional oxygen electrode PrBa1â^'Sr Co2O5+. Journal of Power Sources, 2016, 334, 86-93.	7.8	53
392	Earth-Abundant Heterogeneous Water Oxidation Catalysts. Chemical Reviews, 2016, 116, 14120-14136.	47.7	1,259
393	Water Splitting on Transition Metal Active Sites at TiO <sub>2</sub> -Based Electrodes: A Small Cluster Study. Journal of Physical Chemistry C, 2016, 120, 25851-25860.	3.1	18
394	Water electrolysis on La1â^'xSrxCoO3â^´Î´ perovskite electrocatalysts. Nature Communications, 2016, 7, 11053.	12.8	800
395	The modeling gap: What we are missing between molecular dynamics of electrode reactions and simulation of battery packs. Electrochemical Energy Technology, 2016, 2, .	1.2	1
396	Perovskite materials in energy storage and conversion. Asia-Pacific Journal of Chemical Engineering, 2016, 11, 338-369.	1.5	81
397	Interface Engineering of MoS <sub>2</sub> /Ni <sub>3</sub> S <sub>2</sub> Heterostructures for Highly Enhanced Electrochemical Overallâ€Waterâ€Splitting Activity. Angewandte Chemie - International Edition, 2016, 55, 6702-6707.	13.8	1,159
398	Theoretical Heterogeneous Catalysis: Scaling Relationships and Computational Catalyst Design. Annual Review of Chemical and Biomolecular Engineering, 2016, 7, 605-635.	6.8	303
399	Operando Analyses of Solar Fuels Light Absorbers and Catalysts. Electrochimica Acta, 2016, 211, 711-719.	5.2	23
400	Design of binary and ternary platinum shelled electrocatalysts with inexpensive metals for the oxygen reduction reaction. International Journal of Hydrogen Energy, 2016, 41, 13014-13023.	7.1	9
401	Exploring the mechanism of water-splitting reaction in NiO <sub>x</sub> /l̂2-Ga <sub>2</sub> O <sub>3</sub> photocatalysts by first-principles calculations. Physical Chemistry Chemical Physics, 2016, 18, 11111-11119.	2.8	17
402	Water oxidation catalysis – role of redox and structural dynamics in biological photosynthesis and inorganic manganese oxides. Energy and Environmental Science, 2016, 9, 2433-2443.	30.8	99

#	Article	IF	CITATIONS
403	A facile synthesis of reduced Co3O4 nanoparticles with enhanced Electrocatalytic activity for oxygen evolution. International Journal of Hydrogen Energy, 2016, 41, 12976-12982.	7.1	56
404	Efficient and Stable Evolution of Oxygen Using Pulse-Electrodeposited Ir/Ni Oxide Catalyst in Fe-Spiked KOH Electrolyte. ACS Applied Materials & Interfaces, 2016, 8, 15985-15990.	8.0	46
405	Oxidatively Electrodeposited Thin-Film Transition Metal (Oxy)hydroxides as Oxygen Evolution Catalysts. Journal of the American Chemical Society, 2016, 138, 8946-8957.	13.7	376
406	Manganous oxide nanoparticles encapsulated in few-layer carbon as an efficient electrocatalyst for oxygen reduction in alkaline media. Journal of Materials Chemistry A, 2016, 4, 11775-11781.	10.3	27
407	Electrodeposited SiO <sub>2</sub> film: a promising interlayer of a highly active Ti electrode for the oxygen evolution reaction. Journal of Materials Chemistry A, 2016, 4, 11949-11956.	10.3	28
408	Accessing and predicting the kinetic profiles of homogeneous catalysts from volcano plots. Chemical Science, 2016, 7, 5723-5735.	7.4	65
409	Electronic Properties of Pure and Fe-Doped β-Ni(OH) <sub>2</sub> : New Insights Using Density Functional Theory with a Cluster Approach. Journal of Physical Chemistry C, 2016, 120, 12344-12350.	3.1	18
410	Modeling and Simulations in Photoelectrochemical Water Oxidation: From Single Level to Multiscale Modeling. ChemSusChem, 2016, 9, 1223-1242.	6.8	87
411	Observation of an Inverse Kinetic Isotope Effect in Oxygen Evolution Electrochemistry. ACS Catalysis, 2016, 6, 5706-5714.	11.2	73
412	Nitrogen and Sulfur Codoped Graphite Foam as a Selfâ€6upported Metalâ€Free Electrocatalytic Electrode for Water Oxidation. Advanced Energy Materials, 2016, 6, 1501492.	19.5	153
413	Metalâ€Organic Frameworkâ€Based Nanomaterials for Electrocatalysis. Advanced Energy Materials, 2016, 6, 1600423.	19.5	539
414	Interface Engineering of MoS <sub>2</sub> /Ni <sub>3</sub> S <sub>2</sub> Heterostructures for Highly Enhanced Electrochemical Overallâ€Water‧plitting Activity. Angewandte Chemie, 2016, 128, 6814-6819.	2.0	403
415	Computationally Probing the Performance of Hybrid, Heterogeneous, and Homogeneous Iridiumâ€Based Catalysts for Water Oxidation. ChemCatChem, 2016, 8, 1792-1798.	3.7	26
416	Manganese Compounds as Water-Oxidizing Catalysts: From the Natural Water-Oxidizing Complex to Nanosized Manganese Oxide Structures. Chemical Reviews, 2016, 116, 2886-2936.	47.7	549
417	Pyridine derivative/graphene nanoribbon composites as molecularly tunable heterogeneous electrocatalysts for the oxygen reduction reaction. Physical Chemistry Chemical Physics, 2016, 18, 5040-5047.	2.8	11
418	Targeted design of α-MnO2 based catalysts for oxygen reduction. Electrochimica Acta, 2016, 191, 452-461.	5.2	29
419	Tuning Composition and Activity of Cobalt Titanium Oxide Catalysts for the Oxygen Evolution Reaction. Electrochimica Acta, 2016, 193, 240-245.	5.2	26
420	Quantum chemistry of the oxygen evolution reaction on cobalt( <scp>ii</scp> , <scp>iii</scp> ) oxide – implications for designing the optimal catalyst. Faraday Discussions, 2016, 188, 199-226.	3.2	18

		CITATION R	EPORT	
#	Article		IF	CITATIONS
421	Anionic redox processes for electrochemical devices. Nature Materials, 2016, 15, 121-12	.6.	27.5	556
422	Electrocatalytic Oxygen Evolution with an Atomically Precise Nickel Catalyst. ACS Cataly 1225-1234.	sis, 2016, 6,	11.2	104
423	CoO <sub>x</sub> thin film deposited by CVD as efficient water oxidation catalyst: chan state in XPS and its correlation to electrochemical activity. Physical Chemistry Chemical 18, 10708-10718.		2.8	99
424	A Fundamental Relationship between Reaction Mechanism and Stability in Metal Oxide ( Oxygen Evolution. ACS Catalysis, 2016, 6, 1153-1158.	Catalysts for	11.2	377
425	Role of the interfacial water structure on electrocatalysis: Oxygen reduction on Pt(1 1 1) methanesulfonic acid. Catalysis Today, 2016, 262, 95-99.	) in	4.4	16
426	Dynamical changes of a Ni-Fe oxide water splitting catalyst investigated at different pH. Today, 2016, 262, 65-73.	Catalysis	4.4	86
427	Water Splitting on TiO <sub>2</sub> -Based Electrochemical Cells: A Small Cluster Study Physical Chemistry C, 2016, 120, 437-449.	. Journal of	3.1	21
428	Benchmarking nanoparticulate metal oxide electrocatalysts for the alkaline water oxidat reaction. Journal of Materials Chemistry A, 2016, 4, 3068-3076.	ion	10.3	477
429	Performance and degradation of Proton Exchange Membrane Fuel Cells: State of the art from atomistic to system scale. Journal of Power Sources, 2016, 304, 207-233.	in modeling	7.8	180
430	Shaped Ir–Ni bimetallic nanoparticles for minimizing Ir utilization in oxygen evolution i Chemical Communications, 2016, 52, 5641-5644.	reaction.	4.1	78
431	Theoretical Limiting Potentials in Mg/O <sub>2</sub> Batteries. Chemistry of Materials, 1390-1401.	2016, 28,	6.7	42
432	In situ grown, self-supported iron–cobalt–nickel alloy amorphous oxide nanosheets overpotential toward water oxidation. Chemical Communications, 2016, 52, 4290-4293	with low	4.1	71
433	Direct Water Decomposition on Transition Metal Surfaces: Structural Dependence and C Screening. Catalysis Letters, 2016, 146, 718-724.	Catalytic	2.6	18
434	Bulk-surface relationship of an electronic structure for high-throughput screening of met catalysts. Applied Surface Science, 2016, 370, 279-290.	tal oxide	6.1	8
435	Interfacial effects on the catalysis of the hydrogen evolution, oxygen evolution and CO2 reactions for (co-)electrolyzer development. Nano Energy, 2016, 29, 4-28.	-reduction	16.0	104
436	Adsorption and dissociation of O2 on Ni-doped (5, 5) SWCNT: A DFT study. Applied Surf 370, 6-10.	ace Science, 2016,	6.1	13
437	A fascinating combination of Co, Ni and Al nanomaterial for oxygen evolution reaction. A Surface Science, 2016, 370, 445-451.	Applied	6.1	62
438	Nanostructure in energy conversion. Journal of Energy Chemistry, 2016, 25, 171-190.		12.9	73

#	Article	IF	CITATIONS
439	Oxygen evolution reaction electrocatalysis on SrIrO <sub>3</sub> grown using molecular beam epitaxy. Journal of Materials Chemistry A, 2016, 4, 6831-6836.	10.3	62
440	Stainless Steel Mesh-Supported NiS Nanosheet Array as Highly Efficient Catalyst for Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2016, 8, 5509-5516.	8.0	254
441	Design Principles for Dual-Element-Doped Carbon Nanomaterials as Efficient Bifunctional Catalysts for Oxygen Reduction and Evolution Reactions. ACS Catalysis, 2016, 6, 1553-1558.	11.2	179
442	<i>In Situ</i> Raman Spectroscopy of Copper and Copper Oxide Surfaces during Electrochemical Oxygen Evolution Reaction: Identification of Cu <sup>III</sup> Oxides as Catalytically Active Species. ACS Catalysis, 2016, 6, 2473-2481.	11.2	592
443	Porous LaCo <sub>1–<i>x</i></sub> Ni <sub><i>x</i></sub> O <sub>3â<sup>*</sup>î´</sub> Nanostructures as an Efficient Electrocatalyst for Water Oxidation and for a Zinc–Air Battery. ACS Applied Materials & Interfaces, 2016, 8, 6019-6031.	8.0	115
444	Effects of Intentionally Incorporated Metal Cations on the Oxygen Evolution Electrocatalytic Activity of Nickel (Oxy)hydroxide in Alkaline Media. ACS Catalysis, 2016, 6, 2416-2423.	11.2	199
445	A New Family of Perovskite Catalysts for Oxygen-Evolution Reaction in Alkaline Media: BaNiO <sub>3</sub> and BaNi <sub>0.83</sub> O <sub>2.5</sub> . Journal of the American Chemical Society, 2016, 138, 3541-3547.	13.7	204
446	Effect of Low-Concentration Alloying in Titanium on Reduction Reaction Kinetics in Alkaline Environments. Journal of the Electrochemical Society, 2016, 163, C269-C274.	2.9	5
447	Effect of doping β-NiOOH with Co on the catalytic oxidation of water: DFT+U calculations. Physical Chemistry Chemical Physics, 2016, 18, 7490-7501.	2.8	32
448	Pr <sub>x</sub> Ba <sub>1-x</sub> CoO <sub>3</sub> Oxide Electrodes for Oxygen Evolution Reaction in Alkaline Solutions by Chemical Solution Deposition. Journal of the Electrochemical Society, 2016, 163, F166-F170.	2.9	20
449	Descriptors of Oxygen-Evolution Activity for Oxides: A Statistical Evaluation. Journal of Physical Chemistry C, 2016, 120, 78-86.	3.1	207
450	Hollandite Structure K <sub><i>x</i>â‰^0.25</sub> IrO <sub>2</sub> Catalyst with Highly Efficient Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2016, 8, 820-826.	8.0	94
451	Electron Transfer and Catalytic Mechanism of Organic Molecule-Adsorbed Graphene Nanoribbons as Efficient Catalysts for Oxygen Reduction and Evolution Reactions. Journal of Physical Chemistry C, 2016, 120, 2166-2175.	3.1	42
452	Structural and Catalytic Effects of Iron- and Scandium-Doping on a Strontium Cobalt Oxide Electrocatalyst for Water Oxidation. ACS Catalysis, 2016, 6, 1122-1133.	11.2	39
453	Ambient-Pressure XPS Study of a Ni–Fe Electrocatalyst for the Oxygen Evolution Reaction. Journal of Physical Chemistry C, 2016, 120, 2247-2253.	3.1	336
454	Direct carbonization of cobalt-doped NH <sub>2</sub> -MIL-53(Fe) for electrocatalysis of oxygen evolution reaction. Nanoscale, 2016, 8, 1033-1039.	5.6	93
455	pH dependence of OER activity of oxides: Current and future perspectives. Catalysis Today, 2016, 262, 2-10.	4.4	288
456	Facile synthesis of thin NiFe-layered double hydroxides nanosheets efficient for oxygen evolution. Electrochemistry Communications, 2016, 62, 24-28.	4.7	81

#	Article	IF	CITATIONS
457	Ferroelectrics: A pathway to switchable surface chemistry and catalysis. Surface Science, 2016, 650, 302-316.	1.9	114
458	Single layer graphene encapsulating non-precious metals as high-performance electrocatalysts for water oxidation. Energy and Environmental Science, 2016, 9, 123-129.	30.8	683
459	Enhanced activity of H2O2-treated copper(ii) oxide nanostructures for the electrochemical evolution of oxygen. Catalysis Science and Technology, 2016, 6, 269-274.	4.1	48
460	Beyond Water Splitting: Efficiencies of Photoâ€Electrochemical Devices Producing Hydrogen and Valuable Oxidation Products. Advanced Sustainable Systems, 2017, 1, 1600035.	5.3	50
461	Highly Active Threeâ€Dimensional NiFe/Cu <sub>2</sub> O Nanowires/Cu Foam Electrode for Water Oxidation. ChemSusChem, 2017, 10, 1475-1481.	6.8	53
462	Sc and Nb dopants in SrCoO3 modulate electronic and vacancy structures for improved water splitting and SOFC cathodes. Energy Storage Materials, 2017, 9, 229-234.	18.0	31
463	Core-Oxidized Amorphous Cobalt Phosphide Nanostructures: An Advanced and Highly Efficient Oxygen Evolution Catalyst. Inorganic Chemistry, 2017, 56, 1742-1756.	4.0	102
464	Photocatalysis versus Photosynthesis: A Sensitivity Analysis of Devices for Solar Energy Conversion and Chemical Transformations. ACS Energy Letters, 2017, 2, 445-453.	17.4	214
465	Edge reactivity and water-assisted dissociation on cobalt oxide nanoislands. Nature Communications, 2017, 8, 14169.	12.8	117
466	A hierarchically porous nickel–copper phosphide nano-foam for efficient electrochemical splitting of water. Nanoscale, 2017, 9, 4401-4408.	5.6	110
467	Perspective: On the active site model in computational catalyst screening. Journal of Chemical Physics, 2017, 146, 040901.	3.0	48
468	Influence of iron doping on tetravalent nickel content in catalytic oxygen evolving films. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 1486-1491.	7.1	488
469	A New Type of Scaling Relations to Assess the Accuracy of Computational Predictions of Catalytic Activities Applied to the Oxygen Evolution Reaction. ChemCatChem, 2017, 9, 1261-1268.	3.7	75
470	Combining theory and experiment in electrocatalysis: Insights into materials design. Science, 2017, 355,	12.6	7,837
471	Recent Progress in Metalâ€Organic Frameworks for Applications in Electrocatalytic and Photocatalytic Water Splitting. Advanced Science, 2017, 4, 1600371.	11.2	594
472	Electrocatalysis for the oxygen evolution reaction: recent development and future perspectives. Chemical Society Reviews, 2017, 46, 337-365.	38.1	4,505
473	Operando investigation of Au-MnOx thin films with improved activity for the oxygen evolution reaction. Electrochimica Acta, 2017, 230, 22-28.	5.2	39
474	Band Structure Engineering of Transition-Metal-Based Layered Double Hydroxides toward Photocatalytic Oxygen Evolution from Water: A Theoretical–Experimental Combination Study. Journal of Physical Chemistry C, 2017, 121, 2683-2695.	3.1	113

# 475	ARTICLE Design Principles for Covalent Organic Frameworks as Efficient Electrocatalysts in Clean Energy Conversion and Green Oxidizer Production. Advanced Materials, 2017, 29, 1606635.	lF 21.0	Citations 167
476	Hydrogen generation from water molecule with Pt7 clusters. International Journal of Hydrogen Energy, 2017, 42, 4032-4039.	7.1	19
477	One- or Two-Electron Water Oxidation, Hydroxyl Radical, or H <sub>2</sub> O <sub>2</sub> Evolution. Journal of Physical Chemistry Letters, 2017, 8, 1157-1160.	4.6	234
478	Influence of LaFeO <sub>3</sub> Surface Termination on Water Reactivity. Journal of Physical Chemistry Letters, 2017, 8, 1038-1043.	4.6	60
479	Atomic Modulation of FeCo–Nitrogen–Carbon Bifunctional Oxygen Electrodes for Rechargeable and Flexible Allâ€5olidâ€5tate Zinc–Air Battery. Advanced Energy Materials, 2017, 7, 1602420.	19.5	692
480	In Situ Exfoliated, Edgeâ€Rich, Oxygenâ€Functionalized Graphene from Carbon Fibers for Oxygen Electrocatalysis. Advanced Materials, 2017, 29, 1606207.	21.0	532
481	Oneâ€Step In Situ Growth of Iron–Nickel Sulfide Nanosheets on FeNi Alloy Foils: Highâ€Performance and Selfâ€Supported Electrodes for Water Oxidation. Small, 2017, 13, 1604161.	10.0	177
482	Ultrathin Iron obalt Oxide Nanosheets with Abundant Oxygen Vacancies for the Oxygen Evolution Reaction. Advanced Materials, 2017, 29, 1606793.	21.0	1,144
483	Photon-Driven Nitrogen Fixation: Current Progress, Thermodynamic Considerations, and Future Outlook. ACS Catalysis, 2017, 7, 2624-2643.	11.2	445
484	A tailored double perovskite nanofiber catalyst enables ultrafast oxygen evolution. Nature Communications, 2017, 8, 14586.	12.8	327
485	Influence of Surface Adsorption on the Oxygen Evolution Reaction on IrO <sub>2</sub> (110). Journal of the American Chemical Society, 2017, 139, 3473-3479.	13.7	269
486	Non-precious metal electrocatalysts for hydrogen production in proton exchange membrane water electrolyzer. Applied Catalysis B: Environmental, 2017, 206, 608-616.	20.2	54
487	Theoretical evidence of the relationship established between the HO radicals and H2O adsorptions and the electroactivity of typical catalysts used to oxidize organic compounds. Electrochimica Acta, 2017, 229, 345-351.	5.2	21
489	Charge attachment induced transport – bulk and grain boundary diffusion of potassium in PrMnO <sub>3</sub> . Physical Chemistry Chemical Physics, 2017, 19, 9762-9769.	2.8	13
490	Single site porphyrine-like structures advantages over metals for selective electrochemical CO2 reduction. Catalysis Today, 2017, 288, 74-78.	4.4	116
491	Enhanced oxygen evolution reaction by Co-O-C bonds in rationally designed Co3O4/graphene nanocomposites. Nano Energy, 2017, 33, 445-452.	16.0	131
492	Computational Study of Nb-Doped-SnO <sub>2</sub> /Pt Interfaces: Dopant Segregation, Electronic Transport, and Catalytic Properties. Chemistry of Materials, 2017, 29, 1641-1649.	6.7	12
493	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.	2.8	80

ARTICLE IF CITATIONS Formation of Two-Dimensional Homologous Faults and Oxygen Electrocatalytic Activities in a 494 9.1 73 Perovskite Nickelate. Nano Letters, 2017, 17, 3126-3132. Optimizing Open Iron Sites in Metal–Organic Frameworks for Ethane Oxidation: A First-Principles 8.0 44 Study. ACS Applied Materials & amp; Interfaces, 2017, 9, 33484-33492. Au/Ni12P5 core/shell single-crystal nanoparticles as oxygen evolution reaction catalyst. Nano 496 10.4 48 Research, 2017, 10, 3103-3112. NH<sub>3</sub> Postâ€Treatment Induces High Activity of Coâ€Based Electrocatalysts Supported on Carbon Nanotubes for the Oxygen Evolution Reaction. ChemElectroChem, 2017, 4, 2091-2098. Computational screening for high-activity MoS<sub>2</sub> monolayer-based catalysts for the oxygen reduction reaction via substitutional doping with transition metal. Journal of Materials 498 10.3 81 Chemistry A, 2017, 5, 9842-9851. Atomistic Insights into Nitrogen-Cycle Electrochemistry: A Combined DFT and Kinetic Monte Carlo Analysis of NO Electrochemical Reduction on Pt(100). ACS Catalysis, 2017, 7, 3869-3882. 499 11.2 Nitrogen and fluorine dual-doped porous graphene-nanosheets as efficient metal-free 500 electrocatalysts for hydrogen-evolution in acidic media. Catalysis Science and Technology, 2017, 7, 4.1 37 2228-2235. Tuning the electrocatalysts for oxygen evolution reaction. Materials Today Energy, 2017, 5, 37-57. 94 Theoretical Insights to Bulk Activity Towards Oxygen Evolution in Oxyhydroxides. Catalysis Letters, 502 2.6 43 2017, 147, 1533-1539. Armed by Asp? C-terminal carboxylate in a Dap-branched peptide and consequences in the binding of 3.6 Cu<sup>II</sup> and electrocatalytic water oxidation. RSC Advances, 2017, 7, 24657-24666. Updates on the development of nanostructured transition metal nitrides for electrochemical energy 504 339 14.2 storage and water splitting. Materials Today, 2017, 20, 425-451. Effect of metal species on the stability of Me-N-C catalysts during accelerated stress tests mimicking 5.2 the start-up and shut-down conditions. Electrochimica Acta, 2017, 243, 183-196. Controlled Phase Evolution from Co Nanochains to CoO Nanocubes and Their Application as OER 506 17.4 125 Catalysts. ACS Energy Letters, 2017, 2, 1208-1213. CoV<sub>2</sub>O<sub>6</sub>–V<sub>2</sub>O<sub>5</sub> Coupled with Porous N-Doped Reduced Graphene Oxide Composite as a Highly Efficient Electrocatalyst for Oxygen Evolution. ACS Energy Letters, 2017, 2, 1327-1333. 17.4 84 Magnetic CoPt nanoparticle-decorated ultrathin Co(OH) < sub>2 </sub> nanosheets: an efficient 508 4.1 61 bi-functional water splitting catalyst. Catalysis Science and Technology, 2017, 7, 2486-2497. General Structure–Reactivity Relationship for Oxygen on Transition-Metal Oxides. Journal of Physical 509 Chemistry Letters, 2017, 8, 2206-2211. Analysis of the Magnetic Entropy in Oxygen Reduction Reactions Catalysed by Manganite Perovskites. 510 3.7 22 ChemCatChem, 2017, 9, 3358-3363. Element strategy of oxygen evolution electrocatalysis based on in situ spectroelectrochemistry. 4.1 Chemical Communications, 2017, 53, 7149-7161.

#	Article	IF	CITATIONS
512	In situ formation of highly active Ni–Fe based oxygen-evolving electrocatalysts via simple reactive dip-coating. Journal of Materials Chemistry A, 2017, 5, 11009-11015.	10.3	85
513	Ultrathin Co–Fe hydroxide nanosheet arrays for improved oxygen evolution during water splitting. RSC Advances, 2017, 7, 22818-22824.	3.6	43
514	Fe incorporated α-Co(OH) <sub>2</sub> nanosheets with remarkably improved activity towards the oxygen evolution reaction. Journal of Materials Chemistry A, 2017, 5, 1078-1084.	10.3	225
515	Tuning Electronic Structures of Nonprecious Ternary Alloys Encapsulated in Graphene Layers for Optimizing Overall Water Splitting Activity. ACS Catalysis, 2017, 7, 469-479.	11.2	342
516	NiMn layered double hydroxides as efficient electrocatalysts for the oxygen evolution reaction and their application in rechargeable Zn–air batteries. Nanoscale, 2017, 9, 774-780.	5.6	130
517	Controlled synthesis of Mo-doped Ni <sub>3</sub> S <sub>2</sub> nano-rods: an efficient and stable electro-catalyst for water splitting. Journal of Materials Chemistry A, 2017, 5, 1595-1602.	10.3	148
518	High-performance oxygen reduction and evolution carbon catalysis: From mechanistic studies to device integration. Nano Research, 2017, 10, 1163-1177.	10.4	66
519	A Robust Molecular Catalyst Generated Inâ€Situ for Photo―and Electrochemical Water Oxidation. ChemSusChem, 2017, 10, 862-875.	6.8	43
520	Nitrogen-Doped Graphene on Transition Metal Substrates as Efficient Bifunctional Catalysts for Oxygen Reduction and Oxygen Evolution Reactions. ACS Applied Materials & Interfaces, 2017, 9, 22578-22587.	8.0	128
521	Metal–Organicâ€Frameworkâ€Derived Hybrid Carbon Nanocages as a Bifunctional Electrocatalyst for Oxygen Reduction and Evolution. Advanced Materials, 2017, 29, 1700874.	21.0	678
522	Electrocatalysis for the Hydrogen Economy. , 2017, , 23-50.		11
523	Effect of temperature on the activities and stabilities of hydrothermally prepared IrOx nanocatalyst layers for the oxygen evolution reaction. Applied Catalysis B: Environmental, 2017, 218, 287-297.	20.2	78
524	Solvation Effects for Oxygen Evolution Reaction Catalysis on IrO <sub>2</sub> (110). Journal of Physical Chemistry C, 2017, 121, 11455-11463.	3.1	174
525	Importance of Solvation for the Accurate Prediction of Oxygen Reduction Activities of Pt-Based Electrocatalysts. Journal of Physical Chemistry Letters, 2017, 8, 2243-2246.	4.6	85
526	Design and Development of Efficient Bifunctional Catalysts by Tuning the Electronic Properties of Cobalt–Manganese Tungstate for Oxygen Reduction and Evolution Reactions. ChemCatChem, 2017, 9, 3681-3690.	3.7	43
527	Monolithic Photoassisted Water Splitting Device Using Anodized Niâ€Fe Oxygen Evolution Catalytic Substrate. Advanced Energy Materials, 2017, 7, 1700659.	19.5	35
528	Earth-abundant amorphous catalysts for electrolysis of water. Chinese Journal of Catalysis, 2017, 38, 991-1005.	14.0	66
529	Amorphous Cobalt Oxide Nanoparticles as Active Waterâ€Oxidation Catalysts. ChemCatChem, 2017, 9, 3641-3645.	3.7	34

#	Article	IF	CITATIONS
530	Highly stable three-dimensional nickel–iron oxyhydroxide catalysts for oxygen evolution reaction at high current densities. Electrochimica Acta, 2017, 245, 770-779.	5.2	37
531	Effect of ball milling on the electrocatalytic activity of Ba <sub>0.5</sub> Sr <sub>0.5</sub> Co <sub>0.8</sub> Fe <sub>0.2</sub> O <sub>3</sub> towards the oxygen evolution reaction. Journal of Materials Chemistry A, 2017, 5, 13130-13137.	10.3	30
532	Near-complete suppression of surface losses and total internal quantum efficiency in BiVO <sub>4</sub> photoanodes. Energy and Environmental Science, 2017, 10, 1517-1529.	30.8	159
533	Chemical Recognition of Active Oxygen Species on the Surface of Oxygen Evolution Reaction Electrocatalysts. Angewandte Chemie, 2017, 129, 8778-8782.	2.0	54
534	Chemical Recognition of Active Oxygen Species on the Surface of Oxygen Evolution Reaction Electrocatalysts. Angewandte Chemie - International Edition, 2017, 56, 8652-8656.	13.8	115
535	K-doped Sr <sub>2</sub> Fe <sub>1.5</sub> Mo <sub>0.5</sub> O <sub>6â<sup>~</sup>î´</sub> predicted as a bifunctional catalyst for air electrodes in proton-conducting solid oxide electrochemical cells. Journal of Materials Chemistry A, 2017, 5, 12735-12739.	10.3	21
536	MO o@Nâ€Doped Carbon (M = Zn or Co): Vital Roles of Inactive Zn and Highly Efficient Activity toward Oxygen Reduction/Evolution Reactions for Rechargeable Zn–Air Battery. Advanced Functional Materials, 2017, 27, 1700795.	14.9	224
537	Fewâ€Layer Black Phosphorus Nanosheets as Electrocatalysts for Highly Efficient Oxygen Evolution Reaction. Advanced Energy Materials, 2017, 7, 1700396.	19.5	301
538	Virus-directed formation of electrocatalytically active nanoparticle-based Co <sub>3</sub> O <sub>4</sub> tubes. Nanoscale, 2017, 9, 6334-6345.	5.6	44
539	In Operando Selfâ€Healing of Perovskite Electrocatalysts: A Case Study of SrCoO <sub>3</sub> for the Oxygen Evolution Reaction. Particle and Particle Systems Characterization, 2017, 34, 1600280.	2.3	10
540	Role of Composition and Size of Cobalt Ferrite Nanocrystals in the Oxygen Evolution Reaction. ChemCatChem, 2017, 9, 2988-2995.	3.7	74
541	Unraveling Thermodynamics, Stability, and Oxygen Evolution Activity of Strontium Ruthenium Perovskite Oxide. ACS Catalysis, 2017, 7, 3245-3256.	11.2	113
542	The Impact of the Bulk Structure on Surface Dynamics of Complex Mo–V-based Oxide Catalysts. ACS Catalysis, 2017, 7, 3061-3071.	11.2	53
543	Practical principles of density functional theory for catalytic reaction simulations on metal surfaces $\hat{a} \in \hat{m}$ from theory to applications. Molecular Simulation, 2017, 43, 861-885.	2.0	22
544	Boosting the Performance of the Nickel Anode in the Oxygen Evolution Reaction by Simple Electrochemical Activation. Angewandte Chemie - International Edition, 2017, 56, 5061-5065.	13.8	63
545	Boosting the Performance of the Nickel Anode in the Oxygen Evolution Reaction by Simple Electrochemical Activation. Angewandte Chemie, 2017, 129, 5143-5147.	2.0	19
546	Enhanced electrocatalytic activity via phase transitions in strongly correlated SrRuO <sub>3</sub> thin films. Energy and Environmental Science, 2017, 10, 924-930.	30.8	82
547	Computational design of cobalt-free mixed proton–electron conductors for solid oxide electrochemical cells. Journal of Materials Chemistry A, 2017, 5, 11825-11833.	10.3	57

#	Article	IF	CITATIONS
548	Sulfurizing-Induced Hollowing of Co <sub>9</sub> S <sub>8</sub> Microplates with Nanosheet Units for Highly Efficient Water Oxidation. ACS Applied Materials & Interfaces, 2017, 9, 11634-11641.	8.0	129
549	Microwave-assisted synthesis of a nanoamorphous (Ni <sub>0.8</sub> ,Fe <sub>0.2</sub> ) oxide oxygen-evolving electrocatalyst containing only "fast―sites. Journal of Materials Chemistry A, 2017, 5, 11661-11670.	10.3	36
550	Water Oxidation on Oxygen-Deficient Barium Titanate: A First-Principles Study. Journal of Physical Chemistry C, 2017, 121, 8378-8389.	3.1	34
551	Correlating Oxygen Evolution Catalysts Activity and Electronic Structure by a High-Throughput Investigation of Ni1-y-zFeyCrzOx. Scientific Reports, 2017, 7, 44192.	3.3	32
552	3D Synergistically Active Carbon Nanofibers for Improved Oxygen Evolution. Advanced Energy Materials, 2017, 7, 1602928.	19.5	120
553	Co-vacancy-rich Co1–x S nanosheets anchored on rGO for high-efficiency oxygen evolution. Nano Research, 2017, 10, 1819-1831.	10.4	78
554	Recent Advances in Ultrathin Two-Dimensional Nanomaterials. Chemical Reviews, 2017, 117, 6225-6331.	47.7	3,940
555	Monolayer Group IV–VI Monochalcogenides: Low-Dimensional Materials for Photocatalytic Water Splitting. Journal of Physical Chemistry C, 2017, 121, 7615-7624.	3.1	154
556	Orientation-Dependent Oxygen Evolution on RuO <sub>2</sub> without Lattice Exchange. ACS Energy Letters, 2017, 2, 876-881.	17.4	251
557	Interfacial water reorganization as a pH-dependent descriptor of the hydrogen evolution rate on platinum electrodes. Nature Energy, 2017, 2, .	39.5	791
558	Photodeposited ruthenium dioxide films for oxygen evolution reaction electrocatalysis. Journal of Materials Chemistry A, 2017, 5, 1575-1580.	10.3	24
559	Analysis of the effect of formation potential on the electrochemical response of doped titanium oxides. Electrochimica Acta, 2017, 224, 419-428.	5.2	2
560	Competitive Oxygen Evolution in Acid Electrolyte Catalyzed at Technologically Relevant Electrodes Painted with Nanoscale RuO <sub>2</sub> . ACS Applied Materials & Interfaces, 2017, 9, 2387-2395.	8.0	48
561	Mechanistic Investigation of Water Oxidation Catalyzed by Uniform, Assembled MnO Nanoparticles. Journal of the American Chemical Society, 2017, 139, 2277-2285.	13.7	133
562	Recent developments in electrochemical water oxidation. Current Opinion in Electrochemistry, 2017, 1, 40-45.	4.8	50
563	Photoelectrocatalytic Water Splitting: Significance of Cocatalysts, Electrolyte, and Interfaces. ACS Catalysis, 2017, 7, 675-688.	11.2	488
564	Trends in reactivity of electrodeposited 3d transition metals on gold revealed byoperandosoft x-ray absorption spectroscopy during water splitting. Journal Physics D: Applied Physics, 2017, 50, 024002.	2.8	12
565	The Reaction Mechanism with Free Energy Barriers at Constant Potentials for the Oxygen Evolution Reaction at the IrO <sub>2</sub> (110) Surface. Journal of the American Chemical Society, 2017, 139, 149-155	13.7	243

CITATION REPORT ARTICLE IF CITATIONS Promoting the oxygen reduction reaction with gold at step/edge sites of Ni@AuPt coreâ€"shell 566 4.1 27 nanoparticles. Catalysis Science and Technology, 2017, 7, 596-606. Highly efficient Fe x Ni  $1\hat{a}^{2}$  x O y /CP electrode prepared via simple soaking and heating treatments for electrocatalytic water oxidation. Journal of Energy Chemistry, 2017, 26, 428-432. How covalence breaks adsorption-energy scaling relations and solvation restores them. Chemical 568 7.4 145 Science, 2017, 8, 124-130. Materials for solar fuels and chemicals. Nature Materials, 2017, 16, 70-81. 569 1,163 Scalable 3-D Carbon Nitride Sponge as an Efficient Metal-Free Bifunctional Oxygen Electrocatalyst for 570 14.6 369 Rechargeable Zn–Air Batteries. ACS Nano, 2017, 11, 347-357. Towards Versatile and Sustainable Hydrogen Production through Electrocatalytic Water Splitting: Electrolyte Engineering. ChemSusChem, 2017, 10, 1318-1336. 571 6.8 154 Nanostructured Nickel Cobaltite Antispinel as Bifunctional Electrocatalyst for Overall Water 572 3.1 39 Splitting. Journal of Physical Chemistry C, 2017, 121, 25888-25897. Creating coordinatively unsaturated metal sites in metal-organic-frameworks as efficient electrocatalysts for the oxygen evolution reaction: Insights into the active centers. Nano Energy, 16.0 386 2017, 41, 417-425. Iron hydroxyphosphate and Sn-incorporated iron hydroxyphosphate: efficient and stable 574 4.1 34 electrocatalysts for oxygen evolution reaction. Catalysis Science and Technology, 2017, 7, 5092-5104. Mechanistic Insights Evaluating Ag, Pb, and Ni as Electrocatalysts for Furfural Reduction from 3.1 First-Principles Methods. Journal of Physical Chemistry C, 2017, 121, 25768-25777. Mechanistic understanding on oxygen evolution reaction on  $\hat{I}^3$ -FeOOH (010) under alkaline condition 576 14.0 17 based on DFT computational study. Chinese Journal of Catalysis, 2017, 38, 1621-1628. Identification of activity trends for CO oxidation on supported transition-metal single-atom 4.1 69 catalysts. Catalysis Science and Technology, 2017, 7, 5860-5871. Photocatalytic Water Splitting: Quantitative Approaches toward Photocatalyst by Design. ACS 578 11.2 656 Catalysis, 2017, 7, 8006-8022. Understanding activity trends in electrochemical water oxidation to form hydrogen peroxide. Nature Communications, 2017, 8, 701. 579 12.8 Firstâ€Row Transition Metal Based Catalysts for the Oxygen Evolution Reaction under Alkaline 580 10.0 352 Conditions: Basic Principles and Recent Ádvances. Small, 2017, 13, 1701931. Halogen substitutions leading to enhanced oxygen evolution and oxygen reduction reactions in metalloporphyrin frameworks. Physical Chemistry Chemical Physics, 2017, 19, 29540-29548. 59 Filling the oxygen vacancies in Co<sub>3</sub>O<sub>4</sub>with phosphorus: an ultra-efficient 582 30.8 859 electrocatalyst for overall water splitting. Energy and Environmental Science, 2017, 10, 2563-2569.

583Thermodynamic assessment of the oxygen reduction activity in aqueous solutions. Physical Chemistry2.843Chemical Physics, 2017, 19, 29381-29388.

#	Article	IF	CITATIONS
584	Synergistic effect of two actions sites on cobalt oxides towards electrochemical water-oxidation. Nano Energy, 2017, 42, 98-105.	16.0	101
585	Dual-Ligand Synergistic Modulation: A Satisfactory Strategy for Simultaneously Improving the Activity and Stability of Oxygen Evolution Electrocatalysts. ACS Catalysis, 2017, 7, 8184-8191.	11.2	109
586	From 3D to 2D Co and Ni Oxyhydroxide Catalysts: Elucidation of the Active Site and Influence of Doping on the Oxygen Evolution Activity. ACS Catalysis, 2017, 7, 8558-8571.	11.2	50
587	Characterization of Electrocatalytic Water Splitting and CO <sub>2</sub> Reduction Reactions Using In Situ/Operando Raman Spectroscopy. ACS Catalysis, 2017, 7, 7873-7889.	11.2	196
588	Rational Design Rules for Molecular Water Oxidation Catalysts based on Scaling Relationships. Chemistry - A European Journal, 2017, 23, 16413-16418.	3.3	57
589	Perovskites decorated with oxygen vacancies and Fe–Ni alloy nanoparticles as high-efficiency electrocatalysts for the oxygen evolution reaction. Journal of Materials Chemistry A, 2017, 5, 19836-19845.	10.3	141
590	How many surface atoms in Co <sub>3</sub> O <sub>4</sub> take part in oxygen evolution? Isotope labeling together with differential electrochemical mass spectrometry. Physical Chemistry Chemical Physics, 2017, 19, 25527-25536.	2.8	55
591	Mechanistic Parameters of Electrocatalytic Water Oxidation on LiMn <sub>2</sub> O <sub>4</sub> in Comparison to Natural Photosynthesis. ChemSusChem, 2017, 10, 4479-4490.	6.8	29
592	Molecular-Level Insights into Oxygen Reduction Catalysis by Graphite-Conjugated Active Sites. ACS Catalysis, 2017, 7, 7680-7687.	11.2	33
593	Porous nickel telluride nanostructures as bifunctional electrocatalyst towards hydrogen and oxygen evolution reaction. International Journal of Hydrogen Energy, 2017, 42, 24645-24655.	7.1	89
594	LiNbO <sub>3</sub> surfaces from a microscopic perspective. Journal of Physics Condensed Matter, 2017, 29, 413001.	1.8	58
595	Electrochemical CO <sub>2</sub> Reduction: A Classification Problem. ChemPhysChem, 2017, 18, 3266-3273.	2.1	534
596	Ultrafast and large scale preparation of superior catalyst for oxygen evolution reaction. Journal of Power Sources, 2017, 365, 320-326.	7.8	41
597	Durable and self-hydrating tungsten carbide-based composite polymer electrolyte membrane fuel cells. Nature Communications, 2017, 8, 418.	12.8	42
598	Anomalous in situ Activation of Carbon-Supported Ni2P Nanoparticles for Oxygen Evolving Electrocatalysis in Alkaline Media. Scientific Reports, 2017, 7, 8236.	3.3	21
599	Controlling the Interfacial Environment in the Electrosynthesis of MnO <sub><i>x</i></sub> Nanostructures for High-Performance Oxygen Reduction/Evolution Electrocatalysis. ACS Applied Materials & Interfaces, 2017, 9, 26771-26785.	8.0	32
600	Effects of Gold Substrates on the Intrinsic and Extrinsic Activity of High-Loading Nickel-Based Oxyhydroxide Oxygen Evolution Catalysts. ACS Catalysis, 2017, 7, 5399-5409.	11.2	120
601	Hierarchical Nanostructures: Design for Sustainable Water Splitting. Advanced Energy Materials, 2017, 7, 1700559.	19.5	247

#	Article	IF	CITATIONS
602	The Role of Ru Redox in pH-Dependent Oxygen Evolution on Rutile Ruthenium Dioxide Surfaces. CheM, 2017, 2, 668-675.	11.7	151
603	Design of Ruddlesden–Popper Oxides with Optimal Surface Oxygen Exchange Properties for Oxygen Reduction and Evolution. ACS Catalysis, 2017, 7, 5912-5920.	11.2	32
604	Efficiency of Oxygen Evolution on Iridium Oxide Determined from the pH Dependence of Charge Accumulation. Journal of Physical Chemistry C, 2017, 121, 17873-17881.	3.1	40
605	Discontinuously covered IrO <sub>2</sub> –RuO <sub>2</sub> @Ru electrocatalysts for the oxygen evolution reaction: how high activity and long-term durability can be simultaneously realized in the synergistic and hybrid nano-structure. Journal of Materials Chemistry A, 2017, 5, 17221-17229.	10.3	133
606	Dynamic surface self-reconstruction is the key of highly active perovskite nano-electrocatalysts for water splitting. Nature Materials, 2017, 16, 925-931.	27.5	696
607	Computational screening of two-dimensional coordination polymers as efficient catalysts for oxygen evolution and reduction reaction. Journal of Catalysis, 2017, 352, 579-585.	6.2	130
608	Design of Efficient Bifunctional Oxygen Reduction/Evolution Electrocatalyst: Recent Advances and Perspectives. Advanced Energy Materials, 2017, 7, 1700544.	19.5	593
609	Size effects of cocatalysts in photoelectrochemical and photocatalytic water splitting. Materials Today Energy, 2017, 5, 158-163.	4.7	38
610	Electrocatalysts Derived from Metal–Organic Frameworks for Oxygen Reduction and Evolution Reactions in Aqueous Media. Small, 2017, 13, 1701143.	10.0	150
611	Synthesis and oxygen evolution reaction (OER) catalytic performance of Ni <sub>2â°x</sub> Ru <sub>x</sub> P nanocrystals: enhancing activity by dilution of the noble metal. Journal of Materials Chemistry A, 2017, 5, 17609-17618.	10.3	59
612	Nitrogen doped NiS <sub>2</sub> nanoarrays with enhanced electrocatalytic activity for water oxidation. Journal of Materials Chemistry A, 2017, 5, 17811-17816.	10.3	69
613	Bifunctional hydrous RuO2 nanocluster electrocatalyst embedded in carbon matrix for efficient and durable operation of rechargeable zinc–air batteries. Scientific Reports, 2017, 7, 7150.	3.3	25
614	A Theoretical Investigation into the Role of Surface Defects for Oxygen Evolution on RuO <sub>2</sub> . Journal of Physical Chemistry C, 2017, 121, 18516-18524.	3.1	95
615	Bandgap Engineering of the g-ZnO Nanosheet via Cationic–Anionic Passivated Codoping for Visible-Light-Driven Photocatalysis. Journal of Physical Chemistry C, 2017, 121, 18534-18543.	3.1	33
616	Economical Fe-doped Ta2O5 electrocatalyst toward efficient oxygen evolution: a combined experimental and first-principles study. MRS Communications, 2017, 7, 563-569.	1.8	3
617	Role of the Band Gap for the Interaction Energy of Coadsorbed Fragments. Journal of Physical Chemistry C, 2017, 121, 18608-18614.	3.1	15
618	Electrochemical Dissolution of Iridium and Iridium Oxide Particles in Acidic Media: Transmission Electron Microscopy, Electrochemical Flow Cell Coupled to Inductively Coupled Plasma Mass Spectrometry, and X-ray Absorption Spectroscopy Study. Journal of the American Chemical Society, 2017, 139, 12837-12846.	13.7	186
619	Modelling pH and potential in dynamic structures of the water/Pt(111) interface on the atomic scale. Physical Chemistry Chemical Physics, 2017, 19, 23505-23514.	2.8	48

#	Article	IF	CITATIONS
620	Two-Dimensional TiO <sub>2</sub> Nanosheets for Photo and Electro-Chemical Oxidation of Water: Predictions of Optimal Dopant Species from First-Principles. Journal of Physical Chemistry C, 2017, 121, 19201-19208.	3.1	14
621	Investigating the origin of Co(IV)'s high electrocatalytic activity in the oxygen evolution reaction at a Na CoO2 interface. Materials Research Bulletin, 2017, 95, 285-291.	5.2	13
622	Deciphering the Electrocatalytic Activity of Nitrogen-Doped Carbon Embedded with Cobalt Nanoparticles and the Reaction Mechanism of Triiodide Reduction in Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2017, 121, 27332-27343.	3.1	18
623	Oxygen Evolution via the Bridging Inequivalent Dual-Site Reaction: First-Principles Study of a Quadruple-Perovskite Oxide Catalyst. Journal of Physical Chemistry C, 2017, 121, 28403-28411.	3.1	29
624	A bifunctional two dimensional TM <sub>3</sub> (HHTP) <sub>2</sub> monolayer and its variations for oxygen electrode reactions. RSC Advances, 2017, 7, 54332-54340.	3.6	22
625	Towards identifying the active sites on RuO <sub>2</sub> (110) in catalyzing oxygen evolution. Energy and Environmental Science, 2017, 10, 2626-2637.	30.8	278
627	Balancing activity, stability and conductivity of nanoporous core-shell iridium/iridium oxide oxygen evolution catalysts. Nature Communications, 2017, 8, 1449.	12.8	250
628	Perovskites in catalysis and electrocatalysis. Science, 2017, 358, 751-756.	12.6	1,138
629	Surface Restructuring of Nickel Sulfide Generates Optimally Coordinated Active Sites for Oxygen Reduction Catalysis. Joule, 2017, 1, 600-612.	24.0	89
630	Potential- and Rate-Determining Step for Oxygen Reduction on Pt(111). Journal of Physical Chemistry C, 2017, 121, 26785-26793.	3.1	56
631	Electrocatalytic oxygen evolution with a cobalt complex. Dalton Transactions, 2017, 46, 16321-16326.	3.3	18
632	Two orders of magnitude enhancement in oxygen evolution reactivity on amorphous Ba <sub>0.5</sub> Sr <sub>0.5</sub> Co <sub>0.8</sub> Fe <sub>0.2</sub> O <sub>3â^î^</sub> nanofilms with tunable oxidation state. Science Advances, 2017, 3, e1603206.	10.3	170
633	Tuning Selectivity of CO <sub>2</sub> Hydrogenation Reactions at the Metal/Oxide Interface. Journal of the American Chemical Society, 2017, 139, 9739-9754.	13.7	823
634	Pt-free NiCo electrocatalysts for oxygen evolution by seawater splitting. Electrochimica Acta, 2017, 247, 381-391.	5.2	39
635	Nonprecious Electrocatalysts for Li-Air and Zn-Air batteries: Fundamentals and recent advances. IEEE Nanotechnology Magazine, 2017, 11, 29-55.	1.3	16
636	Spin dependent interactions catalyse the oxygen electrochemistry. Physical Chemistry Chemical Physics, 2017, 19, 20451-20456.	2.8	132
637	Computational Design Principles of Two-Center First-Row Transition Metal Oxide Oxygen Evolution Catalysts. Journal of Physical Chemistry C, 2017, 121, 15665-15674.	3.1	14
638	Strategies for developing transition metal phosphides as heterogeneous electrocatalysts for water splitting. Nano Today, 2017, 15, 26-55.	11.9	560

#	Article	IF	CITATIONS
639	Phosphate Ion Functionalization of Perovskite Surfaces for Enhanced Oxygen Evolution Reaction. Journal of Physical Chemistry Letters, 2017, 8, 3466-3472.	4.6	109
640	Electronic structure of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"&gt; <mml:mrow> <mml:msub> <mml:mi>Pr</mml:mi> <mml:m Physical Review B, 2017, 95, .</mml:m </mml:msub></mml:mrow></mml:math 	ro92 <mm< td=""><td>l<b>:ra</b>⊕&gt;1</td></mm<>	l <b>:ra</b> ⊕>1
641	Identifying the Active Sites on Nâ€doped Graphene toward Oxygen Evolution Reaction. ChemCatChem, 2017, 9, 846-852.	3.7	45
642	Structural effects of LaNiO3 as electrocatalyst for the oxygen reduction reaction. Applied Catalysis B: Environmental, 2017, 203, 363-371.	20.2	69
643	Ultrathin CNTs@FeOOH nanoflake core/shell networks as efficient electrocatalysts for the oxygen evolution reaction. Materials Chemistry Frontiers, 2017, 1, 709-715.	5.9	62
644	Electrocatalytic Oxygen Evolution Reaction in Acidic Environments – Reaction Mechanisms and Catalysts. Advanced Energy Materials, 2017, 7, 1601275.	19.5	847
645	Active and Stable Nickelâ€Based Electrocatalysts Based on the ZnO:Ni System for Water Oxidation in Alkaline Media. ChemCatChem, 2017, 9, 672-676.	3.7	17
646	Electrocatalysts for the generation of hydrogen, oxygen and synthesis gas. Progress in Energy and Combustion Science, 2017, 58, 1-35.	31.2	506
647	Electrically Rechargeable Zinc–Air Batteries: Progress, Challenges, and Perspectives. Advanced Materials, 2017, 29, 1604685.	21.0	1,143
648	Activity of pure and transition metal-modified CoOOH for the oxygen evolution reaction in an alkaline medium. Journal of Materials Chemistry A, 2017, 5, 842-850.	10.3	158
649	Effect of Chromium Doping on Electrochemical Water Oxidation Activity by Co <sub>3–<i>x</i></sub> Cr <sub><i>x</i></sub> O <sub>4</sub> Spinel Catalysts. ACS Catalysis, 2017, 7, 443-451.	11.2	92
650	Simultaneous modulation of surface composition, oxygen vacancies and assembly in hierarchical Co <sub>3</sub> O <sub>4</sub> mesoporous nanostructures for lithium storage and electrocatalytic oxygen evolution. Nanoscale, 2017, 9, 14431-14441.	5.6	77
651	Enhanced Water Oxidation Activity on Ni, Co-Doped Fe2O3 (0001) Surface. Chinese Journal of Chemical Physics, 2017, 30, 553-558.	1.3	3
652	First-Principles View on Photoelectrochemistry: Water-Splitting as Case Study. Inorganics, 2017, 5, 37.	2.7	22
653	Practical Cluster Models for a Layered Î <sup>2</sup> -NiOOH Material. Materials, 2017, 10, 480.	2.9	7
654	Transition Metal-Modified Zirconium Phosphate Electrocatalysts for the Oxygen Evolution Reaction. Catalysts, 2017, 7, 132.	3.5	27
655	New Progress on Development of Oxygen Evolution Reaction Catalysts. Journal of MMIJ, 2017, 133, 264-269.	0.3	3
656	Factors Controlling the Redox Activity of Oxygen in Perovskites: From Theory to Application for Catalytic Reactions. Catalysts, 2017, 7, 149.	3.5	79

		CITATION REPORT		
#	Article		IF	CITATIONS
657	Tailoring the Oxygen Evolution Activity and Stability Using Defect Chemistry. Catalysts	s, 2017, 7, 139.	3.5	26
658	Effect of oxygen vacancies in electrodeposited NiO towards the oxygen evolution reac Ni-Glycine complexes. Electrochimica Acta, 2018, 268, 49-58.	tion: Role of	5.2	54
659	Influence of Strain on the Surface–Oxygen Interaction and the Oxygen Evolution Res SrIrO <sub>3</sub> . Journal of Physical Chemistry C, 2018, 122, 4359-4364.	action of	3.1	39
660	Aerosol-spray metal phosphide microspheres with bifunctional electrocatalytic propert splitting. Journal of Materials Chemistry A, 2018, 6, 4783-4792.	ies for water	10.3	53
661	Analysis of Photocatalytic Nitrogen Fixation on Rutile TiO <sub>2</sub> (110). ACS Sus Chemistry and Engineering, 2018, 6, 4648-4660.	stainable	6.7	79
662	Core–Shell NiO@Niâ€₽ Hybrid Nanosheet Array for Synergistically Enhanced Oxyger Electrocatalysis: Experimental and Theoretical Insights. Chemistry - an Asian Journal, 20	n Evolution 018, 13, 944-949.	3.3	9
663	Ultrathin nanosheets-assembled CuO flowers for highly efficient electrocatalytic water Journal of Materials Science, 2018, 53, 8141-8150.	oxidation.	3.7	40
664	Tailoring the electrocatalytic activity of bimetallic nickel-iron diselenide hollow nanoch water oxidation. Nano Energy, 2018, 47, 275-284.	ains for	16.0	116
665	Electronic Origin and Kinetic Feasibility of the Lattice Oxygen Participation During the Evolution Reaction on Perovskites. Journal of Physical Chemistry Letters, 2018, 9, 1473	Oxygen 3-1479.	4.6	62
666	Metal-Free Oxygen Evolution and Oxygen Reduction Reaction Bifunctional Electrocata Media: From Mechanisms to Structure–Catalytic Activity Relationship. ACS Sustaina Engineering, 2018, 6, 4973-4980.	lyst in Alkaline ble Chemistry and	6.7	62
667	Single-Atom Au/NiFe Layered Double Hydroxide Electrocatalyst: Probing the Origin of A Oxygen Evolution Reaction. Journal of the American Chemical Society, 2018, 140, 387	Activity for 6-3879.	13.7	817
668	The role of Cr doping in Ni Fe oxide/(oxy)hydroxide electrocatalysts for oxygen evolution Electrochimica Acta, 2018, 265, 10-18.	bn.	5.2	79
669	CoFe Layered Double Hydroxide Supported on Graphitic Carbon Nitrides: An Efficient a Bifunctional Electrocatalyst for Oxygen Evolution and Hydrogen Evolution Reactions. A Energy Materials, 2018, 1, 1200-1209.		5.1	106
670	Rational Design of Nanostructured Functional Interlayer/Separator for Advanced Li–: Advanced Functional Materials, 2018, 28, 1707411.	S Batteries.	14.9	272
671	Kinetic Coupling of Water Splitting and Photoreforming on SrTiO <sub>3</sub> -Based ACS Catalysis, 2018, 8, 2902-2913.	Photocatalysts.	11.2	36
672	Promoting oxygen evolution reaction by RuO2 nanoparticles in solid oxide CO2 electro Storage Materials, 2018, 13, 207-214.	blyzer. Energy	18.0	27
673	Charge-Transfer-Promoted High Oxygen Evolution Activity of Co@Co <sub>9</sub> S< Core–Shell Nanochains. ACS Applied Materials & Interfaces, 2018, 10, 11565-1	sub>8 1571.	8.0	46
674	Syntheses of nickel sulfides from 1,2-bis(diphenylphosphino)ethane nickel(II)dithiolate application in the oxygen evolution reaction. International Journal of Hydrogen Energy, 5985-5995.	s and their , 2018, 43,	7.1	18

#	Article	IF	CITATIONS
675	Transitionâ€Metalâ€Doped αâ€MnO <sub>2</sub> Nanorods as Bifunctional Catalysts for Efficient Oxygen Reduction and Evolution Reactions. ChemistrySelect, 2018, 3, 2613-2622.	1.5	54
676	Single Metal Atoms Anchored in Twoâ€Dimensional Materials: Bifunctional Catalysts for Fuel Cell Applications. ChemCatChem, 2018, 10, 3034-3039.	3.7	50
677	Catalytic mechanism and design principles for heteroatom-doped graphene catalysts in dye-sensitized solar cells. Nano Energy, 2018, 49, 193-199.	16.0	38
678	The oxygen evolution reaction mechanism at Ir Ru1â^'O2 powders produced by hydrolysis synthesis. Journal of Electroanalytical Chemistry, 2018, 819, 547-561.	3.8	29
679	Water Oxidation Catalysis for NiOOH by a Metropolis Monte Carlo Algorithm. Journal of Chemical Theory and Computation, 2018, 14, 2380-2385.	5.3	11
680	Role of Lattice Oxygen Participation in Understanding Trends in the Oxygen Evolution Reaction on Perovskites. ACS Catalysis, 2018, 8, 4628-4636.	11.2	339
681	Is a major breakthrough in the oxygen electrocatalysis possible?. Current Opinion in Electrochemistry, 2018, 9, 214-223.	4.8	66
682	When Is Ligand p <i>K</i> <sub>a</sub> a Good Descriptor for Catalyst Energetics? In Search of Optimal CO <sub>2</sub> Hydration Catalysts. Journal of Physical Chemistry A, 2018, 122, 4579-4590.	2.5	12
683	Enhanced Activity Promoted by CeO <sub><i>x</i></sub> on a CoO <sub><i>x</i></sub> Electrocatalyst for the Oxygen Evolution Reaction. ACS Catalysis, 2018, 8, 4257-4265.	11.2	151
684	Activation of ultrathin SrTiO <sub>3</sub> with subsurface SrRuO <sub>3</sub> for the oxygen evolution reaction. Energy and Environmental Science, 2018, 11, 1762-1769.	30.8	83
685	Oxygen Sponges for Electrocatalysis: Oxygen Reduction/Evolution on Nonstoichiometric, Mixed Metal Oxides. Chemistry of Materials, 2018, 30, 2860-2872.	6.7	56
686	Reducing Iridium Loading in Oxygen Evolution Reaction Electrocatalysts Using Core–Shell Particles with Nitride Cores. ACS Catalysis, 2018, 8, 2615-2621.	11.2	117
687	Tuning active sites on cobalt/nitrogen doped graphene for electrocatalytic hydrogen and oxygen evolution. Electrochimica Acta, 2018, 265, 497-506.	5.2	56
688	C2N/WS2 van der Waals type-II heterostructure as a promising water splitting photocatalyst. Journal of Catalysis, 2018, 359, 143-150.	6.2	229
689	Understanding Catalytic Activity Trends in the Oxygen Reduction Reaction. Chemical Reviews, 2018, 118, 2302-2312.	47.7	1,666
690	Recent progress and perspectives of bifunctional oxygen reduction/evolution catalyst development for regenerative anion exchange membrane fuel cells. Nano Energy, 2018, 47, 172-198.	16.0	134
691	Recent Progress on Multimetal Oxide Catalysts for the Oxygen Evolution Reaction. Advanced Energy Materials, 2018, 8, 1702774.	19.5	615
692	Oxygen Evolution Activity of Co–Ni Nanochain Alloys: Promotion by Electron Injection. Chemistry - A European Journal, 2018, 24, 3707-3711.	3.3	12

		CITATION REPORT		
#	Article		IF	Citations
693	Orbital Physics of Perovskites for the Oxygen Evolution Reaction. Topics in Catalysis, 20	)18, 61, 267-275.	2.8	16
694	Activity and Stability of Pt/IrO <sub>2</sub> Bifunctional Materials as Catalysts for the Evolution/Reduction Reactions. ACS Catalysis, 2018, 8, 2081-2092.	Oxygen	11.2	167
695	Ab Initio Simulation Explains the Enhancement of Catalytic Oxygen Evolution on CaMn ACS Catalysis, 2018, 8, 2218-2224.	⊃ <sub>3</sub> .	11.2	30
696	Screening the best catalyst with group 9, 10 and 11 metals monolayer loading on NbC( first-principles study. Journal of Power Sources, 2018, 378, 691-698.	001) from	7.8	8
697	The challenge of catalyst prediction. Faraday Discussions, 2018, 208, 35-52.		3.2	8
698	High-Index Faceted Porous Co <sub>3</sub> O <sub>4</sub> Nanosheets with Oxygen Highly Efficient Water Oxidation. ACS Applied Materials & Interfaces, 2018, 10, 70		8.0	179
699	Trends in adsorption of electrocatalytic water splitting intermediates on cubic ABO <sul 20,="" 2018,="" 3813-3818.<="" chemical="" chemistry="" oxides.="" physical="" physics,="" td=""><td>&gt;&gt;3</td><td>2.8</td><td>94</td></sul>	>>3	2.8	94
700	Iridium-Based Nanowires as Highly Active, Oxygen Evolution Reaction Electrocatalysts. 2018, 8, 2111-2120.	ACS Catalysis,	11.2	166
701	Adsorption-energy-based activity descriptors for electrocatalysts in energy storage app National Science Review, 2018, 5, 327-341.	ications.	9.5	129
702	Mo- and Fe-Modified Ni(OH) <sub>2</sub> /NiOOH Nanosheets as Highly Active and Sta Electrocatalysts for Oxygen Evolution Reaction. ACS Catalysis, 2018, 8, 2359-2363.	ble	11.2	290
703	Alkali (Li, K and Na) and alkali-earth (Be, Ca and Mg) adatoms on SiC single layer. Applie Science, 2018, 435, 338-345.	d Surface	6.1	20
704	Controlled Synthesis of a Three-Segment Heterostructure for High-Performance Overall Splitting. ACS Applied Materials & amp; Interfaces, 2018, 10, 1771-1780.	Water	8.0	22
705	Structural and Electronic Descriptors of Catalytic Activity of Grapheneâ€Based Materia Firstâ€Principles Theoretical Analysis. Small, 2018, 14, 1703609.	s:	10.0	64
706	Dissolution induced self-selective Zn- and Ru-doped TiO <sub>2</sub> structure for ele generation of KClO <sub>3</sub> . Catalysis Science and Technology, 2018, 8, 878-886		4.1	16
707	Enhancing long-term photostability of BiVO4 photoanodes for solar water splitting by t electrolyte composition. Nature Energy, 2018, 3, 53-60.	uning	39.5	492
708	Understanding the incorporating effect of Co2+/Co3+ in NiFe-layered double hydroxide electrocatalytic oxygen evolution reaction. Journal of Catalysis, 2018, 358, 100-107.	for	6.2	194
709	Tuning Redox Transitions via Inductive Effect in Metal Oxides and Complexes, and Impli Oxygen Electrocatalysis. Joule, 2018, 2, 225-244.	cations in	24.0	283
710	Maximal Predictability Approach for Identifying the Right Descriptors for Electrocatalyti Journal of Physical Chemistry Letters, 2018, 9, 588-595.	c Reactions.	4.6	47

#	Article	IF	CITATIONS
711	Material Discovery and Design Principles for Stable, High Activity Perovskite Cathodes for Solid Oxide Fuel Cells. Advanced Energy Materials, 2018, 8, 1702708.	19.5	125
712	Enhancing Full Water-Splitting Performance of Transition Metal Bifunctional Electrocatalysts in Alkaline Solutions by Tailoring CeO <sub>2</sub> –Transition Metal Oxides–Ni Nanointerfaces. ACS Energy Letters, 2018, 3, 290-296.	17.4	152
713	Bifunctional CoNx embedded graphene electrocatalysts for OER and ORR: A theoretical evaluation. Carbon, 2018, 130, 112-119.	10.3	209
714	Unlocking the potential of graphene for water oxidation using an orbital hybridization strategy. Energy and Environmental Science, 2018, 11, 407-416.	30.8	52
715	Enhancement Effect of Borate Doping on the Oxygen Evolution Activity of α-Nickel Hydroxide. ACS Applied Nano Materials, 2018, 1, 751-758.	5.0	39
716	Descriptor of catalytic activity of metal sulfides for oxygen reduction reaction: a potential indicator for mineral flotation. Journal of Materials Chemistry A, 2018, 6, 9650-9656.	10.3	41
717	A Largeâ€ <b>s</b> cale Graphene–Bimetal Film Electrode with an Ultrahigh Mass Catalytic Activity for Durable Water Splitting. Advanced Energy Materials, 2018, 8, 1800403.	19.5	29
718	Fuel Cell Electrocatalysis. Nanostructure Science and Technology, 2018, , 27-60.	0.1	2
719	Accelerating the discovery of materials for clean energy in the era of smart automation. Nature Reviews Materials, 2018, 3, 5-20.	48.7	489
720	Computational predictive design for metal-decorated-graphene size-specific subnanometer to nanometer ORR catalysts. Catalysis Today, 2018, 312, 105-117.	4.4	13
721	Nanomaterials for Environmental Solar Energy Technologies: Applications & Limitations. KONA Powder and Particle Journal, 2018, 35, 14-31.	1.7	10
722	A universal principle for a rational design of single-atom electrocatalysts. Nature Catalysis, 2018, 1, 339-348.	34.4	1,214
723	Electrocatalytic oxygen evolution with pure and substituted M6(SR)12 (M = Pd, Fe, Rh) complexes. Computational Materials Science, 2018, 150, 283-290.	3.0	5
724	Theoretical insight into the catalytic activities of oxygen reduction reaction on transition metal–N <sub>4</sub> doped graphene. New Journal of Chemistry, 2018, 42, 9620-9625.	2.8	21
725	Efficient catalysts for oxygen evolution derived from cobalt-based alloy nanochains. Catalysis Science and Technology, 2018, 8, 2427-2433.	4.1	19
726	Unconventional noble metal-free catalysts for oxygen evolution in aqueous systems. Journal of Materials Chemistry A, 2018, 6, 8147-8158.	10.3	66
727	Iron-Based Perovskites for Catalyzing Oxygen Evolution Reaction. Journal of Physical Chemistry C, 2018, 122, 8445-8454.	3.1	106
728	NiO as a Bifunctional Promoter for RuO <sub>2</sub> toward Superior Overall Water Splitting. Small, 2018, 14, e1704073.	10.0	214

#	Article	IF	CITATIONS
729	Strong Lanthanoid Substitution Effect on Electrocatalytic Activity of Double-Perovskite-Type BaLnMn <sub>2</sub> O <sub>5</sub> (Ln = Y, Gd, Nd, and La) for Oxygen Reduction Reaction. Journal of Physical Chemistry C, 2018, 122, 7081-7087.	3.1	10
730	Heterostructures of MXenes and N-doped graphene as highly active bifunctional electrocatalysts. Nanoscale, 2018, 10, 10876-10883.	5.6	215
731	Electrochemical Synthesis of Co <sub>3</sub> O <sub>4-x</sub> Films for Their Application as Oxygen Evolution Reaction Electrocatalysts: Role of Oxygen Vacancies. Journal of the Electrochemical Society, 2018, 165, H3178-H3186.	2.9	29
732	Does the breaking of adsorption-energy scaling relations guarantee enhanced electrocatalysis?. Current Opinion in Electrochemistry, 2018, 8, 110-117.	4.8	115
733	Electronic structure calculations on electrolyte–electrode interfaces: Successes and limitations. Current Opinion in Electrochemistry, 2018, 8, 103-109.	4.8	17
734	Enhancing Catalysis through Substitute-Driven Redox Tuning. Joule, 2018, 2, 207-209.	24.0	20
735	Insights into the Active Electrocatalytic Areas of Layered Double Hydroxide and Amorphous Nickel–Iron Oxide Oxygen Evolution Electrocatalysts. ACS Applied Energy Materials, 2018, 1, 1415-1423.	5.1	23
736	Towards Synergistic Electrode–Electrolyte Design Principles for Nonaqueous Li–O\$\$_2\$\$ batteries. Topics in Current Chemistry, 2018, 376, 11.	5.8	5
737	Solarâ€Driven Production of Hydrogen Peroxide from Water and Dioxygen. Chemistry - A European Journal, 2018, 24, 5016-5031.	3.3	106
738	Reaction mechanism for oxygen evolution on RuO2, IrO2, and RuO2@IrO2 core-shell nanocatalysts. Journal of Electroanalytical Chemistry, 2018, 819, 296-305.	3.8	141
739	New insights into evaluating catalyst activity and stability for oxygen evolution reactions in alkaline media. Sustainable Energy and Fuels, 2018, 2, 237-251.	4.9	183
740	Hydrogen evolution at mixed α-Fe1â^'xCrxOOH. Journal of Electroanalytical Chemistry, 2018, 819, 114-122.	3.8	11
741	Computational modelling of water oxidation catalysts. Current Opinion in Electrochemistry, 2018, 7, 22-30.	4.8	35
742	Investigation of Water Dissociation and Surface Hydroxyl Stability on Pure and Ni-Modified CoOOH by Ambient Pressure Photoelectron Spectroscopy. Journal of Physical Chemistry B, 2018, 122, 810-817.	2.6	18
743	Effect of tetravalent dopants on hematite nanostructure for enhanced photoelectrochemical water splitting. Applied Surface Science, 2018, 427, 1203-1212.	6.1	51
744	Cobalt Intercalated Layered NiFe Double Hydroxides for the Oxygen Evolution Reaction. Journal of Physical Chemistry B, 2018, 122, 847-854.	2.6	78
745	Covalent Organic Framework Electrocatalysts for Clean Energy Conversion. Advanced Materials, 2018, 30, 1703646.	21.0	309
746	Self-Supported Hierarchical Nanostructured NiFe-LDH and Cu <sub>3</sub> P Weaving Mesh Electrodes for Efficient Water Splitting. ACS Sustainable Chemistry and Engineering, 2018, 6, 380-388.	6.7	82

#	Article	IF	CITATIONS
747	Polyhedral 30â€Faceted BiVO <sub>4</sub> Microcrystals Predominantly Enclosed by Highâ€Index Planes Promoting Photocatalytic Waterâ€Splitting Activity. Advanced Materials, 2018, 30, 1703119.	21.0	155
748	Applications of Phosphorene and Black Phosphorus in Energy Conversion and Storage Devices. Advanced Energy Materials, 2018, 8, 1702093.	19.5	385
749	Photoelectrochemical Performance of BiVO <sub>4</sub> Photoanodes Integrated with [NiFe]â€Layered Double Hydroxide Nanocatalysts. European Journal of Inorganic Chemistry, 2018, 2018, 1060-1067.	2.0	19
750	ELECTROCATALYTIC PROCESSES IN ENERGY TECHNOLOGIES. , 2018, , 291-341.		0
751	The Influence of Inert Ions on the Reactivity of Manganese Oxides. Journal of Physical Chemistry C, 2018, 122, 216-226.	3.1	11
752	Improving the Thermodynamic Profiles of Prospective Suzuki–Miyaura Cross oupling Catalysts by Altering the Electrophilic Coupling Component. ChemCatChem, 2018, 10, 1592-1597.	3.7	21
753	Enhancing photoelectrochemical water oxidation efficiency via self-catalyzed oxygen evolution: A case study on TiO2. Nano Energy, 2018, 44, 411-418.	16.0	43
754	One-step synthesis of the 3D flower-like heterostructure MoS2/CuS nanohybrid for electrocatalytic hydrogen evolution. International Journal of Hydrogen Energy, 2018, 43, 1251-1260.	7.1	54
755	Comparative DFT+U and HSE Study of the Oxygen Evolution Electrocatalysis on Perovskite Oxides. Journal of Physical Chemistry C, 2018, 122, 1135-1147.	3.1	46
756	On the Generality of Molecular Volcano Plots. ChemCatChem, 2018, 10, 1586-1591.	3.7	29
757	Preparation and Electrochemical Properties of NiCo <sub>2</sub> O <sub>4</sub> Nanospinels Supported on Graphene Derivatives as Earthâ€Abundant Oxygen Bifunctional Catalysts. ChemPhysChem, 2018, 19, 319-326.	2.1	5
758	Amorphous Cobalt Vanadium Oxide as a Highly Active Electrocatalyst for Oxygen Evolution. ACS Catalysis, 2018, 8, 644-650.	11.2	220
759	Understanding and Breaking Scaling Relations in Single-Site Catalysis: Methane to Methanol Conversion by Fe <sup>IV</sup> â•O. ACS Catalysis, 2018, 8, 975-986.	11.2	119
760	Metal-free bifunctional carbon electrocatalysts derived from zeolitic imidazolate frameworks for efficient water splitting. Materials Chemistry Frontiers, 2018, 2, 102-111.	5.9	57
761	Facile synthesis of CuFe2O4 crystals efficient for water oxidation and H2O2 reduction. Journal of Alloys and Compounds, 2018, 735, 654-659.	5.5	31
762	Rapidly catalysis of oxygen evolution through sequential engineering of vertically layered FeNi structure. Nano Energy, 2018, 43, 359-367.	16.0	49
763	Combining water reduction and liquid fuel oxidization by nickel hydroxide for flexible hydrogen production. Energy Storage Materials, 2018, 11, 260-266.	18.0	24
764	Catalyst Electronic Surface Structure Under Gas and Liquid Environments. , 2018, , 615-631.		7

#	Article	IF	CITATIONS
765	Microwave-Assisted Hydrothermal Synthesis of Co-Doped ZnO Nanoparticles for Water Oxidation Electrocatalysis. ECS Transactions, 2018, 88, 369-380.	0.5	4
766	An efficient cluster model to describe the oxygen reduction reaction activity of metal catalysts: a combined theoretical and experimental study. Physical Chemistry Chemical Physics, 2018, 20, 26675-26680.	2.8	10
767	Chapter 3. Understanding the Effects of Composition and Structure on the Oxygen Evolution Reaction (OER) Occurring on NiFeOx Catalysts. RSC Energy and Environment Series, 2018, , 79-116.	0.5	3
768	UV laser regulation of surface oxygen vacancy of CoFe2O4 for enhanced oxygen evolution reaction. Chinese Journal of Chemical Physics, 2018, 31, 691-694.	1.3	3
769	Exploring the Effect of Gold Support on the Oxygen Reduction Reaction Activity of Metal Porphycenes. ChemCatChem, 2018, 10, 5505-5510.	3.7	6
770	Density functional theory models for electrocatalytic reactions. Advances in Catalysis, 2018, 63, 117-167.	0.2	16
771	Measurements of Oxygen Electroadsorption Energies and Oxygen Evolution Reaction on RuO <sub>2</sub> (110): A Discussion of the Sabatier Principle and Its Role in Electrocatalysis. Journal of the American Chemical Society, 2018, 140, 17597-17605.	13.7	177
772	Unraveling Metal/Pincer Ligand Effects in the Catalytic Hydrogenation of Carbon Dioxide to Formate. Organometallics, 2018, 37, 4568-4575.	2.3	32
773	Rationality in the new oxygen evolution catalyst development. Current Opinion in Electrochemistry, 2018, 12, 218-224.	4.8	24
774	Understanding Synergism of Cobalt Metal and Copper Oxide toward Highly Efficient Electrocatalytic Oxygen Evolution. ACS Catalysis, 2018, 8, 12030-12040.	11.2	60
775	Heterostructure-Promoted Oxygen Electrocatalysis Enables Rechargeable Zinc–Air Battery with Neutral Aqueous Electrolyte. Journal of the American Chemical Society, 2018, 140, 17624-17631.	13.7	258
777	Ab Initio Thermodynamics of Iridium Surface Oxidation and Oxygen Evolution Reaction. Journal of Physical Chemistry C, 2018, 122, 29350-29358.	3.1	28
778	Surface-Mediated Processes for Energy Production and Conversion: Critical Considerations in Model System Design for DFT Calculations. ACS Energy Letters, 2018, 3, 3015-3016.	17.4	10
779	Oxygen Evolution Reaction Catalyzed by Cost-Effective Metal Oxides. , 2018, , 785-795.		1
780	Efficient oxygen evolution electrocatalysis in acid by a perovskite with face-sharing IrO6 octahedral dimers. Nature Communications, 2018, 9, 5236.	12.8	325
781	Boosted Water Oxidation Activity and Kinetics on BiVO4 Photoanodes with Multihigh-Index Crystal Facets. Inorganic Chemistry, 2018, 57, 15280-15288.	4.0	22
783	Novel Catalysts Synthesized by High-Pressure Method and Reaction Mechanism Based on First-Principles Calculation. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 2018, 28, 184-192.	0.0	0
784	Selfâ€Supporting Porous CoPâ€Based Films with Phaseâ€Separation Structure for Ultrastable Overall Water Electrolysis at Large Current Density. Advanced Energy Materials, 2018, 8, 1802445.	19.5	114

#	Article	IF	CITATIONS
785	Supported metal oxide nanoparticle electrocatalysts: How immobilization affects catalytic performance. Applied Catalysis A: General, 2018, 568, 11-15.	4.3	7
786	Selective Electrochemical H <sub>2</sub> O <sub>2</sub> Production through Twoâ€Electron Oxygen Electrochemistry. Advanced Energy Materials, 2018, 8, 1801909.	19.5	498
787	Energetic Span as a Rate-Determining Term for Electrocatalytic Volcanos. ACS Catalysis, 2018, 8, 10590-10598.	11.2	63
788	Enhanced Oxygen Evolution Reaction for Single Atomic Co Catalyst via Support Modification: A Density Functional Theory Design Predication. Inorganic Chemistry, 2018, 57, 13020-13026.	4.0	25
789	Origins of high onset overpotential of oxygen reduction reaction at Pt-based electrocatalysts: A mini review. Electrochemistry Communications, 2018, 96, 71-76.	4.7	50
790	Low-Temperature Restructuring of CeO <sub>2</sub> -Supported Ru Nanoparticles Determines Selectivity in CO <sub>2</sub> Catalytic Reduction. Journal of the American Chemical Society, 2018, 140, 13736-13745.	13.7	210
791	Energy Trends in Adsorption at Surfaces. , 2018, , 1-20.		0
792	Suppressing buoyant force: New avenue for long-term durability of oxygen evolution catalysts. Nano Energy, 2018, 54, 184-191.	16.0	33
793	Role of lattice oxygen content and Ni geometry in the oxygen evolution activity of the Ba-Ni-O system. Journal of Power Sources, 2018, 404, 56-63.	7.8	15
794	A Perspective on Low-Temperature Water Electrolysis – Challenges in Alkaline and Acidic Technology. International Journal of Electrochemical Science, 2018, 13, 1173-1226.	1.3	197
795	2D Metal Organic Frameworkâ€Graphitic Carbon Nanocomposites as Precursors for Highâ€Performance O <sub>2</sub> â€Evolution Electrocatalysts. Advanced Energy Materials, 2018, 8, 1802404.	19.5	43
796	Identification of Facetâ€Governing Reactivity in Hematite for Oxygen Evolution. Advanced Materials, 2018, 30, e1804341.	21.0	96
797	Increasing Chlorine Selectivity through Weakening of Oxygen Adsorbates at Surface in Cu Doped RuO <sub>2</sub> during Seawater Electrolysis. Journal of the Electrochemical Society, 2018, 165, J3276-J3280.	2.9	19
798	Highly Active Nanoperovskite Catalysts for Oxygen Evolution Reaction: Insights into Activity and Stability of Ba <sub>0.5</sub> Sr <sub>0.5</sub> Co <sub>0.8</sub> Fe <sub>0.2</sub> O <sub>2+Î'</sub> and PrBaCo <sub>2</sub> O <sub>5+Î'</sub> . Advanced Functional Materials, 2018, 28, 1804355.	14.9	63
799	Revealing pH-Dependent Activities and Surface Instabilities for Ni-Based Electrocatalysts during the Oxygen Evolution Reaction. ACS Energy Letters, 2018, 3, 2884-2890.	17.4	74
800	New Theoretical Strategy for the Correlation of Oxygen Evolution Performance and Metal Catalysts Adsorption at BiVO <sub>4</sub> Surfaces. Journal of Physical Chemistry C, 2018, 122, 25195-25203.	3.1	10
801	Oxygen Evolution Reaction on Nitrogen-Doped Defective Carbon Nanotubes and Graphene. Journal of Physical Chemistry C, 2018, 122, 25882-25892.	3.1	66
802	Simultaneous Modulation of Composition and Oxygen Vacancies on Hierarchical ZnCo <sub>2</sub> O <sub>4</sub> /Co <sub>3</sub> O <sub>4</sub> /NC NT Mesoporous Dodecahedron for Enhanced Oxygen Evolution Reaction. Chemistry - A European Journal, 2018, 24, 18689-18695.	3.3	14

#	Article	IF	CITATIONS
803	Water oxidation on a mononuclear manganese heterogeneous catalyst. Nature Catalysis, 2018, 1, 870-877.	34.4	244
804	Intercalation of Li <sup>+</sup> into a Co-Containing Steel-Ceramic Composite: Substantial Oxygen Evolution at Almost Zero Overpotential. ACS Catalysis, 2018, 8, 10914-10925.	11.2	17
805	Atomistic Investigation of Doping Effects on Electrocatalytic Properties of Cobalt Oxides for Water Oxidation. Advanced Science, 2018, 5, 1801632.	11.2	17
806	Heterogeneous Electrocatalysts for Efficient Water Oxidation Derived from Metal Phthalocyanine. ChemistrySelect, 2018, 3, 11357-11366.	1.5	24
807	Tailoring Ca <sub>2</sub> Mn <sub>2</sub> O <sub>5</sub> Based Perovskites for Improved Oxygen Evolution Reaction. ACS Applied Energy Materials, 2018, 1, 6312-6319.	5.1	5
808	Surface Termination and Composition Control of Activity of the Co <sub><i>x</i> </sub> Ni <sub>1–<i>x</i> </sub> Fe <sub>2</sub> O <sub>4</sub> (001) Surface for Water Oxidation: Insights from DFT+ <i>U</i> Calculations. ACS Catalysis, 2018, 8, 11773-11782.	11.2	59
809	Speciation and Electronic Structure of La1ⴒxSrxCoO3ⴴδDuring Oxygen Electrolysis. Topics in Catalysis, 2018, 61, 2161-2174.	2.8	25
810	Boosted Performance of Ir Species by Employing TiN as the Support toward Oxygen Evolution Reaction. ACS Applied Materials & amp; Interfaces, 2018, 10, 38117-38124.	8.0	100
811	Symmetryâ€Broken Atom Configurations at Grain Boundaries and Oxygen Evolution Electrocatalysis in Perovskite Oxides. Advanced Energy Materials, 2018, 8, 1802481.	19.5	43
812	Ultrasmall Ru/Cuâ€doped RuO <sub>2</sub> Complex Embedded in Amorphous Carbon Skeleton as Highly Active Bifunctional Electrocatalysts for Overall Water Splitting. Small, 2018, 14, e1803009.	10.0	151
813	Oxygen Evolution Reaction on Perovskites: A Multieffect Descriptor Study Combining Experimental and Theoretical Methods. ACS Catalysis, 2018, 8, 9567-9578.	11.2	98
814	Electrocatalytic performance of different cobalt molybdate structures for water oxidation in alkaline media. CrystEngComm, 2018, 20, 5592-5601.	2.6	27
815	Surface decorated cobalt sulfide as efficient catalyst for oxygen evolution reaction and its intrinsic activity. Journal of Catalysis, 2018, 367, 43-52.	6.2	39
816	Correlation of Low-Index Facets to Active Sites in Micrometer-Sized Polyhedral Pyrochlore Electrocatalyst. ACS Catalysis, 2018, 8, 9647-9655.	11.2	11
819	Metal-organic frameworks and their derivatives as bifunctional electrocatalysts. Coordination Chemistry Reviews, 2018, 376, 430-448.	18.8	175
820	An Operando-Raman study on oxygen evolution of manganese oxides: Roles of phase composition and amorphization. Journal of Catalysis, 2018, 367, 53-61.	6.2	33
821	Bimetal-decorated nanocarbon as a superior electrocatalyst for overall water splitting. Journal of Power Sources, 2018, 401, 312-321.	7.8	41
822	Overcoming Site Heterogeneity In Search of Metal Nanocatalysts. ACS Combinatorial Science, 2018, 20, 567-572.	3.8	15

#	Article	IF	CITATIONS
823	Oxygen Evolution Reaction—The Enigma in Water Electrolysis. ACS Catalysis, 2018, 8, 9765-9774.	11.2	345
824	Metal–Oxygen Hybridization Determined Activity in Spinel-Based Oxygen Evolution Catalysts: A Case Study of ZnFe <sub>2–<i>x</i></sub> Cr <sub><i>x</i></sub> O <sub>4</sub> . Chemistry of Materials, 2018, 30, 6839-6848.	6.7	65
825	Self-Supported Hydrous Iridium–Nickel Oxide Two-Dimensional Nanoframes for High Activity Oxygen Evolution Electrocatalysts. ACS Catalysis, 2018, 8, 10498-10520.	11.2	103
826	Necklace-like Multishelled Hollow Spinel Oxides with Oxygen Vacancies for Efficient Water Electrolysis. Journal of the American Chemical Society, 2018, 140, 13644-13653.	13.7	430
827	Structural modulation of CdS/ZnO nanoheterojunction arrays for full solar water splitting and their related degradation mechanisms. Catalysis Science and Technology, 2018, 8, 5280-5287.	4.1	11
828	Operando Xâ€Ray Absorption Spectroscopy Shows Iron Oxidation Is Concurrent with Oxygen Evolution in Cobalt–Iron (Oxy)hydroxide Electrocatalysts. Angewandte Chemie, 2018, 130, 13022-13026.	2.0	28
829	A Porous Pyrochlore Y <sub>2</sub> [Ru <sub>1.6</sub> Y <sub>0.4</sub> ]O <sub>7–<i>δ</i></sub> Electrocatalyst for Enhanced Performance towards the Oxygen Evolution Reaction in Acidic Media. Angewandte Chemie, 2018, 130, 14073-14077.	2.0	33
830	Octahedral Co3O4 particles with high electrochemical surface area as electrocatalyst for water splitting. Electrochimica Acta, 2018, 288, 82-90.	5.2	34
831	A Porous Pyrochlore Y <sub>2</sub> [Ru <sub>1.6</sub> Y <sub>0.4</sub> ]O <sub>7–<i>δ</i></sub> Electrocatalyst for Enhanced Performance towards the Oxygen Evolution Reaction in Acidic Media. Angewandte Chemie - International Edition, 2018, 57, 13877-13881.	13.8	116
832	Iridium–Tungsten Alloy Nanodendrites as pH-Universal Water-Splitting Electrocatalysts. ACS Central Science, 2018, 4, 1244-1252.	11.3	196
833	Iron-based heterogeneous catalysts for oxygen evolution reaction; change in perspective from activity promoter to active catalyst. Journal of Power Sources, 2018, 395, 106-127.	7.8	68
834	Interaction of coadsorbed C and O atoms on W(100) surface: Implications of CO2 on the temperature-programmed desorption profile. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2018, 36, .	2.1	2
835	Mesoporous Co <sub>3</sub> O <sub>4</sub> Nanobundle Electrocatalysts. Chemistry - an Asian Journal, 2018, 13, 2093-2100.	3.3	5
836	Highly stable and efficient non-precious metal electrocatalysts of Mo-doped NiOOH nanosheets for oxygen evolution reaction. International Journal of Hydrogen Energy, 2018, 43, 12140-12145.	7.1	26
837	Co3O4 Nanosheet Arrays on Ni Foam as Electrocatalyst for Oxygen Evolution Reaction. Electrocatalysis, 2018, 9, 653-661.	3.0	23
838	Exploring the Limitation of Molecular Water Oxidation Catalysts. Journal of Physical Chemistry C, 2018, 122, 12404-12412.	3.1	37
839	Insight into the effect of intercalated alkaline cations of layered manganese oxides on the oxygen reduction reaction and oxygen evolution reaction. Chemical Communications, 2018, 54, 8575-8578.	4.1	33
840	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.	13.7	1,157

#	Article	IF	CITATIONS
841	Electrochemical oxygen evolution reaction catalyzed by a novel nickel–cobalt-fluoride catalyst. Chemical Communications, 2018, 54, 6204-6207.	4.1	77
842	Intrinsic composition and electronic effects of multicomponent platinum nanocatalysts with high activity and selectivity for ethanol oxidation reaction. Journal of Materials Chemistry A, 2018, 6, 11270-11280.	10.3	38
843	Developing descriptors for CO <sub>2</sub> methanation and CO <sub>2</sub> reforming of CH <sub>4</sub> over Al <sub>2</sub> O <sub>3</sub> supported Ni and low-cost Ni based alloy catalysts. Physical Chemistry Chemical Physics, 2018, 20, 15939-15950.	2.8	26
844	Transition metal anchored C <sub>2</sub> N monolayers as efficient bifunctional electrocatalysts for hydrogen and oxygen evolution reactions. Journal of Materials Chemistry A, 2018, 6, 11446-11452.	10.3	223
845	Oxygen Evolution Reaction Kinetic Barriers on Nitrogen-Doped Carbon Nanotubes. Journal of Physical Chemistry C, 2018, 122, 12892-12899.	3.1	24
846	A Review of Electrocatalytic Reduction of Dinitrogen to Ammonia under Ambient Conditions. Advanced Energy Materials, 2018, 8, 1800369.	19.5	950
847	Direct observation of hydrogen bubble generation on photocatalyst particles by in situ electron microscopy. Chemical Physics Letters, 2018, 706, 564-567.	2.6	3
848	Surface Polarons Reducing Overpotentials in the Oxygen Evolution Reaction. ACS Catalysis, 2018, 8, 5847-5851.	11.2	37
849	The Predominance of Hydrogen Evolution on Transition Metal Sulfides and Phosphides under CO <sub>2</sub> Reduction Conditions: An Experimental and Theoretical Study. ACS Energy Letters, 2018, 3, 1450-1457.	17.4	66
850	Modulating the oxygen reduction activity of heteroatom-doped carbon catalysts <i>via</i> the triple effect: charge, spin density and ligand effect. Chemical Science, 2018, 9, 5795-5804.	7.4	121
851	2D metal–organic-framework array-derived hierarchical network architecture of cobalt oxide flakes with tunable oxygen vacancies towards efficient oxygen evolution reaction. Journal of Catalysis, 2018, 364, 48-56.	6.2	56
852	Recent Advances on Black Phosphorus for Energy Storage, Catalysis, and Sensor Applications. Advanced Materials, 2018, 30, e1800295.	21.0	215
853	Water oxidation: From mechanisms to limitations. Current Opinion in Electrochemistry, 2018, 9, 278-284.	4.8	46
854	First-principles design of bifunctional oxygen reduction and evolution catalysts through bimetallic centers in metal–organic frameworks. Catalysis Science and Technology, 2018, 8, 3666-3674.	4.1	21
855	Metal Surface and Interface Energy Electrocatalysis: Fundamentals, Performance Engineering, and Opportunities. CheM, 2018, 4, 2054-2083.	11.7	225
856	Solvent-induced surface hydroxylation of a layered perovskite Sr <sub>3</sub> FeCoO <sub>7â^î</sub> for enhanced oxygen evolution catalysis. Journal of Materials Chemistry A, 2018, 6, 14240-14245.	10.3	15
857	Extracting Knowledge from Data through Catalysis Informatics. ACS Catalysis, 2018, 8, 7403-7429.	11.2	179
858	Computational exploration of borophane-supported single transition metal atoms as potential oxygen reduction and evolution electrocatalysts. Physical Chemistry Chemical Physics, 2018, 20, 21095-21104.	2.8	54

#	Article	IF	CITATIONS
859	Cocatalysis: Role of Organic Cations in Oxygen Evolution Reaction on Oxide Electrodes. ACS Applied Materials & Interfaces, 2018, 10, 26825-26829.	8.0	5
860	Water oxidation chemistry of oxynitrides and oxides: Comparing NaTaO3 and SrTaO2N. Surface Science, 2018, 677, 258-263.	1.9	16
861	Trends in Activity and Dissolution on RuO <sub>2</sub> under Oxygen Evolution Conditions: Particles versus Well-Defined Extended Surfaces. ACS Energy Letters, 2018, 3, 2045-2051.	17.4	144
862	Tuning Bifunctional Oxygen Electrocatalysts by Changing the Aâ€Site Rareâ€Earth Element in Perovskite Nickelates. Advanced Functional Materials, 2018, 28, 1803712.	14.9	122
863	Moltenâ€Saltâ€Assisted Synthesis of 3D Holey Nâ€Doped Graphene as Bifunctional Electrocatalysts for Rechargeable Zn–Air Batteries. Small Methods, 2018, 2, 1800144.	8.6	77
864	Atomic-level insight into super-efficient electrocatalytic oxygen evolution on iron and vanadium co-doped nickel (oxy)hydroxide. Nature Communications, 2018, 9, 2885.	12.8	669
865	A rational method to kinetically control the rate-determining step to explore efficient electrocatalysts for the oxygen evolution reaction. NPG Asia Materials, 2018, 10, 659-669.	7.9	66
866	Superhydrophilic Heteroporous MoS <sub>2</sub> /Ni <sub>3</sub> S <sub>2</sub> for Highly Efficient Electrocatalytic Overall Water Splitting. ACS Applied Energy Materials, 2018, 1, 3929-3936.	5.1	74
867	Recent Progresses in Electrocatalysts for Water Electrolysis. Electrochemical Energy Reviews, 2018, 1, 483-530.	25.5	285
868	Sea coral-like NiCo <sub>2</sub> O <sub>4</sub> @(Ni, Co)OOH heterojunctions for enhancing overall water-splitting. Catalysis Science and Technology, 2018, 8, 4151-4158.	4.1	16
869	Synthesis of a Highly Efficient Oxygenâ€Evolution Electrocatalyst by Incorporation of Iron into Nanoscale Cobalt Borides. ChemSusChem, 2018, 11, 3150-3156.	6.8	41
870	Phase Exploration and Identification of Multinary Transition-Metal Selenides as High-Efficiency Oxygen Evolution Electrocatalysts through Combinatorial Electrodeposition. ACS Catalysis, 2018, 8, 8273-8289.	11.2	76
871	Metal/covalent–organic frameworks-based electrocatalysts for water splitting. Journal of Materials Chemistry A, 2018, 6, 15905-15926.	10.3	258
872	Nano-size IrOx catalyst of high activity and stability in PEM water electrolyzer with ultra-low iridium loading. Applied Catalysis B: Environmental, 2018, 239, 133-146.	20.2	131
873	Hierarchical Nickel–Cobalt Dichalcogenide Nanostructure as an Efficient Electrocatalyst for Oxygen Evolution Reaction and a Zn–Air Battery. ACS Omega, 2018, 3, 8621-8630.	3.5	48
874	Calixarene Intercalated NiCo Layered Double Hydroxide for Enhanced Oxygen Evolution Catalysis. ACS Sustainable Chemistry and Engineering, 2018, 6, 9649-9660.	6.7	57
875	Development of activity–descriptor relationships for supported metal ion hydrogenation catalysts on silica. Polyhedron, 2018, 152, 73-83.	2.2	11
876	<i>Operando</i> X-ray spectroscopic tracking of self-reconstruction for anchored nanoparticles as high-performance electrocatalysts towards oxygen evolution. Energy and Environmental Science, 2018, 11, 2945-2953.	30.8	157

#	Article	IF	CITATIONS
877	Combining High Photocatalytic Activity and Stability via Subsurface Defects in TiO <sub>2</sub> . Journal of Physical Chemistry C, 2018, 122, 17221-17227.	3.1	27
878	Analysis of Trends and Emerging Technologies in Water Electrolysis Research Based on a Computational Method: A Comparison with Fuel Cell Research. Sustainability, 2018, 10, 478.	3.2	40
879	Accelerated active phase transformation of NiO powered by Pt single atoms for enhanced oxygen evolution reaction. Chemical Science, 2018, 9, 6803-6812.	7.4	96
880	Density Functional Theory Study of Water Photo-Oxidation at Copper Oxide Nanostructures on the Anatase (101) Surface. Journal of Physical Chemistry C, 2018, 122, 16765-16771.	3.1	5
881	Machine learning meets volcano plots: computational discovery of cross-coupling catalysts. Chemical Science, 2018, 9, 7069-7077.	7.4	154
882	MnO <sub>x</sub> /IrO <sub>x</sub> as Selective Oxygen Evolution Electrocatalyst in Acidic Chloride Solution. Journal of the American Chemical Society, 2018, 140, 10270-10281.	13.7	245
883	Boosting electrocatalytic oxygen evolution by synergistically coupling layered double hydroxide with MXene. Nano Energy, 2018, 44, 181-190.	16.0	458
884	Evaluating Hydrogen Evolution and Oxidation in Alkaline Media to Establish Baselines. Journal of the Electrochemical Society, 2018, 165, F441-F455.	2.9	42
885	Constructing Bridges between Computational Tools in Heterogeneous and Homogeneous Catalysis. ACS Catalysis, 2018, 8, 5637-5656.	11.2	58
886	Study of oxygen evolution reaction on amorphous Au <sub>13</sub> @Ni <sub>120</sub> P <sub>50</sub> nanocluster. Physical Chemistry Chemical Physics, 2018, 20, 14545-14556.	2.8	7
887	Ultrahigh-performance tungsten-doped perovskites for the oxygen evolution reaction. Journal of Materials Chemistry A, 2018, 6, 9854-9859.	10.3	82
888	Synergistic Coupling of Metallic Cobalt Nitride Nanofibers and IrO <sub><i>x</i></sub> Nanoparticle Catalysts for Stable Oxygen Evolution. Chemistry of Materials, 2018, 30, 5941-5950.	6.7	57
889	Stabilizing the oxygen vacancies and promoting water-oxidation kinetics in cobalt oxides by lower valence-state doping. Nano Energy, 2018, 53, 144-151.	16.0	114
890	Nickel sulfide wrapped by porous cobalt molybdate nanosheet arrays grown on Ni foam for oxygen evolution reaction and supercapacitor. Electrochimica Acta, 2018, 286, 65-76.	5.2	28
891	Quantifying Confidence in DFT Predicted Surface Pourbaix Diagrams and Associated Reaction Pathways for Chlorine Evolution. ACS Catalysis, 2018, 8, 9034-9042.	11.2	74
892	Novel Cobalt Germanium Hydroxide for Electrochemical Water Oxidation. ACS Applied Materials & Interfaces, 2018, 10, 30357-30366.	8.0	22
893	Activating Transition Metal Dichalcogenides by Substitutional Nitrogenâ€Đoping for Potential ORR Electrocatalysts. ChemElectroChem, 2018, 5, 4029-4035.	3.4	27
894	B-site doping effects of NdBa <sub>0.75</sub> Ca <sub>0.25</sub> Co <sub>2</sub> O <sub>5+Î</sub> double perovskite catalysts for oxygen evolution and reduction reactions. Journal of Materials Chemistry A, 2018, 6, 17807-17818.	10.3	50

#	Article	IF	Citations
895	Free-atom-like d states in single-atom alloy catalysts. Nature Chemistry, 2018, 10, 1008-1015.	13.6	368
896	Electrocatalysts based on metal@carbon core@shell nanocomposites: AnÂoverview. Green Energy and Environment, 2018, 3, 335-351.	8.7	75
897	Operando Xâ€Ray Absorption Spectroscopy Shows Iron Oxidation Is Concurrent with Oxygen Evolution in Cobalt–Iron (Oxy)hydroxide Electrocatalysts. Angewandte Chemie - International Edition, 2018, 57, 12840-12844.	13.8	131
898	Recent developments in metal phosphide and sulfide electrocatalysts for oxygen evolution reaction. Chinese Journal of Catalysis, 2018, 39, 1575-1593.	14.0	205
899	A Review of Preciousâ€Metalâ€Free Bifunctional Oxygen Electrocatalysts: Rational Design and Applications in Znâ~'Air Batteries. Advanced Functional Materials, 2018, 28, 1803329.	14.9	524
900	Overall Waterâ€Splitting Electrocatalysts Based on 2D CoNiâ€Metalâ€Organic Frameworks and Its Derivative. Advanced Materials Interfaces, 2018, 5, 1800849.	3.7	66
901	Exceptional electrocatalytic oxygen evolution via tunable charge transfer interactions in La0.5Sr1.5Ni1â^'xFexO4±δRuddlesden-Popper oxides. Nature Communications, 2018, 9, 3150.	12.8	161
902	Fundamental Atomic Insight in Electrocatalysis. , 2018, , 1-31.		4
903	Energy-Band Alignment of BiVO <sub>4</sub> from Photoelectron Spectroscopy of Solid-State Interfaces. Journal of Physical Chemistry C, 2018, 122, 20861-20870.	3.1	38
904	Assembling Ultrasmall Copperâ€Doped Ruthenium Oxide Nanocrystals into Hollow Porous Polyhedra: Highly Robust Electrocatalysts for Oxygen Evolution in Acidic Media. Advanced Materials, 2018, 30, e1801351.	21.0	353
905	Highly Active Surface Structure in Nanosized Spinel Cobalt-Based Oxides for Electrocatalytic Water Splitting. Journal of Physical Chemistry C, 2018, 122, 14447-14458.	3.1	24
906	Bond-Energy-Integrated Descriptor for Oxygen Electrocatalysis of Transition Metal Oxides. Journal of Physical Chemistry Letters, 2018, 9, 3387-3391.	4.6	34
907	Threeâ€Dimensional Branched and Faceted Gold–Ruthenium Nanoparticles: Using Nanostructure to Improve Stability in Oxygen Evolution Electrocatalysis. Angewandte Chemie, 2018, 130, 10398-10402.	2.0	21
908	Mixed protonic-electronic conducting perovskite oxide as a robust oxygen evolution reaction catalyst. Electrochimica Acta, 2018, 282, 324-330.	5.2	23
909	Exploring MXenes as Cathodes for Nonâ€Aqueous Lithium–Oxygen Batteries: Design Rules for Selectively Nucleating Li <sub>2</sub> O <sub>2</sub> . ChemSusChem, 2018, 11, 1911-1918.	6.8	24
910	Carbon nanobowls supported ultrafine iridium nanocrystals: An active and stable electrocatalyst for the oxygen evolution reaction in acidic media. Journal of Colloid and Interface Science, 2018, 529, 325-331.	9.4	21
911	Modulating the Electrocatalytic Performance of Palladium with the Electronic Metal–Support Interaction: A Case Study on Oxygen Evolution Reaction. ACS Catalysis, 2018, 8, 6617-6626.	11.2	73
912	Threeâ€Dimensional Branched and Faceted Gold–Ruthenium Nanoparticles: Using Nanostructure to Improve Stability in Oxygen Evolution Electrocatalysis. Angewandte Chemie - International Edition, 2018, 57, 10241-10245.	13.8	83

ARTICLE IF CITATIONS Self-Supported Earth-Abundant Nanoarrays as Efficient and Robust Electrocatalysts for 913 11.2 320 Energy-Related Reactions. ACS Catalysis, 2018, 8, 6707-6732. Breaking the scaling relations for oxygen reduction reaction on nitrogen-doped graphene by tensile 914 strain. Čarbon, 2018, 139, 129-136. Boosting water oxidation electrocatalysts with surface engineered amorphous cobalt hydroxide 915 5.6 55 nanoflakes. Nanoscale, 2018, 10, 12991-12996. Oxide perovskites, double perovskites and derivatives for electrocatalysis, photocatalysis, and 30.8 433 photovoltaics. Energy and Environmental Science, 2019, 12, 442-462. 2D Oxide Nanomaterials to Address the Energy Transition and Catalysis. Advanced Materials, 2019, 31, 917 21.0 88 e1801712. Recent Approaches to Design Electrocatalysts Based on Metal–Organic Frameworks and Their Derivatives. Chemistry - an Asian Journal, 2019, 14, 3474-3501. 3.3 Stable Surfaces That Bind Too Tightly: Can Range-Separated Hybrids or DFT+U Improve Paradoxical 919 4.6 27 Descriptions of Surface Chemistry? Journal of Physical Chemistry Letters, 2019, 10, 5090-5098. Heptazine-based porous graphitic carbon nitride: a visible-light driven photocatalyst for water 10.3 splitting. Journal of Materials Chemistry A, 2019, 7, 20799-20805. Tuning the Electronic Structure of LaNiO<sub>3</sub> through Alloying with Strontium to Enhance 921 11.2 76 Oxygen Evolution Activity. Advanced Science, 2019, 6, 1901073. Linear Correlations between Adsorption Energies and HOMO Levels for the Adsorption of Small 3.1 Molecules on TiO<sub>2</sub> Surfaces. Journal of Physical Chemistry C, 2019, 123, 20988-20997. Metal Oxides/Chalcogenides and Composites. SpringerBriefs in Materials, 2019, , . 923 0.3 16 Revealing Energetics of Surface Oxygen Redox from Kinetic Fingerprint in Oxygen Electrocatalysis. 924 151 Journal of the American Chemical Society, 2019, 141, 13803-13811. Synergy of sp-N and sp<sup>2</sup>-N codoping endows graphdiyne with comparable oxygen reduction 925 5.6 25 réaction performance to Pt. Nanoscale, 2019, 11, 16599-16605. Systematic Study of the Electronic, Carbon, and N-Doping Effects of CoMn-Oxide Composites as Bifunctional Oxygen Electrocatalysts. Journal of Physical Chemistry C, 2019, 123, 22130-22138. 3.1 Mechanism and Key Parameters for Catalyst Evaluation. SpringerBriefs in Materials, 2019, , 11-29. 927 0.3 1 Electroactive Materials. SpringerBriefs in Materials, 2019, , 31-67. Molecule-level graphdiyne coordinated transition metals as a new class of bifunctional 929 electrocatalysts for oxygen reduction and oxygen evolution reactions. Physical Chemistry Chemical 2.8 45 Physics, 2019, 21, 19651-19659. Electronic reconfiguration of Co<sub>2</sub>P induced by Cu doping enhancing oxygen reduction reaction activity in zinc–air batteries. Journal of Materials Chemistry A, 2019, 7, 21232-21243.

#	Article	IF	CITATIONS
931	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.	8.0	70
932	Anisotropic iron-doping patterns in two-dimensional cobalt oxide nanoislands on Au(111). Nano Research, 2019, 12, 2364-2372.	10.4	4
933	Ionicâ€Activated Chemiresistive Gas Sensors for Roomâ€Temperature Operation. Small, 2019, 15, e1902065.	10.0	34
934	Screening highly active perovskites for hydrogen-evolving reaction via unifying ionic electronegativity descriptor. Nature Communications, 2019, 10, 3755.	12.8	139
935	Ab Initio Cyclic Voltammetry on Cu(111), Cu(100) and Cu(110) in Acidic, Neutral and Alkaline Solutions. ChemPhysChem, 2019, 20, 3096-3105.	2.1	48
936	Electrospun Cuâ€Deposited Flexible Fibers as an Efficient Oxygen Evolution Reaction Electrocatalyst. ChemPhysChem, 2019, 20, 2973-2980.	2.1	7
937	Importance of Water Structure and Catalyst–Electrolyte Interface on the Design of Water Splitting Catalysts. Chemistry of Materials, 2019, 31, 8248-8259.	6.7	54
938	Ni <sup>3+</sup> -Induced Hole States Enhance the Oxygen Evolution Reaction Activity of Ni <sub><i>x</i></sub> Co <sub>3–<i>x</i></sub> O <sub>4</sub> Electrocatalysts. Chemistry of Materials, 2019, 31, 7618-7625.	6.7	76
939	Modulating Oxygen Evolution Reactivity in MnO <sub>2</sub> through Polymorphic Engineering. Journal of Physical Chemistry C, 2019, 123, 22345-22357.	3.1	38
940	Quadruple perovskite ruthenate as a highly efficient catalyst for acidic water oxidation. Nature Communications, 2019, 10, 3809.	12.8	150
941	Amorphous multinary phyllosilicate catalysts for electrochemical water oxidation. Journal of Materials Chemistry A, 2019, 7, 18380-18387.	10.3	21
942	Lowâ€Coordinate Iridium Oxide Confined on Graphitic Carbon Nitride for Highly Efficient Oxygen Evolution. Angewandte Chemie, 2019, 131, 12670-12674.	2.0	15
943	Lowâ€Coordinate Iridium Oxide Confined on Graphitic Carbon Nitride for Highly Efficient Oxygen Evolution. Angewandte Chemie - International Edition, 2019, 58, 12540-12544.	13.8	208
944	Electrochemical Reactivity of Faceted β-Co(OH) <sub>2</sub> Single Crystal Platelet Particles in Alkaline Electrolytes. Journal of Physical Chemistry C, 2019, 123, 18783-18794.	3.1	23
945	Quantum Mechanical Screening of Metal-N <sub>4</sub> -Functionalized Graphenes for Electrochemical Anodic Oxidation of Light Alkanes to Oxygenates. Journal of Physical Chemistry C, 2019, 123, 19033-19044.	3.1	20
946	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.	3.1	138
947	Crâ€Dopant Induced Breaking of Scaling Relations in CoFe Layered Double Hydroxides for Improvement of Oxygen Evolution Reaction. Small, 2019, 15, e1902373.	10.0	111
948	Evaluating the Catalytic Efficiency of Paired, Single-Atom Catalysts for the Oxygen Reduction Reaction. ACS Catalysis, 2019, 9, 7660-7667.	11.2	128

#	ARTICLE	IF	CITATIONS
949	Toward a Design of Active Oxygen Evolution Catalysts: Insights from Automated Density Functional Theory Calculations and Machine Learning. ACS Catalysis, 2019, 9, 7651-7659.	11.2	118
950	3D MnCo2O4@CoS nanoarrays with different morphologies as an electrocatalyst for oxygen evolution reaction. International Journal of Hydrogen Energy, 2019, 44, 21637-21650.	7.1	48
951	Effect of the Solvent on the Oxygen Evolution Reaction at the TiO <sub>2</sub> –Water Interface. Journal of Physical Chemistry C, 2019, 123, 18467-18474.	3.1	25
952	Importance of Entropic Contribution to Electrochemical Water Oxidation Catalysis. ACS Energy Letters, 2019, 4, 1918-1929.	17.4	31
953	Unraveling the controversy over a catalytic reaction mechanism using a new theoretical methodology: One probe and non-equilibrium surface Green's function. Nano Energy, 2019, 63, 103863.	16.0	7
954	Atomically dispersed manganese-based catalysts for efficient catalysis of oxygen reduction reaction. Applied Catalysis B: Environmental, 2019, 257, 117930.	20.2	113
955	Revealing the Reactivity of the Iridium Trioxide Intermediate for the Oxygen Evolution Reaction in Acidic Media. Chemistry of Materials, 2019, 31, 5845-5855.	6.7	67
956	Nanostructured Co-based bifunctional electrocatalysts for energy conversion and storage: current status and perspectives. Journal of Materials Chemistry A, 2019, 7, 18674-18707.	10.3	277
957	Scaling Relation of Oxygen Reduction Reaction Intermediates at Defective TiO <sub>2</sub> Surfaces. Journal of Physical Chemistry C, 2019, 123, 19486-19492.	3.1	20
958	Convolutional Neural Network of Atomic Surface Structures To Predict Binding Energies for High-Throughput Screening of Catalysts. Journal of Physical Chemistry Letters, 2019, 10, 4401-4408.	4.6	151
959	Nanowire Photoelectrochemistry. Chemical Reviews, 2019, 119, 9221-9259.	47.7	158
960	Shaping well-defined noble-metal-based nanostructures for fabricating high-performance electrocatalysts: advances and perspectives. Inorganic Chemistry Frontiers, 2019, 6, 2582-2618.	6.0	51
961	Revealing the nature of active sites in electrocatalysis. Chemical Science, 2019, 10, 8060-8075.	7.4	96
962	Crystalline Strontium Iridate Particle Catalysts for Enhanced Oxygen Evolution in Acid. ACS Applied Energy Materials, 2019, 2, 5490-5498.	5.1	61
963	High-Efficiency Electrocatalytic Water Oxidation on Trimetal-Based Fe–Co–Cr Oxide. ACS Applied Energy Materials, 2019, 2, 5584-5590.	5.1	7
964	Machine Learning Accelerates the Discovery of Design Rules and Exceptions in Stable Metal–Oxo Intermediate Formation. ACS Catalysis, 2019, 9, 8243-8255.	11.2	67
965	Undesired Bulk Oxidation of LiMn <sub>2</sub> O <sub>4</sub> Increases Overpotential of Electrocatalytic Water Oxidation in Lithium Hydroxide Electrolytes. ChemPhysChem, 2019, 20, 2981-2988.	2.1	16
966	Selectivity Trends Between Oxygen Evolution and Chlorine Evolution on Iridium-Based Double Perovskites in Acidic Media. ACS Catalysis, 2019, 9, 8561-8574.	11.2	117

#	Article	IF	CITATIONS
967	Electrochemical Reduction of CO <sub>2</sub> on Metal-Nitrogen-Doped Carbon Catalysts. ACS Catalysis, 2019, 9, 7270-7284.	11.2	282
968	Doping strain induced bi-Ti3+ pairs for efficient N2 activation and electrocatalytic fixation. Nature Communications, 2019, 10, 2877.	12.8	279
969	Tunable pH-dependent oxygen evolution activity of strontium cobaltite thin films for electrochemical water splitting. Physical Chemistry Chemical Physics, 2019, 21, 16230-16239.	2.8	13
970	Evaluation of Corrosion Resistance of Alloy 625 Obtained by Laser Powder Bed Fusion. Journal of the Electrochemical Society, 2019, 166, C3399-C3408.	2.9	24
971	Ir–O–V Catalytic Group in Ir-Doped NiV(OH) <sub>2</sub> for Overall Water Splitting. ACS Energy Letters, 2019, 4, 1823-1829.	17.4	147
972	Water oxidation catalysis on reconstructed NaTaO <sub>3</sub> (001) surfaces. Journal of Materials Chemistry A, 2019, 7, 16770-16776.	10.3	19
973	Design of Multiâ€Metallicâ€Based Electrocatalysts for Enhanced Water Oxidation. ChemPhysChem, 2019, 20, 2936-2945.	2.1	48
974	A review of transition metalâ€based bifunctional oxygen electrocatalysts. Journal of the Chinese Chemical Society, 2019, 66, 829-865.	1.4	82
975	Carbon quantum dots decorated Ba0.5Sr0.5Co0.8Fe0.2O3- perovskite nanofibers for boosting oxygen evolution reaction. Applied Catalysis B: Environmental, 2019, 257, 117919.	20.2	79
976	Ligand-Dependent Energetics for Dehydrogenation: Implications in Li-Ion Battery Electrolyte Stability and Selective Oxidation Catalysis of Hydrogen-Containing Molecules. Chemistry of Materials, 2019, 31, 5464-5474.	6.7	28
977	Assessment of Soft Ligand Removal Strategies: Alkylation as a Promising Alternative to High-Temperature Treatments for Colloidal Nanoparticle Surfaces. , 2019, 1, 177-184.		26
978	Shift of the Optimum Binding Energy at Higher Rates of Catalysis. Journal of Physical Chemistry Letters, 2019, 10, 6706-6713.	4.6	68
979	The Aurivillius Compound CoBi <sub>2</sub> O <sub>2</sub> F <sub>4</sub> – an Efficient Catalyst for Electrolytic Water Oxidation after Liquid Exfoliation. ChemCatChem, 2019, 11, 6105-6110.	3.7	12
980	Electrolyte Effects on the Electrocatalytic Performance of Iridiumâ€Based Nanoparticles for Oxygen Evolution in Rotating Disc Electrodes. ChemPhysChem, 2019, 20, 2956-2963.	2.1	44
981	Heterostructured Ni(OH) <sub>2</sub> /Ni <sub>3</sub> S <sub>2</sub> Supported on Ni Foam as Highly Efficient and Durable Bifunctional Electrodes for Overall Water Electrolysis. Energy & Fuels, 2019, 33, 12052-12062.	5.1	42
982	Cationâ€Modulated HER and OER Activities of Hierarchical VOOH Hollow Architectures for Highâ€Efficiency and Stable Overall Water Splitting. Small, 2019, 15, e1904688.	10.0	85
983	Hydrogen from photo-electrocatalytic water splitting. , 2019, , 419-486.		17
984	Difference between Metal-S and Metal-O Bond Orders: A Descriptor of Oxygen Evolution Activity for Isolated Metal Atom-Doped MoS2 Nanosheets. IScience, 2019, 20, 481-488.	4.1	21

#	Article	IF	CITATIONS
985	Regulating Electrocatalysts via Surface and Interface Engineering for Acidic Water Electrooxidation. ACS Energy Letters, 2019, 4, 2719-2730.	17.4	218
986	Unraveling the Impact of Electrochemically Created Oxygen Vacancies on the Performance of ZnO Nanowire Photoanodes. ACS Sustainable Chemistry and Engineering, 2019, 7, 18165-18173.	6.7	17
987	Recent Trends in Synthesis and Investigation of Nickel Phosphide Compound/Hybrid-Based Electrocatalysts Towards Hydrogen Generation from Water Electrocatalysis. Topics in Current Chemistry, 2019, 377, 29.	5.8	26
988	Understanding the Influence of Cation Doping on the Surface Chemistry of NaTaO <sub>3</sub> from First Principles. ACS Catalysis, 2019, 9, 10528-10535.	11.2	13
989	<i>In operando</i> studies of CO oxidation on epitaxial SrCoO2.5+δthin films. APL Materials, 2019, 7, .	5.1	5
990	Cuprous Oxide Electrodeposited with Nickel for the Oxygen Evolution Reaction in 1 M NaOH. Journal of Physical Chemistry C, 2019, 123, 1287-1292.	3.1	11
991	Engineering the Atomic Layer of RuO <sub>2</sub> on PdO Nanosheets Boosts Oxygen Evolution Catalysis. ACS Applied Materials & Interfaces, 2019, 11, 42298-42304.	8.0	38
992	Graphdiyne doped with sp-hybridized nitrogen atoms at acetylenic sites as potential metal-free electrocatalysts for oxygen reduction reaction. Journal of Physics Condensed Matter, 2019, 31, 465201.	1.8	9
993	Universal scaling relations for the rational design of molecular water oxidation catalysts with near-zero overpotential. Nature Communications, 2019, 10, 4993.	12.8	151
994	A DFT computational study of the mechanism of super-high oxygen evolution potential of W doped SnO2 anodes. Journal of Electroanalytical Chemistry, 2019, 855, 113499.	3.8	6
995	Breaking the Local Symmetry of LiCoO <sub>2</sub> via Atomic Doping for Efficient Oxygen Evolution. Nano Letters, 2019, 19, 8774-8779.	9.1	35
996	Rational Design of Rhodium–Iridium Alloy Nanoparticles as Highly Active Catalysts for Acidic Oxygen Evolution. ACS Nano, 2019, 13, 13225-13234.	14.6	151
997	Investigating the Integrity of Graphene towards the Electrochemical Oxygen Evolution Reaction. ChemElectroChem, 2019, 6, 5446-5453.	3.4	11
998	Understanding the Water Splitting Mechanism on WO <sub>3</sub> (001)—A Theoretical Approach. Journal of Physical Chemistry C, 2019, 123, 28233-28240.	3.1	20
999	Machine Learning for Accelerated Discovery of Solar Photocatalysts. ACS Catalysis, 2019, 9, 11774-11787.	11.2	100
1000	Superb water splitting activity of the electrocatalyst Fe3Co(PO4)4 designed with computation aid. Nature Communications, 2019, 10, 5195.	12.8	120
1001	Spectroelectrochemical study of water oxidation on nickel and iron oxyhydroxide electrocatalysts. Nature Communications, 2019, 10, 5208.	12.8	118
1002	Atomic―and Molecular‣evel Design of Functional Metal–Organic Frameworks (MOFs) and Derivatives for Energy and Environmental Applications. Advanced Science, 2019, 6, 1901129.	11.2	121

#	Article	IF	Citations
1003	Improving the Activity of Mâ^'N <sub>4</sub> Catalysts for the Oxygen Reduction Reaction by Electrolyte Adsorption. ChemSusChem, 2019, 12, 5133-5141.	6.8	33
1004	Design Criteria for Oxygen Evolution Electrocatalysts from First Principles: Introduction of a Unifying Material-Screening Approach. ACS Applied Energy Materials, 2019, 2, 7991-8001.	5.1	59
1005	Layered Structure Causes Bulk NiFe Layered Double Hydroxide Unstable in Alkaline Oxygen Evolution Reaction. Advanced Materials, 2019, 31, e1903909.	21.0	345
1006	Photooxidation of Water on Pristine, S- and N-Doped TiO <sub>2</sub> (001) Nanotube Surfaces: A DFT + <i>U</i> Study. Journal of Physical Chemistry C, 2019, 123, 22691-22698.	3.1	15
1007	Nanostructure of Cr <sub>2</sub> CO <sub>2</sub> MXene Supported Single Metal Atom as an Efficient Bifunctional Electrocatalyst for Overall Water Splitting. ACS Applied Energy Materials, 2019, 2, 6851-6859.	5.1	81
1008	Systematic Investigation of Iridium-Based Bimetallic Thin Film Catalysts for the Oxygen Evolution Reaction in Acidic Media. ACS Applied Materials & amp; Interfaces, 2019, 11, 34059-34066.	8.0	56
1009	Carbon Nanotube Assembly and Integration for Applications. Nanoscale Research Letters, 2019, 14, 220.	5.7	199
1010	A density functional theory study of the oxygen reduction reaction on the (111) and (100) surfaces of cobalt(II) oxide. Progress in Reaction Kinetics and Mechanism, 2019, 44, 122-131.	2.1	6
1011	Nickel nitride–black phosphorus heterostructure nanosheets for boosting the electrocatalytic activity towards the oxygen evolution reaction. Journal of Materials Chemistry A, 2019, 7, 22063-22069.	10.3	54
1012	In situ growth of minimal Ir-incorporated CoxNi1-xO nanowire arrays on Ni foam with improved electrocatalytic activity for overall water splitting. Chinese Journal of Catalysis, 2019, 40, 1576-1584.	14.0	25
1013	Metal–organic-framework-derived porous 3D heterogeneous NiFe <sub>x</sub> /NiFe <sub>2</sub> O <sub>4</sub> @NC nanoflowers as highly stable and efficient electrocatalysts for the oxygen-evolution reaction. Journal of Materials Chemistry A, 2019, 7, 21338-21348.	10.3	71
1014	Precipitating Metal Nitrate Deposition of Amorphous Metal Oxyhydroxide Electrodes Containing Ni, Fe, and Co for Electrocatalytic Water Oxidation. ACS Catalysis, 2019, 9, 9650-9662.	11.2	43
1015	Design and Synthesis of Ir/Ru Pyrochlore Catalysts for the Oxygen Evolution Reaction Based on Their Bulk Thermodynamic Properties. ACS Applied Materials & Interfaces, 2019, 11, 37748-37760.	8.0	61
1016	Leveraging electrochemistry to uncover the role of nitrogen in the biological reactivity of nitrogen-doped graphene. Environmental Science: Nano, 2019, 6, 3525-3538.	4.3	12
1017	Construction of porous nanoscale NiO/NiCo2O4 heterostructure for highly enhanced electrocatalytic oxygen evolution activity. Journal of Catalysis, 2019, 379, 1-9.	6.2	75
1018	Bifunctional Electrocatalytic Activity of Bis(iminothiolato)nickel Monolayer for Overall Water Splitting. Journal of Physical Chemistry C, 2019, 123, 25651-25656.	3.1	17
1019	Copper Single Atoms Anchored in Porous Nitrogen-Doped Carbon as Efficient pH-Universal Catalysts for the Nitrogen Reduction Reaction. ACS Catalysis, 2019, 9, 10166-10173.	11.2	284
1020	Surface treated nickel phosphide nanosheet with oxygen as highly efficient bifunctional electrocatalysts for overall water splitting. Applied Surface Science, 2019, 496, 143741.	6.1	7

#	Article	IF	CITATIONS
1021	Recent Advances and Prospective in Ruthenium-Based Materials for Electrochemical Water Splitting. ACS Catalysis, 2019, 9, 9973-10011.	11.2	491
1022	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.	3.1	12
1023	Design Strategies for Efficient Nonstoichiometric Mixed Metal Oxide Electrocatalysts: Correlating Measurable Oxide Properties to Electrocatalytic Performance. ACS Catalysis, 2019, 9, 10575-10586.	11.2	28
1024	Enhanced oxygen evolution performance of spinel Fe0.1Ni0.9Co2O4/Activated carbon composites. Electrochimica Acta, 2019, 326, 134986.	5.2	14
1025	InAs QDs Monolithically Grown on COMS Compatible Si (001) and SOI Platform with Strong Emission at 1300 nm and 1550 nm. , 2019, , .		0
1026	Mechanisms of Manganese Oxide Electrocatalysts Degradation during Oxygen Reduction and Oxygen Evolution Reactions. Journal of Physical Chemistry C, 2019, 123, 25267-25277.	3.1	76
1027	Simultaneously Achieving High Activity and Selectivity toward Two-Electron O <sub>2</sub> Electroreduction: The Power of Single-Atom Catalysts. ACS Catalysis, 2019, 9, 11042-11054.	11.2	314
1028	Two-Dimensional Closed Conjugated Covalent Organic Polymers for Oxygen Reduction Reaction. Frontiers in Materials, 2019, 6, .	2.4	3
1029	Calculations of theoretical efficiencies for electrochemically-mediated tandem solar water splitting as a function of bandgap energies and redox shuttle potential. Energy and Environmental Science, 2019, 12, 261-272.	30.8	18
1030	Enhancing the activity of oxygen-evolution and chlorine-evolution electrocatalysts by atomic layer deposition of TiO <sub>2</sub> . Energy and Environmental Science, 2019, 12, 358-365.	30.8	78
1031	Noble metal supported hexagonal boron nitride for the oxygen reduction reaction: a DFT study. Nanoscale Advances, 2019, 1, 132-139.	4.6	29
1032	Rational design of efficient transition metal core–shell electrocatalysts for oxygen reduction and evolution reactions. RSC Advances, 2019, 9, 536-542.	3.6	5
1033	Bifunctional OER/ORR catalytic activity in the tetrahedral YBaCo <sub>4</sub> O <sub>7.3</sub> oxide. Journal of Materials Chemistry A, 2019, 7, 330-341.	10.3	42
1034	A simple approach to tailor OER activity of SrxCo0.8Fe0.2O3 perovskite catalysts. Electrochimica Acta, 2019, 300, 85-92.	5.2	60
1035	One-Step Photochemical Synthesis of Transition Metal–Graphene Hybrid for Electrocatalysis. ACS Sustainable Chemistry and Engineering, 2019, 7, 4112-4118.	6.7	6
1036	Tuning the oxygen evolution reaction on a nickel–iron alloy <i>via</i> active straining. Nanoscale, 2019, 11, 426-430.	5.6	52
1037	Insights into the roles of water on the aqueous phase reforming of glycerol. Reaction Chemistry and Engineering, 2019, 4, 383-392.	3.7	25
1038	Formation of unexpectedly active Ni–Fe oxygen evolution electrocatalysts by physically mixing Ni and Fe oxyhydroxides. Chemical Communications, 2019, 55, 818-821.	4.1	57

#	Article	IF	Citations
1039	Charge transfer-induced O p-band center shift for an enhanced OER performance in LaCoO <sub>3</sub> film. CrystEngComm, 2019, 21, 1534-1538.	2.6	17
1040	CuS–Ni <sub>3</sub> S <sub>2</sub> grown <i>in situ</i> from three-dimensional porous bimetallic foam for efficient oxygen evolution. Inorganic Chemistry Frontiers, 2019, 6, 293-302.	6.0	28
1041	One-step construction of core/shell nanoarrays with a holey shell and exposed interfaces for overall water splitting. Journal of Materials Chemistry A, 2019, 7, 1196-1205.	10.3	42
1042	Evolution of Oxygen–Metal Electron Transfer and Metal Electronic States During Manganese Oxide Catalyzed Water Oxidation Revealed with Inâ€Situ Soft Xâ€Ray Spectroscopy. Angewandte Chemie, 2019, 131, 3464-3470.	2.0	28
1043	Photocatalytic CO2 reduction by H2O: insights from modeling electronically relaxed mechanisms. Catalysis Science and Technology, 2019, 9, 1048-1059.	4.1	24
1044	Defect Engineering and Surface Functionalization of Nanocarbons for Metalâ€Free Catalysis. Advanced Materials, 2019, 31, e1805717.	21.0	139
1045	Thermodynamic Overpotentials and Nucleation Rates for Electrodeposition on Metal Anodes. ACS Applied Materials & Interfaces, 2019, 11, 7954-7964.	8.0	44
1046	Analysis of the interfacial characteristics of BiVO <sub>4</sub> /metal oxide heterostructures and its implication on their junction properties. Physical Chemistry Chemical Physics, 2019, 21, 5086-5096.	2.8	56
1047	An essential descriptor for the oxygen evolution reaction on reducible metal oxide surfaces. Chemical Science, 2019, 10, 3340-3345.	7.4	63
1048	Effect of Electronic Conductivities of Iridium Oxide/Doped SnO2 Oxygen-Evolving Catalysts on the Polarization Properties in Proton Exchange Membrane Water Electrolysis. Catalysts, 2019, 9, 74.	3.5	41
1049	Breaking Long-Range Order in Iridium Oxide by Alkali Ion for Efficient Water Oxidation. Journal of the American Chemical Society, 2019, 141, 3014-3023.	13.7	337
1050	Unveiling dual-linkage 3D hexaiminobenzene metal–organic frameworks towards long-lasting advanced reversible Zn–air batteries. Energy and Environmental Science, 2019, 12, 727-738.	30.8	300
1051	Defect-Rich NiCeO <sub><i>x</i></sub> Electrocatalyst with Ultrahigh Stability and Low Overpotential for Water Oxidation. ACS Catalysis, 2019, 9, 1605-1611.	11.2	113
1052	Engineering NiO/NiFe LDH Intersection to Bypass Scaling Relationship for Oxygen Evolution Reaction via Dynamic Tridimensional Adsorption of Intermediates. Advanced Materials, 2019, 31, e1804769.	21.0	264
1053	2D transition metal–TCNQ sheets as bifunctional single-atom catalysts for oxygen reduction and evolution reaction (ORR/OER). Journal of Catalysis, 2019, 370, 378-384.	6.2	114
1054	Optimizing Ni–Fe Oxide Electrocatalysts for Oxygen Evolution Reaction by Using Hard Templating as a Toolbox. ACS Applied Energy Materials, 2019, 2, 1199-1209.	5.1	71
1055	One-step synthesis of bifunctional iron-doped manganese oxide nanorods for rechargeable zinc–air batteries. Catalysis Science and Technology, 2019, 9, 1245-1254.	4.1	52
1056	Computational Approaches to Photoelectrode Design through Molecular Functionalization for Enhanced Photoelectrochemical Water Splitting. ChemSusChem, 2019, 12, 1858-1871.	6.8	8

#	Article	IF	CITATIONS
1057	Tuning oxygen electrocatalysis via strain on LaNiO3(001). Physical Chemistry Chemical Physics, 2019, 21, 4738-4745.	2.8	14
1058	Transition-metal single atoms in nitrogen-doped graphenes as efficient active centers for water splitting: a theoretical study. Physical Chemistry Chemical Physics, 2019, 21, 3024-3032.	2.8	122
1059	Combining Co <sub>3</sub> S <sub>4</sub> and Ni:Co <sub>3</sub> S <sub>4</sub> nanowires as efficient catalysts for overall water splitting: an experimental and theoretical study. Nanoscale, 2019, 11, 2202-2210.	5.6	79
1060	Boosting electrochemical water splitting <i>via</i> ternary NiMoCo hybrid nanowire arrays. Journal of Materials Chemistry A, 2019, 7, 2156-2164.	10.3	163
1061	Ni-Based Composites from Chitosan Biopolymer a One-Step Synthesis for Oxygen Evolution Reaction. Catalysts, 2019, 9, 471.	3.5	10
1062	Modeling the Catalyst Activation Step in a Metal–Ligand Radical Mechanism Based Water Oxidation System. Inorganics, 2019, 7, 62.	2.7	8
1063	Nickel Doping Enhances the Reactivity of Fe <sub>3</sub> O <sub>4</sub> (001) to Water. Journal of Physical Chemistry C, 2019, 123, 15038-15045.	3.1	16
1064	Engineering Cu <sub>2</sub> O/Cu@CoO hierarchical nanospheres: synergetic effect of fast charge transfer cores and active shells for enhanced oxygen evolution reaction. Inorganic Chemistry Frontiers, 2019, 6, 1660-1666.	6.0	9
1065	Direct high-resolution mapping of electrocatalytic activity of semi-two-dimensional catalysts with single-edge sensitivity. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 11618-11623.	7.1	65
1066	Engineering Two-Dimensional Materials and Their Heterostructures as High-Performance Electrocatalysts. Electrochemical Energy Reviews, 2019, 2, 373-394.	25.5	74
1067	La <sub>1.5</sub> Sr <sub>0.5</sub> NiMn <sub>0.5</sub> Ru <sub>0.5</sub> O <sub>6</sub> Double Perovskite with Enhanced ORR/OER Bifunctional Catalytic Activity. ACS Applied Materials & Interfaces, 2019, 11, 21454-21464.	8.0	129
1068	Powerful CO <sub>2</sub> electroreduction performance with N–carbon doped with single Ni atoms. Catalysis Science and Technology, 2019, 9, 3669-3674.	4.1	49
1069	Engineering highly active oxygen sites in perovskite oxides for stable and efficient oxygen evolution. Applied Catalysis B: Environmental, 2019, 256, 117817.	20.2	79
1070	Beyond the Rate-Determining Step in the Oxygen Evolution Reaction over a Single-Crystalline IrO <sub>2</sub> (110) Model Electrode: Kinetic Scaling Relations. ACS Catalysis, 2019, 9, 6755-6765.	11.2	117
1071	Recent Advances in Carbonâ€Based Bifunctional Oxygen Catalysts for Zincâ€Air Batteries. Batteries and Supercaps, 2019, 2, 743-765.	4.7	119
1072	Controlling Stability and Selectivity in the Competing Chlorine and Oxygen Evolution Reaction over Transition Metal Oxide Electrodes. ChemElectroChem, 2019, 6, 3401-3409.	3.4	57
1073	Enhanced overall water electrolysis on a bifunctional perovskite oxide through interfacial engineering. Electrochimica Acta, 2019, 318, 120-129.	5.2	39
1074	Beyond the Traditional Volcano Concept: Overpotential-Dependent Volcano Plots Exemplified by the Chlorine Evolution Reaction over Transition-Metal Oxides. Journal of Physical Chemistry C, 2019, 123, 16921-16928.	3.1	50

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#	Article	IF	CITATIONS
1075	Atomic-scale perturbation of oxygen octahedra via surface ion exchange in perovskite nickelates boosts water oxidation. Nature Communications, 2019, 10, 2713.	12.8	96
1076	A Review on Recent Progress in the Aspect of Stability of Oxygen Reduction Electrocatalysts for Protonâ€Exchange Membrane Fuel Cell: Quantum Mechanics and Experimental Approaches. Energy Technology, 2019, 7, 1900312.	3.8	26
1077	Facile Synthesis of Monodispersed α-Ni(OH)2 Microspheres Assembled by Ultrathin Nanosheets and Its Performance for Oxygen Evolution Reduction. Frontiers in Materials, 2019, 6, .	2.4	30
1078	Impact of Ir-Valence Control and Surface Nanostructure on Oxygen Evolution Reaction over a Highly Efficient Ir–TiO <sub>2</sub> Nanorod Catalyst. ACS Catalysis, 2019, 9, 6974-6986.	11.2	90
1079	Recent progress made in the mechanism comprehension and design of electrocatalysts for alkaline water splitting. Energy and Environmental Science, 2019, 12, 2620-2645.	30.8	1,052
1080	Hierarchical Nanoassembly of MoS <sub>2</sub> /Co <sub>9</sub> S <sub>8</sub> /Ni <sub>3</sub> S <sub>2</sub> /Ni as a Highly Efficient Electrocatalyst for Overall Water Splitting in a Wide pH Range. Journal of the American Chemical Society. 2019. 141. 10417-10430.	13.7	653
1081	A Cobaltâ€Based Amorphous Bifunctional Electrocatalysts for Waterâ€Splitting Evolved from a Singleâ€Source Lazulite Cobalt Phosphate. Advanced Functional Materials, 2019, 29, 1808632.	14.9	157
1082	Improvement of BiVO <sub>4</sub> Photoanode Performance During Water Photoâ€Oxidation Using Rhâ€Doped SrTiO <sub>3</sub> Perovskite as a Coâ€Catalyst. Advanced Functional Materials, 2019, 29, 1902101.	14.9	113
1083	Role of Dissolution Intermediates in Promoting Oxygen Evolution Reaction at RuO <sub>2</sub> (110) Surface. Journal of Physical Chemistry C, 2019, 123, 22151-22157.	3.1	86
1084	Tuning the Catalytic Property of Phosphorene for Oxygen Evolution and Reduction Reactions by Changing Oxidation Degree. Journal of Physical Chemistry Letters, 2019, 10, 3440-3446.	4.6	43
1085	Ni <sub>1â°ix</sub> M <sub>x</sub> Se <sub>2</sub> (M = Fe, Co, Cu) nanowires as anodes for ammonia-borane electrooxidation and the derived Ni <sub>1â°ix</sub> M <sub>x</sub> Se <sub>2â°iy</sub> –OOH ultrathin nanosheets as efficient electrocatalysts for oxygen evolution. Journal of Materials Chemistry A, 2019, 7, 16372-16386.	10.3	21
1086	Origin of electronic structure dependent activity of spinel ZnNixCo2-xO4 oxides for complete methane oxidation. Applied Catalysis B: Environmental, 2019, 256, 117844.	20.2	35
1087	Graphyne doped with transition-metal single atoms as effective bifunctional electrocatalysts for water splitting. Applied Surface Science, 2019, 492, 8-15.	6.1	74
1088	Activityâ€&tability Volcano Plots for Material Optimization in Electrocatalysis. ChemCatChem, 2019, 11, 3234-3241.	3.7	15
1089	Effect of Interlayer Co <sup>2+</sup> on Structure and Charge Transfer in NiFe Layered Double Hydroxides. Journal of Physical Chemistry C, 2019, 123, 13593-13599.	3.1	11
1090	The 3d–5d orbital repulsion of transition metals in oxyhydroxide catalysts facilitates water oxidation. Journal of Materials Chemistry A, 2019, 7, 14455-14461.	10.3	28
1091	Co <sub>3</sub> O <sub>4</sub> Nanoparticles Anchored on Nitrogen-Doped Partially Exfoliated Multiwall Carbon Nanotubes as an Enhanced Oxygen Electrocatalyst for the Rechargeable and Flexible Solid-State Zn–Air Battery. ACS Applied Energy Materials, 2019, 2, 4428-4438.	5.1	47
1092	Atomic scandium and nitrogen-codoped graphene for oxygen reduction reaction. Journal of Power Sources, 2019, 431, 265-273.	7.8	39

#	Article	IF	CITATIONS
1093	Free-Standing Porous Cu-Based Nanowires as Robust Electrocatalyst for Alkaline Oxygen Evolution Reaction. Catalysis Letters, 2019, 149, 2376-2382.	2.6	0
1094	Fully Oxidized Ni–Fe Layered Double Hydroxide with 100% Exposed Active Sites for Catalyzing Oxygen Evolution Reaction. ACS Catalysis, 2019, 9, 6027-6032.	11.2	165
1095	Oxygen Deficient LaMn <sub>0.75</sub> Co <sub>0.25</sub> O <sub>3â^îî</sub> Nanofibers as an Efficient Electrocatalyst for Oxygen Evolution Reaction and Zinc–Air Batteries. Inorganic Chemistry, 2019, 58, 8208-8214.	4.0	89
1096	Trends in Oxygen Electrocatalysis of <i>3 d</i> ‣ayered (Oxy)(Hydro)Oxides. ChemCatChem, 2019, 11, 3423-3431.	3.7	33
1097	Homogenous Meets Heterogenous and Electroâ€Catalysis: Ironâ€Nitrogen Molecular Complexes within Carbon Materials for Catalytic Applications. ChemCatChem, 2019, 11, 3602-3625.	3.7	22
1098	Band-gap engineering in AB(O <sub>x</sub> S <sub>1â^x</sub> ) <sub>3</sub> perovskite oxysulfides: a route to strongly polar materials for photocatalytic water splitting. Journal of Materials Chemistry A, 2019, 7, 15741-15748.	10.3	45
1099	A Theoretical Perspective on Charge Separation and Transfer in Metal Oxide Photocatalysts for Water Splitting. ChemCatChem, 2019, 11, 3688-3715.	3.7	27
1100	Computational Screening of Electrocatalytic Activity of Transition Metal-Doped CdS Nanotubes for Water Splitting. Journal of Physical Chemistry C, 2019, 123, 13419-13427.	3.1	10
1101	A Simple Synthetic Strategy toward Defectâ€Rich Porous Monolayer NiFe‣ayered Double Hydroxide Nanosheets for Efficient Electrocatalytic Water Oxidation. Advanced Energy Materials, 2019, 9, 1900881.	19.5	363
1102	DFT-based study of single transition metal atom doped g-C3N4 as alternative oxygen reduction reaction catalysts. International Journal of Hydrogen Energy, 2019, 44, 15409-15416.	7.1	99
1103	How to Boost the Activity of the Monolayer Pt Supported on TiC Catalysts for Oxygen Reduction Reaction: A Density Functional Theory Study. Materials, 2019, 12, 1560.	2.9	3
1104	Rational design of multifunctional air electrodes for rechargeable Zn–Air batteries: Recent progress and future perspectives. Energy Storage Materials, 2019, 21, 253-286.	18.0	171
1105	The electronic structure underlying electrocatalysis of twoâ€dimensional materials. Wiley Interdisciplinary Reviews: Computational Molecular Science, 2019, 9, e1418.	14.6	17
1106	Boosting ORR/OER Activity of Graphdiyne by Simple Heteroatom Doping. Small Methods, 2019, 3, 1800550.	8.6	149
1107	Chestnut-like copper cobalt phosphide catalyst for all-pH hydrogen evolution reaction and alkaline water electrolysis. Journal of Materials Chemistry A, 2019, 7, 14271-14279.	10.3	67
1108	Mono″Multinuclear Water Oxidation Catalysts. ChemSusChem, 2019, 12, 3209-3235.	6.8	22
1109	Insight into the role of Ni–Fe dual sites in the oxygen evolution reaction based on atomically metal-doped polymeric carbon nitride. Journal of Materials Chemistry A, 2019, 7, 14001-14010.	10.3	97
1110	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.	4.4	27

#	Article	IF	CITATIONS
1111	Tuning perovskite oxides by strain: Electronic structure, properties, and functions in (electro)catalysis and ferroelectricity. Materials Today, 2019, 31, 100-118.	14.2	169
1112	Investigation of Fe-Based Integrated Electrodes for Water Oxidation in Neutral and Alkaline Solutions. Journal of Physical Chemistry C, 2019, 123, 12313-12320.	3.1	16
1113	An excellent OER electrocatalyst of cubic SrCoO <sub>3â~ʾĨ´</sub> prepared by a simple F-doping strategy. Journal of Materials Chemistry A, 2019, 7, 12538-12546.	10.3	112
1114	Surface modification of NiCo2Te4 nanoclusters: a highly efficient electrocatalyst for overall water-splitting in neutral solution. Applied Catalysis B: Environmental, 2019, 254, 424-431.	20.2	59
1115	Interface-coupling of CoFe-LDH on MXene as high-performance oxygen evolution catalyst. Materials Today Energy, 2019, 12, 453-462.	4.7	162
1116	Edge-Enhanced Oxygen Evolution Reactivity at Ultrathin, Au-Supported Fe <sub>2</sub> O <sub>3</sub> Electrocatalysts. ACS Catalysis, 2019, 9, 5375-5382.	11.2	46
1117	Na-doped ruthenium perovskite electrocatalysts with improved oxygen evolution activity and durability in acidic media. Nature Communications, 2019, 10, 2041.	12.8	227
1118	A General Method to Probe Oxygen Evolution Intermediates at Operating Conditions. Joule, 2019, 3, 1498-1509.	24.0	243
1119	Data Mining the Câ^'C Cross oupling Genome. ChemCatChem, 2019, 11, 4096-4107.	3.7	15
1120	Is Thermodynamics a Good Descriptor for the Activity? Re-Investigation of Sabatier's Principle by the Free Energy Diagram in Electrocatalysis. ACS Catalysis, 2019, 9, 5320-5329.	11.2	94
1121	Fe-Doping in Double Perovskite PrBaCo2(1-x)Fe2xO6-δ: Insights into Structural and Electronic Effects to Enhance Oxygen Evolution Catalyst Stability. Catalysts, 2019, 9, 263.	3.5	25
1122	Single Atoms and Clusters Based Nanomaterials for Hydrogen Evolution, Oxygen Evolution Reactions, and Full Water Splitting. Advanced Energy Materials, 2019, 9, 1900624.	19.5	538
1123	Anionâ€Modulated HER and OER Activities of 3D Ni–Vâ€Based Interstitial Compound Heterojunctions for High‣fficiency and Stable Overall Water Splitting. Advanced Materials, 2019, 31, e1901174.	21.0	479
1124	Epitaxial catalysts for oxygen evolution reaction: model systems and beyond. JPhys Energy, 2019, 1, 031001.	5.3	12
1125	Thin Nickel Layer with Embedded WC Nanoparticles for Efficient Oxygen Evolution. ACS Applied Energy Materials, 2019, 2, 3452-3460.	5.1	14
1126	Transition metal-embedded two-dimensional C <sub>3</sub> N as a highly active electrocatalyst for oxygen evolution and reduction reactions. Journal of Materials Chemistry A, 2019, 7, 12050-12059.	10.3	123
1127	Bifunctional mechanism of N, P co-doped graphene for catalyzing oxygen reduction and evolution reactions. Journal of Chemical Physics, 2019, 150, 104701.	3.0	29
1128	Ultrafine Metallic Nickel Domains and Reduced Molybdenum States Improve Oxygen Evolution Reaction of NiFeMo Electrocatalysts. Small, 2019, 15, e1804764.	10.0	35

#	Article	IF	CITATIONS
1129	Migration of Cobalt Species within Mixed Platinum-Cobalt Oxide Bifunctional Electrocatalysts in Alkaline Electrolytes. Journal of the Electrochemical Society, 2019, 166, F3093-F3097.	2.9	7
1130	Impedance Spectra and Surface Coverages Simulated Directly from the Electrochemical Reaction Mechanism: A Nonlinear State-Space Approach. Journal of Physical Chemistry C, 2019, 123, 9981-9992.	3.1	16
1131	Direct Electrolytic Splitting of Seawater: Opportunities and Challenges. ACS Energy Letters, 2019, 4, 933-942.	17.4	578
1132	Hierarchical Ni <sub>2</sub> P/Cr <sub>2</sub> CT <sub>x</sub> (MXene) composites with oxidized surface groups as efficient bifunctional electrocatalysts for overall water splitting. Journal of Materials Chemistry A, 2019, 7, 9324-9334.	10.3	54
1133	Design of high efficient oxygen reduction catalyst from the transition metal dimer phthalocyanine monolayer. Applied Surface Science, 2019, 480, 905-911.	6.1	12
1134	In situ growth of graphdiyne based heterostructure: Toward efficient overall water splitting. Nano Energy, 2019, 59, 591-597.	16.0	78
1135	2D Layered Double Hydroxides for Oxygen Evolution Reaction: From Fundamental Design to Application. Advanced Energy Materials, 2019, 9, 1803358.	19.5	467
1136	The mechanism and activity of oxygen reduction reaction on single atom doped graphene: a DFT method. RSC Advances, 2019, 9, 7086-7093.	3.6	31
1137	Formation of Branched Ruthenium Nanoparticles for Improved Electrocatalysis of Oxygen Evolution Reaction. Small, 2019, 15, e1804577.	10.0	54
1138	Chemical and structural origin of lattice oxygen oxidation in Co–Zn oxyhydroxide oxygen evolution electrocatalysts. Nature Energy, 2019, 4, 329-338.	39.5	977
1139	Highly symmetrical, 24-faceted, concave BiVO <sub>4</sub> polyhedron bounded by multiple high-index facets for prominent photocatalytic O <sub>2</sub> evolution under visible light. Chemical Communications, 2019, 55, 4777-4780.	4.1	29
1140	Edge-doping modulation of N, P-codoped porous carbon spheres for high-performance rechargeable Zn-air batteries. Nano Energy, 2019, 60, 536-544.	16.0	247
1141	Outlining the Scaling-Based and Scaling-Free Optimization of Electrocatalysts. ACS Catalysis, 2019, 9, 4218-4225.	11.2	76
1142	Engineering the electronic structure of single atom Ru sites via compressive strain boosts acidic water oxidation electrocatalysis. Nature Catalysis, 2019, 2, 304-313.	34.4	757
1143	The role of uncertainty quantification and propagation in accelerating the discovery of electrochemical functional materials. MRS Bulletin, 2019, 44, 204-212.	3.5	2
1144	Recent Advancements Towards Closing the Gap between Electrocatalysis and Battery Science Communities: The Computational Lithium Electrode and Activity–Stability Volcano Plots. ChemSusChem, 2019, 12, 2330-2344.	6.8	33
1145	Functional Role of Fe-Doping in Co-Based Perovskite Oxide Catalysts for Oxygen Evolution Reaction. Journal of the American Chemical Society, 2019, 141, 5231-5240.	13.7	250
1146	Nanoscale palladium as a new benchmark electrocatalyst for water oxidation at low overpotential. Journal of Materials Chemistry A, 2019, 7, 9137-9144.	10.3	65

#	Article	IF	CITATIONS
1147	Unraveling the Mechanism of Photocatalytic Water Splitting in α-Ga <sub>2</sub> O <sub>3</sub> Loaded with a Nickel Oxide Cocatalyst: A First-Principles Investigation. Journal of Physical Chemistry C, 2019, 123, 8990-9000.	3.1	10
1148	Formation of Prussian blue analog on Ni foam via in-situ electrodeposition method and conversion into Ni-Fe-mixed phosphates as efficient oxygen evolution electrode. Electrochimica Acta, 2019, 313, 91-98.	5.2	35
1149	Realizing Ultrafast Oxygen Evolution by Introducing Proton Acceptor into Perovskites. Advanced Energy Materials, 2019, 9, 1900429.	19.5	76
1150	Ruthenium Nanoparticles for Catalytic Water Splitting. ChemSusChem, 2019, 12, 2493-2514.	6.8	93
1151	The Role of Aluminum in Promoting Ni–Fe–OOH Electrocatalysts for the Oxygen Evolution Reaction. ACS Applied Energy Materials, 2019, 2, 3488-3499.	5.1	30
1152	Selectivity of Photoelectrochemical Water Splitting on TiO2 Anatase Single Crystals. Journal of Physical Chemistry C, 2019, 123, 10857-10867.	3.1	23
1153	ZnO As an Active and Selective Catalyst for Electrochemical Water Oxidation to Hydrogen Peroxide. ACS Catalysis, 2019, 9, 4593-4599.	11.2	176
1154	Versatile electrocatalytic processes realized by Ni, Co and Fe alloyed core coordinated carbon shells. Journal of Materials Chemistry A, 2019, 7, 12154-12165.	10.3	34
1155	Bifunctional oxygen evolution and supercapacitor electrode with integrated architecture of NiFe-layered double hydroxides and hierarchical carbon framework. Nanotechnology, 2019, 30, 325402.	2.6	14
1156	Functional mapping reveals mechanistic clusters for OER catalysis across (Cu–Mn–Ta–Co–Sn–Fe)O <sub>x</sub> composition and pH space. Materials Horizons, 2019, 6, 1251	- <del>125</del> 8.	22
1157	Ternary metal sulfides for electrocatalytic energy conversion. Journal of Materials Chemistry A, 2019, 7, 9386-9405.	10.3	225
1158	Investigation of Iridium Nanoparticles Supported on Sub-stoichiometric Titanium Oxides as Anodic Electrocatalysts in PEM Electrolysis. Part I.: Synthesis and Characterization. Topics in Catalysis, 2019, 62, 429-438.	2.8	9
1159	Tuning Interfacial Structures for Better Catalysis of Water Electrolysis. Chemistry - A European Journal, 2019, 25, 9799-9815.	3.3	41
1160	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.	2.1	11
1161	Theory-guided materials design: two-dimensional MXenes in electro- and photocatalysis. Nanoscale Horizons, 2019, 4, 809-827.	8.0	218
1162	Rational Design of Nanoarray Architectures for Electrocatalytic Water Splitting. Advanced Functional Materials, 2019, 29, 1808367.	14.9	298
1163	Recommended Practices and Benchmark Activity for Hydrogen and Oxygen Electrocatalysis in Water Splitting and Fuel Cells. Advanced Materials, 2019, 31, e1806296.	21.0	841
1164	Morphologyâ€Controlled Metal Sulfides and Phosphides for Electrochemical Water Splitting. Advanced Materials, 2019, 31, e1806682.	21.0	500

#	Article	IF	CITATIONS
1165	Enhancing Electrocatalytic Water Splitting by Strain Engineering. Advanced Materials, 2019, 31, e1807001.	21.0	470
1166	Nanoarchitectonics for Transitionâ€Metalâ€Sulfideâ€Based Electrocatalysts for Water Splitting. Advanced Materials, 2019, 31, e1807134.	21.0	998
1167	Acceleration of material R&D process through rational design. Computational Materials Science, 2019, 160, 397-402.	3.0	2
1168	Modular Design of Nobleâ€Metalâ€Free Mixed Metal Oxide Electrocatalysts for Complete Water Splitting. Angewandte Chemie - International Edition, 2019, 58, 4644-4648.	13.8	182
1169	Modular Design of Nobleâ€Metalâ€Free Mixed Metal Oxide Electrocatalysts for Complete Water Splitting. Angewandte Chemie, 2019, 131, 4692-4696.	2.0	19
1170	Urchin-like ternary cobalt phosphosulfide as high-efficiency and stable bifunctional electrocatalyst for overall water splitting. Journal of Catalysis, 2019, 371, 126-134.	6.2	32
1171	Interface Engineering of Co(OH) <sub>2</sub> /Ag/FeP Hierarchical Superstructure as Efficient and Robust Electrocatalyst for Overall Water Splitting. ACS Applied Materials & Interfaces, 2019, 11, 7936-7945.	8.0	68
1172	Obstacles of solar-powered photocatalytic water splitting for hydrogen production: A perspective from energy flow and mass flow. Energy, 2019, 172, 1079-1086.	8.8	99
1173	Selective and Efficient Gd-Doped BiVO <sub>4</sub> Photoanode for Two-Electron Water Oxidation to H <sub>2</sub> O <sub>2</sub> . ACS Energy Letters, 2019, 4, 720-728.	17.4	165
1174	Uncovering The Role of Oxygen in Ni-Fe(OxHy) Electrocatalysts using In situ Soft X-ray Absorption Spectroscopy during the Oxygen Evolution Reaction. Scientific Reports, 2019, 9, 1532.	3.3	112
1175	eg occupancy as an effective descriptor for the catalytic activity of perovskite oxide-based peroxidase mimics. Nature Communications, 2019, 10, 704.	12.8	199
1176	Highly Active Oxygen Evolution on Carbon Fiber Paper Coated with Atomic-Layer-Deposited Cobalt Oxide. ACS Applied Materials & Interfaces, 2019, 11, 10608-10615.	8.0	12
1177	An Unconventional Iron Nickel Catalyst for the Oxygen Evolution Reaction. ACS Central Science, 2019, 5, 558-568.	11.3	263
1178	Mechanism for spontaneous oxygen and hydrogen evolution reactions on CoO nanoparticles. Journal of Materials Chemistry A, 2019, 7, 6708-6719.	10.3	29
1179	One-pot synthesis of etched CoMn-layered double hydroxides efficient for oxygen evolution reaction. Applied Surface Science, 2019, 480, 256-261.	6.1	29
1180	Quasi-layer Co <sub>2</sub> P-polarized Cu <sub>3</sub> P nanocomposites with enhanced intrinsic interfacial charge transfer for efficient overall water splitting. Nanoscale, 2019, 11, 6394-6400.	5.6	23
1181	Prussian blue analog-derived 2D ultrathin CoFe <sub>2</sub> O <sub>4</sub> nanosheets as high-activity electrocatalysts for the oxygen evolution reaction in alkaline and neutral media. Journal of Materials Chemistry A, 2019, 7, 7328-7332.	10.3	75
1182	Recent advances in precious metal-free bifunctional catalysts for electrochemical conversion systems. Journal of Materials Chemistry A, 2019, 7, 8006-8029.	10.3	221

#	Article	IF	Citations
1183	Revealing the structural transformation of rutile RuO <sub>2</sub> <i>via in situ</i> X-ray absorption spectroscopy during the oxygen evolution reaction. Dalton Transactions, 2019, 48, 7122-7129.	3.3	30
1184	Controlling the 3-D morphology of Ni–Fe-based nanocatalysts for the oxygen evolution reaction. Nanoscale, 2019, 11, 8170-8184.	5.6	18
1185	Less active CeO <sub>2</sub> regulating bifunctional oxygen electrocatalytic activity of Co <sub>3</sub> O <sub>4</sub> @N-doped carbon for Zn–air batteries. Journal of Materials Chemistry A, 2019, 7, 6753-6765.	10.3	87
1186	Direct electrosynthesis of sodium hydroxide and hydrochloric acid from brine streams. Nature Catalysis, 2019, 2, 106-113.	34.4	65
1187	Structural and electronic properties of Fe dopants in cobalt oxide nanoislands on Au(111). Journal of Chemical Physics, 2019, 150, 041731.	3.0	14
1188	Firstâ€Principles Simulations for Morphology and Structural Evolutions of Catalysts in Oxygen Evolution Reaction. ChemSusChem, 2019, 12, 1846-1857.	6.8	26
1189	Promoting Electrocatalytic Oxygen Evolution over Transition-Metal Phosphide-Based Nanocomposites via Architectural and Electronic Engineering. ACS Applied Materials & Interfaces, 2019, 11, 46825-46838.	8.0	34
1190	Electrospun Cuâ€Đeposited Flexible Fibers as an Efficient Oxygen Evolution Reaction Electrocatalyst. ChemPhysChem, 2019, 20, 2899-2899.	2.1	2
1191	Synergy of tellurium and defects in control of activity of phosphorene for oxygen evolution and reduction reactions. Physical Chemistry Chemical Physics, 2019, 21, 22939-22946.	2.8	16
1192	Graphene-covered transition metal halide molecules as efficient and durable electrocatalysts for oxygen reduction and evolution reactions. Physical Chemistry Chemical Physics, 2019, 21, 23094-23101.	2.8	8
1193	Design of high-performance MoS <sub>2</sub> edge supported single-metal atom bifunctional catalysts for overall water splitting <i>via</i> a simple equation. Nanoscale, 2019, 11, 20228-20237.	5.6	57
1194	Selective surface functionalization generating site-isolated Ir on a MnO <sub>x</sub> /N-doped carbon composite for robust electrocatalytic water oxidation. Journal of Materials Chemistry A, 2019, 7, 23098-23104.	10.3	19
1195	ltinerant ferromagnetic half metallic cobalt–iron couples: promising bifunctional electrocatalysts for ORR and OER. Journal of Materials Chemistry A, 2019, 7, 27175-27185.	10.3	122
1196	Hydroxyl group modification improves the electrocatalytic ORR and OER activity of graphene supported single and bi-metal atomic catalysts (Ni, Co, and Fe). Journal of Materials Chemistry A, 2019, 7, 24583-24593.	10.3	126
1197	Enhancing Oxygen Electroreduction Activity of Single-Site Fe–N–C Catalysts by a Metal Support. Journal of Physical Chemistry C, 2019, 123, 30335-30340.	3.1	6
1198	Dissolution-Induced Surface Roughening and Oxygen Evolution Electrocatalysis of Alkaline-Earth Iridates in Acid. CheM, 2019, 5, 3243-3259.	11.7	98
1199	Detrimental Effects and Prevention of Acidic Electrolytes on Oxygen Reduction Reaction Catalytic Performance of Heteroatom-Doped Graphene Catalysts. Frontiers in Materials, 2019, 6, .	2.4	6
1200	Strategies to Break the Scaling Relation toward Enhanced Oxygen Electrocatalysis. Matter, 2019, 1, 1494-1518.	10.0	316

#	Article	IF	CITATIONS
1201	Theory-guided design of catalytic materials using scaling relationships and reactivity descriptors. Nature Reviews Materials, 2019, 4, 792-804.	48.7	338
1202	Cooperativity in Bimetallic SACs: An Efficient Strategy for Designing Bifunctional Catalysts for Overall Water Splitting. Journal of Physical Chemistry C, 2019, 123, 30972-30980.	3.1	30
1203	The role of metastability in enhancing water-oxidation activity. Physical Chemistry Chemical Physics, 2019, 21, 24354-24360.	2.8	10
1204	Revealing Ni-based layered double hydroxides as high-efficiency electrocatalysts for the oxygen evolution reaction: a DFT study. Journal of Materials Chemistry A, 2019, 7, 23091-23097.	10.3	75
1205	Single nickel atom supported on hybridized graphene–boron nitride nanosheet as a highly active bi-functional electrocatalyst for hydrogen and oxygen evolution reactions. Journal of Materials Chemistry A, 2019, 7, 26261-26265.	10.3	44
1206	Hierarchical porous N-P-coupled carbons as metal-free bifunctional electro-catalysts for oxygen conversion. Applied Surface Science, 2019, 464, 380-387.	6.1	49
1207	Selective Partial Substitution of B‣ite with Phosphorus in Perovskite Electrocatalysts for Highly Efficient Oxygen Evolution Reaction. ChemNanoMat, 2019, 5, 352-357.	2.8	8
1208	Simply tuned and sustainable cobalt oxide decorated titania nanotubes for photoelectrochemical water splitting. Applied Surface Science, 2019, 464, 68-77.	6.1	16
1209	Prediction of Stable and Active (Oxy-Hydro) Oxide Nanoislands on Noble-Metal Supports for Electrochemical Oxygen Reduction Reaction. ACS Applied Materials & Interfaces, 2019, 11, 2006-2013.	8.0	24
1210	First insight on Mo(II) as electrocatalytically active species for oxygen evolution reaction. International Journal of Hydrogen Energy, 2019, 44, 1345-1351.	7.1	33
1211	Quantifying robustness of DFT predicted pathways and activity determining elementary steps for electrochemical reactions. Journal of Chemical Physics, 2019, 150, 041717.	3.0	14
1212	Evolution of Oxygen–Metal Electron Transfer and Metal Electronic States During Manganese Oxide Catalyzed Water Oxidation Revealed with Inâ€Situ Soft Xâ€Ray Spectroscopy. Angewandte Chemie - International Edition, 2019, 58, 3426-3432.	13.8	52
1213	Computational Electrochemistry of Water Oxidation on Metalâ€Doped and Metalâ€Supported Defective hâ€BN. ChemSusChem, 2019, 12, 1995-2007.	6.8	12
1214	Alveolate porous carbon aerogels supported Co9S8 derived from a novel hybrid hydrogel for bifunctional oxygen electrocatalysis. Carbon, 2019, 144, 557-566.	10.3	177
1215	Tuning the Electronic Structure of NiO via Li Doping for the Fast Oxygen Evolution Reaction. Chemistry of Materials, 2019, 31, 419-428.	6.7	78
1216	Bimetallic Pd/Co Embedded in Two-Dimensional Carbon-Nitride for Z-Scheme Photocatalytic Water Splitting. Journal of Physical Chemistry C, 2019, 123, 1846-1851.	3.1	10
1217	Assessing Correlations of Perovskite Catalytic Performance with Electronic Structure Descriptors. Chemistry of Materials, 2019, 31, 785-797.	6.7	106
1218	Controlled Leaching Derived Synthesis of Atomically Dispersed/Clustered Gold on Mesoporous Cobalt Oxide for Enhanced Oxygen Evolution Reaction Activity. Small Methods, 2019, 3, 1800293.	8.6	18

#	Article	IF	CITATIONS
1219	Iridium nanoparticles for the oxygen evolution reaction: Correlation of structure and activity of benchmark catalyst systems. Electrochimica Acta, 2019, 302, 472-477.	5.2	25
1220	Co-CoO-Co3O4/N-doped carbon derived from metal-organic framework: The addition of carbon black for boosting oxygen electrocatalysis and Zn-Air battery. Electrochimica Acta, 2019, 295, 966-977.	5.2	72
1221	Challenges in Modeling Electrochemical Reaction Energetics with Polarizable Continuum Models. ACS Catalysis, 2019, 9, 920-931.	11.2	153
1222	A hydrated amorphous iron oxide nanoparticle as active water oxidation catalyst. Chinese Journal of Catalysis, 2019, 40, 38-42.	14.0	14
1223	A Supramolecular Coordinationâ€Polymerâ€Derived Electrocatalyst for the Oxygen Evolution Reaction. Chemistry - A European Journal, 2019, 25, 4036-4039.	3.3	30
1224	Kinetics-Based Computational Catalyst Design Strategy for the Oxygen Evolution Reaction on Transition-Metal Oxide Surfaces. Journal of Physical Chemistry C, 2019, 123, 8287-8303.	3.1	6
1225	Recent advances in transition metal–based catalysts with heterointerfaces for energy conversion and storage. Materials Today Chemistry, 2019, 11, 16-28.	3.5	72
1226	MoS <sub>2</sub> /NiS Yolk–Shell Microsphereâ€Based Electrodes for Overall Water Splitting and Asymmetric Supercapacitor. Small, 2019, 15, e1803639.	10.0	229
1227	Nobleâ€Metalâ€Free Electrocatalysts for Oxygen Evolution. Small, 2019, 15, e1804201.	10.0	388
1228	Ni(II)-Dimeric Complex-Derived Nitrogen-Doped Graphitized Carbon-Encapsulated Nickel Nanoparticles: Efficient Trifunctional Electrocatalyst for Oxygen Reduction Reaction, Oxygen Evolution Reaction, and Hydrogen Evolution Reaction. ACS Sustainable Chemistry and Engineering, 2019, 7, 2187-2199.	6.7	52
1229	Graphene–carbon nanotube hybrid catalyst layer architecture for reversible oxygen electrodes in rechargeable metal–air batteries. Journal of Applied Electrochemistry, 2019, 49, 281-290.	2.9	7
1230	Partially Dissociated Water Dimers at the Water–Hematite Interface. ACS Energy Letters, 2019, 4, 390-396.	17.4	32
1231	Tracking Structural Selfâ€Reconstruction and Identifying True Active Sites toward Cobalt Oxychloride Precatalyst of Oxygen Evolution Reaction. Advanced Materials, 2019, 31, e1805127.	21.0	211
1232	Transitionâ€Metal Single Atoms Anchored on Graphdiyne as Highâ€Efficiency Electrocatalysts for Water Splitting and Oxygen Reduction. Small Methods, 2019, 3, 1800419.	8.6	192
1233	Surface modification of CuO nanoflake with Co3O4 nanowire for oxygen evolution reaction and electrocatalytic reduction of CO2 in water to syngas. Electrochimica Acta, 2019, 299, 281-288.	5.2	26
1234	Recent Advances in Metalâ€Organic Framework Derivatives as Oxygen Catalysts for Zincâ€Air Batteries. Batteries and Supercaps, 2019, 2, 272-289.	4.7	121
1235	Oneâ€Step Synthesis of NiMnâ€Layered Double Hydroxide Nanosheets Efficient for Water Oxidation. Small Methods, 2019, 3, 1800344.	8.6	67
1236	Design of Noble Metal Electrocatalysts on an Atomic Level. ChemElectroChem, 2019, 6, 289-303.	3.4	46

#	Article	IF	CITATIONS
1237	Climbing the 3D Volcano for the Oxygen Reduction Reaction Using Porphyrin Motifs. ACS Sustainable Chemistry and Engineering, 2019, 7, 611-617.	6.7	31
1238	Ultrasmall Abundant Metal-Based Clusters as Oxygen-Evolving Catalysts. Journal of the American Chemical Society, 2019, 141, 232-239.	13.7	56
1239	Unraveling Oxygen Evolution on Iron-Doped β-Nickel Oxyhydroxide: The Key Role of Highly Active Molecular-like Sites. Journal of the American Chemical Society, 2019, 141, 693-705.	13.7	176
1240	TiS <sub>2</sub> Monolayer as an Emerging Ultrathin Bifunctional Catalyst: Influence of Defects and Functionalization. ChemPhysChem, 2019, 20, 608-617.	2.1	24
1241	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.	5.1	74
1242	Guiding Principles for Designing Highly Efficient Metalâ€Free Carbon Catalysts. Advanced Materials, 2019, 31, e1805252.	21.0	110
1243	Metal-Free Boron Nitride Nanoribbon Catalysts for Electrochemical CO <sub>2</sub> Reduction: Combining High Activity and Selectivity. ACS Applied Materials & Interfaces, 2019, 11, 906-915.	8.0	66
1244	Hydrogen Production via Efficient Formic Acid Decomposition: Engineering the Surface Structure of Pd-Based Alloy Catalysts by Design. ACS Catalysis, 2019, 9, 781-790.	11.2	62
1245	MOFs for Electrocatalysis: From Serendipity to Design Strategies. Small Methods, 2019, 3, 1800415.	8.6	100
1246	Iron-based photocatalytic and photoelectrocatalytic nano-structures: Facts, perspectives, and expectations. Applied Catalysis B: Environmental, 2019, 244, 1065-1095.	20.2	100
1247	An electronic structure descriptor for oxygen reactivity at metal and metal-oxide surfaces. Surface Science, 2019, 681, 122-129.	1.9	145
1248	Graphene as an electrochemical transfer layer. Carbon, 2019, 141, 266-273.	10.3	17
1249	Recent Progress on Transition Metal Oxides as Bifunctional Catalysts for Lithiumâ€Air and Zincâ€Air Batteries. Batteries and Supercaps, 2019, 2, 336-347.	4.7	173
1250	Electrochemical water oxidation on WO3 surfaces: A density functional theory study. Catalysis Today, 2019, 321-322, 94-99.	4.4	55
1251	State of the Art and Prospects in Metal–Organic Framework (MOF)-Based and MOF-Derived Nanocatalysis. Chemical Reviews, 2020, 120, 1438-1511.	47.7	1,505
1252	Recent Development of Ni/Feâ€Based Micro/Nanostructures toward Photo/Electrochemical Water Oxidation. Advanced Energy Materials, 2020, 10, 1900954.	19.5	358
1253	Water Adsorption on Ideal Anatase-TiO <sub>2</sub> (101) – An Embedded Cluster Model for Accurate Adsorption Energetics and Excited State Properties. Zeitschrift Fur Physikalische Chemie, 2020, 234, 813-834.	2.8	16
1254	Facile Synthesis of Sulfurâ€Containing Transition Metal (Mn, Fe, Co, and Ni) (Hydr)oxides for Efficient Oxygen Evolution Reaction. ChemCatChem, 2020, 12, 710-716.	3.7	17

#	Article	IF	CITATIONS
1255	Particulate Photocatalysts for Light-Driven Water Splitting: Mechanisms, Challenges, and Design Strategies. Chemical Reviews, 2020, 120, 919-985.	47.7	1,605
1256	Self-supported Ni2P nanosheets on low-cost three-dimensional Fe foam as a novel electrocatalyst for efficient water oxidation. Journal of Energy Chemistry, 2020, 42, 71-76.	12.9	44
1257	Oxygen vacancy engineering of yttrium ruthenate pyrochlores as an efficient oxygen catalyst for both proton exchange membrane water electrolyzers and rechargeable zinc-air batteries. Applied Catalysis B: Environmental, 2020, 260, 118176.	20.2	50
1258	Transition metal oxides for water oxidation: All about oxyhydroxides?. Science China Materials, 2020, 63, 3-7.	6.3	81
1259	Redox bifunctional activities with optical gain of Ni3S2 nanosheets edged with MoS2 for overall water splitting. Applied Catalysis B: Environmental, 2020, 268, 118435.	20.2	118
1260	Boosting Oxygen Evolution Reaction by Creating Both Metal Ion and Latticeâ€Oxygen Active Sites in a Complex Oxide. Advanced Materials, 2020, 32, e1905025.	21.0	190
1261	Systematic computational investigation of an Ni3Fe catalyst for the OER. Catalysis Today, 2020, 345, 220-226.	4.4	9
1262	Predicted Optimal Bifunctional Electrocatalysts for the Hydrogen Evolution Reaction and the Oxygen Evolution Reaction Using Chalcogenide Heterostructures Based on Machine Learning Analysis of in Silico Quantum Mechanics Based High Throughput Screening. Journal of Physical Chemistry Letters, 2020. 11. 869-876.	4.6	58
1263	Understanding the Enhancement of the Catalytic Properties of Goethite by Transition Metal Doping: Critical Role of O* Formation Energy Relative to OH* and OOH*. ACS Applied Energy Materials, 2020, 3, 1634-1643.	5.1	17
1264	Phosphorus Regulated Cobalt Oxide@Nitrogenâ€Doped Carbon Nanowires for Flexible Quasiâ€Solidâ€State Supercapacitors. Small, 2020, 16, e1906458.	10.0	90
1265	Bond Electronegativity as Hydrogen Evolution Reaction Catalyst Descriptor for Transition Metal (TM) Tj ETQq0 0	0 rgBT /O\ 6.7	verlock 10 Tf
1266	Computational screening of transition metal-doped phthalocyanine monolayers for oxygen evolution and reduction. Nanoscale Advances, 2020, 2, 710-716.	4.6	30
1267	Rutheniumâ€Doped Cobalt–Chromium Layered Double Hydroxides for Enhancing Oxygen Evolution through Regulating Charge Transfer. Small, 2020, 16, e1905328.	10.0	80
1268	Revolution of Perovskite. Materials Horizons, 2020, , .	0.6	10
1269	Charge-compensated co-doping of graphdiyne with boron and nitrogen to form metal-free electrocatalysts for the oxygen reduction reaction. Physical Chemistry Chemical Physics, 2020, 22, 1493-1501.	2.8	32
1270	Rapid and energy-efficient microwave pyrolysis for high-yield production of highly-active bifunctional electrocatalysts for water splitting. Energy and Environmental Science, 2020, 13, 545-553.	30.8	169
1271	Theoretical insights into nonprecious oxygen-evolution active sites in Ti–Ir-Based perovskite solid solution electrocatalysts. Journal of Materials Chemistry A, 2020, 8, 218-223.	10.3	15
1272	Self-supported nanostructured iridium-based networks as highly active electrocatalysts for oxygen evolution in acidic media. Journal of Materials Chemistry A, 2020, 8, 1066-1071.	10.3	43

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#	ARTICLE Room-temperature photodeposition of conformal transition metal based cocatalysts on BiVO4 for	IF	CITATIONS
1273	enhanced photoelectrochemical water splitting. Nano Research, 2020, 13, 231-237.	10.4	15
1274	Electronic modulation of cobalt phosphide nanosheet arrays via copper doping for highly efficient neutral-pH overall water splitting. Applied Catalysis B: Environmental, 2020, 265, 118555.	20.2	172
1275	Beyond thermodynamic-based material-screening concepts: Kinetic scaling relations exemplified by the chlorine evolution reaction over transition-metal oxides. Electrochimica Acta, 2020, 334, 135555.	5.2	15
1276	Recent advances in cobalt-based electrocatalysts for hydrogen and oxygen evolution reactions. Journal of Alloys and Compounds, 2020, 821, 153542.	5.5	191
1277	Suitability of Different Sr <sub>2</sub> TaO <sub>3</sub> N Surface Orientations for Photocatalytic Water Oxidation. Chemistry of Materials, 2020, 32, 75-84.	6.7	9
1278	Boosted Oxygen Evolution Reactivity by Igniting Double Exchange Interaction in Spinel Oxides. Journal of the American Chemical Society, 2020, 142, 50-54.	13.7	199
1279	Electrodeposition of NiS/Ni2P nanoparticles embedded in amorphous Ni(OH)2 nanosheets as an efficient and durable dual-functional electrocatalyst for overall water splitting. International Journal of Hydrogen Energy, 2020, 45, 2546-2556.	7.1	42
1280	Pyrite-type cobalt phosphosulphide bifunctional catalyst for aqueous and gel-based rechargeable zinc-air batteries. Journal of Power Sources, 2020, 450, 227661.	7.8	23
1281	Selective electro-oxidation of glycerol to dihydroxyacetone by a non-precious electrocatalyst – CuO. Applied Catalysis B: Environmental, 2020, 265, 118543.	20.2	118
1282	A review on NiFe-based electrocatalysts for efficient alkaline oxygen evolution reaction. Journal of Power Sources, 2020, 448, 227375.	7.8	217
1283	Emerged carbon nanomaterials from metal-organic precursors for electrochemical catalysis in energy conversion. , 2020, , 393-423.		8
1284	Breaking scaling relations for efficient CO <sub>2</sub> electrochemical reduction through dual-atom catalysts. Chemical Science, 2020, 11, 1807-1813.	7.4	230
1285	Direct synthesis of bifunctional nanorods from a Co–adenine–MoO <sub>3</sub> hybrid for overall water splitting. Materials Chemistry Frontiers, 2020, 4, 546-554.	5.9	17
1286	Mononuclear Fe in N-doped carbon: computational elucidation of active sites for electrochemical oxygen reduction and oxygen evolution reactions. Catalysis Science and Technology, 2020, 10, 1006-1014.	4.1	34
1287	Renewable electricity storage using electrolysis. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 12558-12563.	7.1	136
1288	Earth-abundant transition-metal-based bifunctional catalysts for overall electrochemical water splitting: A review. Journal of Alloys and Compounds, 2020, 819, 153346.	5.5	253
1289	Holey graphitic carbon nitride (g-CN) supported bifunctional single atom electrocatalysts for highly efficient overall water splitting. Applied Catalysis B: Environmental, 2020, 264, 118521.	20.2	137
1290	Importance of Interfacial Band Structure between the Substrate and Mn <sub>3</sub> O <sub>4</sub> Nanocatalysts during Electrochemical Water Oxidation. ACS Catalysis, 2020, 10, 1237-1245.	11.2	23

#	Article	IF	CITATIONS
1291	Mn-Doped RuO <sub>2</sub> Nanocrystals as Highly Active Electrocatalysts for Enhanced Oxygen Evolution in Acidic Media. ACS Catalysis, 2020, 10, 1152-1160.	11.2	302
1292	Atomically Embedded Ag via Electrodiffusion Boosts Oxygen Evolution of CoOOH Nanosheet Arrays. ACS Catalysis, 2020, 10, 562-569.	11.2	93
1293	Effect of IrO <sub>6</sub> Octahedron Distortion on the OER Activity at (100) IrO <sub>2</sub> Thin Film. ACS Catalysis, 2020, 10, 806-817.	11.2	52
1294	Atomically Dispersed Mo Supported on Metallic Co <sub>9</sub> S <sub>8</sub> Nanoflakes as an Advanced Nobleâ€Metalâ€Free Bifunctional Water Splitting Catalyst Working in Universal pH Conditions. Advanced Energy Materials, 2020, 10, 1903137.	19.5	162
1295	Comparison of the Conventional Volcano Analysis with a Unifying Approach: Material Screening Based on a Combination of Experiment and Theory. Journal of Physical Chemistry C, 2020, 124, 822-828.	3.1	22
1296	Si-Based Water Oxidation Photoanodes Conjugated with Earth-Abundant Transition Metal-Based Catalysts. , 2020, 2, 107-126.		35
1297	The Role of Surface Hydroxylation, Lattice Vacancies and Bond Covalency in the Electrochemical Oxidation of Water (OER) on Ni-Depleted Iridium Oxide Catalysts. Zeitschrift Fur Physikalische Chemie, 2020, 234, 787-812.	2.8	12
1298	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.	11.2	196
1299	Oxygen Evolution on Metalâ€oxyâ€hydroxides: Beneficial Role of Mixing Fe, Co, Ni Explained via Bifunctional Edge/acceptor Route. ChemCatChem, 2020, 12, 1436-1442.	3.7	21
1300	Engineering Active Fe Sites on Nickel–Iron Layered Double Hydroxide through Component Segregation for Oxygen Evolution Reaction. ChemSusChem, 2020, 13, 811-818.	6.8	62
1301	First principles calculations of oxygen reduction reaction at fuel cell cathodes. Current Opinion in Electrochemistry, 2020, 19, 122-128.	4.8	23
1302	Progress and Challenges Toward the Rational Design of Oxygen Electrocatalysts Based on a Descriptor Approach. Advanced Science, 2020, 7, 1901614.	11.2	133
1303	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.	2.4	15
1304	Dynamic observation of manganese adatom mobility at perovskite oxide catalyst interfaces with water. Communications Materials, 2020, 1, .	6.9	19
1305	Microkinetic assessment of electrocatalytic oxygen evolution reaction over iridium oxide in unbuffered conditions. Journal of Catalysis, 2020, 391, 435-445.	6.2	52
1306	Controllable Heteroatom Doping Effects of Cr <i><sub>x</sub></i> Co <sub>2–<i>x</i></sub> P Nanoparticles: a Robust Electrocatalyst for Overall Water Splitting in Alkaline Solutions. ACS Applied Materials & Interfaces, 2020, 12, 47397-47407.	8.0	39
1307	Role of OH Intermediates during the Au Oxide Electro-Reduction at Low pH Elucidated by Electrochemical Surface-Enhanced Raman Spectroscopy and Implicit Solvent Density Functional Theory. ACS Catalysis, 2020, 10, 12716-12726.	11.2	17
1308	Application of ion beam technology in (photo)electrocatalytic materials for renewable energy. Applied Physics Reviews, 2020, 7, .	11.3	31

#	Article	IF	CITATIONS
1309	Tuning oxygen reduction activity on chromia surface via alloying: a DFT study. Chemistry - an Asian Journal, 2020, 15, 4087-4092.	3.3	7
1310	Method for the accurate prediction of electron transfer potentials using an effective absolute potential. Physical Chemistry Chemical Physics, 2020, 22, 25833-25840.	2.8	15
1311	Dopants fixation of Ruthenium for boosting acidic oxygen evolution stability and activity. Nature Communications, 2020, 11, 5368.	12.8	217
1312	Engineering Lower Coordination Atoms onto NiO/Co <sub>3</sub> O <sub>4</sub> Heterointerfaces for Boosting Oxygen Evolution Reactions. ACS Catalysis, 2020, 10, 12376-12384.	11.2	223
1313	A unique space confined strategy to construct defective metal oxides within porous nanofibers for electrocatalysis. Energy and Environmental Science, 2020, 13, 5097-5103.	30.8	80
1314	A Universal Descriptor for the Screening of Electrode Materials for Multiple-Electron Processes: Beyond the Thermodynamic Overpotential. ACS Catalysis, 2020, 10, 12607-12617.	11.2	91
1315	High Oxygen Evolution Activity of Tungsten Bronze Oxides Boosted by Anchoring of Co <sup>2+</sup> at Nb <sup>5+</sup> Sites Accompanied by Substantial Oxygen Vacancy. Advanced Science, 2020, 7, 2002242.	11.2	18
1316	How Do the Coadsorbates Affect the Oxygen Reduction Reaction Activity of Undoped and N-Doped Graphene Nanoribbon Edges? A Density Functional Theory Study. Journal of Physical Chemistry C, 2020, 124, 23177-23189.	3.1	6
1317	Operando infrared spectroscopic insights into the dynamic evolution of liquid-solid (photo)electrochemical interfaces. Nano Energy, 2020, 77, 105121.	16.0	45
1318	Recent Progress in the Development of Screening Methods to Identify Electrode Materials for the Oxygen Evolution Reaction. Advanced Functional Materials, 2020, 30, 2005060.	14.9	49
1319	Stable Multifunctional Single-Atom Catalysts Resulting from the Synergistic Effect of Anchored Transition-Metal Atoms and Host Covalent–Organic Frameworks. Journal of Physical Chemistry C, 2020, 124, 17675-17683.	3.1	46
1320	Mechanochemical synthesis of cobalt/copper fluorophosphate generates a multifunctional electrocatalyst. Chemical Communications, 2020, 56, 9276-9279.	4.1	5
1321	Construction of FeCo2O4@N-Doped Carbon Dots Nanoflowers as Binder Free Electrode for Reduction and Oxidation of Water. Materials, 2020, 13, 3119.	2.9	18
1322	Active Site Engineering in Porous Electrocatalysts. Advanced Materials, 2020, 32, e2002435.	21.0	304
1323	Stoichiometry-Dependent Oxygen Evolution Electrocatalysis on Open-Tubular Nitrogen-Doped Carbon Column Supported Transition Metal Oxides. ACS Applied Energy Materials, 2020, 3, 2010-2019.	5.1	6
1324	Electronic structure engineering on two-dimensional (2D) electrocatalytic materials for oxygen reduction, oxygen evolution, and hydrogen evolution reactions. Nano Energy, 2020, 77, 105080.	16.0	157
1325	Lanthanides Regulated the Amorphization–Crystallization of IrO <sub>2</sub> for Outstanding OER Performance. ACS Applied Materials & Interfaces, 2020, 12, 34980-34989.	8.0	51
1326	Resonance-Promoted Formic Acid Oxidation via Dynamic Electrocatalytic Modulation. ACS Catalysis, 2020, 10, 9932-9942.	11.2	46

#	Article	IF	CITATIONS
1327	Longâ€Living Holes in Grey Anatase TiO <sub>2</sub> Enable Nobleâ€Metalâ€Free and Sacrificialâ€Agentâ€Free Water Splitting. ChemSusChem, 2020, 13, 4937-4944.	6.8	18
1328	Simple descriptor derived from symbolic regression accelerating the discovery of new perovskite catalysts. Nature Communications, 2020, 11, 3513.	12.8	184
1329	Thermodynamic Full Landscape Searching Scheme for Identifying the Mechanism of Electrochemical Reaction: A Case Study of Oxygen Evolution on Fe- and Co-Doped Graphene–Nitrogen Sites. Journal of Physical Chemistry A, 2020, 124, 5444-5455.	2.5	1
1330	A General Strategy to Atomically Dispersed Precious Metal Catalysts for Unravelling Their Catalytic Trends for Oxygen Reduction Reaction. ACS Nano, 2020, 14, 1990-2001.	14.6	116
1331	Two-dimensional Noble Metal Nanomaterials for Electrocatalysis. Chemical Research in Chinese Universities, 2020, 36, 597-610.	2.6	11
1332	P-block single-metal-site tin/nitrogen-doped carbon fuel cell cathode catalyst for oxygen reduction reaction. Nature Materials, 2020, 19, 1215-1223.	27.5	278
1333	Evaluating Potential Catalytic Active Sites on Nitrogen-Doped Graphene for the Oxygen Reduction Reaction: An Approach Based on Constant Electrode Potential Density Functional Theory Calculations. Journal of Physical Chemistry C, 2020, 124, 25675-25685.	3.1	8
1334	Assessing Optical and Electrical Properties of Highly Active IrO <i><sub>x</sub></i> Catalysts for the Electrochemical Oxygen Evolution Reaction via Spectroscopic Ellipsometry. ACS Catalysis, 2020, 10, 14210-14223.	11.2	17
1335	Rational design of spinel oxides as bifunctional oxygen electrocatalysts for rechargeable Zn-air batteries. Chemical Physics Reviews, 2020, 1, .	5.7	28
1336	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.	10.3	112
1337	Ultrathin-shell IrCo hollow nanospheres as highly efficient electrocatalysts towards the oxygen evolution reaction in acidic media. Nanoscale, 2020, 12, 24070-24078.	5.6	23
1338	Circumventing Scaling Relations in Oxygen Electrochemistry Using Metal–Organic Frameworks. Journal of Physical Chemistry Letters, 2020, 11, 10029-10036.	4.6	32
1339	Benchmarking Perovskite Electrocatalysts' OER Activity as Candidate Materials for Industrial Alkaline Water Electrolysis. Catalysts, 2020, 10, 1387.	3.5	15
1340	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.	8.0	95
1341	Analysis of Acid-Stable and Active Oxides for the Oxygen Evolution Reaction. ACS Energy Letters, 2020, 5, 3778-3787.	17.4	89
1342	Boosting the oxygen evolution reaction using defect-rich ultra-thin ruthenium oxide nanosheets in acidic media. Energy and Environmental Science, 2020, 13, 5143-5151.	30.8	159
1343	Discovery of Acid-Stable Oxygen Evolution Catalysts: High-Throughput Computational Screening of Equimolar Bimetallic Oxides. ACS Applied Materials & Interfaces, 2020, 12, 38256-38265.	8.0	47
1344	Why Do We Use the Materials and Operating Conditions We Use for Heterogeneous (Photo)Electrochemical Water Splitting?. ACS Catalysis, 2020, 10, 11177-11234.	11.2	89

#	Article	IF	CITATIONS
1345	Boron-doped graphene as electrocatalytic support for iridium oxide for oxygen evolution reaction. Catalysis Science and Technology, 2020, 10, 6599-6610.	4.1	24
1346	Separating bulk and surface processes in NiO <sub>x</sub> electrocatalysts for water oxidation. Sustainable Energy and Fuels, 2020, 4, 5024-5030.	4.9	26
1347	The triple structure design of 2D amorphous Fe-doped indium phosphate nanosheets as a highly efficient electrocatalyst for water oxidation. Journal of Materials Chemistry A, 2020, 8, 18232-18243.	10.3	18
1348	Seawater electrolyte-based metal–air batteries: from strategies to applications. Energy and Environmental Science, 2020, 13, 3253-3268.	30.8	128
1349	Thermodynamic Investigation of Proton/Electron Interplay on the Pourbaix Diagram at the TiO <sub>2</sub> /Electrolyte Interface. Journal of Physical Chemistry C, 2020, 124, 19003-19014.	3.1	14
1350	Phase Engineering of Iron–Cobalt Sulfides for Zn–Air and Na–Ion Batteries. ACS Nano, 2020, 14, 10438-10451.	14.6	53
1351	Autogenous growth of the hierarchical V-doped NiFe layer double metal hydroxide electrodes for an enhanced overall water splitting. Dalton Transactions, 2020, 49, 11217-11225.	3.3	26
1352	Composition-balanced trimetallic MOFs as ultra-efficient electrocatalysts for oxygen evolution reaction at high current densities. Applied Catalysis B: Environmental, 2020, 279, 119375.	20.2	102
1353	First-principles based machine learning study of oxygen evolution reactions of perovskite oxides using a surface center-environment feature model. Applied Surface Science, 2020, 531, 147323.	6.1	28
1354	Theory-Guided Design of Anode Catalysts for Hydrogenous Liquid Fuels. Journal of Physical Chemistry C, 2020, 124, 17494-17502.	3.1	1
1355	Oxygen Evolution and Reduction on Fe-doped NiOOH: Influence of Solvent, Dopant Position and Reaction Mechanism. Topics in Catalysis, 2020, 63, 833-845.	2.8	19
1356	A DFT study on the relationship between local microstructure and oxygen reduction reaction activity over Fe-N4 graphene. Materials Today Communications, 2020, 25, 101524.	1.9	4
1357	Two-Dimensional Conductive Ni-HAB as a Catalyst for the Electrochemical Oxygen Reduction Reaction. ACS Applied Materials & Interfaces, 2020, 12, 39074-39081.	8.0	41
1358	Breaking the scaling relationship <i>via</i> dual metal doping in a cobalt spinel for the OER: a computational prediction. Physical Chemistry Chemical Physics, 2020, 22, 18672-18680.	2.8	5
1359	Paradigm change in hydrogen electrocatalysis: The volcano's apex is located at weak bonding of the reaction intermediate. International Journal of Hydrogen Energy, 2020, 45, 27221-27229.	7.1	46
1360	High-throughput chainmail catalyst FeCo@C nanoparticle for oxygen evolution reaction. International Journal of Hydrogen Energy, 2020, 45, 26574-26582.	7.1	18
1361	Advanced Electrocatalysts with Single-Metal-Atom Active Sites. Chemical Reviews, 2020, 120, 122, 12217-12314.	47.7	563
1362	Non-precious-metal catalysts for alkaline water electrolysis: <i>operando</i> characterizations, theoretical calculations, and recent advances. Chemical Society Reviews, 2020, 49, 9154-9196.	38.1	448

#	Article	IF	CITATIONS
1363	Insights into the electronic origin of enhancing the catalytic activity of Co3O4 for oxygen evolution by single atom ruthenium. Nano Today, 2020, 34, 100955.	11.9	29
1364	Structural transformation of highly active metal–organic framework electrocatalysts during the oxygen evolution reaction. Nature Energy, 2020, 5, 881-890.	39.5	647
1365	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.	2.8	7
1366	Comparative study of the photocatalytic effects of pulsed laser deposited CoO and NiO nanoparticles onto TiO2 nanotubes for the photoelectrochemical water splitting. Solar Energy Materials and Solar Cells, 2020, 217, 110703.	6.2	20
1367	Microwaveâ€heated γâ€Alumina Applied to the Reduction of Aldehydes to Alcohols. ChemCatChem, 2020, 12, 6344-6355.	3.7	6
1368	Atomically dispersed Lewis acid sites boost 2-electron oxygen reduction activity of carbon-based catalysts. Nature Communications, 2020, 11, 5478.	12.8	114
1369	Recent progress on nanostructured bimetallic electrocatalysts for water splitting and electroreduction of carbon dioxide. Journal of Semiconductors, 2020, 41, 091705.	3.7	13
1370	Oxygen-deficient perovskites for oxygen evolution reaction in alkaline media: a review. Emergent Materials, 2020, 3, 567-590.	5.7	47
1371	A Review of Carbon‧upported Nonprecious Metals as Energyâ€Related Electrocatalysts. Small Methods, 2020, 4, 2000621.	8.6	76
1372	Recent Progress of Twoâ€Dimensional Metalâ€Organic Frameworks and Their Derivatives for Oxygen Evolution Electrocatalysis. ChemElectroChem, 2020, 7, 4695-4712.	3.4	21
1373	The Catalytic Mechanics of Dynamic Surfaces: Stimulating Methods for Promoting Catalytic Resonance. ACS Catalysis, 2020, 10, 12666-12695.	11.2	54
1374	Photoelectrochemical performance of α-Fe2O3@NiOOH fabricated with facile photo-assisted electrodeposition method. Electrochimica Acta, 2020, 358, 136847.	5.2	27
1375	Cation and Anion Co-doped Perovskite Nanofibers for Highly Efficient Electrocatalytic Oxygen Evolution. ACS Applied Materials & Interfaces, 2020, 12, 41259-41268.	8.0	39
1376	First-row transition metal oxide oxygen evolution electrocatalysts: regulation strategies and mechanistic understandings. Sustainable Energy and Fuels, 2020, 4, 5417-5432.	4.9	86
1377	On the role of microkinetic network structure in the interplay between oxygen evolution reaction and catalyst dissolution. Scientific Reports, 2020, 10, 14140.	3.3	9
1378	The critical role of electrochemically activated adsorbates in neutral OER. Science China Materials, 2020, 63, 2509-2516.	6.3	16
1379	Dual-Site Catalysis of Fe-Incorporated Oxychlorides as Oxygen Evolution Electrocatalysts. Chemistry of Materials, 2020, 32, 8195-8202.	6.7	15
1380	Design criteria for the competing chlorine and oxygen evolution reactions: avoid the OCl adsorbate to enhance chlorine selectivity. Physical Chemistry Chemical Physics, 2020, 22, 22451-22458.	2.8	41

#	Article	IF	CITATIONS
1381	Exploring the oxygen electrode bi-functional activity of Ni–N–C-doped graphene systems with N, C co-ordination and OH ligand effects. Journal of Materials Chemistry A, 2020, 8, 20453-20462.	10.3	49
1382	Bulk vs Intrinsic Activity of NiFeO <sub><i>x</i> </sub> Electrocatalysts in the Oxygen Evolution Reaction: The Influence of Catalyst Loading, Morphology, and Support Material. ACS Catalysis, 2020, 10, 11768-11778.	11.2	23
1383	Study of "Ni-doping―and "open-pore microstructure―as physico-electrochemical stimuli towards the electrocatalytic efficiency of Ni/NiO for the oxygen evolution reaction. New Journal of Chemistry, 2020, 44, 17507-17517.	2.8	19
1384	Autoxidation of polythiophene tethered to carbon cloth boosts its electrocatalytic activity towards durable water oxidation. Journal of Materials Chemistry A, 2020, 8, 19793-19798.	10.3	11
1385	Capturing the active sites of multimetallic (oxy)hydroxides for the oxygen evolution reaction. Energy and Environmental Science, 2020, 13, 4225-4237.	30.8	186
1386	Size-dependent electrocatalytic activity of ORR/OER on palladium nanoclusters anchored on defective MoS <sub>2</sub> monolayers. New Journal of Chemistry, 2020, 44, 16135-16143.	2.8	15
1387	Hierarchically Structured Spherulitic Cobalt Hydroxide Carbonate as a Precursor to Ordered Nanostructures of Electrocatalytically Active Co <sub>3</sub> O <sub>4</sub> . Crystal Growth and Design, 2020, 20, 6407-6420.	3.0	6
1388	A non-traditional biomass-derived N, P, and S ternary self-doped 3D multichannel carbon ORR electrocatalyst. New Journal of Chemistry, 2020, 44, 14604-14614.	2.8	38
1389	Tailoring the electronic structure by constructing the heterointerface of RuO <sub>2</sub> –NiO for overall water splitting with ultralow overpotential and extra-long lifetime. Journal of Materials Chemistry A, 2020, 8, 18945-18954.	10.3	29
1390	Theoretical investigation on \$\$hbox {BeN}_{{2}}\$\$ monolayer for an efficient bifunctional water splitting catalyst. Scientific Reports, 2020, 10, 21411.	3.3	6
1391	Disperse Multimetal Atom-Doped Carbon as Efficient Bifunctional Electrocatalysts for Oxygen Reduction and Evolution Reactions: Design Strategies. Journal of Physical Chemistry C, 2020, 124, 27387-27395.	3.1	16
1392	Tuning the Electronic Structures of Multimetal Oxide Nanoplates to Realize Favorable Adsorption Energies of Oxygenated Intermediates. ACS Nano, 2020, 14, 17640-17651.	14.6	56
1393	Controlling the Relative Fluxes of Protons and Oxygen to Electrocatalytic Buried Interfaces with Tunable Silicon Oxide Overlayers. ACS Applied Energy Materials, 2020, 3, 12338-12350.	5.1	9
1394	Single-phase perovskite oxide with super-exchange induced atomic-scale synergistic active centers enables ultrafast hydrogen evolution. Nature Communications, 2020, 11, 5657.	12.8	134
1395	Atomic-Level Manipulations in Oxides and Alloys for Electrocatalysis of Oxygen Evolution and Reduction. ACS Nano, 2020, 14, 14323-14354.	14.6	37
1396	Complex alloy nanostructures as advanced catalysts for oxygen electrocatalysis: from materials design to applications. Journal of Materials Chemistry A, 2020, 8, 23142-23161.	10.3	46
1397	The Potential of Overlayers on Tin-based Perovskites for Water Splitting. Journal of Physical Chemistry Letters, 2020, 11, 4124-4130.	4.6	4
1398	An Ir/Ni(OH) <sub>2</sub> Heterostructured Electrocatalyst for the Oxygen Evolution Reaction: Breaking the Scaling Relation, Stabilizing Iridium(V), and Beyond. Advanced Materials, 2020, 32, e2000872.	21.0	187

#	Article	IF	CITATIONS
1399	PLD-fabricated perovskite oxide nanofilm as efficient electrocatalyst with highly enhanced water oxidation performance. Applied Catalysis B: Environmental, 2020, 272, 119046.	20.2	29
1400	Sustainable starfish like cobalt electrocatalyst grown on optimized CNT-graphene hybrid host for efficient water oxidation. Applied Surface Science, 2020, 524, 146391.	6.1	9
1401	Synthesis of nanoporous graphenes <i>via</i> decarboxylation reaction. Chemical Communications, 2020, 56, 6336-6339.	4.1	2
1402	Robust Interface Ru Centers for Highâ€Performance Acidic Oxygen Evolution. Advanced Materials, 2020, 32, e1908126.	21.0	145
1403	Oxygen evolution electrocatalysis using mixed metal oxides under acidic conditions: Challenges and opportunities. Journal of Catalysis, 2020, 388, 130-140.	6.2	59
1404	Engineering of a highly stable metal-organic Co-film for efficient electrocatalytic water oxidation in acidic media. Materials Today Energy, 2020, 17, 100437.	4.7	9
1405	Synthesis of Co-based Prussian Blue Analogues/Dual-Doped Hollow Carbon Microsphere Hybrids as High-Performance Bifunctional Electrocatalysts for Oxygen Evolution and Overall Water Splitting. ACS Sustainable Chemistry and Engineering, 2020, 8, 8318-8326.	6.7	45
1406	Design-controlled synthesis of IrO <sub>2</sub> sub-monolayers on Au nanoflowers: marrying plasmonic and electrocatalytic properties. Nanoscale, 2020, 12, 12281-12291.	5.6	20
1407	Effects of Structure and Constituent of Prussian Blue Analogs on Their Application in Oxygen Evolution Reaction. Molecules, 2020, 25, 2304.	3.8	24
1408	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.	5.1	100
1409	Enhancing Water Oxidation Activity by Tuning Two-Dimensional Architectures and Compositions on CoMo Hydr(oxy)oxide. Journal of Physical Chemistry C, 2020, 124, 16879-16887.	3.1	11
1410	In-situ structure and catalytic mechanism of NiFe and CoFe layered double hydroxides during oxygen evolution. Nature Communications, 2020, 11, 2522.	12.8	594
1411	Cu Anchored Ti <sub>2</sub> NO <sub>2</sub> as High Performance Electrocatalyst for Oxygen Evolution Reaction: A Density Functional Theory Study. ChemCatChem, 2020, 12, 4059-4066.	3.7	27
1412	Highly Active Bifunctional Oxygen Electrocatalytic Sites Realized in Ceria–Functionalized Graphene. Advanced Sustainable Systems, 2020, 4, 2000048.	5.3	8
1413	Boosting the bifunctional oxygen electrocatalytic performance of atomically dispersed Fe site via atomic Ni neighboring. Applied Catalysis B: Environmental, 2020, 274, 119091.	20.2	130
1414	OER Performances of Cationic Substituted (100)-Oriented IrO <sub>2</sub> Thin Films: A Joint Experimental and Theoretical Study. ACS Applied Energy Materials, 2020, 3, 5229-5237.	5.1	14
1415	Efficient Hydrogen Evolution Reaction on Ni3S2 Nanorods with a P/N Bipolar Electrode Prepared by Dealloying Sulfurization of NiW Amorphous Alloys. ACS Applied Energy Materials, 2020, 3, 5745-5755.	5.1	7
1416	Creating compressive stress at the NiOOH/NiO interface for water oxidation. Journal of Materials Chemistry A, 2020, 8, 10747-10754.	10.3	47

#	Article	IF	Citations
1417	Transition-metal monochalcogenide nanowires: highly efficient bi-functional catalysts for the oxygen evolution/reduction reactions. Nanoscale, 2020, 12, 12883-12890.	5.6	8
1418	Activation strategies of water-splitting electrocatalysts. Journal of Materials Chemistry A, 2020, 8, 10096-10129.	10.3	67
1419	Dynamic active-site generation of atomic iridium stabilized on nanoporous metal phosphides for water oxidation. Nature Communications, 2020, 11, 2701.	12.8	204
1420	Catalytic activity atlas of ternary Co–Fe–V metal oxides for the oxygen evolution reaction. Journal of Materials Chemistry A, 2020, 8, 15951-15961.	10.3	43
1421	Fundamental understanding of the acidic oxygen evolution reaction: mechanism study and state-of-the-art catalysts. Nanoscale, 2020, 12, 13249-13275.	5.6	183
1422	Optimization of Active Sites via Crystal Phase, Composition, and Morphology for Efficient Lowâ€ŀridium Oxygen Evolution Catalysts. Angewandte Chemie - International Edition, 2020, 59, 19654-19658.	13.8	79
1423	Electrochemical Synthesis and Investigation of Stoichiometric, Phase <b>-</b> Pure CoSb <sub>2</sub> O <sub>6</sub> and MnSb <sub>2</sub> O <sub>6</sub> Electrodes for the Oxygen Evolution Reaction in Acidic Media. ACS Applied Energy Materials, 2020, 3, 5563-5571.	5.1	40
1424	General approach to construct hierarchical-structured porous Co–Ni bimetallic oxides for efficient oxygen evolution. Inorganic Chemistry Frontiers, 2020, 7, 2611-2620.	6.0	7
1425	Oxygen defect engineering in double perovskite oxides for effective water oxidation. Journal of Materials Chemistry A, 2020, 8, 10957-10965.	10.3	60
1426	Probing Active Sites and Reaction Intermediates of Electrocatalysis Through Confocal Near-Infrared Photoluminescence Spectroscopy: A Perspective. Frontiers in Chemistry, 2020, 8, 327.	3.6	8
1427	Highly Durable Oxygen Evolution Reaction Catalyst: Amorphous Oxyhydroxide Derived from Brownmillerite-Type Ca <sub>2</sub> FeCoO <sub>5</sub> . ACS Applied Energy Materials, 2020, 3, 5269-5276.	5.1	10
1428	Challenge of advanced low temperature fuel cells based on high degree of freedom of group 4 and 5 metal oxides. Current Opinion in Electrochemistry, 2020, 21, 234-241.	4.8	14
1429	Toward Establishing Electronic and Phononic Signatures of Reversible Lattice Oxygen Oxidation in Lithium Transition Metal Oxides For Li-Ion Batteries. Chemistry of Materials, 2020, 32, 5502-5514.	6.7	17
1430	Data-Driven Advancement of Homogeneous Nickel Catalyst Activity for Aryl Ether Cleavage. ACS Catalysis, 2020, 10, 7021-7031.	11.2	40
1431	Manganese oxide-based heterogeneous electrocatalysts for water oxidation. Energy and Environmental Science, 2020, 13, 2310-2340.	30.8	81
1432	Tuning the ORR activity of Pt-based Ti <sub>2</sub> CO <sub>2</sub> MXenes by varying the atomic cluster size and doping with metals. Nanoscale, 2020, 12, 12497-12507.	5.6	31
1433	A-Site Cation-Ordering Layered Perovskite EuBa <sub>0.5</sub> Sr <sub>0.5</sub> Co <sub>2–<i>x</i></sub> Fe <sub><i>x</i></sub> O <sub>5+δ</sub> as Highly Active and Durable Electrocatalysts for Oxygen Evolution Reaction. ACS Omega, 2020, 5, 12501-12515.	3.5	13
1434	Moderate oxophilic CoFe in carbon nanofiber for the oxygen evolution reaction in anion exchange membrane water electrolysis. Electrochimica Acta, 2020, 353, 136521.	5.2	37

#	Article	IF	CITATIONS
1435	Recent Advances and Challenges of Electrocatalytic N <sub>2</sub> Reduction to Ammonia. Chemical Reviews, 2020, 120, 5437-5516.	47.7	718
1436	Tuning Single-Atom Catalysts of Nitrogen-Coordinated Transition Metals for Optimizing Oxygen Evolution and Reduction Reactions. Journal of Physical Chemistry C, 2020, 124, 13168-13176.	3.1	43
1437	Tailoring the Electronic Structure of Transition Metals by the V <sub>2</sub> C MXene Support: Excellent Oxygen Reduction Performance Triggered by Metal–Support Interactions. ACS Applied Materials & Interfaces, 2020, 12, 28206-28216.	8.0	39
1438	Fe <sub>3</sub> O <sub>4</sub> /FeS <sub>2</sub> heterostructures enable efficient oxygen evolution reaction. Journal of Materials Chemistry A, 2020, 8, 14145-14151.	10.3	36
1439	Dynamic Lattice Oxygen Participation on Perovskite LaNiO <sub>3</sub> during Oxygen Evolution Reaction. Journal of Physical Chemistry C, 2020, 124, 15386-15390.	3.1	49
1440	Understanding coordination modification strategy on metal organic framework-based system for efficient water oxidation. Chemical Engineering Journal, 2020, 400, 125884.	12.7	11
1441	P-block metal-based (Sn, In, Bi, Pb) electrocatalysts for selective reduction of CO2 to formate. APL Materials, 2020, 8, .	5.1	93
1442	First-principles study of oxygen evolution reaction on Ni3Fe-layered double hydroxides surface with different oxygen coverage. Molecular Catalysis, 2020, 490, 110957.	2.0	2
1443	Covalency competition dominates the water oxidation structure–activity relationship on spinel oxides. Nature Catalysis, 2020, 3, 554-563.	34.4	284
1444	Triggering water splitting to hydrogen and oxygen by phase chemistry in nanoscale nickel elctrocatalysts. Journal of Alloys and Compounds, 2020, 843, 156011.	5.5	5
1445	Dual Singleâ€Atomic Niâ€N <sub>4</sub> and Feâ€N <sub>4</sub> Sites Constructing Janus Hollow Graphene for Selective Oxygen Electrocatalysis. Advanced Materials, 2020, 32, e2003134.	21.0	376
1446	Transition metal-doped α-borophene as potential oxygen and hydrogen evolution electrocatalyst: A density functional theory study. Catalysis Communications, 2020, 144, 106090.	3.3	20
1447	Scalable surface engineering of commercial metal foams for defect-rich hydroxides towards improved oxygen evolution. Journal of Materials Chemistry A, 2020, 8, 12603-12612.	10.3	23
1448	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.	3.0	55
1449	Metalâ€Rich Chalcogenides as Sustainable Electrocatalysts for Oxygen Evolution and Reduction: State of the Art and Future Perspectives. European Journal of Inorganic Chemistry, 2020, 2020, 2679-2690.	2.0	27
1450	DFT Study of Oxygen Reduction Reaction on Chromia and Hematite: Insights into Corrosion Inhibition. Journal of Physical Chemistry C, 2020, 124, 13799-13808.	3.1	21
1451	Toward Efficient Electrocatalytic Oxygen Evolution: Emerging Opportunities with Metallic Pyrochlore Oxides for Electrocatalysts and Conductive Supports. ACS Central Science, 2020, 6, 880-891.	11.3	71
1452	Boosting the Oxygen Evolution Electrocatalysis Performance of Iron Phosphide via Architectural Design and Electronic Modulation. ACS Sustainable Chemistry and Engineering, 2020, 8, 9206-9216.	6.7	15

#	Article	IF	CITATIONS
1453	Solid-acid-mediated electronic structure regulation of electrocatalysts and scaling relation breaking of oxygen evolution reaction. Applied Catalysis B: Environmental, 2020, 277, 119237.	20.2	42
1454	Discovery of crystal structure–stability correlation in iridates for oxygen evolution electrocatalysis in acid. Energy and Environmental Science, 2020, 13, 4178-4188.	30.8	90
1455	Active Learning Accelerated Discovery of Stable Iridium Oxide Polymorphs for the Oxygen Evolution Reaction. Chemistry of Materials, 2020, 32, 5854-5863.	6.7	73
1456	Atomically dispersed catalysts for hydrogen/oxygen evolution reactions and overall water splitting. Journal of Power Sources, 2020, 471, 228446.	7.8	74
1457	Towards a generic understanding of oxygen evolution reaction kinetics in polymer electrolyte water electrolysis. Energy and Environmental Science, 2020, 13, 2153-2166.	30.8	90
1458	A Review on Challenges and Successes in Atomic-Scale Design of Catalysts for Electrochemical Synthesis of Hydrogen Peroxide. ACS Catalysis, 2020, 10, 7495-7511.	11.2	254
1459	Optimization of Active Sites via Crystal Phase, Composition, and Morphology for Efficient Lowâ€Iridium Oxygen Evolution Catalysts. Angewandte Chemie, 2020, 132, 19822-19826.	2.0	11
1460	Cation insertion to break the activity/stability relationship for highly active oxygen evolution reaction catalyst. Nature Communications, 2020, 11, 1378.	12.8	79
1461	Oxygen evolution reaction: Bifunctional mechanism breaking the linear scaling relationship. Journal of Chemical Physics, 2020, 152, 104712.	3.0	14
1462	Does a Thermoneutral Electrocatalyst Correspond to the Apex of a Volcano Plot for a Simple Twoâ€Electron Process?. Angewandte Chemie - International Edition, 2020, 59, 10236-10240.	13.8	85
1463	Dynamic stability of active sites in hydr(oxy)oxides for the oxygen evolution reaction. Nature Energy, 2020, 5, 222-230.	39.5	540
1464	Progress in Computational and Machineâ€Learning Methods for Heterogeneous Smallâ€Molecule Activation. Advanced Materials, 2020, 32, e1907865.	21.0	46
1465	The Effect of Fe and Co Additions on the Efficiency of NiOOH Catalyst Under Strain. ChemCatChem, 2020, 12, 2801-2806.	3.7	8
1466	Molecular engineering of nanostructures and activities on bifunctional oxygen electrocatalysts for Zinc-air batteries. Applied Catalysis B: Environmental, 2020, 270, 118869.	20.2	34
1467	Designing water splitting catalysts using rules of thumb: advantages, dangers and alternatives. Physical Chemistry Chemical Physics, 2020, 22, 6797-6803.	2.8	59
1468	Scaling relationships and volcano plots of homogeneous transition metal catalysis. Dalton Transactions, 2020, 49, 3652-3657.	3.3	5
1469	Surface and Interface Science. , 2020, , .		0
1470	Cobalt Metal–Cobalt Carbide Composite Microspheres for Water Reduction Electrocatalysis. ACS Applied Energy Materials, 2020, 3, 3909-3918.	5.1	32

#	Article	IF	CITATIONS
1471	Facet engineering in metal organic frameworks to improve their electrochemical activity for water oxidation. Chemical Communications, 2020, 56, 4316-4319.	4.1	32
1472	Recent Advances in Metalâ€Organic Frameworks and Their Derived Materials for Electrocatalytic Water Splitting. ChemElectroChem, 2020, 7, 1805-1824.	3.4	47
1473	Revealing the Impact of Electrolyte Composition for Co-Based Water Oxidation Catalysts by the Study of Reaction Kinetics Parameters. ACS Catalysis, 2020, 10, 4160-4170.	11.2	43
1474	Boosting electrochemical water oxidation: the merits of heterostructured electrocatalysts. Journal of Materials Chemistry A, 2020, 8, 6393-6405.	10.3	63
1475	Graphdiyne: A Rising Star of Electrocatalyst Support for Energy Conversion. Advanced Energy Materials, 2020, 10, 2000177.	19.5	100
1476	Synergistic trifunctional electrocatalysis of pyridinic nitrogen and single transition-metal atoms anchored on pyrazine-modified graphdiyne. Science Bulletin, 2020, 65, 995-1002.	9.0	34
1477	Does a Thermoneutral Electrocatalyst Correspond to the Apex of a Volcano Plot for a Simple Twoâ€Electron Process?. Angewandte Chemie, 2020, 132, 10320-10324.	2.0	14
1478	γ-Graphyne nanotubes as defect-free catalysts of the oxygen reduction reaction: a DFT investigation. Physical Chemistry Chemical Physics, 2020, 22, 8633-8638.	2.8	17
1479	Unravelling the water oxidation mechanism on NaTaO <sub>3</sub> -based photocatalysts. Journal of Materials Chemistry A, 2020, 8, 6812-6821.	10.3	23
1480	Interfacial synergy between dispersed Ru sub-nanoclusters and porous NiFe layered double hydroxide on accelerated overall water splitting by intermediate modulation. Nanoscale, 2020, 12, 9669-9679.	5.6	62
1481	An Adaptive Machine Learning Strategy for Accelerating Discovery of Perovskite Electrocatalysts. ACS Catalysis, 2020, 10, 4377-4384.	11.2	75
1482	Tailoring Lattice Oxygen Binding in Ruthenium Pyrochlores to Enhance Oxygen Evolution Activity. Journal of the American Chemical Society, 2020, 142, 7883-7888.	13.7	210
1483	Practical Deep-Learning Representation for Fast Heterogeneous Catalyst Screening. Journal of Physical Chemistry Letters, 2020, 11, 3185-3191.	4.6	63
1484	Surface composition dominates the electrocatalytic reduction of CO <sub>2</sub> on ultrafine CuPd nanoalloys. , 2020, 2, 443-451.		56
1485	Single-atom Rh/N-doped carbon electrocatalyst for formic acid oxidation. Nature Nanotechnology, 2020, 15, 390-397.	31.5	420
1486	Nature-inspired electrocatalysts and devices for energy conversion. Chemical Society Reviews, 2020, 49, 3107-3141.	38.1	84
1487	Approaching the activity limit of CoSe2 for oxygen evolution via Fe doping and Co vacancy. Nature Communications, 2020, 11, 1664.	12.8	191
1488	A Ti <sub>3</sub> C <sub>2</sub> O <sub>2</sub> supported single atom, trifunctional catalyst for electrochemical reactions. Journal of Materials Chemistry A, 2020, 8, 7801-7807.	10.3	69

#	Article	IF	CITATIONS
1489	Boosting oxygen evolution reaction by activation of latticeâ€oxygen sites in layered Ruddlesdenâ€Popper oxide. EcoMat, 2020, 2, e12021.	11.9	58
1490	Theoretical study of the strain effect on the oxygen reduction reaction activity and stability of FeNC catalyst. New Journal of Chemistry, 2020, 44, 6818-6824.	2.8	12
1491	Establishing Performance Baselines for the Oxygen Evolution Reaction in Alkaline Electrolytes. Journal of the Electrochemical Society, 2020, 167, 044503.	2.9	28
1492	Revealing the oxygen reduction reaction activity origin of single atoms supported on g-C <sub>3</sub> N <sub>4</sub> monolayers: a first-principles study. Journal of Materials Chemistry A, 2020, 8, 6555-6563.	10.3	140
1493	Pt <sub>5</sub> Se <sub>4</sub> Monolayer: A Highly Efficient Electrocatalyst toward Hydrogen and Oxygen Electrode Reactions. ACS Applied Materials & Interfaces, 2020, 12, 13896-13903.	8.0	26
1494	A review on fundamentals for designing oxygen evolution electrocatalysts. Chemical Society Reviews, 2020, 49, 2196-2214.	38.1	1,466
1495	Overpotentialâ€Dependent Volcano Plots to Assess Activity Trends in the Competing Chlorine and Oxygen Evolution Reactions. ChemElectroChem, 2020, 7, 1448-1455.	3.4	25
1496	Impact of electron transfer of atomic metals on adjacent graphyne layers on electrochemical water splitting. Nanoscale, 2020, 12, 7814-7821.	5.6	16
1497	Enthalpy and entropy of oxygen electroadsorption on RuO2(110) in alkaline media. Journal of Chemical Physics, 2020, 152, 094704.	3.0	8
1498	Bifunctional Heterostructured Transition Metal Phosphides for Efficient Electrochemical Water Splitting. Advanced Functional Materials, 2020, 30, 2003261.	14.9	352
1499	Facetâ€dependent Chlorine and Oxygen Evolution Selectivity on RuO <sub>2</sub> : An <i>Ab initio</i> Atomistic Thermodynamic Study. ChemCatChem, 2020, 12, 4922-4929.	3.7	19
1500	Nickel-Based Hybrid Material for Electrochemical Oxygen Redox Reactions in an Alkaline Medium. ACS Applied Energy Materials, 2020, 3, 6408-6415.	5.1	6
1501	Accelerating water dissociation in bipolar membranes and for electrocatalysis. Science, 2020, 369, 1099-1103.	12.6	255
1502	Effect of Amount of Nb/Ti Co-Doping on the Microstructure and Electrochemical Performance of SrCoO <sub>3-δ</sub> -Based Perovskite. Materials Science Forum, 0, 993, 876-883.	0.3	0
1503	In situ molecular-level synthesis of N, S co-doped carbon as efficient metal-free oxygen redox electrocatalysts for rechargeable Zn–Air batteries. Applied Materials Today, 2020, 20, 100737.	4.3	22
1504	Advances in Thermodynamic-Kinetic Model for Analyzing the Oxygen Evolution Reaction. ACS Catalysis, 2020, 10, 8597-8610.	11.2	89
1505	Role of perovskites as a biâ€functional catalyst for electrochemical water splitting: A review. International Journal of Energy Research, 2020, 44, 9714-9747.	4.5	38
1506	How Cobalt and Iron Doping Determine the Oxygen Evolution Electrocatalytic Activity of NiOOH. Cell Reports Physical Science, 2020, 1, 100077.	5.6	35

#	Article	IF	CITATIONS
1507	Utilizing the Surface Electrostatic Potential to Predict the Interactions of Pt and Ni Nanoparticles with Lewis Acids and Bases—Îf-Lumps and Îf-Holes Govern the Catalytic Activities. Journal of Physical Chemistry C, 2020, 124, 14696-14705.	3.1	13
1508	Boron enhances oxygen evolution reaction activity over Ni foam-supported iron boride nanowires. Journal of Materials Chemistry A, 2020, 8, 13638-13645.	10.3	61
1509	Defect-rich (Co, Fe)3O4 hierarchical nanosheet arrays for efficient oxygen evolution reaction. Applied Surface Science, 2020, 529, 147125.	6.1	34
1510	Recent advances in 2D transition metal compounds for electrocatalytic full water splitting in neutral media. Materials Today Advances, 2020, 8, 100081.	5.2	43
1511	Thickness Effects on Crystal Growth and Metal–Insulator Transition in Rutileâ€Type RuO <sub>2</sub> (100) Thin Films. Physica Status Solidi (B): Basic Research, 2020, 257, 2000188.	1.5	3
1512	Single transition metal atoms anchored on a C <sub>2</sub> N monolayer as efficient catalysts for hydrazine electrooxidation. Physical Chemistry Chemical Physics, 2020, 22, 16691-16700.	2.8	12
1513	Active IrO2 and NiO Thin Films Prepared by Atomic Layer Deposition for Oxygen Evolution Reaction. Catalysts, 2020, 10, 92.	3.5	14
1514	In-situ observation as activity descriptor enables rational design of oxygen reduction catalyst for zinc-air battery. Energy Storage Materials, 2020, 27, 226-231.	18.0	42
1515	Co–NiFe layered double hydroxide nanosheets as an efficient electrocatalyst for the electrochemical evolution of oxygen. International Journal of Hydrogen Energy, 2020, 45, 9368-9379.	7.1	40
1516	Synergistic Modulation of Active Sites and Charge Transport: N/S Co-doped C Encapsulated NiCo <sub>2</sub> O <sub>4</sub> /NiO Hollow Microrods for Boosting Oxygen Evolution Catalysis. Inorganic Chemistry, 2020, 59, 4080-4089.	4.0	19
1517	Fe-Based Electrocatalysts for Oxygen Evolution Reaction: Progress and Perspectives. ACS Catalysis, 2020, 10, 4019-4047.	11.2	379
1518	Hollow nanosheet array of phosphorus-anion-decorated cobalt disulfide as an efficient electrocatalyst for overall water splitting. Chemical Engineering Journal, 2020, 390, 124556.	12.7	84
1519	Non-noble metal single-atom catalysts prepared by wet chemical method and their applications in electrochemical water splitting. Journal of Energy Chemistry, 2020, 47, 333-345.	12.9	104
1520	Comparative Catalytic Activity of Graphene Imperfections in Oxygen Reduction Reaction. Journal of Physical Chemistry C, 2020, 124, 6038-6053.	3.1	12
1521	Self-transforming ultrathin α-Co(OH)2 nanosheet arrays from metal-organic framework modified graphene oxide with sandwichlike structure for efficient electrocatalytic oxygen evolution. Nano Research, 2020, 13, 810-817.	10.4	53
1522	Bismuth Substituted Strontium Cobalt Perovskites for Catalyzing Oxygen Evolution. Journal of Physical Chemistry C, 2020, 124, 6562-6570.	3.1	41
1523	A Facile Topochemical Preparation of Ni-Fe LDH Nanosheets Array on Nickel Foam Using In Situ Generated Ni <sup>2+</sup> for Electrochemical Oxygen Evolution. Journal of the Electrochemical Society, 2020, 167, 046502.	2.9	3
1524	Electrochemical deposition of CeO2 nanocrystals on Co3O4 nanoneedle arrays for efficient oxygen evolution. Journal of Alloys and Compounds, 2020, 828, 154394.	5.5	15

#	Article	IF	CITATIONS
1525	Turning main-group element magnesium into a highly active electrocatalyst for oxygen reduction reaction. Nature Communications, 2020, 11, 938.	12.8	238
1526	Oriented-growth Ta3N5/SrTaO2N array heterojunction with extended depletion region for improved water oxidation. Applied Catalysis B: Environmental, 2020, 269, 118777.	20.2	31
1527	Role of Defects in the Interplay between Adsorbate Evolving and Lattice Oxygen Mechanisms of the Oxygen Evolution Reaction in RuO <sub>2</sub> and IrO <sub>2</sub> . ACS Catalysis, 2020, 10, 3650-3657.	11.2	339
1528	Synthesis of 3D IrRuMn Sphere as a Superior Oxygen Evolution Electrocatalyst in Acidic Environment. Chemistry - A European Journal, 2020, 26, 5662-5666.	3.3	19
1529	Nitrogen-Doped carbon coupled FeNi3 intermetallic compound as advanced bifunctional electrocatalyst for OER, ORR and zn-air batteries. Applied Catalysis B: Environmental, 2020, 268, 118729.	20.2	265
1530	Densely colonized isolated Cu-N single sites for efficient bifunctional electrocatalysts and rechargeable advanced Zn-air batteries. Applied Catalysis B: Environmental, 2020, 268, 118746.	20.2	110
1531	Harnessing the interplay of Fe–Ni atom pairs embedded in nitrogen-doped carbon for bifunctional oxygen electrocatalysis. Nano Energy, 2020, 71, 104597.	16.0	231
1532	Ultrafine α-CoOOH Nanorods Activated with Iron for Exceptional Oxygen Evolution Reaction. Langmuir, 2020, 36, 2223-2230.	3.5	21
1533	Oxygen evolution reaction: a perspective on a decade of atomic scale simulations. Chemical Science, 2020, 11, 2943-2950.	7.4	60
1534	CoFe–OH Double Hydroxide Films Electrodeposited on Ni-Foam as Electrocatalyst for the Oxygen Evolution Reaction. Zeitschrift Fur Physikalische Chemie, 2020, 234, 995-1019.	2.8	9
1535	Novel bi-functional electrocatalysts based on the electrochemical synthesized bimetallicmetal organic frameworks: Towards high energy advanced reversible zinc–air batteries. Journal of Power Sources, 2020, 451, 227768.	7.8	68
1536	An effective strategy to tune the oxygen vacancy of pyrochlore oxides for electrochemical energy storage and conversion systems. Chemical Engineering Journal, 2020, 395, 124428.	12.7	23
1537	Nitro-Group-Doped Fully Conjugated 2D Covalent Organic Polymers for Enhanced Oxygen Reduction Reaction. ACS Sustainable Chemistry and Engineering, 2020, 8, 3728-3733.	6.7	11
1538	Nonâ€Nobleâ€Metalâ€Based Electrocatalysts toward the Oxygen Evolution Reaction. Advanced Functional Materials, 2020, 30, 1910274.	14.9	760
1539	Recent advances in transition metal borides for electrocatalytic oxygen evolution reaction. Journal of Electroanalytical Chemistry, 2020, 861, 113953.	3.8	47
1540	Atomic-level tuning of Co–N–C catalyst for high-performance electrochemical H2O2 production. Nature Materials, 2020, 19, 436-442.	27.5	725
1541	Constructing MoS2/g-C3N4 heterojunction with enhanced oxygen evolution reaction activity: A theoretical insight. Applied Surface Science, 2020, 510, 145489.	6.1	76
1542	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.	7.1	30

#	Article	IF	CITATIONS
1543	Fe-substituted cobalt-phosphate polyoxometalates as enhanced oxygen evolution catalysts in acidic media. Chinese Journal of Catalysis, 2020, 41, 853-857.	14.0	29
1544	Catalysis on oxidized ferroelectric surfaces—Epitaxially strained LaTiO2N and BaTiO3 for photocatalytic water splitting. Journal of Chemical Physics, 2020, 152, 024701.	3.0	9
1545	Cobaltâ€Exchanged Poly(Heptazine Imides) as Transition Metal–N <i><sub>x</sub></i> Electrocatalysts for the Oxygen Evolution Reaction. Advanced Materials, 2020, 32, e1903942.	21.0	56
1546	Universality in Oxygen Evolution Electrocatalysis: Highâ€Throughput Screening and a Priori Determination of the Rateâ€Determining Reaction Step. ChemCatChem, 2020, 12, 2000-2003.	3.7	20
1547	Automated in Silico Design of Homogeneous Catalysts. ACS Catalysis, 2020, 10, 2354-2377.	11.2	119
1548	Interpreting Tafel behavior of consecutive electrochemical reactions through combined thermodynamic and steady state microkinetic approaches. Energy and Environmental Science, 2020, 13, 622-634.	30.8	67
1549	Emerging covalent organic frameworks tailored materials for electrocatalysis. Nano Energy, 2020, 70, 104525.	16.0	143
1550	Non-redox doping boosts oxygen evolution electrocatalysis on hematite. Chemical Science, 2020, 11, 2464-2471.	7.4	26
1551	Supported dual-atom catalysts: Preparation, characterization, and potential applications. Chinese Journal of Catalysis, 2020, 41, 783-798.	14.0	174
1553	Structuralâ€Phase Catalytic Redox Reactions in Energy and Environmental Applications. Advanced Materials, 2020, 32, e1905739.	21.0	56
1554	Uniform, Assembled 4 nm Mn <sub>3</sub> O <sub>4</sub> Nanoparticles as Efficient Water Oxidation Electrocatalysts at Neutral pH. Advanced Functional Materials, 2020, 30, 1910424.	14.9	55
1555	Increased activity in the oxygen evolution reaction by Fe <sup>4+</sup> -induced hole states in perovskite La <sub>1â^'x</sub> Sr <sub>x</sub> FeO <sub>3</sub> . Journal of Materials Chemistry A, 2020, 8, 4407-4415.	10.3	78
1556	Recent Advances on Waterâ€Splitting Electrocatalysis Mediated by Nobleâ€Metalâ€Based Nanostructured Materials. Advanced Energy Materials, 2020, 10, 1903120.	19.5	560
1557	First principle studies of oxygen reduction reaction on N doped graphene: Impact of N concentration, position and co-adsorbate effect. Applied Surface Science, 2020, 510, 145470.	6.1	16
1558	Electrochemical Reactors for CO2 Conversion. Catalysts, 2020, 10, 473.	3.5	72
1559	Effect of TiO <sub><i>x</i></sub> Substrate Interactions on the Electrocatalytic Oxygen Reduction Reaction at Au Nanoparticles. Journal of Physical Chemistry C, 2020, 124, 10045-10056.	3.1	14
1560	Few-atom cluster model systems for a hydrogen economy. Advances in Physics: X, 2020, 5, 1754132.	4.1	8
1561	Sprayâ€Flameâ€Prepared LaCo <sub>1–<i>x</i></sub> Fe <sub>x</sub> O <sub>3</sub> Perovskite Nanoparticles as Active OER Catalysts: Influence of Fe Content and Lowâ€Temperature Heating. ChemElectroChem, 2020, 7, 2564-2574.	3.4	21

#	Article	IF	CITATIONS
1562	Nanoheterostructures of Partially Oxidized RuNi Alloy as Bifunctional Electrocatalysts for Overall Water Splitting. ChemSusChem, 2020, 13, 2739-2744.	6.8	23
1563	CoS nanowires mediated by superionic conductor Ag2S for boosted oxygen evolution. Applied Surface Science, 2020, 518, 146106.	6.1	22
1564	Cobalt-based oxygen evolution catalyst as active and stable as iridium in acidic media. Electrochimica Acta, 2020, 344, 136160.	5.2	4
1565	Ultrafine-Grained Porous Ir-Based Catalysts for High-Performance Overall Water Splitting in Acidic Media. ACS Applied Energy Materials, 2020, 3, 3736-3744.	5.1	26
1566	Hierarchical Mesoporous MXene–NiCoP Electrocatalyst for Water-Splitting. ACS Applied Materials & Interfaces, 2020, 12, 18570-18577.	8.0	137
1567	Designing transition-metal-boride-based electrocatalysts for applications in electrochemical water splitting. Nanoscale, 2020, 12, 9327-9351.	5.6	88
1568	Influence of 3 <i>d</i> , 4 <i>d</i> , and 5 <i>d</i> dopants on the oxygen evolution reaction at α-Fe2O3(0001) under dark and illumination conditions. Journal of Chemical Physics, 2020, 152, 124709.	3.0	9
1569	Electrocatalysts Based on Transition Metal Borides and Borates for the Oxygen Evolution Reaction. Chemistry - A European Journal, 2020, 26, 11661-11672.	3.3	43
1570	Self‣upported 3 D Ultrathin Cobalt–Nickel–Boron Nanoflakes as an Efficient Electrocatalyst for the Oxygen Evolution Reaction. ChemSusChem, 2020, 13, 3662-3670.	6.8	25
1571	Direct evidence of boosted oxygen evolution over perovskite by enhanced lattice oxygen participation. Nature Communications, 2020, 11, 2002.	12.8	366
1572	Unraveling the single-atom electrocatalytic activity of transition metal-doped phosphorene. Nanoscale Advances, 2020, 2, 2410-2421.	4.6	23
1573	Recent Advances in Nonâ€Noble Bifunctional Oxygen Electrocatalysts toward Largeâ€Scale Production. Advanced Functional Materials, 2020, 30, 2000503.	14.9	226
1574	Insights in the Oxygen Reduction Reaction: From Metallic Electrocatalysts to Diporphyrins. ACS Catalysis, 2020, 10, 5979-5989.	11.2	52
1575	Recent Progress in Electrocatalysts for Acidic Water Oxidation. Advanced Energy Materials, 2020, 10, 2000478.	19.5	162
1576	Novel 2D Transitionâ€Metal Carbides: Ultrahigh Performance Electrocatalysts for Overall Water Splitting and Oxygen Reduction. Advanced Functional Materials, 2020, 30, 2000570.	14.9	186
1577	Intercalation and elimination of carbonate ions of NiCo layered double hydroxide for enhanced oxygen evolution catalysis. International Journal of Hydrogen Energy, 2020, 45, 12629-12640.	7.1	30
1578	Fabrication and Applications of 3D Nanoarchitectures for Advanced Electrocatalysts and Sensors. Advanced Materials, 2020, 32, e1907500.	21.0	17
1579	Selfâ€Assembled Ruddlesden–Popper/Perovskite Hybrid with Latticeâ€Oxygen Activation as a Superior Oxygen Evolution Electrocatalyst. Small, 2020, 16, e2001204.	10.0	61

#	Article	IF	CITATIONS
1580	Direct successive ionic layer deposition of nanoscale iridium and tin oxide on titanium surface for electrocatalytic application in oxygen evolution reaction during water electrolysis in acidic medium. Journal of Alloys and Compounds, 2020, 834, 155205.	5.5	8
1581	Recent progress of precious-metal-free electrocatalysts for efficient water oxidation in acidic media. Journal of Energy Chemistry, 2020, 51, 113-133.	12.9	66
1582	The roles of oxygen vacancies in electrocatalytic oxygen evolution reaction. Nano Energy, 2020, 73, 104761.	16.0	465
1583	Bifunctional HER/OER or OER/ORR Catalytic Activity of Two-Dimensional TM <sub>3</sub> (HITP) <sub>2</sub> with TM = Fe–Zn. Journal of Physical Chemistry C, 2020, 124, 9350-9359.	3.1	67
1584	High Voltage Electrodes for Li-Ion Batteries and Efficient Water Electrolysis: An Oxymoron?. Journal of Physical Chemistry Letters, 2020, 11, 3754-3760.	4.6	4
1585	Metallic nanostructures with low dimensionality for electrochemical water splitting. Chemical Society Reviews, 2020, 49, 3072-3106.	38.1	609
1586	Electrodeposition of (hydro)oxides for an oxygen evolution electrode. Chemical Science, 2020, 11, 10614-10625.	7.4	117
1587	Bonding–antibonding state transition induces multiple electron modulations toward oxygen reduction reaction electrocatalysis. New Journal of Chemistry, 2020, 44, 8191-8197.	2.8	6
1588	Engineering Solid Electrolyte Interphase Composition by Assessing Decomposition Pathways of Fluorinated Organic Solvents in Lithium Metal Batteries. Journal of the Electrochemical Society, 2020, 167, 070554.	2.9	20
1589	Bimetallic oxide coupled with B-doped graphene as highly efficient electrocatalyst for oxygen evolution reaction. Science China Materials, 2020, 63, 1247-1256.	6.3	14
1590	Assembled 3D MOF on 2D Nanosheets for Self-boosting Catalytic Synthesis of N-doped Carbon Nanotube Encapsulated Metallic Co Electrocatalysts for Overall Water Splitting. Applied Catalysis B: Environmental, 2020, 271, 118939.	20.2	136
1591	Surface stability of perovskite oxides under OER operating conditions: a first principles approach. Faraday Discussions, 2021, 229, 75-88.	3.2	19
1592	Surface/interface engineering of high-efficiency noble metal-free electrocatalysts for energy-related electrochemical reactions. Journal of Energy Chemistry, 2021, 54, 89-104.	12.9	65
1593	Recent advances in spinel-type electrocatalysts for bifunctional oxygen reduction and oxygen evolution reactions. Journal of Energy Chemistry, 2021, 53, 290-302.	12.9	154
1594	Highly Efficient Perovskiteâ€Based Electrocatalysts for Water Oxidation in Acidic Environments: A Mini Review. Advanced Energy Materials, 2021, 11, 2002428.	19.5	92
1595	Recent Advances in 1D Electrospun Nanocatalysts for Electrochemical Water Splitting. Small Structures, 2021, 2, 2000048.	12.0	157
1596	Perovskite CoTiO3/TiO2 hybrid nanotubes synthesis via pulsed anodization for photoelectrochemical application. Materials Letters, 2021, 284, 128975.	2.6	3
1597	Spectroscopic and Electrokinetic Evidence for a Bifunctional Mechanism of the Oxygen Evolution Reaction**. Angewandte Chemie, 2021, 133, 3132-3140.	2.0	34

#	Article	IF	CITATIONS
1598	An account of the strategies to enhance the water splitting efficiency of noble-metal-free electrocatalysts. Journal of Energy Chemistry, 2021, 59, 160-190.	12.9	48
1599	Synergistic effects in oxygen evolution activity of mixed iridium-ruthenium pyrochlores. Electrochimica Acta, 2021, 366, 137327.	5.2	17
1600	Visible-light overall water splitting on g-C3N4 decorated by subnanometer oxide clusters. Materials Today Physics, 2021, 16, 100312.	6.0	20
1601	Tuning the electronic structure of the earth-abundant electrocatalysts for oxygen evolution reaction (OER) to achieve efficient alkaline water splitting – A review. Journal of Energy Chemistry, 2021, 56, 299-342.	12.9	148
1602	Recent Progress on NiFeâ€Based Electrocatalysts for Alkaline Oxygen Evolution. Advanced Sustainable Systems, 2021, 5, .	5.3	50
1603	Fabrication and applications of 2D black phosphorus in catalyst, sensing and electrochemical energy storage. Journal of Alloys and Compounds, 2021, 850, 156580.	5.5	35
1604	Identifying the Zn–Co binary as a robust bifunctional electrocatalyst in oxygen reduction and evolution reactions via shifting the apexes of the volcano plot. Journal of Energy Chemistry, 2021, 55, 162-168.	12.9	33
1605	TMN4 complex embedded graphene as bifunctional electrocatalysts for high efficiency OER/ORR. Journal of Energy Chemistry, 2021, 55, 437-443.	12.9	117
1606	Carbon-based electrocatalysts for sustainable energy applications. Progress in Materials Science, 2021, 116, 100717.	32.8	216
1607	Activity and Stability Boosting of an Oxygenâ€Vacancyâ€Rich BiVO <sub>4</sub> Photoanode by NiFeâ€MOFs Thin Layer for Water Oxidation. Angewandte Chemie - International Edition, 2021, 60, 1433-1440.	13.8	205
1608	Homogeneous Catalysts Based on Firstâ€Row Transitionâ€Metals for Electrochemical Water Oxidation. ChemSusChem, 2021, 14, 234-250.	6.8	64
1609	Modulation of Single Atomic Co and Fe Sites on Hollow Carbon Nanospheres as Oxygen Electrodes for Rechargeable Zn–Air Batteries. Small Methods, 2021, 5, e2000751.	8.6	178
1610	Plasma enhanced atomic-layer-deposited nickel oxide on Co3O4 arrays as highly active electrocatalyst for oxygen evolution reaction. Journal of Power Sources, 2021, 481, 228925.	7.8	31
1611	Ni-based layered double hydroxide catalysts for oxygen evolution reaction. Materials Today Physics, 2021, 16, 100292.	6.0	108
1612	Spectroscopic and Electrokinetic Evidence for a Bifunctional Mechanism of the Oxygen Evolution Reaction**. Angewandte Chemie - International Edition, 2021, 60, 3095-3103.	13.8	176
1613	Unlocking the Potential of Mechanochemical Coupling: Boosting the Oxygen Evolution Reaction by Mating Proton Acceptors with Electron Donors. Advanced Functional Materials, 2021, 31, 2008077.	14.9	40
1614	Electrochemical Synthesis of H2O2 by Two-Electron Water Oxidation Reaction. CheM, 2021, 7, 38-63.	11.7	155
1615	Synthesis of CuTi-LDH supported on g-C3N4 for electrochemical and photoelectrochemical oxygen evolution reactions. International Journal of Hydrogen Energy, 2021, 46, 16414-16430.	7.1	32

#	Article	IF	CITATIONS
1616	Activity and Stability Boosting of an Oxygenâ€Vacancyâ€Rich BiVO <sub>4</sub> Photoanode by NiFeâ€MOFs Thin Layer for Water Oxidation. Angewandte Chemie, 2021, 133, 1453-1460.	2.0	33
1617	Oxygenâ€Deficient Cobaltâ€Based Oxides for Electrocatalytic Water Splitting. ChemSusChem, 2021, 14, 10-32.	6.8	103
1618	First demonstration of phosphate enhanced atomically dispersed bimetallic FeCu catalysts as Pt-free cathodes for high temperature phosphoric acid doped polybenzimidazole fuel cells. Applied Catalysis B: Environmental, 2021, 284, 119717.	20.2	28
1619	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.	6.2	18
1620	Nanocarbon-based metal-free and non-precious metal bifunctional electrocatalysts for oxygen reduction and oxygen evolution reactions. Journal of Energy Chemistry, 2021, 58, 610-628.	12.9	30
1621	Understanding the Mechanism of the Oxygen Evolution Reaction with Consideration of Spin. Electrochemical Energy Reviews, 2021, 4, 136-145.	25.5	110
1622	Novel three-dimensional Ni2P-MoS2 heteronanosheet arrays for highly efficient electrochemical overall water splitting. Journal of Alloys and Compounds, 2021, 856, 158094.	5.5	15
1623	Oxygen evolution reaction activity and underlying mechanism of perovskite electrocatalysts at different pH. Materials Advances, 2021, 2, 345-355.	5.4	42
1624	A comparison of single and double Co sites incorporated in N-doped graphene for the oxygen reduction reaction. Journal of Catalysis, 2021, 393, 230-237.	6.2	26
1625	Multilayer hollow MnCo2O4 microsphere with oxygen vacancies as efficient electrocatalyst for oxygen evolution reaction. Chemical Engineering Journal, 2021, 421, 127831.	12.7	84
1626	Interface Engineering of Co‣DH@MOF Heterojunction in Highly Stable and Efficient Oxygen Evolution Reaction. Advanced Science, 2021, 8, 2002631.	11.2	151
1627	Recent advances of metal-organic frameworks and their composites towardÂoxygen evolution electrocatalysis. Materials Today Energy, 2021, 19, 100597.	4.7	34
1628	Surface electrocatalysis on high-entropy alloys. Current Opinion in Electrochemistry, 2021, 26, 100651.	4.8	52
1629	Active oxygen promoted electrochemical conversion of methane on two-dimensional carbide (MXenes): From stability, reactivity and selectivity. Journal of Catalysis, 2021, 393, 20-29.	6.2	19
1630	Ultrathin MoS <sub>2</sub> wrapped N-doped carbon-coated cobalt nanospheres for OER applications. Sustainable Energy and Fuels, 2021, 5, 801-807.	4.9	16
1631	Mo <sub>2</sub> B <sub>2</sub> MBene-supported single-atom catalysts as bifunctional HER/OER and OER/ORR electrocatalysts. Journal of Materials Chemistry A, 2021, 9, 433-441.	10.3	175
1632	Pd Ionâ€Exchange and Ammonia Etching of a Prussian Blue Analogue to Produce a Highâ€Performance Waterâ€Splitting Catalyst. Advanced Functional Materials, 2021, 31, 2008989.	14.9	65
1633	Ultrathin vanadium hydroxide nanosheets assembled on the surface of Ni–Fe-layered hydroxides as hierarchical catalysts for the oxygen evolution reaction. Dalton Transactions, 2021, 50, 1053-1059.	3.3	8

#	Article	IF	CITATIONS
1634	Prussian blue analogues as platform materials for understanding and developing oxygen evolution reaction electrocatalysts. Journal of Catalysis, 2021, 393, 390-398.	6.2	19
1635	MOFâ€Đerived Zincâ€Đoped Ruthenium Oxide Hollow Nanorods as Highly Active and Stable Electrocatalysts for Oxygen Evolution in Acidic Media. ChemNanoMat, 2021, 7, 117-121.	2.8	18
1636	Recent Advances in Electrochemical Water Oxidation to Produce Hydrogen Peroxide: A Mechanistic Perspective. ACS Sustainable Chemistry and Engineering, 2021, 9, 76-91.	6.7	59
1637	Fundamental insights and rational design of low-cost polyoxometalates for the oxygen evolution reaction. Journal of Catalysis, 2021, 393, 202-206.	6.2	10
1638	Decoupled amphoteric water electrolysis and its integration with Mn–Zn battery for flexible utilization of renewables. Energy and Environmental Science, 2021, 14, 883-889.	30.8	49
1639	Ni3Fe nanoalloys embedded in N-doped carbon derived from dual-metal ZIF: Efficient bifunctional electrocatalyst for Zn-air battery. Carbon, 2021, 174, 475-483.	10.3	44
1640	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.	10.3	12
1641	Boosting the Stability of RuO <sub>2</sub> in the Acidic Oxygen Evolution Reaction by Tuning Oxygenâ€Vacancy Formation Energies: A Viable Approach Beyond Nobleâ€Metal Catalysts?. ChemElectroChem, 2021, 8, 46-48.	3.4	19
1642	Characterization of Ti electrodes electrophoretically coated with IrO2-Ta2O5 films with different Ir:Ta molar ratios. Journal of Alloys and Compounds, 2021, 862, 158015.	5.5	10
1643	Advanced Oxygen Electrocatalysis in Energy Conversion and Storage. Advanced Functional Materials, 2021, 31, 2007602.	14.9	86
1644	Recent advances in electrocatalysts for neutral and large-current-density water electrolysis. Nano Energy, 2021, 80, 105545.	16.0	187
1645	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.	7.1	25
1646	Revisiting surface chemistry in TiO2: A critical role of ionic passivation for pH-independent and anti-corrosive photoelectrochemical water oxidation. Chemical Engineering Journal, 2021, 407, 126929.	12.7	11
1647	Stabilization of nonâ€native polymorphs for electrocatalysis and energy storage systems. Wiley Interdisciplinary Reviews: Energy and Environment, 2021, 10, e389.	4.1	5
1648	Designing fluorographene with FeN4 and CoN4 moieties for oxygen electrode reaction: A density functional theory study. Applied Surface Science, 2021, 537, 147846.	6.1	23
1649	Atomistic modeling of electrocatalysis: Are we there yet?. Wiley Interdisciplinary Reviews: Computational Molecular Science, 2021, 11, e1499.	14.6	79
1650	Recent trends and insights in nickel chalcogenide nanostructures for water-splitting reactions. Materials Research Innovations, 2021, 25, 29-52.	2.3	35
1651	Single transition metal atom embedded antimonene monolayers as efficient trifunctional electrocatalysts for the HER, OER and ORR: a density functional theory study. Nanoscale, 2021, 13, 12885-12895	5.6	56

#	Article	IF	CITATIONS
1652	Cocatalyst-integrated photocatalysts for solar-driven hydrogen and oxygen production. , 2021, , 217-247.		0
1653	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.	4.1	17
1654	Enabling multifunctional electrocatalysts by modifying the basal plane of unifunctional 1T′-MoS <sub>2</sub> with anchored transition metal single atoms. Nanoscale, 2021, 13, 13390-13400.	5.6	69
1655	Molecular and heterogeneous water oxidation catalysts: recent progress and joint perspectives. Chemical Society Reviews, 2021, 50, 2444-2485.	38.1	102
1656	Multimetallic nanostructures for electrocatalytic oxygen evolution reaction in acidic media. Materials Chemistry Frontiers, 2021, 5, 4445-4473.	5.9	14
1657	Ir-based bifunctional electrocatalysts for overall water splitting. Catalysis Science and Technology, 2021, 11, 4673-4689.	4.1	53
1658	Atomic heterointerface engineering overcomes the activity limitation of electrocatalysts and promises highly-efficient alkaline water splitting. Energy and Environmental Science, 2021, 14, 5228-5259.	30.8	198
1659	Multi-functional photocatalytic activity of transition-metal tetraaza[14]annulene frameworks. Journal of Materials Chemistry A, 2021, 9, 4221-4229.	10.3	12
1660	Capturing Manganese Oxide Intermediates in Electrochemical Water Oxidation at Neutral pH by In Situ Raman Spectroscopy. Angewandte Chemie, 2021, 133, 4723-4731.	2.0	5
1661	Labile oxygen participant adsorbate evolving mechanism to enhance oxygen reduction in SmMn <sub>2</sub> O <sub>5</sub> with double-coordinated crystal fields. Journal of Materials Chemistry A, 2021, 9, 380-389.	10.3	14
1662	Water Oxidation Catalysis on the Nitrogen-Deficient SrNbO2N(001) Surface. Journal of Physical Chemistry C, 2021, 125, 2424-2430.	3.1	3
1663	Highly Efficient Electrocatalyst for Oxygen Evolution Reaction: DFT Investigation on Transition Metalâ€ī etracyanoquinodimethane Monolayer. ChemistrySelect, 2021, 6, 609-616.	1.5	7
1664	Nanoporous multimetallic Ir alloys as efficient and stable electrocatalysts for acidic oxygen evolution reactions. Journal of Catalysis, 2021, 393, 303-312.	6.2	17
1665	Lifting the discrepancy between experimental results and the theoretical predictions for the catalytic activity of RuO <sub>2</sub> (110) towards oxygen evolution reaction. Physical Chemistry Chemical Physics, 2021, 23, 19141-19145.	2.8	9
1666	Alkaline Anion Exchange Membrane (AEM) Water Electrolysers—Current/Future Perspectives in Electrolysers for Hydrogen. , 2022, , 473-504.		2
1667	Single-atom oxygen reduction reaction electrocatalysts of Fe, Si, and N co-doped carbon with 3D interconnected mesoporosity. Journal of Materials Chemistry A, 2021, 9, 4297-4309.	10.3	43
1668	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.	10.3	50
1669	Inserting ultrafine NiO nanoparticles into amorphous NiP sheets by <i>in situ</i> phase reconstruction for high-stability of the HER catalysts. Nanoscale, 2021, 13, 13703-13708.	5.6	31

#	Article	IF	CITATIONS
1670	Transition-metal single atoms embedded into defective BC <sub>3</sub> as efficient electrocatalysts for oxygen evolution and reduction reactions. Nanoscale, 2021, 13, 1331-1339.	5.6	27
1671	Perspective on intermetallics towards efficient electrocatalytic water-splitting. Chemical Science, 2021, 12, 8603-8631.	7.4	74
1672	Vacancy-induced high activity of MoS <sub>2</sub> monolayers for CO electroreduction: a computational study. Sustainable Energy and Fuels, 2021, 5, 4932-4943.	4.9	4
1673	Capturing Manganese Oxide Intermediates in Electrochemical Water Oxidation at Neutral pH by In Situ Raman Spectroscopy. Angewandte Chemie - International Edition, 2021, 60, 4673-4681.	13.8	41
1674	Bidirectional energy & fuel production using RTO-supported-Pt–IrO2 loaded fixed polarity unitized regenerative fuel cells. Sustainable Energy and Fuels, 2021, 5, 2734-2746.	4.9	5
1675	Engendering Unprecedented Activation of Oxygen Evolution via Rational Pinning of Ni Oxidation State in Prototypical Perovskite: Close Juxtaposition of Synthetic Approach and Theoretical Conception. ACS Catalysis, 2021, 11, 985-997.	11.2	9
1676	Recent advances in doped ruthenium oxides as high-efficiency electrocatalysts for the oxygen evolution reaction. Journal of Materials Chemistry A, 2021, 9, 15506-15521.	10.3	73
1677	Role of oxygen-bound reaction intermediates in selective electrochemical CO <sub>2</sub> reduction. Energy and Environmental Science, 2021, 14, 3912-3930.	30.8	74
1678	Electrochemical behavior of a Ni <sub>3</sub> N OER precatalyst in Fe-purified alkaline media: the impact of self-oxidation and Fe incorporation. Materials Advances, 2021, 2, 2299-2309.	5.4	28
1679	P-type cobaltite oxide spinels enable efficient electrocatalytic oxygen evolution reaction. Materials Advances, 2021, 2, 5494-5500.	5.4	2
1680	How oxidation state and lattice distortion influence the oxygen evolution activity in acid of iridium double perovskites. Journal of Materials Chemistry A, 2021, 9, 2980-2990.	10.3	36
1681	A NiN <sub>3</sub> -embedded MoS <sub>2</sub> monolayer as a promising electrocatalyst with high activity for the oxygen evolution reaction: a computational study. Sustainable Energy and Fuels, 2021, 5, 3330-3339.	4.9	7
1682	ZIF-67-based catalysts for oxygen evolution reaction. Nanoscale, 2021, 13, 12058-12087.	5.6	47
1683	Recent advances in understanding oxygen evolution reaction mechanisms over iridium oxide. Inorganic Chemistry Frontiers, 2021, 8, 2900-2917.	6.0	75
1684	H4,4,4-graphyne with double Dirac points as high-efficiency bifunctional electrocatalysts for water splitting. Journal of Materials Chemistry A, 2021, 9, 4082-4090.	10.3	28
1685	Recent advances in activating surface reconstruction for the high-efficiency oxygen evolution reaction. Chemical Society Reviews, 2021, 50, 8428-8469.	38.1	452
1686	Hierarchical superhydrophilic/superaerophobic CoMnP/Ni <sub>2</sub> P nanosheet-based microplate arrays for enhanced overall water splitting. Journal of Materials Chemistry A, 2021, 9, 22129-22139.	10.3	45
1687	Highly robust, novel aluminum counter cation-based monophosphate tungsten bronze electro-catalysts for oxygen evolution in acidic solution. RSC Advances, 2021, 11, 10681-10687.	3.6	4

#	Article	IF	CITATIONS
1688	High-performance NiOOH/FeOOH electrode for OER catalysis. Journal of Chemical Physics, 2021, 154, 024706.	3.0	11
1689	Facile two-step electrochemical approach for the fabrication of nanostructured nickel oxyhydroxide/SS and its studies on oxygen evolution reaction. Chemical Papers, 2021, 75, 2485-2494.	2.2	4
1690	Role of oxygen vacancy in metal oxide based photoelectrochemical water splitting. EcoMat, 2021, 3, e12075.	11.9	65
1691	Highly Efficient Electrocatalytic Water Splitting. , 2021, , 1335-1367.		1
1692	A systematic computational investigation of the water splitting and N <sub>2</sub> reduction reaction performances of monolayer MBenes. Physical Chemistry Chemical Physics, 2021, 23, 6613-6622.	2.8	9
1693	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.	10.3	30
1694	Designing Ru-doped Zn <sub>3</sub> V <sub>3</sub> O <sub>8</sub> bifunctional OER and HER catalysts through a unified computational and experimental approach. Nanoscale, 2021, 13, 17457-17464.	5.6	4
1695	A review of the synergistic effect of multi-coordination crystal fields on electrocatalysts. Materials Chemistry Frontiers, 2021, 5, 6718-6734.	5.9	3
1696	The electron-transfer intermediates of the oxygen evolution reaction (OER) as polarons by <i>in situ</i> spectroscopy. Physical Chemistry Chemical Physics, 2021, 23, 24984-25002.	2.8	11
1697	The electronic structure of transition metal oxides for oxygen evolution reaction. Journal of Materials Chemistry A, 2021, 9, 19465-19488.	10.3	90
1698	Lattice oxygen redox chemistry in solid-state electrocatalysts for water oxidation. Energy and Environmental Science, 2021, 14, 4647-4671.	30.8	190
1699	Tuning electrochemically driven surface transformation in atomically flat LaNiO3 thin films for enhanced water electrolysis. Nature Materials, 2021, 20, 674-682.	27.5	105
1700	Defect engineering and characterization of active sites for efficient electrocatalysis. Nanoscale, 2021, 13, 3327-3345.	5.6	60
1701	Understanding trends in the activity and selectivity of bi-atom catalysts for the electrochemical reduction of carbon dioxide. Journal of Materials Chemistry A, 2021, 9, 8761-8771.	10.3	35
1702	Modeling and simulation of metal-air batteries. , 2021, , 179-215.		0
1703	Bifunctional OER-ORR electrodes for metal-air batteries. , 2021, , 139-186.		4
1704	Role of Synergistic Effect in Oxygen Evolution Reaction over Layered Double Hydroxide. Acta Chimica Sinica, 2021, 79, 216.	1.4	0
1705	Boosting oxygen evolution reaction activity by tailoring MOF-derived hierarchical Co–Ni alloy nanoparticles encapsulated in nitrogen-doped carbon frameworks. RSC Advances, 2021, 11, 10874-10880.	3.6	9

#	Article	IF	CITATIONS
1706	Oxygen reduction reaction (ORR) in acidic media with nanostructured metal oxide-based electrocatalysts. , 2021, , 37-59.		0
1707	Tailoring the cationic and anionic sites of LaFeO <sub>3</sub> -based perovskite generates multiple vacancies for efficient water oxidation. Journal of Materials Chemistry A, 2021, 9, 16906-16916.	10.3	29
1708	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.	4.9	14
1709	Lattice oxygen of PbO <sub>2</sub> induces crystal facet dependent electrochemical ozone production. Journal of Materials Chemistry A, 2021, 9, 9010-9017.	10.3	25
1710	Highly dispersed secondary building unit-stabilized binary metal center on a hierarchical porous carbon matrix for enhanced oxygen evolution reaction. Nanoscale, 2021, 13, 1213-1219.	5.6	22
1711	First-principles investigation of two-dimensional covalent–organic framework electrocatalysts for oxygen evolution/reduction and hydrogen evolution reactions. Sustainable Energy and Fuels, 2021, 5, 5615-5626.	4.9	13
1712	A universal screening strategy for the accelerated design of superior oxygen evolution/reduction electrocatalysts. Journal of Materials Chemistry A, 2021, 9, 3511-3519.	10.3	21
1713	Elucidating the electronic structures of β-Ag <sub>2</sub> MoO <sub>4</sub> and Ag <sub>2</sub> O nanocrystals <i>via</i> theoretical and experimental approaches towards electrochemical water splitting and CO <sub>2</sub> reduction. Physical Chemistry Chemical Physics, 2021, 23, 9539-9552.	2.8	17
1714	High Performance Core/Shell Ni/Ni(OH) <sub>2</sub> Electrospun Nanofiber Anodes for Decoupled Water Splitting. Advanced Functional Materials, 2021, 31, 2008118.	14.9	32
1715	Electro-catalysts for oxygen electrodes in seawater electrolyzers (OER) and reversible electrolyzers (OER/ORR). , 2021, , 83-103.		2
1716	Reevesite with Ordered Intralayer Atomic Arrangement as an Optimized Nickelâ€ <b>⊦</b> ron Oxygen Evolution Electrocatalyst. ChemElectroChem, 2021, 8, 558-562.	3.4	4
1717	First-Principles Design of Rutile Oxide Heterostructures for Oxygen Evolution Reactions. Frontiers in Energy Research, 2021, 9, .	2.3	3
1718	Modulating Catalytic Properties of Targeted Metal Cationic Centers in Nonstochiometric Mixed Metal Oxides for Electrochemical Oxygen Reduction. ACS Energy Letters, 2021, 6, 1065-1072.	17.4	10
1719	Distinguishing Among High Activity Electrocatalysts: Regression vs Classification. Journal of Physical Chemistry C, 2021, 125, 4468-4476.	3.1	3
1720	Designing Highâ€Valence Metal Sites for Electrochemical Water Splitting. Advanced Functional Materials, 2021, 31, 2009779.	14.9	195
1721	Hydrogen production from water electrolysis: role of catalysts. Nano Convergence, 2021, 8, 4.	12.1	540
1722	Multifunctional carbon-based metal-free catalysts for advanced energy conversion and storage. Cell Reports Physical Science, 2021, 2, 100328.	5.6	55
1723	Stability of Pt Skin Intermetallic Core Catalysts and Adsorption Properties for the Oxygen Reduction Reaction. Journal of Physical Chemistry C, 2021, 125, 3527-3534.	3.1	7

#	Article	IF	CITATIONS
1724	Mechanisms of fullerene and single-walled carbon nanotube composite as the metal-free multifunctional electrocatalyst for the oxygen reduction, oxygen evolution, and hydrogen evolution. Molecular Catalysis, 2021, 502, 111383.	2.0	16
1725	Delivering the Full Potential of Oxygen Evolving Electrocatalyst by Conditioning Electrolytes at Nearâ€Neutral pH. ChemSusChem, 2021, 14, 1554-1564.	6.8	20
1726	Sulfur doping optimized intermediate energetics of FeCoOOH for enhanced oxygen evolution catalytic activity. Cell Reports Physical Science, 2021, 2, 100331.	5.6	7
1727	Carbon-supported layered double hydroxide nanodots for efficient oxygen evolution: Active site identification and activity enhancement. Nano Research, 2021, 14, 3329-3336.	10.4	14
1728	Crystalline Disorder, Surface Chemistry, and Their Effects on the Oxygen Evolution Reaction (OER) Activity of Mass-Produced Nanostructured Iridium Oxides. ACS Applied Energy Materials, 2021, 4, 2552-2562.	5.1	14
1729	Elucidating intrinsic contribution of d-orbital states to oxygen evolution electrocatalysis in oxides. Nature Communications, 2021, 12, 824.	12.8	63
1730	Perovskite Oxide Based Electrodes for the Oxygen Reduction and Evolution Reactions: The Underlying Mechanism. ACS Catalysis, 2021, 11, 3094-3114.	11.2	115
1731	Efficient Oxygen Evolution Electrocatalysis on CaFe <sub>2</sub> O <sub>4</sub> and Its Reaction Mechanism. ACS Applied Energy Materials, 2021, 4, 3057-3066.	5.1	22
1732	Spatial Confinement of a Carbon Nanocone for an Efficient Oxygen Evolution Reaction. Journal of Physical Chemistry Letters, 2021, 12, 2252-2258.	4.6	4
1733	Boropheneâ <sup>~</sup> 'supported single transition metal atoms as potential oxygen evolution/reduction electrocatalysts: a density functional theory study. Journal of Molecular Modeling, 2021, 27, 67.	1.8	17
1734	Heterogenization of Ionic liquid Boosting Electrochemical Oxygen Reduction Performance of Co 3 O 4 Supported on Graphene Oxide. ChemCatChem, 2021, 13, 1546-1551.	3.7	6
1735	Structure and Reactivity of IrO <i><sub>x</sub></i> Nanoparticles for the Oxygen Evolution Reaction in Electrocatalysis: An Electronic Structure Theory Study. Journal of Physical Chemistry C, 2021, 125, 4379-4390.	3.1	15
1736	Multiple Reaction Pathways for the Oxygen Evolution Reaction May Contribute to IrO <sub>2</sub> (110)'s High Activity. Journal of the Electrochemical Society, 2021, 168, 024506.	2.9	12
1737	Identifying Metallic Transition-Metal Dichalcogenides for Hydrogen Evolution through Multilevel High-Throughput Calculations and Machine Learning. Journal of Physical Chemistry Letters, 2021, 12, 2102-2111.	4.6	43
1738	Transition metal-based electrocatalysts for overall water splitting. Chinese Chemical Letters, 2021, 32, 2597-2616.	9.0	94
1739	Binderâ€Free Air Electrodes for Rechargeable Zincâ€Air Batteries: Recent Progress and Future Perspectives. Small Methods, 2021, 5, e2000827.	8.6	66
1740	The Genesis of Molecular Volcano Plots. Accounts of Chemical Research, 2021, 54, 1107-1117.	15.6	54
1741	(Dis)Similarities of adsorption of diverse functional groups over alumina and hematite depending on the surface state. Journal of Chemical Physics, 2021, 154, 084701.	3.0	11

# 1742	ARTICLE Morphological engineering of carbon-based materials: in the quest of efficient catalysts for overall water splitting. International Journal of Hydrogen Energy, 2021, 46, 7284-7296.	IF 7.1	CITATIONS
1743	Rare-earth-regulated Ru-O interaction within the pyrochlore ruthenate for electrocatalytic oxygen evolution in acidic media. Science China Materials, 2021, 64, 1653-1661.	6.3	27
1744	Single-Atom Rhodium on Defective g-C <sub>3</sub> N <sub>4</sub> : A Promising Bifunctional Oxygen Electrocatalyst. ACS Sustainable Chemistry and Engineering, 2021, 9, 3590-3599.	6.7	136
1745	Oxygen Evolution and Reduction Reaction Activity Investigations on Fe, Co or Ni embedded Tetragonal Graphene by A Thermodynamical Full‣andscape Searching Scheme. ChemistryOpen, 2021, 10, 672-680.	1.9	0
1746	A molecular-level strategy to boost the mass transport of perovskite electrocatalyst for enhanced oxygen evolution. Applied Physics Reviews, 2021, 8, .	11.3	20
1747	Co <sub>1</sub> Al <sub>2</sub> (OH) <sub><i>m</i>/i&gt;</sub> Layered Double Hydroxide/Graphitic Carbon Nitride Composite Nanostructure: An Efficient Water Oxidation Reaction Electrocatalyst in an Alkaline Electrolyte. Energy & Fuels, 2021, 35, 5206-5216.	5.1	4
1748	Selectively Upgrading Lignin Derivatives to Carboxylates through Electrochemical Oxidative C(OH)â^C Bond Cleavage by a Mnâ€Đoped Cobalt Oxyhydroxide Catalyst. Angewandte Chemie, 2021, 133, 9058-9064.	2.0	22
1749	Theoretical progress on direct Z-scheme photocatalysis of two-dimensional heterostructures. Frontiers of Physics, 2021, 16, 1.	5.0	25
1750	<i>Ab Initio</i> Thermodynamics and Kinetics of the Lattice Oxygen Evolution Reaction in Iridium Oxides. ACS Energy Letters, 2021, 6, 1124-1133.	17.4	56
1751	Recent Development of Oxygen Evolution Electrocatalysts in Acidic Environment. Advanced Materials, 2021, 33, e2006328.	21.0	392
1752	Exclusive Strain Effect Boosts Overall Water Splitting in PdCu/Ir Core/Shell Nanocrystals. Angewandte Chemie - International Edition, 2021, 60, 8243-8250.	13.8	163
1753	Modulating Metal–Organic Frameworks as Advanced Oxygen Electrocatalysts. Advanced Energy Materials, 2021, 11, 2003291.	19.5	105
1754	Evaluating the effect of membrane-ionomer combinations and supporting electrolytes on the performance of cobalt nanoparticle anodes in anion exchange membrane electrolyzers. Journal of Power Sources, 2021, 488, 229433.	7.8	20
1755	InGaN-based nanowires development for energy harvesting and conversion applications. Journal of Applied Physics, 2021, 129, .	2.5	9
1756	Selectively Upgrading Lignin Derivatives to Carboxylates through Electrochemical Oxidative C(OH)â^C Bond Cleavage by a Mnâ€Doped Cobalt Oxyhydroxide Catalyst. Angewandte Chemie - International Edition, 2021, 60, 8976-8982.	13.8	93
1757	Tailoring the Electronic Structures of the La <sub>2</sub> NiMnO <sub>6</sub> Double Perovskite as Efficient Bifunctional Oxygen Electrocatalysis. Chemistry of Materials, 2021, 33, 2062-2071.	6.7	58
1758	Morphology control of Co3O4 with nickel incorporation for highly efficient oxygen evolution reaction. Applied Surface Science, 2021, 541, 148221.	6.1	20
1759	Redirecting dynamic surface restructuring of a layered transition metal oxide catalyst for superior water oxidation. Nature Catalysis, 2021, 4, 212-222.	34.4	266

# 1760	ARTICLE Oxygen Evolution on Iron Oxide Nanoparticles: The Impact of Crystallinity and Size on the Overpotential. Journal of the Electrochemical Society, 2021, 168, 034518.	IF 2.9	Citations
1761	Tuning the Properties of Metal Surfaces to Make Them COâ€Tolerant and Highly Active Catalysts for Hydrogen Oxidation: A Firstâ€Principles Approach. ChemCatChem, 2021, 13, 2618-2624.	3.7	0
1762	Cobalt-Based Electrocatalysts for Water Splitting: An Overview. Catalysis Surveys From Asia, 2021, 25, 114-147.	2.6	16
1763	Facilitating the Deprotonation of OH to O through Fe <sup>4+</sup> â€Induced States in Perovskite LaNiO <sub>3</sub> Enables a Fast Oxygen Evolution Reaction. Small, 2021, 17, e2006930.	10.0	40
1764	Tuning the Spin Density of Cobalt Single-Atom Catalysts for Efficient Oxygen Evolution. ACS Nano, 2021, 15, 7105-7113.	14.6	90
1765	Epitaxial Stabilization and Oxygen Evolution Reaction Activity of Metastable Columbite Iridium Oxide. ACS Applied Energy Materials, 2021, 4, 3074-3082.	5.1	7
1766	Oxygen evolution reaction (OER) mechanism under alkaline and acidic conditions. JPhys Energy, 2021, 3, 026001.	5.3	121
1767	Structural Anisotropy Determining the Oxygen Evolution Mechanism of Strongly Correlated Perovskite Nickelate Electrocatalyst. ACS Sustainable Chemistry and Engineering, 2021, 9, 4262-4270.	6.7	26
1768	Exclusive Strain Effect Boosts Overall Water Splitting in PdCu/Ir Core/Shell Nanocrystals. Angewandte Chemie, 2021, 133, 8324-8331.	2.0	18
1769	Recent Progress in Advanced Electrocatalyst Design for Acidic Oxygen Evolution Reaction. Advanced Materials, 2021, 33, e2004243.	21.0	284
1770	Two-dimensional bimetallic coordination polymers as bifunctional evolved electrocatalysts for enhanced oxygen evolution reaction and urea oxidation reaction. Journal of Energy Chemistry, 2021, 63, 230-238.	12.9	29
1771	Design of a Multilayered Oxygenâ€Evolution Electrode with High Catalytic Activity and Corrosion Resistance for Saline Water Splitting. Advanced Functional Materials, 2021, 31, 2101820.	14.9	103
1772	Assessment of active areas for the oxygen evolution reaction on an amorphous iridium oxide surface. Journal of Catalysis, 2021, 396, 14-22.	6.2	23
1773	Atmospheric-Pressure Plasma Jet-Induced Ultrafast Construction of an Ultrathin Nonstoichiometric Nickel Oxide Layer with Mixed Ni <sup>3+</sup> /Ni <sup>2+</sup> lons and Rich Oxygen Defects as an Efficient Electrocatalyst for Oxygen Evolution Reaction. ACS Applied Energy Materials, 2021, 4, 5059-5069.	5.1	19
1774	Design of Highly Stable and Efficient Bifunctional <i>MX</i> ene-Based Electrocatalysts for Oxygen Reduction and Evolution Reactions. Physical Review Applied, 2021, 15, .	3.8	11
1775	Influence of Fe and Ni Doping on the OER Performance at the Co <sub>3</sub> O <sub>4</sub> (001) Surface: Insights from DFT+ <i>U</i> Calculations. ACS Catalysis, 2021, 11, 5601-5613.	11.2	86
1776	pH- and Cation-Dependent Water Oxidation on Rutile RuO <sub>2</sub> (110). Journal of Physical Chemistry C, 2021, 125, 8195-8207.	3.1	45
1777	Reversible catalysis. Nature Reviews Chemistry, 2021, 5, 348-360.	30.2	38

#	Article	IF	CITATIONS
1778	Importance of the oxyl character on the IrO2 surface dependent catalytic activity for the oxygen evolution reaction. Journal of Catalysis, 2021, 396, 192-201.	6.2	18
1779	Modulating the potential-determining step in oxygen evolution reaction by regulating the cobalt valence in NiCo2O4 via Ru substitution. Applied Surface Science, 2021, 544, 148897.	6.1	9
1780	Probing adsorbates on La1â^'x Sr x NiO3â^'δ surfaces under humid conditions: implications for the oxygen evolution reaction. Journal Physics D: Applied Physics, 2021, 54, 274003.	2.8	9
1781	β-like FeOOH Nanoswords Activated by Ni Foam and Encapsulated by rGO toward High Current Densities, Durability, and Efficient Oxygen Evolution. ACS Applied Materials & Interfaces, 2021, 13, 18772-18783.	8.0	15
1782	Need for Rationally Designed SnWO <sub>4</sub> Photo(electro)catalysts to Overcome the Performance Limitations for O <sub>2</sub> and H <sub>2</sub> Evolution Reactions. Journal of Physical Chemistry C, 2021, 125, 8488-8496.	3.1	7
1783	Theoretical Insight on Anion Ordering, Strain, and Doping Engineering of the Oxygen Evolution Reaction in BaTaO2N. Chemistry of Materials, 2021, 33, 3297-3303.	6.7	15
1784	Titanium carbide: An emerging electrocatalyst for fuel cell and electrolyser. International Journal of Hydrogen Energy, 2021, 46, 12801-12821.	7.1	28
1785	Ni-, Co-, and Mn-Doped Fe <sub>2</sub> O <sub>3</sub> Nano-Parallelepipeds for Oxygen Evolution. ACS Applied Nano Materials, 2021, 4, 5131-5140.	5.0	33
1786	Comparative first principlesâ€based molecular dynamics study of catalytic mechanism and reaction energetics of water oxidation reaction on 2D â€surface. Journal of Computational Chemistry, 2021, 42, 1138-1149.	3.3	6
1787	Bifunctional Covalent Organic Frameworkâ€Derived Electrocatalysts with Modulated <i>p</i> â€Band Centers for Rechargeable Zn–Air Batteries. Advanced Functional Materials, 2021, 31, 2101727.	14.9	76
1788	Phase-Segregated SrCo <sub>0.8</sub> Fe <sub>0.5–<i>x</i></sub> O <sub>3â<sup>~</sup>î<sup>^</sup>(sub&gt;/Fe<i><sub>x</sub></i>O<i><sub>yHeterostructured Catalyst Promotes Alkaline Oxygen Evolution Reaction. ACS Applied Materials &amp; Interfaces, 2021, 13, 17439-17449.</sub></i></sub>	>§!j}	28
1789	Isolating the Electrocatalytic Activity of a Confined NiFe Motif within Zirconium Phosphate. Advanced Energy Materials, 2021, 11, 2003545.	19.5	21
1790	Pyridinic-Type N-Doped Graphene on Cobalt Substrate as Efficient Electrocatalyst for Oxygen Reduction Reaction in Acidic Solution in Fuel Cell. Journal of Physical Chemistry Letters, 2021, 12, 3552-3559.	4.6	20
1791	Dopants in the Design of Noble Metal Nanoparticle Electrocatalysts and their Effect on Surface Energy and Coordination Chemistry at the Nanocrystal Surface. Advanced Energy Materials, 2021, 11, 2100265.	19.5	25
1792	Anticatalytic Strategies to Suppress Water Electrolysis in Aqueous Batteries. Chemical Reviews, 2021, 121, 6654-6695.	47.7	175
1793	Activation Strategies of Perovskiteâ€Type Structure for Applications in Oxygenâ€Related Electrocatalysts. Small Methods, 2021, 5, e2100012.	8.6	29
1794	Grand Challenges in Computational Catalysis. Frontiers in Catalysis, 2021, 1, .	3.9	21
1795	Photocatalytic activity of co-doped Janus monolayer MoSSe for solar water splitting: A computational investigation, Applied Surface Science, 2021, 544, 148741.	6.1	25

#	Article	IF	CITATIONS
1796	Why approximating electrocatalytic activity by a single freeâ€energy change is insufficient. Electrochimica Acta, 2021, 375, 137975.	5.2	42
1797	Stable, Efficient, Copper Coordination Polymer-Derived Heterostructured Catalyst for Oxygen Evolution under pH-Universal Conditions. ACS Applied Materials & Interfaces, 2021, 13, 25461-25471.	8.0	7
1798	Oxygen Evolution on MoS <sub>2</sub> Edges: Activation through Surface Oxidation. Journal of Physical Chemistry C, 2021, 125, 10397-10405.	3.1	14
1799	Solvent Mediated Fabrication of Ditched Hollow Indium Sulfide (In <sub>2</sub> S <sub>3</sub> ) Spheres for Overall Electrocatalytic Water Splitting. Journal of the Electrochemical Society, 2021, 168, 066510.	2.9	7
1800	Spin-polarized oxygen evolution reaction under magnetic field. Nature Communications, 2021, 12, 2608.	12.8	242
1801	Evidence of Marsâ€Vanâ€Krevelen Mechanism in the Electrochemical Oxygen Evolution on Niâ€Based Catalysts. Angewandte Chemie, 2021, 133, 15108-15115.	2.0	9
1802	Phosphate-induced interfacial electronic engineering in VPO4-Ni2P heterostructure for improved electrochemical water oxidation. Chinese Chemical Letters, 2022, 33, 452-456.	9.0	12
1803	Regulation of Perovskite Surface Stability on the Electrocatalysis of Oxygen Evolution Reaction. , 2021, 3, 721-737.		61
1804	Operando Cooperated Catalytic Mechanism of Atomically Dispersed Cuâ^'N 4 and Znâ^'N 4 for Promoting Oxygen Reduction Reaction. Angewandte Chemie, 2021, 133, 14124-14131.	2.0	22
1805	Conformal Macroporous Inverse Opal Oxynitride-Based Photoanode for Robust Photoelectrochemical Water Splitting. Journal of the American Chemical Society, 2021, 143, 7402-7413.	13.7	76
1806	Engineering Two-Phase Bifunctional Oxygen Electrocatalysts with Tunable and Synergetic Components for Flexible Zn–Air Batteries. Nano-Micro Letters, 2021, 13, 126.	27.0	79
1807	A Universal Approach to Quantify Overpotential-Dependent Selectivity Trends for the Competing Oxygen Evolution and Peroxide Formation Reactions: A Case Study on Graphene Model Electrodes. Journal of Physical Chemistry C, 2021, 125, 10413-10421.	3.1	9
1808	Carbonaceous Oxygen Evolution Reaction Catalysts: From Defect and Dopingâ€Induced Activity over Hybrid Compounds to Ordered Framework Structures. Small, 2021, 17, e2007484.	10.0	25
1809	Intrinsic Electrocatalytic Activity for Oxygen Evolution of Crystalline 3dâ€Transition Metal Layered Double Hydroxides. Angewandte Chemie, 2021, 133, 14567-14578.	2.0	30
1810	First Principle Studies to Tailor Graphene Through Synergistic Effect as a Highly Efficient Electrocatalyst for Oxygen Evolution Reaction. ChemPhysChem, 2021, 22, 1141-1147.	2.1	2
1811	Tuning the Electrocatalytic Properties of Black and Gray Arsenene by Introducing Heteroatoms. ACS Omega, 2021, 6, 13124-13133.	3.5	7
1812	A discussion on the possible involvement of singlet oxygen in oxygen electrocatalysis. JPhys Energy, 2021, 3, 031004.	5.3	31
1813	Regulating Intrinsic Electronic Structures of Transition-Metal-Based Catalysts and the Potential Applications for Electrocatalytic Water Splitting. , 2021, 3, 752-780.		62

#	Article	IF	CITATIONS
1814	The Sabatier Principle in Electrocatalysis: Basics, Limitations, and Extensions. Frontiers in Energy Research, 2021, 9, .	2.3	175
1815	Spin Effect on Oxygen Electrocatalysis. Advanced Energy and Sustainability Research, 2021, 2, 2100034.	5.8	32
1816	<i>In-Situ</i> Generated High-Valent Iron Single-Atom Catalyst for Efficient Oxygen Evolution. Nano Letters, 2021, 21, 4795-4801.	9.1	47
1817	Comprehensive Understandings into Complete Reconstruction of Precatalysts: Synthesis, Applications, and Characterizations. Advanced Materials, 2021, 33, e2007344.	21.0	198
1818	Greater than the sum of its parts. Nature Energy, 2021, 6, 576-577.	39.5	5
1819	Intrinsic Electrocatalytic Activity for Oxygen Evolution of Crystalline 3dâ€Transition Metal Layered Double Hydroxides. Angewandte Chemie - International Edition, 2021, 60, 14446-14457.	13.8	170
1820	Evidence of Marsâ€Vanâ€Krevelen Mechanism in the Electrochemical Oxygen Evolution on Niâ€Based Catalysts. Angewandte Chemie - International Edition, 2021, 60, 14981-14988.	13.8	67
1821	Trace Metal Loading of Bâ€Nâ€Coâ€doped Graphitic Carbon for Active and Stable Bifunctional Oxygen Reduction and Oxygen Evolution Electrocatalysts. ChemElectroChem, 2021, 8, 1685-1693.	3.4	4
1822	Laserâ€Induced Annealing of Metal–Organic Frameworks on Conductive Substrates for Electrochemical Water Splitting. Advanced Functional Materials, 2021, 31, 2102648.	14.9	47
1823	Operando Cooperated Catalytic Mechanism of Atomically Dispersed Cuâ^'N <sub>4</sub> and Znâ^'N <sub>4</sub> for Promoting Oxygen Reduction Reaction. Angewandte Chemie - International Edition, 2021, 60, 14005-14012.	13.8	312
1824	Tailored Brownmillerite Oxide Catalyst with Multiple Electronic Functionalities Enables Ultrafast Water Oxidation. Chemistry of Materials, 2021, 33, 5233-5241.	6.7	32
1825	Reactivity of Hydrogen-Related Electron Centers in Powders, Layers, and Electrodes Consisting of Anatase TiO <sub>2</sub> Nanocrystal Aggregates. Journal of Physical Chemistry C, 2021, 125, 13809-13818.	3.1	4
1826	Beyond the Active Site: Mechanistic Investigations of the Role of the Secondary Coordination Sphere and Beyond in Multi-electron Electrocatalytic Reactions. ACS Catalysis, 2021, 11, 8292-8303.	11.2	11
1827	Progress and Perspectives in Photo―and Electrochemicalâ€Oxidation of Biomass for Sustainable Chemicals and Hydrogen Production. Advanced Energy Materials, 2021, 11, 2101180.	19.5	200
1828	A dual-active Co-CoO heterojunction coupled with Ti3C2-MXene for highly-performance overall water splitting. Nano Research, 2022, 15, 238-247.	10.4	66
1829	Advanced Transition Metalâ€Based OER Electrocatalysts: Current Status, Opportunities, and Challenges. Small, 2021, 17, e2100129.	10.0	293
1830	Toward a mechanistic understanding of electrocatalytic nanocarbon. Nature Communications, 2021, 12, 3288.	12.8	35
1831	Crucial role of heterostructures in highly advanced water splitting photoelectrodes. Current Opinion in Green and Sustainable Chemistry, 2021, 29, 100454.	5.9	16

#	Article	IF	CITATIONS
1832	Systematic Application of Extremely Large Strain to Rutile-Type RuO <sub>2</sub> (100) Epitaxial Thin Films on Substrates with Large Lattice Mismatches. Crystal Growth and Design, 2021, 21, 4083-4089.	3.0	3
1834	Recent Advances in the Understanding of the Surface Reconstruction of Oxygen Evolution Electrocatalysts and Materials Development. Electrochemical Energy Reviews, 2021, 4, 566-600.	25.5	90
1835	Tailoring the Performance of ZnO for Oxygen Evolution by Effective Transition Metal Doping. ChemSusChem, 2021, 14, 3064-3073.	6.8	9
1836	Structural Design Strategy and Active Site Regulation of Highâ€Efficient Bifunctional Oxygen Reaction Electrocatalysts for Zn–Air Battery. Small, 2021, 17, e2006766.	10.0	89
1837	ZIF-12/Fe-Cu LDH Composite as a High Performance Electrocatalyst for Water Oxidation. Frontiers in Chemistry, 2021, 9, 686968.	3.6	12
1838	Oxygen Electrocatalysis by [Au <sub>25</sub> (SR) <sub>18</sub> ]: Charge, Doping, and Ligand Removal Effect. ACS Catalysis, 2021, 11, 7957-7969.	11.2	20
1839	Energy parameter and electronic descriptor for carbon based catalyst predicted using QM/ML. Applied Catalysis B: Environmental, 2021, 286, 119866.	20.2	23
1840	Predicting a Key Catalyst-Performance Descriptor for Supported Metal Nanoparticles: Metal Chemical Potential. ACS Catalysis, 2021, 11, 8284-8291.	11.2	25
1841	Mechanisms of water oxidation on heterogeneous catalyst surfaces. Nano Research, 2021, 14, 3446-3457.	10.4	34
1842	Single Metal Atom Supported on N-Doped 2D Nitride Black Phosphorus: An Efficient Electrocatalyst for the Oxygen Evolution and Oxygen Reduction Reactions. Journal of Physical Chemistry C, 2021, 125, 12541-12550.	3.1	24
1843	Adsorption Enthalpies for Catalysis Modeling through Machine-Learned Descriptors. Accounts of Chemical Research, 2021, 54, 2741-2749.	15.6	54
1844	Unconventional High-Index Facet of Iridium Boosts Oxygen Evolution Reaction: How the Facet Matters. ACS Catalysis, 2021, 11, 8239-8246.	11.2	23
1845	Stabilized PbO2 electrode prepared via crystal facet controlling for outstanding degradation of MePB. Journal of Electroanalytical Chemistry, 2021, 890, 115246.	3.8	14
1846	A Review of Recent Developments in Molecular Dynamics Simulations of the Photoelectrochemical Water Splitting Process. Catalysts, 2021, 11, 807.	3.5	7
1847	A simple general descriptor for rational design of graphyne-based bifunctional electrocatalysts toward hydrogen evolution and oxygen reduction reactions. Journal of Colloid and Interface Science, 2021, 592, 440-447.	9.4	22
1848	Progress of Nonpreciousâ€Metalâ€Based Electrocatalysts for Oxygen Evolution in Acidic Media. Advanced Materials, 2021, 33, e2003786.	21.0	166
1849	Clean and Affordable Hydrogen Fuel from Alkaline Water Splitting: Past, Recent Progress, and Future Prospects. Advanced Materials, 2021, 33, e2007100.	21.0	781
1850	Novel engineering of rutheniumâ€based electrocatalysts for acidic water oxidation: A mini review. Engineering Reports, 2021, 3, e12437.	1.7	14

#	Article	IF	CITATIONS
1851	Surface Reconstruction for Forming the [IrO <sub>6</sub> ]–[IrO <sub>6</sub> ] Framework: Key Structure for Stable and Activated OER Performance in Acidic Media. ACS Applied Materials & Interfaces, 2021, 13, 29654-29663.	8.0	26
1854	<i>In Situ</i> Synthesis of NiO/CuO Nanosheet Heterostructures Rich in Defects for Efficient Electrocatalytic Oxygen Evolution Reaction. Journal of Physical Chemistry C, 2021, 125, 16516-16523.	3.1	11
1855	Metal oxides as electrocatalysts for water splitting: On plasmonâ€driven enhanced activity. Electrochemical Science Advances, 2022, 2, e2100079.	2.8	7
1856	High-throughput screening and rational design to drive discovery in molecular water oxidation catalysis. Cell Reports Physical Science, 2021, 2, 100492.	5.6	10

1857 Fundamental Studies of Planar Single-Crystalline Oxide Model Electrodes (RuO<sub>2</sub>,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 582

1858	Principles of Water Electrolysis and Recent Progress in Cobaltâ€, Nickelâ€, and Ironâ€Based Oxides for the Oxygen Evolution Reaction. Angewandte Chemie, 2022, 134, .	2.0	18
1859	Transition Metal-Promoted VC(001) for Overall Water Splitting and Oxygen Reduction. Journal of Physical Chemistry C, 2021, 125, 14607-14615.	3.1	10
1860	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.	5.0	9
1861	On the deactivation mechanisms of MnO2 electrocatalyst during operation in rechargeable zinc-air batteries studied via density functional theory. Journal of Alloys and Compounds, 2021, 869, 159280.	5.5	17
1862	Development of Perovskite Oxideâ€Based Electrocatalysts for Oxygen Evolution Reaction. Small, 2021, 17, e2101605.	10.0	71
1863	Coordination Polymer-Derived Fe <sub>3</sub> N Nanoparticles for Efficient Electrocatalytic Oxygen Evolution. Inorganic Chemistry, 2021, 60, 12136-12150.	4.0	21
1864	Self-assembled mesostructured Co0.5Fe2.5O4 nanoparticle superstructures for highly efficient oxygen evolution. Journal of Colloid and Interface Science, 2021, 593, 125-132.	9.4	2
1865	Increased Ir–Ir Interaction in Iridium Oxide during the Oxygen Evolution Reaction at High Potentials Probed by Operando Spectroscopy. ACS Catalysis, 2021, 11, 10043-10057.	11.2	75
1866	Theoretical insight into two-dimensional g-C6N6/InSe van der Waals Heterostructure: A promising visible-light photocatalyst. Applied Surface Science, 2021, 554, 149465.	6.1	13
1867	Revealing Active Function of Multicomponent Electrocatalysts from In Situ Nickel Redox for Oxygen Evolution. Journal of Physical Chemistry C, 2021, 125, 16420-16427.	3.1	5
1868	Controllable Adsorption of Cobalt Metal Ions on Cotton Fabrics and Their Carbonised Oxygen Electrocatalysts. Electrocatalysis, 2021, 12, 667-677.	3.0	1
1869	Judicious selection, validation, and use of reference electrodes for in situ and operando electrocatalysis studies. Chem Catalysis, 2021, 1, 997-1013.	6.1	9
1870	Activity Origin and Catalyst Design Principles for Electrocatalytic Oxygen Evolution on Layered Transition Metal Oxide with Halogen Doping. Small Structures, 2021, 2, 2100069.	12.0	30

#	Article	IF	CITATIONS
1871	Simulation of Potential-Dependent Activation Energies in Electrocatalysis: Mechanism of O–O Bond Formation on RuO <sub>2</sub> . Journal of Physical Chemistry C, 2021, 125, 15243-15250.	3.1	28
1872	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, .	13.8	286
1873	Why the breaking of the OOH versus OH scaling relation might cause decreased electrocatalytic activity. Chem Catalysis, 2021, 1, 258-271.	6.1	30
1874	Computational screening of bifunctional single atom electrocatalyst based on boron nitride nanoribbon for water splitting. Applied Catalysis A: General, 2021, 622, 118235.	4.3	18
1875	Complex Impedance Analysis on Charge Accumulation Step of Mn <sub>3</sub> O <sub>4</sub> Nanoparticles during Water Oxidation. ACS Omega, 2021, 6, 18404-18413.	3.5	5
1876	Progress and challenges pertaining to the earthly-abundant electrocatalytic materials for oxygen evolution reaction. Sustainable Materials and Technologies, 2021, 28, e00252.	3.3	12
1877	δ-SnS: An Emerging Bidirectional Auxetic Direct Semiconductor with Desirable Carrier Mobility and High-Performance Catalytic Behavior toward the Water-Splitting Reaction. ACS Applied Materials & Interfaces, 2021, 13, 31934-31946.	8.0	25
1878	2D Heterostructure of Amorphous CoFeB Coating Black Phosphorus Nanosheets with Optimal Oxygen Intermediate Absorption for Improved Electrocatalytic Water Oxidation. ACS Nano, 2021, 15, 12418-12428.	14.6	67
1879	Enhanced Oxygen Evolution Reaction with a Ternary Hybrid of Patronite–Carbon Nanotube-Reduced Graphene Oxide: A Synergy between Experiments and Theory. ACS Applied Materials & Interfaces, 2021, 13, 35828-35836.	8.0	11
1880	Highly efficient and robust noble-metal free bifunctional water electrolysis catalyst achieved via complementary charge transfer. Nature Communications, 2021, 12, 4606.	12.8	119
1881	Stable multifunctional single-atom catalysts adsorbed on pyrazine-modified graphyne. Applied Surface Science, 2021, 553, 149464.	6.1	32
1882	Theoretical Inspection of M <sub>1</sub> /PMA Single-Atom Electrocatalyst: Ultra-High Performance for Water Splitting (HER/OER) and Oxygen Reduction Reactions (OER). ACS Catalysis, 2021, 11, 8929-8941.	11.2	121
1883	Computational Discovery of Transition-metal Complexes: From High-throughput Screening to Machine Learning. Chemical Reviews, 2021, 121, 9927-10000.	47.7	110
1884	Enhanced Oxygen Evolution Reaction by Efficient Bubble Dynamics of Aligned Nonoxidized Graphene Aerogels. ACS Sustainable Chemistry and Engineering, 2021, 9, 10326-10334.	6.7	12
1885	First-principles simulation of oxygen evolution reaction (OER) catalytic performance of IrO2 bulk-like structures: Nanosphere, nanowire and nanotube. Applied Surface Science, 2021, 554, 149591.	6.1	35
1886	Stability challenges of electrocatalytic oxygen evolution reaction: From mechanistic understanding to reactor design. Joule, 2021, 5, 1704-1731.	24.0	416
1887	lridium-containing water-oxidation catalysts in acidic electrolyte. Chinese Journal of Catalysis, 2021, 42, 1054-1077.	14.0	66
1888	Bandgap engineering in MnPS3 and ZnPS3 for photocatalytic water splitting: A first-principles study. International Journal of Hydrogen Energy, 2021, 46, 26950-26960.	7.1	11

#	Article	IF	CITATIONS
1889	Effect of the IrO <sub>x</sub> Conductivity on the Anode Electrode/Porous Transport Layer Interfacial Resistance in PEM Water Electrolyzers. Journal of the Electrochemical Society, 2021, 168, 084513.	2.9	47
1890	Electrocatalytic acidic oxygen evolution reaction: From nanocrystals to single atoms. Aggregate, 2021, 2, e106.	9.9	27
1891	Fundamental Understanding and Application of Ba <sub>0.5</sub> Sr <sub>0.5</sub> Co <sub>0.8</sub> Fe <sub>0.2</sub> O <sub>3â^îî</sub> Perovskite in Energy Storage and Conversion: Past, Present, and Future. Energy & Fuels, 2021, 35, 13585-13609.	5.1	113
1892	Mini Review on Active Sites in Ce-Based Electrocatalysts for Alkaline Water Splitting. Energy & Fuels, 2021, 35, 19000-19011.	5.1	34
1893	Density Functional Theory for Electrocatalysis. Energy and Environmental Materials, 2022, 5, 157-185.	12.8	95
1894	Designing efficient single-atomic catalysts for bifunctional oxygen electrocatalysis via a general two-step strategy. Applied Surface Science, 2021, 556, 149779.	6.1	10
1895	Recent developments in polydopamine-based photocatalytic nanocomposites for energy production: Physico-chemical properties and perspectives. Catalysis Today, 2022, 397-399, 316-349.	4.4	26
1896	High surface area NiCoP nanostructure as efficient water splitting electrocatalyst for the oxygen evolution reaction. Materials Research Bulletin, 2021, 140, 111312.	5.2	16
1897	DFT Investigations on the Boronâ $\in$ "Phosphorus Assembled Nanowires. Journal of Cluster Science, 0, , 1.	3.3	1
1898	Heterostructured Au–Ir Catalysts for Enhanced Oxygen Evolution Reaction. , 2021, 3, 1440-1447.		20
1899	Recent developments in the use of single-atom catalysts for water splitting. Chinese Journal of Catalysis, 2021, 42, 1269-1286.	14.0	44
1900	Strategies for the enhanced water splitting activity over metal–organic frameworks-based electrocatalysts and photocatalysts. Materials Today Nano, 2021, 15, 100124.	4.6	28
1901	Mechanistic studies of oxygen reduction and evolution reactions on Ni3S2 surfaces. Applied Catalysis A: General, 2021, 624, 118324.	4.3	6
1902	Activating Metal Oxides Nanocatalysts for Electrocatalytic Water Oxidation by Quenching-Induced Near-Surface Metal Atom Functionality. Journal of the American Chemical Society, 2021, 143, 14169-14177.	13.7	101
1903	Recent progress and prospect of carbon-free single-site catalysts for the hydrogen and oxygen evolution reactions. Nano Research, 2022, 15, 818-837.	10.4	90
1904	Oxygen Evolution Reaction on the Fe <sub>3</sub> O <sub>4</sub> (001) Surface: Theoretical Insights into the Role of Terminal and Bridging Oxygen Atoms. Journal of Physical Chemistry C, 2021, 125, 18752-18761.	3.1	8
1905	Amorphous Manganese–Cobalt Nanosheets as Efficient Catalysts for Hydrogen Evolution Reaction (HER). Catalysis Surveys From Asia, 2021, 25, 437-444.	2.6	10
1906	Restructuring of Lead Electrodes upon Adsorption of NO <sub>3</sub> <sup>–</sup> Anions Studied from First-Principles and Its Relevance for the Operation of Lead Quantum Switches. Journal of Physical Chemistry C, 2021, 125, 17962-17970.	3.1	1

#	Article	IF	CITATIONS
1907	Strategies towardÂthe sustainable electrochemical oxidation of methane to methanol. Current Opinion in Green and Sustainable Chemistry, 2021, 30, 100489.	5.9	21
1908	Atomic Structure-Free Representation of Active Motifs for Expedited Catalyst Discovery. Journal of Chemical Information and Modeling, 2021, 61, 4514-4520.	5.4	7
1909	Confined Ir single sites with triggered lattice oxygen redox: Toward boosted and sustained water oxidation catalysis. Joule, 2021, 5, 2164-2176.	24.0	183
1910	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.	4.1	21
1911	Intermetallic IrGa-IrOx core-shell electrocatalysts for oxygen evolution. Nano Research, 2022, 15, 1853-1860.	10.4	25
1912	On the Lattice Oxygen Evolution Mechanism: Avoiding Pitfalls. ChemCatChem, 2021, 13, 4066-4074.	3.7	22
1913	Single-atom catalysts for electrochemical energy storage and conversion. Journal of Energy Chemistry, 2021, 63, 170-194.	12.9	61
1914	Enhancing Iridium Nanoparticles' Oxygen Evolution Reaction Activity and Stability by Adjusting the Coverage of Titanium Oxynitride Flakes on Reduced Graphene Oxide Nanoribbons' Support. Advanced Materials Interfaces, 2021, 8, 2100900.	3.7	10
1915	The kinetics of metal oxide photoanodes from charge generation to catalysis. Nature Reviews Materials, 2021, 6, 1136-1155.	48.7	161
1916	Uncovering the Activity of Alkaline Earth Metal Hydrogenation Catalysis Through Molecular Volcano Plots. Topics in Catalysis, 2022, 65, 289-295.	2.8	3
1917	Modulating Reaction Pathways on Perovskite Cobaltite Nanofibers through Excessive Surface Oxygen Defects for Efficient Water Oxidation. Energy & Fuels, 2021, 35, 13967-13974.	5.1	7
1918	Advances in Electrochemical Ammonia Synthesis Beyond the Use of Nitrogen Gas as a Source. ChemPlusChem, 2021, 86, 1211-1224.	2.8	43
1919	Iridium oxide-nickel-coated titanium anodes for the oxygen evolution reaction. Electrochimica Acta, 2021, 390, 138866.	5.2	10
1920	Novel niobium-doped titanium oxide towards electrochemical destruction of forever chemicals. Scientific Reports, 2021, 11, 18020.	3.3	4
1921	Atomic Cationâ€Vacancy Engineering of NiFe‣ayered Double Hydroxides for Improved Activity and Stability towards the Oxygen Evolution Reaction. Angewandte Chemie, 2021, 133, 24817-24824.	2.0	39
1922	Hierarchical Ni-Mo2C/N-doped carbon Mott-Schottky array for water electrolysis. Applied Catalysis B: Environmental, 2021, 292, 120168.	20.2	60
1923	Uncovering electronic and geometric descriptors of chemical activity for metal alloys and oxides using unsupervised machine learning. Chem Catalysis, 2021, 1, 923-940.	6.1	22
1924	Main Descriptors To Correlate Structures with the Performances of Electrocatalysts. Angewandte Chemie - International Edition, 2022, 61, .	13.8	25

#	Article	IF	CITATIONS
1925	Cation Overcrowding Effect on the Oxygen Evolution Reaction. Jacs Au, 2021, 1, 1752-1765.	7.9	48
1926	Nickel ferrocyanide as a high-performance urea oxidation electrocatalyst. Nature Energy, 2021, 6, 904-912.	39.5	305
1927	A general review on the thiospinels and their energy applications. Materials Today Energy, 2021, 21, 100822.	4.7	9
1928	Selfâ€Supported Electrocatalysts for Practical Water Electrolysis. Advanced Energy Materials, 2021, 11, 2102074.	19.5	161
1929	Strain effect on oxygen evolution reaction of the SrTiO3 (0 0 1) surface. Applied Physics Letters, 2021, 119, .	3.3	4
1930	Role of oxygen in copper-based catalysts for carbon dioxide electrochemical reduction. Materials Today Physics, 2021, 20, 100443.	6.0	19
1931	Coherent Acoustic Interferometry during the Photodriven Oxygen Evolution Reaction Associates Strain Fields with the Reactive Oxygen Intermediate (Ti–OH*). Journal of the American Chemical Society, 2021, 143, 15984-15997.	13.7	5
1932	Recent development in electrocatalysts for hydrogen production through water electrolysis. International Journal of Hydrogen Energy, 2021, 46, 32284-32317.	7.1	236
1933	Why the optimum thermodynamic free-energy landscape of the oxygen evolution reaction reveals an asymmetric shape. Materials Today Energy, 2021, 21, 100831.	4.7	12
1934	Waterâ€Assisted Chemical Route Towards the Oxygen Evolution Reaction at the Hydrated (110) Ruthenium Oxide Surface: Heterogeneous Catalysis via DFTâ€MD and Metadynamics Simulations. Chemistry - A European Journal, 2021, 27, 17024-17037.	3.3	4
1935	Activation of Transition Metal (Fe, Co and Ni)â€Oxide Nanoclusters by Nitrogen Defects in Carbon Nanotube for Selective CO <sub>2</sub> Reduction Reaction. Energy and Environmental Materials, 2023, 6, .	12.8	16
1936	Restructuring highly electron-deficient metal-metal oxides for boosting stability in acidic oxygen evolution reaction. Nature Communications, 2021, 12, 5676.	12.8	92
1937	Bimetallic Cuâ^'Coâ^'Se Nanotube Arrays Assembled on 3D Framework: an Efficient Bifunctional Electrocatalyst for Overall Water Splitting. ChemSusChem, 2021, 14, 5065-5074.	6.8	13
1938	NiCo-Based Electrocatalysts for the Alkaline Oxygen Evolution Reaction: A Review. ACS Catalysis, 2021, 11, 12485-12509.	11.2	204
1939	Modulation of electronic structure and oxygen vacancies of perovskites SrCoO3-î´ by sulfur doping enables highly active and stable oxygen evolution reaction. Electrochimica Acta, 2021, 390, 138872.	5.2	16
1940	Graphdiyne in-situ thermal reduction enabled ultra-small quasi-core/shell Ru-RuO2 heterostructures for efficient acidic water oxidation. 2D Materials, 2021, 8, 044011.	4.4	8
1941	Steering the selectivity in CO2 reduction on highly active Ru/TiO2 catalysts: Support particle size effects. Journal of Catalysis, 2021, 401, 160-173.	6.2	25
1942	C9N4 as excellent dual electrocatalyst: A first principles study*. Chinese Physics B, 2021, 30, 096802.	1.4	0

#	Article	IF	CITATIONS
1943	Solving the Trifunctional Activity Challenge of Catalysts in Unitized Regenerative Fuel Cells via 1T-MoS <sub>2</sub> -Coordinated Single Pd Atoms. ACS Omega, 2021, 6, 24731-24738.	3.5	6
1944	Main Descriptors To Correlate Structures with the Performances of Electrocatalysts. Angewandte Chemie, 2022, 134, .	2.0	5
1945	Atomic Cationâ€Vacancy Engineering of NiFeâ€Layered Double Hydroxides for Improved Activity and Stability towards the Oxygen Evolution Reaction. Angewandte Chemie - International Edition, 2021, 60, 24612-24619.	13.8	259
1946	<i>In Situ</i> Precise Tuning of Bimetallic Electronic Effect for Boosting Oxygen Reduction Catalysis. Nano Letters, 2021, 21, 7753-7760.	9.1	24
1947	Anodic Transformation of a Core‣hell Prussian Blue Analogue to a Bifunctional Electrocatalyst for Water Splitting. Advanced Functional Materials, 2021, 31, 2106835.	14.9	47
1948	Synergistic Effects of Co and Fe on the OER activity of LaCoxFe1â^'xO3. Chemistry - A European Journal, 2021, 27, 17145-17158.	3.3	14
1949	Operando Stability Studies of Ultrathin Single-Crystalline IrO <sub>2</sub> (110) Films under Acidic Oxygen Evolution Reaction Conditions. ACS Catalysis, 2021, 11, 12651-12660.	11.2	17
1950	Non-precious electrocatalysts for oxygen evolution reaction in anion exchange membrane water electrolysis: A mini review. Electrochemistry Communications, 2021, 131, 107118.	4.7	46
1951	CO2 activation at Au(110)–water interfaces: An <i>ab initio</i> molecular dynamics study. Journal of Chemical Physics, 2021, 155, 134703.	3.0	13
1952	Regulating Water Reduction Kinetics on MoP Electrocatalysts Through Se Doping for Accelerated Alkaline Hydrogen Production. Frontiers in Chemistry, 2021, 9, 737495.	3.6	6
1953	Enhancing Oxygen Evolution Reaction Activity by Using Switchable Polarization in Ferroelectric InSnO <sub>2</sub> N. ACS Catalysis, 2021, 11, 12692-12700.	11.2	9
1954	The rate-determining term of electrocatalytic reactions with first-order kinetics. Electrochimica Acta, 2021, 393, 139019.	5.2	25
1955	Nano-engineering of Ru-based hierarchical porous nanoreactors for highly efficient pH-universal overall water splitting. Applied Catalysis B: Environmental, 2021, 294, 120230.	20.2	49
1956	Maximizing the synergistic effect of PdAu catalysts on TiO2(1Â0Â1) for robust CO2 reduction: A DFT study. Applied Surface Science, 2021, 563, 150365.	6.1	6
1957	Two-dimensional IrN2 monolayer: An efficient bifunctional electrocatalyst for oxygen reduction and oxygen evolution reactions. Journal of Colloid and Interface Science, 2021, 600, 711-718.	9.4	27
1958	Iron-doped metal-organic framework with enhanced oxygen evolution reaction activity for overall water splitting. International Journal of Hydrogen Energy, 2021, 46, 34565-34573.	7.1	9
1959	Transition-metal alloy electrocatalysts with active sites modulated by metal-carbide heterophases for efficient oxygen evolution. Nano Energy, 2021, 88, 106216.	16.0	38
1960	ZIF-67-derived Mn doped Co9S8 supported on N-Enriched porous carbon polyhedron as an efficient electrocatalyst for oxygen evolution reaction. International Journal of Hydrogen Energy, 2021, 46, 38724-38732.	7.1	18

#	Article	IF	CITATIONS
1961	Spinel NiFe2O4 nanoparticles decorated 2D Ti3C2 MXene sheets for efficient water splitting: Experiments and theories. Journal of Colloid and Interface Science, 2021, 602, 232-241.	9.4	63
1962	Lattice strain and atomic replacement of CoO6 octahedra in layered sodium cobalt oxide for boosted water oxidation electrocatalysis. Applied Catalysis B: Environmental, 2021, 297, 120477.	20.2	30
1963	Cobalt tetraphosphate as an efficient bifunctional electrocatalyst for hybrid sodium-air batteries. Nano Energy, 2021, 89, 106485.	16.0	11
1964	Tuning electronic structure of CoNi LDHs via surface Fe doping for achieving effective oxygen evolution reaction. Applied Surface Science, 2021, 565, 150506.	6.1	35
1965	Recent progress on transition metal oxides as advanced materials for energy conversion and storage. Energy Storage Materials, 2021, 42, 317-369.	18.0	113
1966	Dual-defective Co3O4 nanoarrays enrich target intermediates and promise high-efficient overall water splitting. Chemical Engineering Journal, 2021, 424, 130328.	12.7	52
1967	Addressing electrocatalytic activity and stability of LnBaCo2O5+ perovskites for hydrogen evolution reaction by structural and electronic features. Applied Catalysis B: Environmental, 2021, 297, 120403.	20.2	30
1968	Transition metal single-atom anchored g-CN monolayer for constructing high-activity multifunctional electrocatalyst. Applied Surface Science, 2021, 565, 150547.	6.1	28
1969	Insight into the overpotential and thermodynamic mechanism of hydroxyl radical formation on diamond anode. Applied Surface Science, 2021, 565, 150559.	6.1	14
1970	InterPhon: Ab initio interface phonon calculations within a 3D electronic structure framework. Computer Physics Communications, 2021, 268, 108089.	7.5	0
1971	Ternary metal-based inverse spinel oxide NiCrFeO4 nanoparticles as a highly efficient oxygen evolution catalyst. Applied Surface Science, 2021, 566, 150653.	6.1	9
1972	V2C MXene synergistically coupling FeNi LDH nanosheets for boosting oxygen evolution reaction. Applied Catalysis B: Environmental, 2021, 297, 120474.	20.2	106
1973	Stable and active NiFeW layered double hydroxide for enhanced electrocatalytic oxygen evolution reaction. Chemical Engineering Journal, 2021, 426, 130768.	12.7	42
1974	Eutectic molten salt assisted synthesis of highly defective and flexible ruthenium oxide for efficient overall water splitting. Chemical Engineering Journal, 2021, 425, 131707.	12.7	11
1975	Utilizing the charge-transfer model to design promising electrocatalysts. Current Opinion in Electrochemistry, 2021, 30, 100805.	4.8	4
1976	Inter-doped ruthenium–nickel oxide heterostructure nanosheets with dual active centers for electrochemical-/solar-driven overall water splitting. Applied Catalysis B: Environmental, 2021, 298, 120611.	20.2	55
1977	Defect enriched hierarchical iron promoted Bi2MoO6 hollow spheres as efficient electrocatalyst for water oxidation. Chemical Engineering Journal, 2021, 426, 131884.	12.7	16
1978	Review of electrochemical oxidation desulfurization for fuels and minerals. Fuel, 2021, 305, 121562.	6.4	30

ARTICLE IF CITATIONS Branch-leaf-shaped CuNi@NiFeCu nanodendrites as highly efficient electrocatalysts for overall water 1979 20.2 47 splitting. Applied Catalysis B: Environmental, 2021, 298, 120600. Tuning electrochemical transformation process of zeolitic imidazolate framework for efficient 23 water oxidation activity. Journal of Energy Chemistry, 2022, 65, 505-513. Nitridation-induced metal–organic framework nanosheet for enhanced water oxidation 1981 12.9 23 electrocatalysis. Journal of Energy Chemistry, 2022, 64, 531-537. Electronic structure modulation with ultrafine Fe3O4 nanoparticles on 2D Ni-based metal-organic framework layers for enhanced oxygen evolution reaction. Journal of Energy Chemistry, 2022, 65, 78-88. Single Ir atom anchored in pyrrolic-N4 doped graphene as a promising bifunctional electrocatalyst 1983 9.4 78 for the ORR/OER: a computational study. Journal of Colloid and Interface Science, 2022, 607, 1005-1013. Progress in the development of heteroatom-doped nickel phosphates for electrocatalytic water splitting. Journal of Colloid and Interface Science, 2022, 607, 1091-1102. 1984 9.4 Optimization strategies on the advanced engineering of Co-based nanomaterials for electrochemical 1985 5.5 12 oxygen evolution. Journal of Alloys and Compounds, 2022, 890, 161929. Correlating the electronic structure of perovskite Lalâ<sup>^</sup>Sr CoO3 with activity for the oxygen evolution reaction: The critical role of Co 3d hole state. Journal of Energy Chémistry, 2022, 65, 1986 12.9 39 637-645. One stone two birds: Vanadium doping as dual roles in self-reduced Pt clusters and accelerated water 1987 12.9 35 splitting. Journal of Energy Chemistry, 2022, 66, 493-501. Co/Co3O4 nanoparticles embedded into thin O-doped graphitic layer as bifunctional oxygen 1988 12.7 electrocatalysts for Zn-air batteries. Chemical Engineering Journal, 2022, 427, 130931. A first-principles study of two-dimensional NbSe<sub>2</sub>H/g-ZnO van der Waals heterostructures as a water splitting photocatalyst. Physical Chemistry Chemical Physics, 2021, 23, 1989 2.8 10 24222-24232. Cobalt and vanadium co-doped FeOOH nanoribbons: an iron-rich electrocatalyst for efficient water 1990 5.9 oxidation. Materials Chemistry Frontiers, 2021, 5, 6485-6490. Activity and Stability of Oxides During Oxygen Evolution Reactionâ€â€â€From Mechanistic Controversies 1991 2.3 45 Toward Relevant Electrocatalytic Descriptors. Frontiers in Energy Research, 2021, 8, . Oxygen vacancy enriched NiMoO<sub>4</sub> nanorods <i>via</i> microwave heating: a promising highly stable electrocatalyst for total water splitting. Journal of Materials Chemistry A, 2021, 9, 1992 65 11691-11704. Controllable synthesis of single-layer graphene over cobalt nanoparticles and insight into active 1993 10.3 9 sites for efficient oxygen evolution. Journal of Materials Chemistry A, 2021, 9, 12060-12073. Bifunctional electrocatalysts for oxygen reduction and oxygen evolution: a theoretical study on 2D 1994 metallic WO<sub>2</sub>-supported single atom (Fe, Co, or Ni) catalysts. Physical Chemistry Chemical Physics, 2021, 23, 13687-13695. Electrocatalysis using nanomaterials. Frontiers of Nanoscience, 2021, 18, 343-420. 1995 0.6 2 A sandwich-like Ga<sub>2</sub>FeS<sub>4</sub>-supported single metal atom as a promising 1996 bifunctional electrocatalyst for overall water splitting. Journal of Materials Chemistry A, 2021, 9, 18594-18603.

#	Article	IF	CITATIONS
1997	Co–Fe–Cr (oxy)Hydroxides as Efficient Oxygen Evolution Reaction Catalysts. Advanced Energy Materials, 2021, 11, 2003412.	19.5	94
1998	Ni <sub>1â^'2<i>x</i></sub> Mo <sub><i>x</i></sub> Se nanowires@ammonium nickel phosphate–MoO <sub><i>x</i></sub> heterostructures as a high performance electrocatalyst for water splitting. Sustainable Energy and Fuels, 2021, 5, 5581-5593.	4.9	5
1999	Gd-induced electronic structure engineering of a NiFe-layered double hydroxide for efficient oxygen evolution. Journal of Materials Chemistry A, 2021, 9, 2999-3006.	10.3	133
2000	Rational catalyst design for oxygen evolution under acidic conditions: strategies toward enhanced electrocatalytic performance. Journal of Materials Chemistry A, 2021, 9, 5890-5914.	10.3	65
2001	Climbing with support: scaling the volcano relationship through support–electrocatalyst interactions in electrodeposited RuO <sub>2</sub> for the oxygen evolution reaction. Catalysis Science and Technology, 2021, 11, 4342-4352.	4.1	3
2002	Transition metal-based bimetallic MOFs and MOF-derived catalysts for electrochemical oxygen evolution reaction. Energy and Environmental Science, 2021, 14, 1897-1927.	30.8	415
2003	Potential SiX (X = N, P, As, Sb, Bi) homo-bilayers for visible-light photocatalyst applications. Catalysis Science and Technology, 2021, 11, 4996-5013.	4.1	18
2004	Nickel Iron Diselenide for Highly Efficient and Selective Electrocatalytic Conversion of Methanol to Formate. Small, 2021, 17, e2006623.	10.0	29
2005	Challenge in metal-air batteries: From the design to the performance of metal oxide-based electrocatalysts. , 2021, , 187-212.		0
2006	Designing an efficient bifunctional electrocatalyst heterostructure. Chemical Communications, 2021, 57, 9426-9429.	4.1	8
2007	Electrocatalytic CO2 Reduction Activity Over Transition Metal Anchored on Nitrogen-Doped Carbon: A Density Functional Theory Investigation. Catalysis Letters, 2021, 151, 2547-2559.	2.6	3
2008	First-Principles Calculations for Electrochemical Reaction Modeling: An Introduction to Methods and Applications. , 2021, , 1-24.		0
2009	Structural Dynamics of Ultrathin Cobalt Oxide Nanoislands under Potential Control. Advanced Functional Materials, 2021, 31, 2009923.	14.9	26
2010	Better fuels for photocatalytic micromotors: a case study of triethanolamine. Chemical Communications, 2021, 57, 9902-9905.	4.1	9
2011	Perspective on High-Rate Alkaline Water Splitting. , 2021, 3, 224-234.		136
2012	Active Phase on SrCo <sub>1–<i>x</i></sub> Fe <sub><i>x</i></sub> O <sub>3â^î</sub> (0 ≤i>x â‰ጫ Perovskite for Water Oxidation: Reconstructed Surface versus Remaining Bulk. Jacs Au, 2021, 1, 108-115.	5) 7.9	47
2013	Adsorption energy as a promising single-parameter descriptor for single atom catalysis in the oxygen evolution reaction. Journal of Materials Chemistry A, 2021, 9, 6442-6450.	10.3	18
2015	Edge Sites with Unsaturated Coordination on Core–Shell Mn <sub>3</sub> O <sub>4</sub> @Mn <i><sub>x</sub></i> Co <sub>3â^'</sub> <i><sub>x</sub></i> Nanostructures for Electrocatalytic Water Oxidation. Advanced Materials, 2017, 29, 1701820.	subt>0	115

#	Article	IF	CITATIONS
2016	Environmental TEM Investigation of Electrochemical Stability of Perovskite and Ruddlesden–Popper Type Manganite Oxygen Evolution Catalysts. Advanced Sustainable Systems, 2017, 1, 1700109.	5.3	25
2017	Firstâ€Principles Computational Screening of Dopants to Improve the Deacon Process over RuO <sub>2</sub> . ChemCatChem, 2018, 10, 465-469.	3.7	11
2018	Recent Advances in Nonâ€Precious Metalâ€Based Electrodes for Alkaline Water Electrolysis. ChemNanoMat, 2020, 6, 336-355.	2.8	92
2019	Oxygen Evolution Reaction. , 2014, , 1475-1480.		3
2020	Cathode Electrochemistry in Nonaqueous Lithium Air Batteries. , 2014, , 59-120.		14
2021	Perovskite Materials in Electrocatalysis. Materials Horizons, 2020, , 209-250.	0.6	4
2022	Single-phase Ru1â^â^îMn Co O2 nanoparticles as highly effective oxygen reduction electrocatalysts in alkaline media with enhanced stability and fuel-tolerance. Applied Catalysis B: Environmental, 2020, 277, 119149.	20.2	13
2023	Na+-induced in situ reconstitution of metal phosphate enabling efficient electrochemical water oxidation in neutral and alkaline media. Chemical Engineering Journal, 2020, 398, 125537.	12.7	17
2024	Catalyst Engineering for Electrochemical Energy Conversion from Water to Water: Water Electrolysis and the Hydrogen Fuel Cell. Engineering, 2020, 6, 653-679.	6.7	75
2025	Lanthanide-regulated oxygen evolution activity of face-sharing IrO6 dimers in 6H-perovskite electrocatalysts. Chinese Journal of Catalysis, 2020, 41, 1692-1697.	14.0	18
2026	The possible implications of magnetic field effect on understanding the reactant of water splitting. Chinese Journal of Catalysis, 2022, 43, 148-157.	14.0	31
2027	Reviving Inert Oxides for Electrochemical Water Splitting by Subsurface Engineering. Chemistry of Materials, 2020, 32, 5569-5578.	6.7	11
2028	<i>Operando</i> XAS Study of the Surface Oxidation State on a Monolayer IrO <sub><i>x</i></sub> on RuO <sub><i>x</i></sub> and Ru Oxide Based Nanoparticles for Oxygen Evolution in Acidic Media. Journal of Physical Chemistry B, 2018, 122, 878-887.	2.6	59
2029	Lithium Peroxide Growth in Li–O2 Batteries via Chemical Disproportionation and Electrochemical Mechanisms: A Potential-Dependent Ab Initio Study with Implicit Solvation. Journal of Physical Chemistry C, 2021, 125, 436-445.	3.1	8
2030	Stress-Induced Electronic Structure Modulation of Manganese-Incorporated Ni <sub>2</sub> P Leading to Enhanced Activity for Water Splitting. ACS Applied Energy Materials, 2020, 3, 1271-1278.	5.1	24
2031	Heteroatom Modification of Nanoporous Nickel Surfaces for Electrocatalytic Water Splitting. ACS Applied Nano Materials, 2020, 3, 11298-11306.	5.0	11
2032	Data-Driven Descriptor Engineering and Refined Scaling Relations for Predicting Transition Metal Oxide Reactivity. ACS Catalysis, 2021, 11, 734-742.	11.2	52
2033	Charge-transfer-energy-dependent oxygen evolution reaction mechanisms for perovskite oxides. Energy and Environmental Science, 2017, 10, 2190-2200.	30.8	401

#	Article	IF	CITATIONS
2034	Cu–Co bimetallic nanospheres embedded in graphene as excellent anode catalysts for electrocatalytic oxygen evolution reaction. Micro and Nano Letters, 2019, 14, 466-469.	1.3	2
2035	Why does NiOOH cocatalyst increase the oxygen evolution activity of α-Fe2O3?. Journal of Chemical Physics, 2019, 150, 041729.	3.0	19
2036	Generalized scaling relationships on transition metals: Influence of adsorbate-coadsorbate interactions. Physical Review Materials, 2018, 2, .	2.4	8
2037	Predicting the Catalytic Activity of Surface Oxidation Reactions by Ionization Energies. CCS Chemistry, 2020, 2, 262-270.	7.8	14
2038	Recent Progress in First Principle Calculation and High-Throughput Screening of Electrocatalysts: A Review. Journal of Korean Institute of Metals and Materials, 2019, 57, 1-9.	1.0	7
2039	Investigation of LiO2 Adsorption on LaB1â^'xB′xO3(001) for Li-Air Battery Applications: A Density Functional Theory Study. Journal of the Korean Ceramic Society, 2016, 53, 306-311.	2.3	2
2040	Water Oxidation Mechanism for 3d Transition Metal Oxide Catalysts under Neutral Condition. Journal of the Korean Ceramic Society, 2017, 54, 1-8.	2.3	24
2041	Applications of Scanning Electrochemical Microscopy (SECM) Coupled to Atomic Force Microscopy with Sub-Micrometer Spatial Resolution to the Development and Discovery of Electrocatalysts. Journal of Electrochemical Science and Technology, 2016, 7, 316-326.	2.2	3
2042	Stabilizing oxygen intermediates on redox-flexible active sites in multimetallic Ni–Fe–Al–Co layered double hydroxide anodes for excellent alkaline and seawater electrolysis. Journal of Materials Chemistry A, 2021, 9, 27332-27346.	10.3	33
2043	Progress in theoretical and experimental investigation on seawater electrolysis: opportunities and challenges. Sustainable Energy and Fuels, 2021, 5, 5915-5945.	4.9	37
2044	Intermetallic compounds M <sub>2</sub> Pt (M = Al, Ga, In, Sn) in the oxygen evolution reaction. Sustainable Energy and Fuels, 2021, 5, 5762-5772.	4.9	7
2045	Design principles of noble metal-free electrocatalysts for hydrogen production in alkaline media: combining theory and experiment. Nanoscale Advances, 2021, 3, 6797-6826.	4.6	23
2046	Direct evidence of cobalt oxyhydroxide formation on a La <sub>0.2</sub> Sr <sub>0.8</sub> CoO <sub>3</sub> perovskite water splitting catalyst. Journal of Materials Chemistry A, 2022, 10, 2434-2444.	10.3	12
2047	Flexibility Enhances Reactivity: Redox Isomerism and Jahn–Teller Effects in a Bioinspired Mn <sub>4</sub> O <sub>4</sub> Cubane Water Oxidation Catalyst. ACS Catalysis, 2021, 11, 13320-13329.	11.2	12
2048	Research Progress of Oxygen Evolution Reaction Catalysts for Electrochemical Water Splitting. ChemSusChem, 2021, 14, 5359-5383.	6.8	70
2049	Ultrafine CoPt <sub>3</sub> nanoparticles encapsulated in nitrogenâ€doped carbon nanospheres for efficient water electrolysis. Electrochemical Science Advances, 2022, 2, e2100082.	2.8	0
2050	Photocatalytic Zâ€Scheme Overall Water Splitting: Recent Advances in Theory and Experiments. Advanced Materials, 2021, 33, e2105195.	21.0	123
2051	Emerging Electrocatalysts for Water Oxidation under Nearâ€Neutral CO <sub>2</sub> Reduction Conditions. Advanced Materials, 2022, 34, e2105852.	21.0	34

#	Article	IF	CITATIONS
2053	On the Durability of Iridiumâ€Based Electrocatalysts toward the Oxygen Evolution Reaction under Acid Environment. Advanced Functional Materials, 2022, 32, 2108465.	14.9	88
2054	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.	3.7	16
2055	Cobaltâ€Based Electrocatalysts as Air Cathodes in Rechargeable Zn–Air Batteries: Advances and Challenges. Small Structures, 2021, 2, 2100144.	12.0	40
2056	Efficient Alkaline Water Oxidation with a Regenerable Nickel Pseudo-Complex. ACS Applied Materials & Interfaces, 2021, 13, 48661-48668.	8.0	6
2057	Atomistic Insights into Cl <sup>–</sup> -Triggered Highly Selective Ethylene Electrochemical Oxidation to Epoxide on RuO <sub>2</sub> : Unexpected Role of the In Situ Generated Intermediate to Achieve Active Site Isolation. ACS Catalysis, 2021, 11, 13660-13669.	11.2	5
2058	Scalable Synthesis of Sm <sub>2</sub> O <sub>3</sub> /Fe <sub>2</sub> O <sub>3</sub> Hierarchical Oxygen Vacancy-Based Gyroid-Inspired Morphology: With Enhanced Electrocatalytic Activity for Oxygen Evolution Performance. Energy & Fuels, 2021, 35, 17820-17832.	5.1	32
2059	Revealing the Dynamics and Roles of Iron Incorporation in Nickel Hydroxide Water Oxidation Catalysts. Journal of the American Chemical Society, 2021, 143, 18519-18526.	13.7	96
2060	Se-induced underpotential deposition of amorphous CoSe2 ultrathin nanosheet arrays as high-efficiency oxygen evolution electrocatalysts for zinc–air batteries. Materials Today Energy, 2021, 22, 100882.	4.7	14
2061	Toward Multicomponent Single-Atom Catalysis for Efficient Electrochemical Energy Conversion. ACS Materials Au, 2022, 2, 1-20.	6.0	20
2062	Interface engineering of NiO/RuO2 heterojunction nano-sheets for robust overall water splitting at large current density. Chemical Engineering Journal, 2022, 430, 133117.	12.7	57
2064	Ultrahighâ€Currentâ€Density and Longâ€Termâ€Durability Electrocatalysts for Water Splitting. Small, 2022, 18, e2104513.	10.0	49
2065	Sulfur-anchoring synthesis of platinum intermetallic nanoparticle catalysts for fuel cells. Science, 2021, 374, 459-464.	12.6	343
2066	Synergistic Role of Eg Filling and Anion–Cation Hybridization in Enhancing the Oxygen Evolution Reaction Activity in Nickelates. ACS Applied Energy Materials, 0, , .	5.1	7
2067	Recent progress on bimetallic NiCo and CoFe based electrocatalysts for alkaline oxygen evolution reaction: A review. Journal of Energy Chemistry, 2022, 67, 101-137.	12.9	109
2068	Interpolation between W Dopant and Co Vacancy in CoOOH for Enhanced Oxygen Evolution Catalysis. Advanced Materials, 2022, 34, e2104667.	21.0	45
2069	Understanding the Catalytic Selectivity of Cobalt Hexacyanoferrate toward Oxygen Evolution in Seawater Electrolysis. ACS Catalysis, 2021, 11, 13140-13148.	11.2	26
2070	Transition metal atom doped Ni3S2 as efficient bifunctional electrocatalysts for overall water splitting: Design strategy from DFT studies. Molecular Catalysis, 2021, 516, 111955.	2.0	7
2071	A comprehensive review on the recent developments in transition metal-based electrocatalysts for oxygen evolution reaction. Applied Surface Science Advances, 2021, 6, 100184.	6.8	66

#	Article	IF	CITATIONS
2072	The role of selenium vacancies in the enhancement of electrocatalytic activity of CoNiSe2 for the oxygen evolution reaction. Journal of Power Sources, 2021, 514, 230596.	7.8	39
2073	Shape-Controlled Bimetallic Nanocatalysts in Fuel Cells: Synthesis and Electrocatalytic Studies. , 2014, , 121-142.		0
2074	Applications of Scanning Electrochemical Microscopy (SECM) Coupled to Atomic Force Microscopy with Sub-Micrometer Spatial Resolution to the Development and Discovery of Electrocatalysts. Journal of Electrochemical Science and Technology, 2016, 7, 316-326.	2.2	2
2075	Chapter 5. Evaluating Electrocatalysts for Solar Water-splitting Reactions. RSC Energy and Environment Series, 2018, , 154-181.	0.5	0
2076	Bifunctional Electrocatalysis of Quadruple Manganese Perovskite Oxide for Oxygen Reactions. Nihon Kessho Gakkaishi, 2018, 60, 76-77.	0.0	0
2078	Various Problems in Oxygen-evolution Reaction Catalysts in Alkaline Conditions and Perovskites Utilization. Ceramist, 2019, 22, 182-188.	0.1	0
2079	Bimetallic alloys encapsulated in fullerenes as efficient oxygen reduction or oxygen evolution reaction catalysts: A density functional theory study. Journal of Alloys and Compounds, 2022, 894, 162508.	5.5	20
2081	Structural Variations of Metal Oxideâ€Based Electrocatalysts for Oxygen Evolution Reaction. Small Methods, 2021, 5, e2100834.	8.6	42
2082	Covalent Organic Frameworks as Tunable Supports for HER, OER, and ORR Catalysts: A New Addition to Heterogeneous Electrocatalysts. Nanostructure Science and Technology, 2022, , 389-444.	0.1	0
2083	Water Splitting on Multifaceted SrTiO3 Nanocrystals: Computational Study. Catalysts, 2021, 11, 1326.	3.5	7
2084	Breaking the scaling relations of oxygen evolution reaction on amorphous NiFeP nanostructures with enhanced activity for overall seawater splitting. Applied Catalysis B: Environmental, 2022, 302, 120862.	20.2	97
2085	Enhanced oxygen evolution reaction on polyethyleneimine functionalized graphene oxide in alkaline medium. Molecular Catalysis, 2021, 516, 111960.	2.0	1
2086	Outstanding Oxygen Reduction Reaction Catalytic Performance of In–PtNi Octahedral Nanoparticles Designed via Computational Dopant Screening. Chemistry of Materials, 2021, 33, 8895-8903.	6.7	17
2087	Free energy difference to create the M-OH* intermediate of the oxygen evolution reaction by time-resolved optical spectroscopy. Nature Materials, 2022, 21, 88-94.	27.5	23
2088	Double-atom catalysts as a molecular platform for heterogeneous oxygen evolution electrocatalysis. Nature Energy, 2021, 6, 1054-1066.	39.5	159
2089	Fundamental Atomic Insight in Electrocatalysis. , 2020, , 1473-1503.		1
2090	Oxygen Evolution Reaction on a N-Doped Co <sub>0.5</sub> -Terminated Co <sub>3</sub> o <sub>4</sub> (001) Surface. Proceedings of the Latvian Academy of Sciences, 2020, 74, 396-403.	0.1	0
2091	Recent advances of anion regulated NiFe-based electrocatalysts for water oxidation. Sustainable Energy and Fuels, 2021, 5, 6298-6309.	4.9	7

ARTICLE IF CITATIONS Highly Efficient Electrocatalytic Water Splitting., 2020, , 1-33. 2092 0 Energy Trends in Adsorption at Surfaces., 2020, , 1321-1341. 2093 In Situ Exfoliation and Pt Deposition of Antimonene for Formic Acid Oxidation via a Predominant 2094 5.7 10 Dehydrogenation Pathway. Research, 2020, 2020, 5487237. Electrocatalytic performance of Mn-adsorbed g-C<sub>3</sub>N<sub>4</sub>: a first-principles study. Journal of Materials Chemistry A, 2021, 9, 26266-26276. High-Throughput Computational Studies in Catalysis and Materials Research, and Their Impact on 2096 1 Rational Design., 2020, , 1-44. Dynamic Surface Reconstruction Unifies the Electrocatalytic Oxygen Evolution Performance of Nonstoichiometric Mixed Metal Oxides. Jacs Au, 2021, 1, 2224-2241. Regulation of Electrocatalytic Activity by Local Microstructure: Focusing on the Catalytic Active 2098 3.3 1 Zone. Chemistry - A European Journal, 2022, 28, . Advances and Challenges in Industrial-Scale Water Oxidation on Layered Double Hydroxides. ACS 2099 5.1 Applied Energy Materials, 2021, 4, 12032-12055. Facile Synthesis of Amorphous MoCo Lamellar Hydroxide for Alkaline Water Oxidation. 2100 6.8 4 ChemSúsChem, 2022, 15, . Experimental and Theoretical Insights into the Borohydride-Based Reduction-Induced Metal Interdiffusion in Fe-Oxide@NiCo<sub>2</sub>O<sub>4</sub> for Enhanced Oxygen Evolution. ACS 8.0 Applied Materials & amp; Interfaces, 2021, 13, 53725-53735. Hierarchy and delithiation regulations on mesoporous LiCoO2 nanosheets for boosted water 2102 2 4.3oxidation electrocatalysis. Applied Materials Today, 2021, 25, 101241. Electrodes with Electrodeposited Water-excluding Polymer Coating Enable High-Voltage Aqueous 5.7 Supercapacitors. Research, 2020, 2020, 4178179 The role of proton dynamics on the catalyst-electrolyte interface in the oxygen evolution reaction. 2104 14.0 5 Chinese Journal of Catalysis, 2022, 43, 139-147. Epitaxial oxide thin films for oxygen electrocatalysis: A tutorial review. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2022, 40, 010801. 2.1 Highly active oxygen evolution reaction electrocatalyst based on defective-CeO2-x decorated 2106 5.213 MOF(Ni/Fe). Electrochimica Acta, 2022, 403, 139630. The regulation mechanism of V-shaped 103 nano-twin grain boundary on OER performance of rutile 6.1 RuO2. Applied Surface Science, 2022, 578, 151900. Prediction of functionalized graphene as potential catalysts for overall water splitting. Applied 2108 6.1 8 Surface Science, 2022, 578, 151989. Graphene oxide wrapped Mix-valent cobalt phosphate hollow nanotubes as oxygen evolution catalyst 9.4 with low overpotential. Journal of Colloid and Interface Science, 2022, 610, 592-600.

#	Article	IF	CITATIONS
2110	Critical Review, Recent Updates on Zeolitic Imidazolate Frameworkâ€67 (ZIFâ€67) and Its Derivatives for Electrochemical Water Splitting. Advanced Materials, 2022, 34, e2107072.	21.0	183
2111	Regulating Electron Redistribution of Intermetallic Iridium Oxide by Incorporating Ru for Efficient Acidic Water Oxidation. Advanced Energy Materials, 2021, 11, .	19.5	64
2112	Engineering Efficient Nilr <sub><i>x</i></sub> /CNT Hybrid Nanostructures for pH-Universal Oxygen Evolution. Journal of Physical Chemistry C, 2021, 125, 26003-26012.	3.1	6
2113	Pyridinic-N Doped Porous Graphene Supported on Metal Substrates As the Promising Electrocatalyst for Oxygen Reduction Reaction. Energy & amp; Fuels, 2021, 35, 19634-19640.	5.1	1
2114	Recent progress and perspective of cobalt-based catalysts for water splitting: design and nanoarchitectonics. Materials Today Energy, 2022, 23, 100911.	4.7	28
2115	Carbothermal shock-induced bifunctional Pt-Co alloy electrocatalysts for high-performance seawater batteries. Energy Storage Materials, 2022, 45, 281-290.	18.0	11
2116	Low-dimensional non-metal catalysts: principles for regulating p-orbital-dominated reactivity. Npj Computational Materials, 2021, 7, .	8.7	41
2117	Rational Design of Metal-free Doped Carbon Nanohorn Catalysts for Efficient Electrosynthesis of H <sub>2</sub> O <sub>2</sub> from O <sub>2</sub> Reduction. ACS Applied Energy Materials, 2021, 4, 12436-12447.	5.1	16
2118	Theoretical Prediction of a Bi-Doped Î <sup>2</sup> -Antimonene Monolayer as a Highly Efficient Photocatalyst for Oxygen Reduction and Overall Water Splitting. ACS Applied Materials & Interfaces, 2021, 13, 56254-56264.	8.0	10
2119	Interfacial Engineering of Metal/Metal Oxide Heterojunctions toward Oxygen Reduction and Evolution Reactions. ChemPlusChem, 2021, 86, 1586-1601.	2.8	14
2120	Strategies of designing electrocatalysts for seawater splitting. Journal of Solid State Chemistry, 2022, 306, 122799.	2.9	17
2121	Experimental and Theoretical Insights into Transition-Metal (Mo, Fe) Codoping in a Bifunctional Nickel Phosphide Microsphere Catalyst for Enhanced Overall Water Splitting. ACS Applied Energy Materials, 2021, 4, 14169-14179.	5.1	39
2122	Field-Free Improvement of Oxygen Evolution Reaction in Magnetic Two-Dimensional Heterostructures. Nano Letters, 2021, 21, 10486-10493.	9.1	43
2123	Green hydrogen production via electrochemical conversion of components from alkaline carbohydrate degradation. International Journal of Hydrogen Energy, 2022, 47, 3644-3654.	7.1	9
2124	Redox-State Kinetics in Water-Oxidation IrO <sub><i>x</i></sub> Electrocatalysts Measured by <i>Operando</i> Spectroelectrochemistry. ACS Catalysis, 2021, 11, 15013-15025.	11.2	23
2125	Enhanced OER activity of FePc molecule by substrate effects: A first principles study. Surface Science, 2022, 717, 122000.	1.9	3
2126	A "Preâ€Constrained Metal Twins―Strategy to Prepare Efficient Dualâ€Metalâ€Atom Catalysts for Cooperative Oxygen Electrocatalysis. Advanced Materials, 2022, 34, e2107421.	21.0	134
2127	Fe-Triazole coordination compound-derived Fe <sub>2</sub> O <sub>3</sub> nanoparticles anchored on Fe-MOF/N-doped carbon nanosheets for efficient electrocatalytic oxygen evolution reaction. Dalton Transactions, 2021, 50, 16829-16841.	3.3	4

#	Article	IF	CITATIONS
2128	Spin unlocking oxygen evolution reaction on antiperovskite nitrides. Journal of Materials Chemistry A, 2021, 9, 25435-25444.	10.3	19
2129	Vanadiumâ€Incorporated CoP <sub>2</sub> with Lattice Expansion for Highly Efficient Acidic Overall Water Splitting. Angewandte Chemie, 2022, 134, .	2.0	16
2130	Fundamental understanding of electrocatalysis over layered double hydroxides from the aspects of crystal and electronic structures. Nanoscale, 2022, 14, 1107-1122.	5.6	6
2131	Electrocatalysis enabled transformation of earth-abundant water, nitrogen and carbon dioxide for a sustainable future. Materials Advances, 2022, 3, 1359-1400.	5.4	17
2132	Carbon-cloth-supported nickel hydroxide anodes for electrochemical–thermally-activated chemical (E-TAC) water splitting. Journal of Materials Chemistry A, 2022, 10, 726-739.	10.3	9
2133	Oxygen evolution reaction at the Mo/W-doped bismuth vanadate surface: Assessing the dopant role by DFT calculations. Molecular Catalysis, 2022, 517, 112036.	2.0	11
2134	Mechanistic understanding of pH effects on the oxygen evolution reaction. Electrochimica Acta, 2022, 405, 139810.	5.2	31
2135	Computational study of h-WO3 surfaces as a semiconductor in water-splitting application. Surfaces and Interfaces, 2022, 28, 101695.	3.0	6
2136	Enhancement of oxygen evolution reaction by X-doped (XÂ= Se, S, P) holey graphitic carbon shell encapsulating NiCoFe nanoparticles: a combined experimental and theoretical study. Materials Today Chemistry, 2022, 23, 100706.	3.5	4
2137	Non-precious metal activated MoSi2N4 monolayers for high-performance OER and ORR electrocatalysts: A first-principles study. Applied Surface Science, 2022, 579, 152234.	6.1	36
2138	Mesoporous IrNiTa metal glass ribbon as a superior self-standing bifunctional catalyst for water electrolysis. Chemical Engineering Journal, 2022, 431, 134210.	12.7	16
2139	Adjusting the catalytic activity of C2N/SiH heterojunction for water splitting: A first-principles study. Applied Surface Science, 2022, 579, 152233.	6.1	20
2140	Engineering Gd2O3-Ni heterostructure for efficient oxygen reduction electrocatalysis via the electronic reconfiguration and adsorption optimization of intermediates. Chemical Engineering Journal, 2022, 433, 134597.	12.7	13
2141	Electronic modulation optimizes OH* intermediate adsorption on Co-Nx-C sites via coupling CoNi alloy in hollow carbon nanopolyhedron toward efficient reversible oxygen electrocatalysis. Applied Catalysis B: Environmental, 2022, 304, 121006.	20.2	76
2143	Rational design of metal oxide catalysts for electrocatalytic water splitting. Nanoscale, 2021, 13, 20324-20353.	5.6	38
2144	Tuning of Oxygen Reduction Pathways through Structural Variation in Transition Metalâ€Đoped Ba 2 In 2 O 5. ChemElectroChem, 2022, 9, .	3.4	2
2145	Perspective on the Relationship between the Acidity of Perovskite Oxides and Their Oxygen Surface Exchange Kinetics. Chemistry of Materials, 2022, 34, 991-997.	6.7	11
2146	Electronic Structure-Based Descriptors for Oxide Properties and Functions. Accounts of Chemical Research, 2022, 55, 298-308.	15.6	42

ARTICLE IF CITATIONS Overcoming Hurdles in Oxygen Evolution Catalyst Discovery via Codesign. Chemistry of Materials, 6.7 17 2147 2022, 34, 899-910. Multiple roles of graphene in electrocatalysts for metal-air batteries. Catalysis Today, 2023, 409, 2-22. 2148 4.4 Green heterogeneous catalysis., 2022, , 193-242. 2149 1 Revisiting catalytic performance of supported metal dimers for oxygen reduction reaction via 2150 magnetic coupling from first principles. , 2022, 1, 100031. Safeguarding the RuO<sub>2</sub> phase against lattice oxygen oxidation during acidic water 2151 30.8 66 electrooxidation. Energy and Environmental Science, 2022, 15, 1119-1130. Seamless separation of OH<sub>ad</sub>and H<sub>ad</sub>on a Niâ€"O catalyst toward exceptional 10.3 alkaline hydrogen evolution. Journal of Materials Chemistry A, 2022, 10, 1278-1283. LDH-derived phosphide/N-doped graphene oxide hierarchical electrocatalyst for enhanced oxygen 2153 2.6 7 evolution reaction. CrystEngComm, 2022, 24, 1189-1194. Crystal Structures of Ironâ€Based Oxides and Their Catalytic Efficiencies for the Oxygen Evolution 3.4 Reaction: A Trend in Alkaline Media. ChemElectroChem, 2022, 9, . Implications of Nonelectrochemical Reaction Steps on the Oxygen Evolution Reaction: Oxygen Dimer 2156 11.2 12 Formation on Perovskite Oxide and Oxynitride Surfaces. ACS Catalysis, 2022, 12, 1433-1442. Electronic and catalytic properties of carbon nitride derivatives tuned by building blocks and 7.1 linkages. International Journal of Hydrogen Energy, 2022, 47, 8761-8775. In-situ growth of hierarchical CuO@Cu3P heterostructures with transferable active centers on copper foam substrates as bifunctional electrocatalysts for overall water splitting in alkaline media. 2158 7.1 12 International Journal of Hydrogen Energy, 2022, 47, 9593-9605. Redirecting dynamic structural evolution of nickel-contained RuO2 catalyst during electrochemical 24 oxygen evolution reaction. Journal of Energy Chemistry, 2022, 69, 330-337. Stabilization of ruthenium nanoparticles over NiV-LDH surface for enhanced electrochemical water 2160 10.3 61 splitting: an oxygen vacancy approach. Journal of Materials Chemistry A, 2022, 10, 3618-3632. An indium-induced-synthesis In<sub>0.17</sub>Ru<sub>0.83</sub>O<sub>2</sub> nanoribbon as highly active electrocatalyst for oxygen evolution in acidic media at high current densities above 400 mA cm<sup>â^2</sup>. Journal of Materials Chemistry A, 2022, 10, 3722-3731. Vanadiumâ€Incorporated CoP<sub>2</sub> with Lattice Expansion for Highly Efficient Acidic Overall 2162 13.8 85 Water Splitting. Angewandte Chemie - International Edition, 2022, 61, . SnO<sub>2</sub>-supported single metal atoms: a bifunctional catalyst for the electrochemical 2163 synthesis of H<sub>2'{}sub>0<sub>2</sub>. Journal of Materials Chemistry A, 2022, 10, 6115-6121. Development of Niâ€Ir Oxide Composites as Oxygen Catalysts for an Anionâ€Exchange Membrane Water 2164 3.7 14 Electrolyzer. Advanced Materials Interfaces, 2022, 9, . Providing Atomistic Insights into the Dissolution of Rutile Oxides in Electrocatalytic Water Splitting. 3.1 Journal of Physical Chemistry C, 2022, 126, 922-932.

ARTICLE IF CITATIONS In situ/operando analysis of surface reconstruction of transition metal-based oxygen evolution 2166 29 5.6 electrocatalysts. Cell Reports Physical Science, 2022, 3, 100729. Method to Determine the Bifunctional Index for the Oxygen Electrocatalysis from Theory. 3.4 ChemElectroChem, 2022, 9, . <i>In Situ</i> Spectroelectrochemical Detection of Oxygen Evolution Reaction Intermediates with a 2168 Carboxylated Graphene–MnO<sub>2</sub> Electrocatalyst. ACS Applied Materials & amp; Interfaces, 8.0 14 2022, 14, 5177-5182. Computational Scaling Relationships Predict Experimental Activity and Rate-Limiting Behavior in 2169 4.0 Homogeneous Water Oxidation. Inorganic Chemistry, 2022, 61, 2186-2197. Interfacial interaction induced OER activity of MOF derived superhydrophilic 2170 3.3 8 Co<sub>3</sub>O<sub>4</sub>â€"NiO hybrid nanostructures. Dalton Transactions, 2022, 51, 2019-2025. Positive and Negative Synergistic Effects of Fe–Co Mixing on the Oxygen and Hydrogen Evolution Reaction Activities of the Quadruple Perovskite CaCu<sub>3</sub>Fe<sub>4–<i>x</i></sub>Co<sub><i>x</i></sub>O<sub>12</sub>. ACS Applied Energy 2171 5.1Materials. 2022. 5. 214-226. Coordination modulation of iridium single-atom catalyst maximizing water oxidation activity. Nature 2172 12.8 99 Communications, 2022, 13, 24. B2O and B4N monolayers supported single-metal atom as highly efficient bifunctional electrocatalyst 3.7 for OER and ORR. Journal of Materials Science, 2022, 57, 398-410. Electronic properties of double-atom catalysts for electrocatalytic oxygen evolution reaction in 2174 5.6 17 alkaline solution: a DFT study. Nanoscale, 2021, 14, 187-195. Avoiding Pyrolysis and Calcination: Advances in the Benign Routes Leading to MOFâ€Derived 3.4 Electrocatalysts. ChemElectroChem, 2022, 9, . Graphynes: ideal supports of single atoms for electrochemical energy conversion. Journal of 2176 10.3 21 Materials Chemistry A, 2022, 10, 3905-3932. Development and Functionalization of Visible-Light-Driven Water-Splitting Photocatalysts. 4.1 Nanomaterials, 2022, 12, 344. First principles evaluation of the OER properties of TMâ<sup>^</sup>X (TMÂ=ÂCr, Mn, Fe, Mo, Ru, W and Os, and XÂ=ÂF) Tj ETQq0 0 0 rgBT /Overloo 2178 Water dissociation on Mixed Co-Fe oxide bilayer nanoislands on Au(111). Journal of Physics Condensed 2179 1.8 Matter, 2022, , . Ru-Doped NiFe Layered Double Hydroxide as a Highly Active Electrocatalyst for Oxygen Evolution 2180 2.9 15 Reaction. Journal of the Electrochemical Society, 2022, 169, 024503. Facile synthesis of self support Fe doped Ni3S2 nanosheet arrays for high performance alkaline oxygen evolutión. Journal of Electroanalytical Chemistry, 2022, 907, 116047. Covalent organic frameworks based on electroactive naphthalenediimide as active electrocatalysts 2182 4.3 13 toward oxygen reduction reaction. Applied Materials Today, 2022, 26, 101384.

CITATION REPORT

<sup>2183</sup> Unravelling the synergy of oxygen vacancies and gold nanostars in hematite for the electrochemical 16.0 33 16.0 33

#	Article	IF	CITATIONS
2184	Metal substrates activate NiFe(oxy)hydroxide catalysts for efficient oxygen evolution reaction in alkaline media. Journal of Alloys and Compounds, 2022, 901, 163689.	5.5	16
2185	Design of hydrangea-type Co/Mo bimetal MOFs and MOF-derived Co/Mo2C embedded carbon composites for highly efficient oxygen evolution reaction. Chemical Engineering Journal, 2022, 435, 134815.	12.7	26
2186	Activation of molecular oxygen over Mn-doped La <sub>2</sub> CuO <sub>4</sub> perovskite for direct epoxidation of propylene. Catalysis Science and Technology, 2022, 12, 2426-2437.	4.1	9
2187	Bridging electrocatalyst and cocatalyst studies for solar hydrogen production <i>via</i> water splitting. Chemical Science, 2022, 13, 2824-2840.	7.4	15
2188	The rise of electrochemical NAPXPS operated in the soft X-ray regime exemplified by the oxygen evolution reaction on IrO <sub><i>x</i> </sub> electrocatalysts. Faraday Discussions, 2022, 236, 103-125.	3.2	11
2189	Interâ€relationships between Oxygen Evolution and Iridium Dissolution Mechanisms. Angewandte Chemie, 0, , .	2.0	0
2190	Descriptor and Scaling Relations for Ion Mobility in Crystalline Solids. Jacs Au, 2022, 2, 463-471.	7.9	19
2191	Interâ€relationships between Oxygen Evolution and Iridium Dissolution Mechanisms. Angewandte Chemie - International Edition, 2022, 61, .	13.8	59
2192	Tuning chemical and surface composition of nickel cobaltite-based nanocomposites through solvent and its impact on electrocatalytic activity for oxygen evolution. Journal of Materials Science, 2022, 57, 5097-5117.	3.7	3
2193	Strong Oxideâ€Support Interaction over IrO <sub>2</sub> /V <sub>2</sub> O <sub>5</sub> for Efficient pHâ€Universal Water Splitting. Advanced Science, 2022, 9, e2104636.	11.2	77
2194	Bifunctional Ni-Fe/NiMoNx nanosheets on Ni foam for high-efficiency and durable overall water splitting. Catalysis Communications, 2022, 164, 106426.	3.3	9
2195	Trimetallic oxide-hydroxide porous nanosheets for efficient water oxidation. Chemical Engineering Journal, 2022, 435, 135019.	12.7	13
2196	Simultaneous integration of low-level rhenium (Re) doping and nitrogen-functionalized 3D carbon backbone into nickel-iron hydroxide (NiFeOH) to amplify alkaline water electrolysis at high current densities. Chemical Engineering Journal, 2022, 435, 135184.	12.7	13
2197	Modulating metal–organic frameworks for catalyzing acidic oxygen evolution for proton exchange membrane water electrolysis. SusMat, 2021, 1, 460-481.	14.9	86
2198	Simultaneous Integration of Low-Level Rhenium (Re) Doping and Nitrogen-Functionalized 3d Carbon Backbone into Nickel-Iron Hydroxide (Nifeoh) to Amplify Alkaline Water Electrolysis at High Current Densities. SSRN Electronic Journal, 0, , .	0.4	0
2199	The low overpotential regime of acidic water oxidation part I: the importance of O <sub>2</sub> detection. Energy and Environmental Science, 2022, 15, 1977-1987.	30.8	23
2200	A microkinetic description of electrocatalytic reactions: the role of self-organized phenomena. New Journal of Chemistry, 2022, 46, 6837-6846.	2.8	7
2201	Computational screening of single-atom catalysts supported by VS <sub>2</sub> monolayers for electrocatalytic oxygen reduction/evolution reactions. Nanoscale, 2022, 14, 6902-6911.	5.6	30

#	Article	IF	CITATIONS
2202	Computational screening of transition-metal doped boron nanotubes as efficient electrocatalysts for water splitting. RSC Advances, 2022, 12, 6841-6847.	3.6	0
2203	Dynamic coordination transformation of active sites in single-atom MoS <sub>2</sub> catalysts for boosted oxygen evolution catalysis. Energy and Environmental Science, 2022, 15, 2071-2083.	30.8	33
2204	Coni Nanoalloy-Co-N4 Composite Active Sites Embedded in Hierarchical Porous Carbon as Bi-Functional Catalysts for Flexible Zn-Air Battery. SSRN Electronic Journal, 0, , .	0.4	0
2205	An efficient factor for fast screening of high-performance two-dimensional metal–organic frameworks towards catalyzing the oxygen evolution reaction. Chemical Science, 2022, 13, 4397-4405.	7.4	11
2206	The low overpotential regime of acidic water oxidation part II: trends in metal and oxygen stability numbers. Energy and Environmental Science, 2022, 15, 1988-2001.	30.8	35
2207	Research progress in improving the oxygen evolution reaction by adjusting the 3d electronic structure of transition metal catalysts. Nanoscale, 2022, 14, 5639-5656.	5.6	24
2208	In-Situ Electrochemical Surface Reconstruction of Feconi Trimetal Phosphides to Active Oxyhydroxide for Large-Current-Density Oxygen Evolution. SSRN Electronic Journal, 0, , .	0.4	0
2209	Design of 3d transition metal anchored B <sub>5</sub> N <sub>3</sub> catalysts for electrochemical CO <sub>2</sub> reduction to methane. Journal of Materials Chemistry A, 2022, 10, 9737-9745.	10.3	31
2210	A novel PdC monolayer with fully dispersed Pd atoms and a rigid carbon backbone: an intrinsic versatile electrocatalyst for overall water splitting and the corresponding reverse reaction. Physical Chemistry Chemical Physics, 2022, 24, 6811-6819.	2.8	1
2211	Low-Temperature Crystallization of Lafeo3 and Inherent Surface Activation for Efficient Oxygen Evolution Reaction Catalysts. SSRN Electronic Journal, 0, , .	0.4	0
2212	The bifunctional volcano plot: thermodynamic limits for single-atom catalysts for oxygen reduction and evolution. Journal of Materials Chemistry A, 2022, 10, 5937-5941.	10.3	11
2213	Thgraphene: a novel two-dimensional carbon allotrope as a potential multifunctional material for electrochemical water splitting and potassium-ion batteries. Journal of Materials Chemistry A, 2022, 10, 9848-9857.	10.3	20
2214	Steps towards highly-efficient water splitting and oxygen reduction using nanostructured β-Ni(OH) <sub>2</sub> . RSC Advances, 2022, 12, 10020-10028.	3.6	5
2215	Interplaying coordination and ligand effects to break or make adsorptionâ€energy scaling relations. Exploration, 2022, 2, .	11.0	7
2216	Tunable metal hydroxide–organic frameworks for catalysing oxygen evolution. Nature Materials, 2022, 21, 673-680.	27.5	123
2217	Opportunities and Challenges in Electrolytic Propylene Epoxidation. Journal of Physical Chemistry Letters, 2022, 13, 2057-2063.	4.6	15
2218	Advances in Oxygen Evolution Electrocatalysts for Proton Exchange Membrane Water Electrolyzers. Advanced Energy Materials, 2022, 12, .	19.5	105
2219	Manipulating oxygenate adsorption on N-doped carbon by coupling with CoSn alloy for bifunctional oxygen electrocatalyst. Green Energy and Environment, 2023, 8, 1417-1428.	8.7	6

#	Article	IF	CITATIONS
2220	Enhancing the stability of cobalt spinel oxide towards sustainable oxygen evolution in acid. Nature Catalysis, 2022, 5, 109-118.	34.4	236
2221	Theoretical Investigation of the Active Sites in N-Doped Graphene Bilayer for the Oxygen Reduction Reaction in Alkaline Media in PEMFCs. Journal of Physical Chemistry C, 2022, 126, 5863-5872.	3.1	8
2223	Design of Hierarchical Oxide arbon Nanostructures for Trifunctional Electrocatalytic Applications. Advanced Materials Interfaces, 2022, 9, .	3.7	8
2224	Durable Electrooxidation of Acidic Water Catalysed by a Cobaltâ€Bismuthâ€based Oxide Composite: An Unexpected Role of the Fâ€doped SnO <sub>2</sub> Substrate. ChemCatChem, 2022, 14, .	3.7	9
2225	Theoretical Optimization of Compositions of Highâ€Entropy Oxides for the Oxygen Evolution Reaction**. Angewandte Chemie, 2022, 134, .	2.0	3
2226	Binary dopant segregation enables hematite-based heterostructures for highly efficient solar H2O2 synthesis. Nature Communications, 2022, 13, 1499.	12.8	24
2227	What is Next in Anionâ€Exchange Membrane Water Electrolyzers? Bottlenecks, Benefits, and Future. ChemSusChem, 2022, 15, .	6.8	77
2228	CdS@NiCo-LDH hybrid photoelectrocatalyst with enhanced photocatalytic activity: A convenient and stable hybrid for wastewater treatment. Journal of Alloys and Compounds, 2022, 911, 164736.	5.5	5
2229	Effect of YRu-VO complex on the OER activity of V-shaped RuO2 Σ103 nanotwin. Physica B: Condensed Matter, 2022, 637, 413884.	2.7	2
2230	Integrated Catalytic Sites for Highly Efficient Electrochemical Oxidation of the Aldehyde and Hydroxyl Groups in 5-Hydroxymethylfurfural. ACS Catalysis, 2022, 12, 4242-4251.	11.2	74
2231	New Undisputed Evidence and Strategy for Enhanced Latticeâ€Oxygen Participation of Perovskite Electrocatalyst through Cation Deficiency Manipulation. Advanced Science, 2022, 9, e2200530.	11.2	75
2232	Nonmetallic Active Sites on Nickel Phosphide in Oxygen Evolution Reaction. Nanomaterials, 2022, 12, 1130.	4.1	3
2233	Tuning the Polarity of a Fibrous Poly(vinylidene fluoride- <i>co</i> -hexafluoropropylene)-Based Support for Efficient Water Electrolysis. ACS Omega, 2022, 7, 10077-10086.	3.5	5
2234	Intrinsic defects of nonprecious metal electrocatalysts for energy conversion: Synthesis, advanced characterization, and fundamentals. ChemPhysMater, 2022, 1, 155-182.	2.8	6
2235	VO2 as a Highly Efficient Electrocatalyst for the Oxygen Evolution Reaction. Nanomaterials, 2022, 12, 939.	4.1	10
2236	Electrochemical hydrogen generation technology: Challenges in electrodes materials for a sustainable energy. Electrochemical Science Advances, 2023, 3, .	2.8	8
2237	Co <sub><i>x</i></sub> (VO) <sub><i>y</i></sub> O <sub><i>z</i></sub> Nanocrystal-Integrated Covalent Organic Polymers as a Highly Active and Durable Catalyst for Electrochemical Water Oxidation: An Untold Role of the VO <sup>2+</sup> /VO <sub>2</sub> <sup>+</sup> Redox Couple. ACS Applied Energy Materials, 2022, 5, 2805-2816.	5.1	10
2238	A first-principles study on the electrochemical reaction activity of 3d transition metal single-atom catalysts in nitrogen-doped graphene: Trends and hints. EScience, 2022, 2, 219-226.	41.6	51

#	Article	IF	CITATIONS
2239	Computational Insight into TM–N <sub><i>x</i></sub> Embedded Graphene Bifunctional Electrocatalysts for Oxygen Evolution and Reduction Reactions. ACS Physical Chemistry Au, 2022, 2, 305-315.	4.0	10
2240	Coreâ€Shell Nanostructured Ru@Ir–O Electrocatalysts for Superb Oxygen Evolution in Acid. Small, 2022, 18, e2108031.	10.0	25
2241	Why should transition metal chalcogenides be investigated as water splitting precatalysts even though they transform into (oxyhydr)oxides?. Current Opinion in Electrochemistry, 2022, 34, 100991.	4.8	26
2242	Heterointerface Created on Auâ€Clusterâ€Loaded Unilamellar Hydroxide Electrocatalysts as a Highly Active Site for the Oxygen Evolution Reaction. Advanced Materials, 2022, 34, e2110552.	21.0	36
2243	Interface design and composition regulation of cobalt-based electrocatalysts for oxygen evolution reaction. International Journal of Hydrogen Energy, 2022, 47, 10547-10572.	7.1	34
2244	V <sub>2</sub> O <sub>3</sub> /MnS Arrays as Bifunctional Air Electrode for Long‣asting and Flexible Rechargeable Znâ€Air Batteries. Small, 2022, 18, e2104411.	10.0	16
2245	Theoretical Optimization of Compositions of Highâ€Entropy Oxides for the Oxygen Evolution Reaction**. Angewandte Chemie - International Edition, 2022, 61, .	13.8	40
2246	Guiding the Optimization of Membrane Electrode Assembly in a Proton Exchange Membrane Water Electrolyzer by Machine Learning Modeling and Black-Box Interpretation. ACS Sustainable Chemistry and Engineering, 2022, 10, 4561-4578.	6.7	12
2247	Electrochemically Derived Crystalline CuO from Covellite CuS Nanoplates: A Multifunctional Anode Material. Inorganic Chemistry, 2022, 61, 4995-5009.	4.0	22
2248	Nanostructured Metal Phosphide Based Catalysts for Electrochemical Water Splitting: A Review. Small, 2022, 18, e2107572.	10.0	100
2249	Facile deposition of palladium oxide (PdO) nanoparticles on CoNi <sub>2</sub> S <sub>4</sub> microstructures towards enhanced oxygen evolution reaction. Nanotechnology, 2022, 33, 275402.	2.6	8
2250	Structural Buffer Engineering on Metal Oxide for Longâ€Term Stable Seawater Splitting. Advanced Functional Materials, 2022, 32, .	14.9	64
2251	Two-dimensional g-C6N6/SiP-GaS van der Waals heterojunction for overall water splitting under visible light. International Journal of Hydrogen Energy, 2022, 47, 16014-16024.	7.1	11
2252	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.	6.2	10
2253	Cation-Dependent Multielectron Kinetics of Metal Oxide Splitting. Chemistry of Materials, 2022, 34, 3872-3881.	6.7	1
2254	Electrochemically formed PtFeNi alloy nanoparticles on defective NiFe LDHs with charge transfer for efficient water splitting. Chinese Journal of Catalysis, 2022, 43, 1101-1110.	14.0	12
2255	Investigation of Oxygen Reduction Reaction of Graphene Supported Metal-N <sub>4</sub> Catalysts via Density Functional Theory. Journal of the Electrochemical Society, 2022, 169, 044521.	2.9	1
2256	Heteroatom-doped fullerene C70 as non-metal electrocatalysts for oxygen reduction and oxygen evolution from computational study. Diamond and Related Materials, 2022, 124, 108954.	3.9	3

	CITATIC	IN KEPORT	
#	Article	IF	CITATIONS
2257	Statistical analysis of breaking scaling relation in the oxygen evolution reaction. Electrochimica Acta, 2022, 412, 140125.	5.2	12
2258	Polymer Modification of Surface Electronic Properties of Electrocatalysts. ACS Energy Letters, 2022, 7, 1586-1593.	17.4	13
2259	Solar-to-hydrogen peroxide conversion of photocatalytic carbon dots with anthraquinone: Unveiling the dual role of surface functionalities. Applied Catalysis B: Environmental, 2022, 312, 121379.	20.2	28
2260	Partial crystallization of Co–Fe oxyhydroxides towards enhanced oxygen evolution activity. International Journal of Hydrogen Energy, 2022, 47, 16711-16718.	7.1	12
2261			

#	Article	IF	CITATIONS
2275	Confinement Effects in Individual Carbon Encapsulated Nonprecious Metalâ€Based Electrocatalysts. Advanced Functional Materials, 2022, 32, .	14.9	35
2276	Lattice site–dependent metal leaching in perovskites toward a honeycomb-like water oxidation catalyst. Science Advances, 2021, 7, eabk1788.	10.3	41
2277	Oxygen Evolution and Reduction on Two-Dimensional Transition Metal Dichalcogenides. Journal of Physical Chemistry Letters, 2022, 13, 58-65.	4.6	16
2278	Monitoring oxygen production on mass-selected iridium–tantalum oxide electrocatalysts. Nature Energy, 2022, 7, 55-64.	39.5	108
2279	Transition Metal and N Doping on AlP Monolayers for Bifunctional Oxygen Electrocatalysts: Density Functional Theory Study Assisted by Machine Learning Description. ACS Applied Materials & Interfaces, 2022, 14, 1249-1259.	8.0	48
2280	Three-Dimensional Unified Electrode Design Using a NiFeOOH Catalyst for Superior Performance and Durable Anion-Exchange Membrane Water Electrolyzers. ACS Catalysis, 2022, 12, 135-145.	11.2	38
2281	Dualâ€Metal Atom Electrocatalysts: Theory, Synthesis, Characterization, and Applications. Advanced Energy Materials, 2022, 12, .	19.5	78
2282	Bimetallic Ir <sub><i>x</i></sub> Pb nanowire networks with enhanced electrocatalytic activity for the oxygen evolution reaction. Journal of Materials Chemistry A, 2022, 10, 11196-11204.	10.3	6
2283	Effect of doping TiO <sub>2</sub> with Mn for electrocatalytic oxidation in acid and alkaline electrolytes. Energy Advances, 2022, 1, 357-366.	3.3	4
2284	Challenges of modeling nanostructured materials for photocatalytic water splitting. Chemical Society Reviews, 2022, 51, 3794-3818.	38.1	64
2285	Adding NaPO3 improving the ORR performance of N-doped porous carbon material derived from yuba. Ionics, 2022, 28, 3389-3397.	2.4	3
2286	Template-assisted synthesis of single-atom catalysts supported on highly crystalline vanadium pentoxide for stable oxygen evolution. Chem Catalysis, 2022, 2, 1191-1210.	6.1	8
2287	High Entropy Alloy Electrocatalytic Electrode toward Alkaline Glycerol Valorization Coupling with Acidic Hydrogen Production. Journal of the American Chemical Society, 2022, 144, 7224-7235.	13.7	156
2288	Theoretically Revealed and Experimentally Demonstrated Synergistic Electronic Interaction of CoFe Dual-Metal Sites on N-doped Carbon for Boosting Both Oxygen Reduction and Evolution Reactions. Nano Letters, 2022, 22, 3392-3399.	9.1	121
2289	Spectroelectrochemical Analysis of the Water Oxidation Mechanism on Doped Nickel Oxides. Journal of the American Chemical Society, 2022, 144, 7622-7633.	13.7	66
2290	In-situ generation of Ni-CoOOH through deep reconstruction for durable alkaline water electrolysis. Chemical Engineering Journal, 2022, 443, 136432.	12.7	38
2291	Single-Source Deposition of Mixed-Metal Oxide Films Containing Zirconium and 3d Transition Metals for (Photo)electrocatalytic Water Oxidation. Inorganic Chemistry, 2022, 61, 6223-6233.	4.0	4
2292	Structurally Precise Two-Transition-Metal Water Oxidation Catalysts: Quantifying Adjacent 3d Metals by Synchrotron X-Radiation Anomalous Dispersion Scattering. Inorganic Chemistry, 2022, 61, 6252-6262.	4.0	7

#	Article	IF	CITATIONS
2293	Oxygen Evolution Reaction Activity of Sr <sub>2</sub> Ta <sub>2</sub> O <sub>7</sub> and Sr <sub>2</sub> Nb <sub>2</sub> O <sub>7</sub> Surfaces. Journal of Physical Chemistry C, 2022, 126, 6556-6563.	3.1	6
2297	Dataâ€Driven Materials Innovation and Applications. Advanced Materials, 2022, 34, e2104113.	21.0	51
2298	Parallel water photo-oxidation reaction pathways in hematite photoanodes: implications for solar fuel production. Energy and Environmental Science, 2022, 15, 2445-2459.	30.8	9
2299	Coordination compound-derived La-doped FeS <sub>2</sub> /N-doped carbon (NC) as an efficient electrocatalyst for oxygen evolution reaction. CrystEngComm, 0, , .	2.6	2
2300	Graphene Triggered Hole Activation Strategy for 2d/2d-Layered (001)/(100)Wo3 Facet Junction Towards Enhanced Photocatalytic Water Oxidation Kinetics. SSRN Electronic Journal, 0, , .	0.4	0
2301	Recent developments of iridium-based catalysts for the oxygen evolution reaction in acidic water electrolysis. Journal of Materials Chemistry A, 2022, 10, 13170-13189.	10.3	47
2302	Zeolitic imidazolate framework 67 based metal oxides derivatives as electrocatalysts for oxygen evolution reaction. , 2022, , 471-495.		1
2303	Electrochemical preparation of nano/micron structure transition metal-based catalysts for the oxygen evolution reaction. Materials Horizons, 2022, 9, 1788-1824.	12.2	32
2304	Building up the "Genome―of bi-atom catalysts toward efficient HER/OER/ORR. Journal of Materials Chemistry A, 2022, 10, 11600-11612.	10.3	40
2305	The Ir–OOOO–Ir transition state and the mechanism of the oxygen evolution reaction on IrO <sub>2</sub> (110). Energy and Environmental Science, 2022, 15, 2519-2528.	30.8	40
2306	Two-dimensional transition metal-based electrocatalyst and their application in water splitting. Materials Science and Technology, 2022, 38, 535-555.	1.6	9
2307	Automated exploitation of the big configuration space of large adsorbates on transition metals reveals chemistry feasibility. Nature Communications, 2022, 13, 2087.	12.8	8
2308	Structure-Performance Descriptors and the Role of the Axial Oxygen Atom on M–N <sub>4</sub> –C Single-Atom Catalysts for Electrochemical CO <sub>2</sub> Reduction. ACS Catalysis, 2022, 12, 5441-5454.	11.2	50
2309	Oxygen Evolution Reaction in Energy Conversion and Storage: Design Strategies Under and Beyond the Energy Scaling Relationship. Nano-Micro Letters, 2022, 14, 112.	27.0	104
2310	Progress on predicting the electrochemical stability window of electrolytes. Current Opinion in Electrochemistry, 2022, 34, 101030.	4.8	11
2311	Unraveling Electronic Trends in O* and OH* Surface Adsorption in the MO <sub>2</sub> Transition-Metal Oxide Series. Journal of Physical Chemistry C, 2022, 126, 7903-7909.	3.1	8
2312	Fabrication of Alkaline Electrolyzer Using Ni@MWCNT as an Effective Electrocatalyst and Composite Anion Exchange Membrane. ACS Omega, 2022, 7, 15467-15477.	3.5	4
2313	Emergence of local scaling relations in adsorption energies on high-entropy alloys. Npj Computational Materials, 2022, 8, .	8.7	18

#	Article	IF	CITATIONS
2314	Motivating Ru-bri site of RuO2 by boron doping toward high performance acidic and neutral oxygen evolution. Nano Research, 2022, 15, 7008-7015.	10.4	20
2315	Modeling Operando Electrochemical CO <sub>2</sub> Reduction. Chemical Reviews, 2022, 122, 11085-11130.	47.7	66
2316	Deep Eutectic Solvent Synthesis of Perovskite Electrocatalysts for Water Oxidation. ACS Applied Materials & Interfaces, 2022, 14, 23277-23284.	8.0	8
2317	Establishing a theoretical insight for penta-coordinated iron-nitrogen-carbon catalysts toward oxygen reaction. Nano Research, 2022, 15, 6067-6075.	10.4	28
2318	Tuning the Electronic and Steric Interaction at the Atomic Interface for Enhanced Oxygen Evolution. Journal of the American Chemical Society, 2022, 144, 9271-9279.	13.7	76
2319	Progress on Emerging Ferroelectric Materials for Energy Harvesting, Storage and Conversion. Advanced Energy Materials, 2022, 12, .	19.5	45
2320	Selectively anchoring single atoms on specific sites of supports for improved oxygen evolution. Nature Communications, 2022, 13, 2473.	12.8	73
2321	A theoretical study on tetragonal BaTiO3 modified by surface co-doping for photocatalytic overall water splitting. International Journal of Hydrogen Energy, 2022, 47, 19073-19085.	7.1	4
2322	Nitrogen-doped carbon armored Cobalt oxide hollow nanocubes electrochemically anchored on fluorine-doped tin oxide substrate for acidic oxygen evolution reaction. Journal of Colloid and Interface Science, 2022, 623, 327-336.	9.4	11
2323	Reaction descriptors for the oxygen evolution reaction: Recent advances, challenges, and opportunities. Current Opinion in Electrochemistry, 2022, 35, 101044.	4.8	15
2324	Lowering the Water Oxidation Overpotential by Spin-Crossover in Cobalt Hexacyanoferrate. Journal of Physical Chemistry Letters, 2022, 13, 4104-4110.	4.6	14
2325	Stabilizing single-atomic ruthenium by ferrous ion doped NiFe-LDH towards highly efficient and sustained water oxidation. Chemical Engineering Journal, 2022, 446, 136962.	12.7	25
2326	Carbon-based material-supported single-atom catalysts for energy conversion. IScience, 2022, 25, 104367.	4.1	20
2327	CoNi nanoalloy-Co-N4 composite active sites embedded in hierarchical porous carbon as bi-functional catalysts for flexible Zn-air battery. Nano Energy, 2022, 99, 107325.	16.0	69
2328	Promoting Oxygen Evolution Reaction Induced by Synergetic Geometric and Electronic Effects of IrCo Thin-Film Electrocatalysts. ACS Catalysis, 2022, 12, 6334-6344.	11.2	12
2329	Recent Development and Future Perspectives of Amorphous Transition Metalâ€Based Electrocatalysts for Oxygen Evolution Reaction. Advanced Energy Materials, 2022, 12, .	19.5	158
2330	Thermal stability of cobalt oxide thin films and its enhancement by cerium oxide. Applied Surface Science, 2022, 593, 153430.	6.1	3
2331	Constructing high-activity Cobaltâ€based Perovskite hybrid by a top-down phase evolution method for the direct seawater electrolysis anode. Journal of Alloys and Compounds, 2022, 913, 165342.	5.5	9

#	Article	IF	CITATIONS
2332	One-dimensional Ni2P/Mn2O3 nanostructures with enhanced oxygen evolution reaction activity. Journal of Colloid and Interface Science, 2022, 623, 196-204.	9.4	11
2333	A dual-site doping strategy for developing efficient perovskite oxide electrocatalysts towards oxygen evolution reaction. Nano Energy, 2022, 99, 107344.	16.0	34
2334	Features of design and fabrication of metal oxide-based electrocatalysts. , 2022, , 61-96.		0
2335	Noble metal oxide based electrodes interfaces design for application in water splitting. , 2022, , 97-128.		1
2336	Iterative redox activation promotes interfacial synergy in an Ag/CuxO catalyst for oxygen reduction. Chemical Engineering Journal, 2022, 446, 136966.	12.7	10
2337	Gasâ€Phase Errors Affect DFTâ€Based Electrocatalysis Models of Oxygen Reduction to Hydrogen Peroxide. ChemElectroChem, 2022, 9, .	3.4	2
2338	Lattice Oxygen of PbO <sub>2</sub> (101) Consuming and Refilling via Electrochemical Ozone Production and H <sub>2</sub> O Dissociation. Journal of Physical Chemistry C, 2022, 126, 8627-8636.	3.1	7
2339	Tailoring the oxide surface composition of stainless steel for improved OER performance in alkaline water electrolysis. Electrochimica Acta, 2022, 424, 140561.	5.2	16
2340	Ruthenium composited NiCo2O4 spinel nanocones with oxygen vacancies as a high-efficient bifunctional catalyst for overall water splitting. Chemical Engineering Journal, 2022, 446, 137037.	12.7	14
2341	Structural and Electronic Modulations of Imidazolium Covalent Organic Framework-Derived Electrocatalysts for Oxygen Redox Reactions in Rechargeable Zn–Air Batteries. ACS Applied Materials & Interfaces, 2022, 14, 24404-24414.	8.0	12
2342	Ensemble representation of catalytic interfaces: soloists, orchestras, and everything in-between. Chemical Science, 2022, 13, 8003-8016.	7.4	9
2343	Atomically miniaturized bi-phase IrO <sub><i>x</i></sub> /Ir catalysts loaded on N-doped carbon nanotubes for high-performance Li–CO <sub>2</sub> batteries. Journal of Materials Chemistry A, 2022, 10, 19710-19721.	10.3	21
2344	Sputtered Ir–Ru based catalysts for oxygen evolution reaction: Study of iridium effect on stability. International Journal of Hydrogen Energy, 2022, 47, 21033-21043.	7.1	14
2345	Strain-promoted conductive metal-benzenhexathiolate frameworks for overall water splitting. Journal of Colloid and Interface Science, 2022, 624, 160-167.	9.4	10
2346	CoCu-hydroxyquinoline loaded on copper foam as effective pre-catalytic electrode for oxygen evolution. Inorganic Chemistry Communication, 2022, 141, 109572.	3.9	2
2347	Screening and prediction of metal-doped α-borophene monolayer for nitric oxide elimination. Materials Today Chemistry, 2022, 25, 100958.	3.5	15
2348	Environmentally Friendly Bifunctional Catalyst for ORR and OER from Coconut Shell Particles. Advances in Materials Physics and Chemistry, 2022, 12, 106-123.	0.7	4
2349	Tuning the Electronic Structure of a Ni-Vacancy-Enriched AuNi Spherical Nanoalloy via Electrochemical Etching for Water Oxidation Studies in Alkaline and Neutral Media. Inorganic Chemistry, 2022, 61, 8570-8584.	4.0	4

#	Article	IF	CITATIONS
2350	Devising SrFe2O4 spinel nanoflowers as highly efficient catalyst for enhanced electrochemical water oxidation in different basic concentration. Journal of Electroanalytical Chemistry, 2022, 919, 116465.	3.8	3
2351	Computational Design of Spinel Oxides through Coverage-Dependent Screening on the Reaction Phase Diagram. ACS Catalysis, 2022, 12, 6781-6793.	11.2	10
2352	Dataâ€Ðriven Highâ€Throughput Rational Design of Doubleâ€Atom Catalysts for Oxygen Evolution and Reduction. Advanced Functional Materials, 2022, 32, .	14.9	40
2353	Impact of Coordination Environment on Single-Atom-Embedded C <sub>3</sub> N for Oxygen Electrocatalysis. ACS Sustainable Chemistry and Engineering, 2022, 10, 7692-7701.	6.7	14
2354	Coupling LaNiO3 Nanorods with FeOOH Nanosheets for Oxygen Evolution Reaction. Catalysts, 2022, 12, 594.	3.5	7
2355	Metal coordination determines the catalytic activity of IrO2 nanoparticles for the oxygen evolution reaction. Journal of Catalysis, 2022, 412, 78-86.	6.2	13
2356	On the Optimization of Nitrogenâ€Reduction Electrocatalysts: Breaking Scaling Relation or Catalytic Resonance Theory?. ChemCatChem, 2022, 14, .	3.7	11
2357	Nitrogen reduction reaction (NRR) modelling: A case that illustrates the challenges of DFT studies in electrocatalysis. Current Opinion in Electrochemistry, 2022, 35, 101073.	4.8	10
2358	Multi-Scale Multi-Technique Characterization Approach for Analysis of PEM Electrolyzer Catalyst Layer Degradation. Journal of the Electrochemical Society, 2022, 169, 064502.	2.9	18
2359	Simultaneously Enhancing Catalytic Performance and Increasing Density of Bifunctional CuN <sub>3</sub> Active Sites in Dopant-Free 2D C <sub>3</sub> N <sub>3</sub> Cu for Oxygen Reduction/Evolution Reactions. ACS Omega, 2022, 7, 19794-19803.	3.5	4
2360	Understanding catalytic activity trends of atomic pairs in single-atom catalysts towards oxygen reduction reactions. Applied Surface Science, 2022, 598, 153873.	6.1	3
2361	Theoretical proposal of a revolutionary water-splitting photocatalyst: The monolayer of boron phosphide. Applied Surface Science, 2022, 598, 153844.	6.1	6
2362	Investigation on bifunctional catalytic performance of Anti-Perovskite Ni3ZnC, Co3ZnC and Ni3FeN for Hydrogen/Oxygen evolution reactions. Applied Surface Science, 2022, 598, 153814.	6.1	7
2366	Vacancy-rich graphene supported electrocatalysts synthesized by radio-frequency plasma for oxygen evolution reaction. Inorganic Chemistry Frontiers, 2022, 9, 3854-3864.	6.0	6
2367	High Catalytic Activity of Mbenes-Supported Single Atom Catalysts for Oxygen Reduction and Oxygen Evolution Reaction. SSRN Electronic Journal, 0, , .	0.4	0
2369	An emerging bidirectional auxetic post-phosphorene ε-SnO monolayer: A promising Janus semiconductor with photocatalytic activity for solar-driven water splitting reaction. International Journal of Hydrogen Energy, 2022, 47, 24761-24776.	7.1	9
2370	Dual-metal atoms embedded into two-dimensional covalent organic framework as efficient electrocatalysts for oxygen evolution reaction: A DFT study. Nano Research, 2022, 15, 7994-8000.	10.4	25
2371	Tensileâ€Strained RuO <sub>2</sub> Loaded on Antimonyâ€Tin Oxide by Fast Quenching for Protonâ€Exchange Membrane Water Electrolyzer. Advanced Science, 2022, 9, .	11.2	28

#	Article	IF	CITATIONS
2372	Study on the Effect of A/B Site Co-Doping on the Oxygen Evolution Reaction Performance of Strontium Cobaltite. Metals, 2022, 12, 991.	2.3	0
2373	Molecularly Engineered Carbon Platform To Anchor Edge-Hosted Single-Atomic M–N/C (M = Fe, Co, Ni,) Tj ETQ	q1_1_0.784 11.2	4314 rgBT /(
2374	Activated chemical bonds in nanoporous and amorphous iridium oxides favor low overpotential for oxygen evolution reaction. Nature Communications, 2022, 13, .	12.8	31
2375	Activity-Stability Relationships in Oxide Electrocatalysts for Water Electrolysis. Frontiers in Chemistry, 0, 10, .	3.6	9
2376	Transition Metal Nonâ $\in$ Oxides as Electrocatalysts: Advantages and Challenges. Small, 2022, 18, .	10.0	47
2377	Achieving Active and Stable Amorphous Ir <sup>V</sup> O <sub><i>x</i></sub> OH <sub><i>y</i></sub> for Water Splitting. ACS Applied Materials & Interfaces, 2022, 14, 28706-28715.	8.0	9
2379	Composition of Oxygen Functional Groups on Graphite Surfaces. Journal of Physical Chemistry C, 2022, 126, 10653-10667.	3.1	6
2380	High-throughput screening of dual-atom doped PC6 electrocatalysts for efficient CO2 electrochemical reduction to CH4 by breaking scaling relations. Electrochimica Acta, 2022, 426, 140764.	5.2	13
2381	Electron spin modulation engineering in oxygen-involved electrocatalysis. Journal of Physics Condensed Matter, 2022, 34, 364002.	1.8	4
2382	Can We Replace Cr(VI) as a Homogeneous Catalyst in the Chlorate Process?. Journal of Physical Chemistry C, 2022, 126, 10061-10072.	3.1	2
2383	Roles of heteroatoms in electrocatalysts for alkaline water splitting: A review focusing on the reaction mechanism. Chinese Journal of Catalysis, 2022, 43, 2091-2110.	14.0	36
2384	Fe doped NiSe2 nanoarrays to boost electrocatalytic oxygen evolution reaction. Electrochimica Acta, 2022, 425, 140711.	5.2	22
2385	Tailoring of electrocatalyst interactions at interfacial level to benchmark the oxygen reduction reaction. Coordination Chemistry Reviews, 2022, 469, 214669.	18.8	79
2386	Operando deciphering the activity origins for potential-induced reconstructed oxygen-evolving catalysts. Applied Catalysis B: Environmental, 2022, 316, 121602.	20.2	10
2387	A highly active and stable 3D dandelion spore-structured self-supporting Ir-based electrocatalyst for proton exchange membrane water electrolysis fabricated using structural reconstruction. Energy and Environmental Science, 2022, 15, 3449-3461.	30.8	44
2388	Introductory chapter: Fundamentals of photocatalysis and electrocatalysis. , 2022, , 1-30.		0
2389	Non-noble electrocatalysts discovered by scaling relations of Gibbs-free energies of key oxygen adsorbates in water oxidation. Journal of Materials Chemistry A, 0, , .	10.3	4
2390	Synthesis of NiFeOx nanocatalysts from metal–organic precursors for the oxygen evolution reaction. Dalton Transactions, 2022, 51, 11457-11466.	3.3	3

#	Article	IF	CITATIONS
2391	Strain engineering in single-atom catalysts: GaPS <sub>4</sub> for bifunctional oxygen reduction and evolution. Inorganic Chemistry Frontiers, 2022, 9, 4272-4280.	6.0	15
2392	Transition Metal Atoms Anchored on Square Graphyne as Multifunctional Electrocatalysts: A Computational Investigation. SSRN Electronic Journal, 0, , .	0.4	0
2393	Analysing oxygen reduction electrocatalysis on transition metal doped niobium oxide(110). Physical Chemistry Chemical Physics, 0, , .	2.8	2
2394	Iridium nanohollows with porous walls for acidic water splitting. Journal of Materials Chemistry A, 2022, 10, 20005-20010.	10.3	10
2395	Effect of Surfaceâ€Adsorbed and Intercalated (Oxy)anions on the Oxygen Evolution Reaction. Angewandte Chemie, 2022, 134, .	2.0	12
2396	Effect of Surfaceâ€Adsorbed and Intercalated (Oxy)anions on the Oxygen Evolution Reaction. Angewandte Chemie - International Edition, 2022, 61, .	13.8	44
2397	Anion exchange membrane water electrolysis for sustainable largeâ€scale hydrogen production. , 2022, 1, 26-48.		30
2398	Perspectives on the Competition between the Electrochemical Water and N <sub>2</sub> Oxidation on a TiO <sub>2</sub> (110) Electrode. Journal of Physical Chemistry Letters, 2022, 13, 6123-6129.	4.6	10
2399	Anti-dissolution Pt single site with Pt(OH)(O3)/Co(P) coordination for efficient alkaline water splitting electrolyzer. Nature Communications, 2022, 13, .	12.8	73
2400	Mechanisms of the Oxygen Evolution Reaction on NiFe <sub>2</sub> O <sub>4</sub> and CoFe <sub>2</sub> O <sub>4</sub> Inverse-Spinel Oxides. ACS Catalysis, 2022, 12, 9058-9073.	11.2	40
2401	Theoretical inspection of TM-P4C single-atom electrocatalysts: High performance for oxygen reduction and evolution reactions. Electrochimica Acta, 2022, 427, 140853.	5.2	4
2402	Improvement in Oxygen Evolution Performance of NiFe Layered Double Hydroxide Grown in the Presence of 1T-Rich MoS <sub>2</sub> . ACS Applied Materials & Interfaces, 2022, 14, 31951-31961.	8.0	8
2403	Anion Exchange Membrane Water Electrolysis from Catalyst Design to the Membrane Electrode Assembly. Energy Technology, 2022, 10, .	3.8	11
2404	Constructing a multi-bishelled cobalt-based electrocatalyst for the oxygen evolution reaction in CO2 electrolysis. NPG Asia Materials, 2022, 14, .	7.9	9
2405	Construction of amorphous CoFeOx(OH)y/MoS2/CP electrode for superior OER performance. International Journal of Hydrogen Energy, 2022, 47, 28859-28868.	7.1	16
2406	Using Computational Chemistry To Reveal Nature's Blueprints for Single-Site Catalysis of C–H Activation. ACS Catalysis, 2022, 12, 9281-9306.	11.2	15
2407	Electrochemical oxygen evolution reaction of controllable self-assembled CuCo2O4. Ionics, 2022, 28, 4381-4394.	2.4	3
2408	Computational analysis of the enhancement of photoelectrolysis using transition metal dichalcogenide heterostructures. Journal of Physics Condensed Matter, 2022, 34, 375001.	1.8	3

#	Article	IF	CITATIONS
2409	Multimetallic transition metal phosphide nanostructures for supercapacitors and electrochemical water splitting. Nanotechnology, 2022, 33, 432004.	2.6	11
2410	Role of macrocyclic salen-type Schiff base ligands in one-dimensional Co(II) complexes for superior activities toward oxygen reduction/evolution reactions. International Journal of Hydrogen Energy, 2022, 47, 27000-27011.	7.1	5
2411	General Synthesis of Tube-like Nanostructured Perovskite Oxides with Tunable Transition Metal–Oxygen Covalency for Efficient Water Electrooxidation in Neutral Media. Journal of the American Chemical Society, 2022, 144, 13163-13173.	13.7	39
2412	Breaking OER and CER scaling relations via strain and its relaxation in RuO2 (101). Materials Today Energy, 2022, 28, 101087.	4.7	9
2413	Protonated Iridate Nanosheets with a Highly Active and Stable Layered Perovskite Framework for Acidic Oxygen Evolution. ACS Catalysis, 2022, 12, 8658-8666.	11.2	34
2414	Crystal phase engineering of electrocatalysts for energy conversions. Nano Research, 2022, 15, 10194-10217.	10.4	13
2415	Enhanced Oxygen Evolution Reaction of Zr-Cu-Ni-Al Metallic Glass with an Oxide Layer in Alkaline Media. ACS Catalysis, 2022, 12, 9190-9200.	11.2	4
2416	On the shifting peak of volcano plots for oxygen reduction and evolution. Electrochimica Acta, 2022, 426, 140799.	5.2	11
2417	Recent progress in first row transition metal Layered double hydroxide (LDH) based electrocatalysts towards water splitting: A review with insights on synthesis. Coordination Chemistry Reviews, 2022, 469, 214666.	18.8	125
2418	Microrods-evolved WO3 nanospheres with enriched oxygen-vacancies anchored on dodecahedronal CoO(Co2+)@carbon as durable catalysts for oxygen reduction/evolution reactions. Applied Surface Science, 2022, 601, 154195.	6.1	5
2419	Optimizing the eg occupancy of magnesium cobalt spinel oxides via Fe substitution to promote oxygen evolution reaction. Journal of Alloys and Compounds, 2022, 921, 166074.	5.5	4
2420	Recent advances in non-noble metal-based bifunctional electrocatalysts for overall seawater splitting. Journal of Alloys and Compounds, 2022, 922, 166113.	5.5	66
2421	Structural and electronic engineering towards high-efficiency metal-free electrocatalysts for boosting oxygen evolution. Chemical Engineering Journal, 2022, 450, 138063.	12.7	7
2422	Electrocatalytic Selfâ€Supportedâ€Electrode Based on Co <i><sub>x</sub></i> Ni <sub>1â€</sub> <i><sub>x</sub></i> P/TiC <sub>0.5</sub> N <sub>0.5</sub> for Enhancing pHâ€Universal Hydrogen Evolution Electrocatalysis. Advanced Sustainable Systems, 2022, 6, .	5.3	2
2423	Dynamic strain and switchable polarization: A pathway to enhance the oxygen evolution reaction on InSnO2N. Journal of Catalysis, 2022, 413, 720-727.	6.2	3
2424	Rechargeable Metal–Hydrogen Peroxide Battery, A Solution to Improve the Metal–Air Battery Performance. ACS Energy Letters, 2022, 7, 2717-2724.	17.4	6
2425	Heterogenization of Molecular Electrocatalytic Active Sites through Reticular Chemistry. Advanced Materials, 2023, 35, .	21.0	11
2426	Graphene triggered hole activation strategy for 2D/2D-Layered (0 0 1)/(1 0 0)WO3 facet junction towards enhanced photocatalytic water oxidation kinetics. Chemical Engineering Journal, 2022, 450, 138166	12.7	4

ARTICLE IF CITATIONS Co-prosperity of electrocatalytic activity and stability in high entropy spinel (Cr<sub>0.2</sub>Mn<sub>0.2</sub>Fe<sub>0.2</sub>Ni<sub>0.2</sub>Zn<sub>0.2</sub>)<sub>3</sub>O<sub.84</sub.87 2427 for the oxygen evolution reaction. Journal of Materials Chemistry A, 2022, 10, 17633-17641. Interfacing Crox and Cus for Synergistically Enhanced Water Oxidation Catalysis. SSRN Electronic 2428 0.4 Journal, 0, , . Catalytic activity trends of pyrite transition metal dichalcogenides for oxygen reduction and 2429 2.8 3 evolution. Physical Chemistry Chemical Physics, 2022, 24, 19911-19918. 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. 2430 Lightest Metal Leads to Big Change: Lithiumâ€Mediated Metal Oxides for Oxygen Evolution Reaction. 2431 19.5 13 Advanced Energy Materials, 2022, 12, . Theoretical Study on the High HER/OER Electrocatalytic Activities of 2D GeSi, SnSi, and SnGe Monolayers and Further Improvement by Imposing Biaxial Strain or Doping Heteroatoms. Molecules, 3.8 2022, 27, 5092. Recent Advances in TiO<sub>2</sub>â€based Photoanodes for Photoelectrochemical Water Splitting. 2433 3.3 22 Chemistry - an Asian Journal, 2022, 17, . Catalytic applications of single-atom metal-anchored hydroxides: Recent advances and perspective. 2434 3.2 Materials Reports Energy, 2022, 2, 100146. Single-site Co-anchored α- In2Se3 with enhanced and polarization-dependent hydrogen and oxygen 2435 5.5 1 evolution activity. Journal of Alloys and Compounds, 2022, 927, 166877. Rational design of water oxidation catalysts informed by computational and experimental 2436 6.1 investigations. Chem Catalysis, 2022, 2, 1838-1840. Combined Cornerâ€Sharing and Edgeâ€Sharing Networks in Hybrid Nanocomposite with Unusual 2437 14.9 26 Latticeâ€Oxygen Activation for Efficient Water Oxidation. Advanced Functional Materials, 2022, 32, . Adjusting electronic structure coupling of Fe–Ni2P (NiFeP-MOF) multilevel structure for ultra-activity and durable catalytic water oxidation. International Journal of Hydrogen Energy, 2022, 7.1 47, 30472-30483. Optimized transition metal-oxygen covalency promotes neutral-pH oxygen evolution catalysis. Science 2440 6.3 0 China Materials, 0, , . Recent advances in transition metalâ€based electrocatalysts for seawater electrolysis. International 2441 4.5 Journal of Energy Research, 2022, 46, 17952-17975. Advances in theoretical calculations of MXenes as hydrogen and oxygen evolution reaction (water) Tj ETQq0 0 0 rgBT / Overlock 10 Tf 50 2442

2443	Descriptor-Free Design of Multicomponent Catalysts. ACS Catalysis, 2022, 12, 10562-10571.	11.2	11
2444	Carbonâ€Shielded Singleâ€Atom Alloy Material Family for Multiâ€Functional Electrocatalysis. Advanced Functional Materials, 2022, 32, .	14.9	20
2446	Recent Progress on Bimetallicâ€Based Spinels as Electrocatalysts for the Oxygen Evolution Reaction. Small, 2022, 18, .	10.0	45

#	ARTICLE Constructing and interpreting volcano plots and activity maps to navigate homogeneous catalyst	IF	CITATIONS
2447	landscapes. Nature Protocols, 2022, 17, 2550-2569.	12.0	9
2448	Bifunctional Electrocatalysts Materials for Non-Aqueous Li–Air Batteries. Coatings, 2022, 12, 1227.	2.6	5
2449	Rationally Designing Efficient Electrocatalysts for Direct Seawater Splitting: Challenges, Achievements, and Promises. Angewandte Chemie - International Edition, 2022, 61, .	13.8	63
2450	<i>Operando</i> Direct Observation of Stable Water-Oxidation Intermediates on Ca <sub>2–<i>x</i></sub> IrO <sub>4</sub> Nanocrystals for Efficient Acidic Oxygen Evolution. Nano Letters, 2022, 22, 6988-6996.	9.1	18
2451	Lattice Strain Enhances the Activity of Irâ^'IrO <sub>2</sub> /C for Acidic Oxygen Evolution Reaction. ChemElectroChem, 2022, 9, .	3.4	4
2452	Recent Research Advances in Rutheniumâ€Based Electrocatalysts for Water Electrolysis Across the pHâ€Universal Conditions. Energy Technology, 2022, 10, .	3.8	3
2453	High-entropy spinel-structure oxides as oxygen evolution reaction electrocatalyst. Frontiers in Energy Research, 0, 10, .	2.3	10
2454	Rationally Designing Efficient Electrocatalysts for Direct Seawater Splitting: Challenges, Achievements, and Promises. Angewandte Chemie, 2022, 134, .	2.0	4
2455	Understanding the Effect of Ni-Substitution on the Oxygen Evolution Reaction of (100) IrO <sub>2</sub> Surfaces. ACS Catalysis, 2022, 12, 10961-10972.	11.2	3
2456	Supported Iridiumâ€based Oxygen Evolution Reaction Electrocatalysts ―Recent Developments. ChemCatChem, 2022, 14, .	3.7	14
2457	Highly active nitrogen – doped carbon nanostructures as electrocatalysts for bromine evolution reaction: A combined experimental and DFT study. Journal of Catalysis, 2022, 413, 1005-1016.	6.2	0
2458	Graphdiyne supported single-atom cobalt catalyst for oxygen reduction reaction: The role of the co-adsorbates. Chemical Physics Letters, 2022, 804, 139805.	2.6	2
2459	Decontamination of wastewater containing contaminants of emerging concern by electrooxidation and Fenton-based processes – A review on the relevance of materials and methods. Chemosphere, 2022, 307, 135763.	8.2	17
2460	A strain-engineered self-intercalation Ta9Se12 based bifunctional single atom catalyst for oxygen evolution and reduction reactions. Applied Surface Science, 2022, 602, 154378.	6.1	3
2461	Engineering d-band center of iron single atom site through boron incorporation to trigger the efficient bifunctional oxygen electrocatalysis. Journal of Colloid and Interface Science, 2022, 628, 331-342.	9.4	29
2462	Innovative electrolytic cell of sulfur-doped MnO2 nanorods: Synergistic hydrogen production and formaldehyde degradation at an ultra-low electric energy consumption. Journal of Alloys and Compounds, 2022, 925, 166748.	5.5	9
2463	Boosting hydrogen production in ultrathin birnessite nanosheet arrays-based electrolytic cell by glycerol and urea oxidation reactions. Materials Today Chemistry, 2022, 26, 101086.	3.5	3
2464	Recent progress of electrolytes and electrocatalysts in neutral aqueous zinc-air batteries. Chemical Engineering Journal, 2023, 451, 138608.	12.7	34

#	Article	IF	CITATIONS
2465	High catalytic activity of MBenes-supported single atom catalysts for oxygen reduction and oxygen evolution reaction. Applied Surface Science, 2022, 604, 154522.	6.1	18
2466	Superoxo and Peroxo Complexes on Single-Atom Catalysts: Impact on the Oxygen Evolution Reaction. ACS Catalysis, 2022, 12, 11682-11691.	11.2	33
2467	Key criteria for next-generation dimensionally stable electrodes towards large-scale green hydrogen production by water electrolysis. Current Opinion in Electrochemistry, 2022, 36, 101136.	4.8	10
2468	Transition metal atoms anchored on square graphyne as multifunctional electrocatalysts: A computational investigation. Molecular Catalysis, 2022, 531, 112706.	2.0	2
2469	Transition metal atom anchored by defective WSSe monolayer as bifunctional single atom catalyst for ORR and OER. Journal of Electroanalytical Chemistry, 2022, 922, 116731.	3.8	5
2470	Strategy to weaken the oxygen adsorption on single-atom catalysts towards oxygen-involved reactions. Materials Today Advances, 2022, 16, 100280.	5.2	3
2471	Dynamic equilibrium of external Fe3+ to effectively construct catalytic surface of perovskite LaNi1â^'xFexO3 for water oxidation. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 654, 130042.	4.7	6
2472	(1 1 0) Facet of pentlandite with Fe-Ni heterostructure for promising electrocatalytic water splitting. Applied Surface Science, 2022, 605, 154728.	6.1	6
2473	Trimetallic CoFeCr-LDH@MoS2 as a highly efficient bifunctional electrocatalyst for overall water splitting. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 655, 130146.	4.7	5
2474	A review on oxygen evolution electrocatalysts based on the different Ni-Fe matrix composites. Journal of Environmental Chemical Engineering, 2022, 10, 108591.	6.7	4
2475	Rationally designed metal-N-C/MoS2 heterostructures as bifunctional oxygen electrocatalysts: A computational study. Applied Surface Science, 2022, 606, 154969.	6.1	7
2476	Theoretical insights into multi-metal atoms embedded nitrogen-doped graphene as efficient bifunctional catalysts for oxygen reduction and evolution reactions. Applied Surface Science, 2022, 605, 154714.	6.1	10
2477	Interface charge induced self-assembled (Co(OH)2)4@La(OH)3 heterojunction derived from Co4-MOF@La(HCO2)3 to boost oxygen evolution reaction. Chemical Engineering Journal, 2023, 451, 138743.	12.7	8
2478	Vacancy and strain engineering of Co3O4 for efficient water oxidation. Journal of Colloid and Interface Science, 2023, 629, 346-354.	9.4	7
2479	Doping engineering: modulating the intrinsic activity of bifunctional carbon-based oxygen electrocatalysts for high-performance zinc–air batteries. Journal of Materials Chemistry A, 2022, 10, 21797-21815.	10.3	28
2480	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.	10.3	2
2481	Single-atom catalysts for chemical and electrochemical reactions. , 2022, , .		0
2482	Spinel-structured metal oxide-embedded MXene nanocomposites for efficient water splitting reactions. Inorganic Chemistry Frontiers, 2022, 9, 5903-5916.	6.0	16

#	Article	IF	CITATIONS
2483	A theoretical roadmap for the best oxygen reduction activity in two-dimensional transition metal tellurides. Chemical Science, 2022, 13, 11048-11057.	7.4	2
2484	Plasma-assisted rhodium incorporation in nickel–iron sulfide nanosheets: enhanced catalytic activity and the Janus mechanism for overall water splitting. Inorganic Chemistry Frontiers, 2022, 9, 6237-6247.	6.0	9
2485	Crystal facet and phase engineering for advanced water splitting. CrystEngComm, 2022, 24, 5838-5864.	2.6	23
2486	Ruthenium oxychloride supported by manganese oxide for stable oxygen evolution in acidic media. Journal of Materials Chemistry A, 2022, 10, 20964-20974.	10.3	11
2487	Strain-mediated oxygen evolution reaction on magnetic two-dimensional monolayers. Nanoscale Horizons, 2022, 7, 1404-1410.	8.0	6
2488	First-Principles Study of Oxygen Evolution on Co3o4 with Short-Range Ordered IR Doping. SSRN Electronic Journal, 0, , .	0.4	0
2489	Theory and Computation in Photo-Electro-Chemical Catalysis: Highlights, Challenges, and Prospects. Engineering Materials, 2022, , 3-43.	0.6	0
2490	lsovalent anion-induced electrochemical activity of doped Co <sub>3</sub> V <sub>2</sub> O <sub>8</sub> for oxygen evolution reaction application. Dalton Transactions, 2022, 51, 15312-15321.	3.3	4
2491	Axial O-ligand induced high ORR activity over Mo and N codoped graphene: A computational mechanism study. Surface Science, 2023, 727, 122193.	1.9	1
2492	Controlled growth of a high selectivity interface for seawater electrolysis. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	94
2493	Oxygen Evolution Reaction Kinetics and Mechanisms on Pristine Carbon Nanotubes: Effect of pH. Electrochimica Acta, 2022, , 141146.	5.2	3
2494	Effect of Nitrogen Doping and Oxygen Vacancy on the Oxygen Reduction Reaction on the Tetragonal Zirconia(101) Surface. Journal of Physical Chemistry C, 2022, 126, 15662-15670.	3.1	4
2495	Comparative Study of Ru-Transition Metal Alloys and Oxides as Oxygen Evolution Reaction Electrocatalysts in Alkaline Media. ACS Applied Energy Materials, 2022, 5, 11241-11253.	5.1	4
2496	Novel Two-Dimensional Metal Organic Frameworks: High-Performance Bifunctional Electrocatalysts for OER/ORR. , 2022, 4, 1991-1998.		39
2497	In situ Electroactivated Feâ€NiOOH Nanoclusters on Carbon Quantum Dots for Efficient Large‧cale Oxygen Production. Small Structures, 2022, 3, .	12.0	7
2498	Dealloyingâ€Derived Porous Spinel Oxide for Bifunctional Oxygen Electrocatalysis and Rechargeable Zincâ€Air Batteries: Promotion of Activity Via Hereditary Alâ€Doping. ChemSusChem, 2022, 15, .	6.8	8
2499	Direct O–O Coupling Promoted the Oxygen Evolution Reaction by Dual Active Sites from Ag/LaNiO <sub>3</sub> Interfaces. ACS Applied Energy Materials, 2022, 5, 14658-14668.	5.1	8
2500	Supramolecular Polymer Intertwined Free-Standing Bifunctional Membrane Catalysts for All-Temperature Flexible Zn–Air Batteries. Nano-Micro Letters, 2022, 14, .	27.0	14

#	Article	IF	CITATIONS
2501	Recent Advances on Perovskite Electrocatalysts for Water Oxidation in Alkaline Medium. Energy & Fuels, 2022, 36, 11724-11744.	5.1	7
2502	Greigite Fe <sub>3</sub> S <sub>4</sub> -Derived α-FeO(OH) Promotes Slow O–O Bond Formation in the Second-Order Oxygen Evolution Reaction Kinetics. Journal of Physical Chemistry C, 2022, 126, 16172-16186.	3.1	11
2503	A High Power Density Znâ€Nitrate Electrochemical Cell Based on Theoretically Screened Catalysts. Advanced Functional Materials, 2022, 32, .	14.9	10
2504	Adsorption Energy in Oxygen Electrocatalysis. Chemical Reviews, 2022, 122, 17028-17072.	47.7	45
2505	Unraveling the Role of Defects in Electrocatalysts for Water Splitting: Recent Advances and Perspectives. Energy & Fuels, 2022, 36, 11660-11690.	5.1	15
2506	Surface reconstruction-derived heterostructures for electrochemical water splitting. EnergyChem, 2023, 5, 100091.	19.1	36
2507	Microkinetic Barriers of the Oxygen Evolution on the Oxides of Iridium, Ruthenium and their Binary Mixtures. ChemElectroChem, 2022, 9, .	3.4	1
2508	Multistage Electron Distribution Engineering of Iridium Oxide byÂCodoping W and Sn for Enhanced Acidic Water Oxidation Electrocatalysis. Small, 2022, 18, .	10.0	15
2509	Modulating hydrogen bonding in single-atom catalysts to break scaling relation for oxygen evolution. Chem Catalysis, 2022, 2, 2764-2777.	6.1	10
2510	Pyrophosphate Na <sub>2</sub> CoP <sub>2</sub> O <sub>7</sub> Polymorphs as Efficient Bifunctional Oxygen Electrocatalysts for Zinc–Air Batteries. ACS Applied Materials & Interfaces, 2022, 14, 40761-40770.	8.0	4
2511	Design of a Metal/Oxide/Carbon Interface for Highly Active and Selective Electrocatalysis. ACS Nano, 2022, 16, 16529-16538.	14.6	6
2512	ZIF-8 derived bimetallic Fe–Ni-Nanoporous carbon for enhanced oxygen reduction reaction. International Journal of Hydrogen Energy, 2022, 47, 37002-37012.	7.1	10
2513	High valence metals engineering strategies of Fe/Co/Ni-based catalysts for boosted OER electrocatalysis. Journal of Energy Chemistry, 2023, 76, 195-213.	12.9	114
2514	Medium-independent hydrogen atom binding isotherms of nickel oxide electrodes. CheM, 2022, 8, 3324-3345.	11.7	7
2515	Orbital Orientation-based Theoretical Design of Single-Atom Catalysts for the Hydrogen Evolution Reaction. Journal of Physical Chemistry C, 2022, 126, 16656-16662.	3.1	1
2516	Engineering 3d–2p–4f Gradient Orbital Coupling to Enhance Electrocatalytic Oxygen Reduction. Advanced Materials, 2022, 34, .	21.0	92
2517	Dynamic Electrochemical Interfaces for Energy Conversion and Storage. Jacs Au, 2022, 2, 2222-2234.	7.9	5
2518	Perovskite-based electrocatalysts for oxygen evolution reaction in alkaline media: A mini review. Frontiers in Chemistry, 0, 10, .	3.6	9

		CITATION REPORT		
# 2519	ARTICLE Boosting the overall electrochemical water splitting performance of pentlandites throug non-metallic heteroatom incorporation. IScience, 2022, 25, 105148.	h	IF 4.1	CITATIONS
2520	Enhanced Electrocatalytic Performance of IrO <sub>x</sub> by Employing Fâ€Doped TiC Support towards Acidic Oxygen Evolution Reaction. ChemCatChem, 2022, 14, .	<sub>2</sub> as	3.7	3
2521	Multicomponent transition metal oxides and (oxy)hydroxides for oxygen evolution. Nano 2023, 16, 1913-1966.	) Research,	10.4	59
2522	Electrochemical hydrogen production coupled with oxygen evolution, organic synthesis, reforming. Nano Energy, 2022, 104, 107875.	and waste	16.0	62
2523	Non-metal/metalloid modification of perovskite oxide enables lattice oxygen participatio accelerating oxygen evolution activity. International Journal of Hydrogen Energy, 2022, ,	n in •	7.1	2
2524	Efficient electrocatalysts with strong core-shell interaction for water splitting: The modu selectivity and activity. Journal of Alloys and Compounds, 2022, 929, 167247.	lation of	5.5	3
2525	Effect of structural symmetry on magnetic, electrical and electrocatalytic properties of isoelectronic oxides A2LaMn2O7 (A= Sr 2+, Ca2+). Journal of Physics and Chemistry of S 111013.	olids, 2022, 171,	4.0	4
2526	High-valence Mo doping for highly promoted water oxidation of NiFe (oxy)hydroxide. Jou Materials Chemistry A, 2022, 10, 23790-23798.	rnal of	10.3	12
2527	High-valence chromium accelerated interface electron transfer for water oxidation. Dalto Transactions, 2022, 51, 16890-16897.	n	3.3	2
2528	Penta-BCN monolayer: a metal-free photocatalyst with a high carrier mobility for water s Physical Chemistry Chemical Physics, 2022, 24, 26863-26869.	plitting.	2.8	1
2529	Role of heteroatom-doping in enhancing catalytic activities and the stability of single-atc for oxygen reduction and oxygen evolution reactions. Nanoscale, 2022, 14, 16286-1629		5.6	13
2530	Lattice Oxygen Activation in NiFe (Oxy)hydroxide using Se. Korean Journal of Materials R 32, 339-344.	esearch, 2022,	0.2	1
2531	Challenges in the modeling of elementary steps in electrocatalysis. Current Opinion in Electrochemistry, 2023, 37, 101170.		4.8	4
2532	Simultaneously Improved Surface and Bulk Participation of Evolved Perovskite Oxide for Oxygen Evolution Reaction Activity Using a Dynamic Cation Exchange Strategy. Small, 2		10.0	9
2533	Potential dependence of OER/EOP performance on heteroatom-doped carbon materials canonical density functional theory. Journal of Chemical Physics, 2022, 157, .	by grand	3.0	4
2534	Facetâ€Dependent Intrinsic Activity of Single Co <sub>3</sub> O <sub>4</sub> Nanopar Evolution Reaction. Advanced Functional Materials, 2023, 33, .	ticles for Oxygen	14.9	12
2535	First-Principles Study on the Electrocatalytic Oxygen Evolution Reaction on the (110) Su Layered Double Hydroxides. Journal of Physical Chemistry C, 2022, 126, 18351-18365.	rfaces of	3.1	5
2536	Orbital Occupancy and Spin Polarization: From Mechanistic Study to Rational Design of Metal-Based Electrocatalysts toward Energy Applications. ACS Nano, 2022, 16, 17847-1		14.6	48

#	Article	IF	CITATIONS
2537	Coordination Engineering of Singleâ€Atom Iron Catalysts for Oxygen Evolution Reaction. ChemCatChem, 2022, 14, .	3.7	9
2539	On the Mechanism of Heterogeneous Water Oxidation Catalysis: A Theoretical Perspective. Inorganics, 2022, 10, 182.	2.7	3
2540	Advances in nonprecious metal catalysts for efficient water oxidation in alkaline media. Ionics, 2023, 29, 9-32.	2.4	3
2541	Enhanced Acidic Water Oxidation by Dynamic Migration of Oxygen Species at the lr/Nb <sub>2</sub> O <sub>5â^<i>x</i></sub> Catalyst/Support Interfaces. Angewandte Chemie - International Edition, 2022, 61, .	13.8	59
2542	A Universal Saline-Alkaline Etching Procedure to Enhance the Activity of Oxygen Evolution Catalysts. ACS Energy Letters, 2022, 7, 3910-3916.	17.4	6
2543	Rapid Screening of Mechanistic Pathways for Oxygenâ€Reduction Catalysts. ChemCatChem, 2023, 15, .	3.7	5
2544	Activity engineering to transition metal phosphides as bifunctional electrocatalysts for efficient water-splitting. International Journal of Hydrogen Energy, 2022, 47, 38983-39000.	7.1	21
2545	Heterointerface engineered NiFe(OH)x/Ni3S2 electrocatalysts to overcome the scaling relationship for ultrahigh-current-density water oxidation. Science China Materials, 2023, 66, 634-640.	6.3	10
2546	Mixed Silver–Bismuth Oxides: A Robust Oxygen Evolution Catalyst Operating at Low pH and Elevated Temperatures. ACS Catalysis, 2022, 12, 12912-12926.	11.2	8
2547	Ceria-Promoted Reconstruction of Ni-Based Electrocatalysts toward Efficient Oxygen Evolution. ACS Catalysis, 2022, 12, 13951-13960.	11.2	36
2548	Water electrolysis. Nature Reviews Methods Primers, 2022, 2, .	21.2	70
2549	Spray-flame-synthesized Sr- and Fe-substituted LaCoO3 perovskite nanoparticles with enhanced OER activities. Journal of Materials Science, 2022, 57, 18923-18936.	3.7	1
2550	Computational screening of nonmetal dopants to active MoS2 basal-plane for hydrogen evolution reaction via structural descriptor. Journal of Catalysis, 2022, 416, 47-57.	6.2	7
2551	Enhanced Acidic Water Oxidation by Dynamic Migration of Oxygen Species at the lr/Nb <sub>2</sub> O <sub>5â~`<i>x</i></sub> Catalyst/Support Interfaces. Angewandte Chemie, 2022, 134, .	2.0	2
2552	Exceptional catalytic activity of oxygen evolution reaction via two-dimensional graphene multilayer confined metal-organic frameworks. Nature Communications, 2022, 13, .	12.8	63
2553	Superstructures of Zeolitic Imidazolate Frameworks to Single―and Multiatom Sites for Electrochemical Energy Conversion. Small, 2022, 18, .	10.0	13
2554	Probing the Interaction between Nitrogen Dopants and Edge Structures of Doped Graphene Catalysts for the Highly Efficient Oxygen Reduction Reaction. Journal of Physical Chemistry C, 2022, 126, 19113-19121.	3.1	1
2555	Oxygen Evolution Reaction Electrocatalysis on Cobalt(oxy)hydroxide: Role of Fe Impurities. Journal of Physical Chemistry C, 0, , .	3.1	8

#	Article	IF	CITATIONS
2556	Beyond the thermodynamic volcano picture in the nitrogen reduction reaction over transition-metal oxides: Implications for materials screening. Chinese Journal of Catalysis, 2022, 43, 2871-2880.	14.0	14
2557	Unraveling the Role of F in Electrochemical Ozone Generation on the F-Doped PbO <sub>2</sub> Electrode. Journal of Physical Chemistry C, 2022, 126, 19397-19408.	3.1	2
2558	Designing catalysts via evolutionary-based optimization techniques. Computational Materials Science, 2023, 216, 111833.	3.0	4
2559	Synergistic effect of p-type and n-type dopants in semiconductors for efficient electrocatalytic water splitting. Chemical Science, 2022, 13, 13879-13892.	7.4	2
2560	Understanding the oxygen-evolution-reaction catalytic activity of metal oxides based on the intrinsic descriptors. Physical Chemistry Chemical Physics, 2022, 24, 28632-28640.	2.8	1
2561	Well-defined hierarchical teddy bear sunflower-like NiCo <sub>2</sub> O <sub>4</sub> electrocatalyst for superior water oxidation. Sustainable Energy and Fuels, 0, , .	4.9	3
2562	Interfacing CrOx and CuS for synergistically enhanced water oxidation catalysis. Chemical Engineering Journal, 2023, 453, 139781.	12.7	5
2563	In-situ self-templating construction of FeNi/N co-doped 3D porous carbon from bimetallic ions-coordinated porous organic polymer for rechargeable zinc-air batteries. Applied Catalysis B: Environmental, 2023, 321, 122067.	20.2	33
2564	Ruddlesden–Popper Oxides LaSrM11â^'xM2xO4±Î′ (M1, M2—Fe, Co, Ni) Synthesized by the Spray-Pyrolysis Method as Promising Electrocatalysts for Oxygen Evolution Reaction. Energies, 2022, 15, 8315.	3.1	3
2565	Unveiling a Surface Electronic Descriptor for Fe–Co Mixing Enhanced the Stability and Efficiency of Perovskite Oxygen Evolution Electrocatalysts. ACS Catalysis, 2022, 12, 14698-14707.	11.2	3
2566	Bioinspired and Bioderived Aqueous Electrocatalysis. Chemical Reviews, 2023, 123, 2311-2348.	47.7	22
2567	Low-temperature crystallization of LaFeO3 perovskite with inherent catalytically surface for the enhanced oxygen evolution reaction. Nano Energy, 2023, 105, 108003.	16.0	4
2568	Degradation Mechanism and Enhancing Strategies of Oxygen Reduction Reaction Catalyzed by Carbonâ€Based Metal Free Catalysts in Acidic Solution. Advanced Energy Materials, 2023, 13, .	19.5	9
2569	Multifunctional catalytic activity of Cu3N (001) surface: A first-principles study. ChemPhysMater, 2022, , .	2.8	2
2570	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.	3.6	3
2571	Interface engineering of hybrid ZnCo2O4@Ni2.5Mo6S6.7 structures for flexible energy storage and alkaline water splitting. Chemical Engineering Journal, 2023, 454, 140458.	12.7	17
2572	In Situ Quantification of the Active Sites, Turnover Frequency, and Stability of Ni–Fe (Oxy)hydroxides for the Oxygen Evolution Reaction. ACS Catalysis, 2022, 12, 14280-14289.	11.2	16
2573	Progress of Heterogeneous Iridium-Based Water Oxidation Catalysts. ACS Nano, 2022, 16, 17761-17777.	14.6	29

#	Article	IF	CITATIONS
2574	Aerogels-Inspired based Photo and Electrocatalyst for Water Splitting to Produce Hydrogen. Applied Materials Today, 2022, 29, 101670.	4.3	4
2575	Theory-guided electrocatalyst engineering: From mechanism analysis to structural design. Chinese Journal of Catalysis, 2022, 43, 2987-3018.	14.0	45
2576	A metal/semiconductor contact induced Mott–Schottky junction for enhancing the electrocatalytic activity of water-splitting catalysts. Sustainable Energy and Fuels, 2022, 7, 12-30.	4.9	7
2577	Tuning the Spin State of Co <sup>3+</sup> by Crystal Facet Engineering for Enhancing the Oxygen Evolution Reaction Activity. Chemistry of Materials, 2022, 34, 10509-10516.	6.7	7
2578	2D transitional-metal nickel compounds monolayer: Highly efficient multifunctional electrocatalysts for the HER, OER and ORR. International Journal of Hydrogen Energy, 2023, 48, 4242-4252.	7.1	17
2579	Electrocatalysis with quantum chemistry. EPJ Web of Conferences, 2022, 268, 00007.	0.3	0
2580	Why copper catalyzes electrochemical reduction of nitrate to ammonia. Faraday Discussions, 0, 243, 502-519.	3.2	9
2581	Bifunctional intermetallic PdZn nanoparticle-loaded deficient TiO <sub>2</sub> nanosheet electrocatalyst for electrochemical water splitting. Materials Advances, 2023, 4, 561-569.	5.4	14
2582	Does the Oxygen Evolution Reaction follow the classical OH*, O*, OOH* path on single atom catalysts?. Journal of Catalysis, 2023, 417, 351-359.	6.2	27
2583	High-performing catalysts for energy-efficient commercial alkaline water electrolysis. Sustainable Energy and Fuels, 2022, 7, 31-60.	4.9	18
2584	Active-site engineering in dealloyed nanoporous catalysts for electrocatalytic water splitting. Journal of Materials Chemistry A, 2023, 11, 495-511.	10.3	18
2585	First-principles study of oxygen evolution on Co3O4 with short-range ordered Ir doping. Molecular Catalysis, 2023, 535, 112852.	2.0	2
2586	Vacancy defect tuning of electronic structures of transition metal (hydr)oxide-based electrocatalysts for enhanced oxygen evolution. Energy Advances, 2023, 2, 73-85.	3.3	5
2587	Modeling of solid-liquid interfaces for water splitting catalysis. , 2024, , 735-749.		0
2588	A hybridization cage-confinement pyrolysis strategy for ultrasmall Ni <sub>3</sub> Fe alloy coated with N-doped carbon nanotubes as bifunctional oxygen electrocatalysts for Zn–air batteries. Journal of Materials Chemistry A, 2023, 11, 1430-1438.	10.3	7
2589	How machine learning can accelerate electrocatalysis discovery and optimization. Materials Horizons, 2023, 10, 393-406.	12.2	24
2590	Investigation of nickel iron layered double hydroxide for water oxidation in different pH electrolytes. Chinese Journal of Catalysis, 2023, 44, 127-138.	14.0	14
2591	Modelling single atom catalysts for water splitting and fuel cells: A tutorial review. Journal of Power Sources, 2023, 556, 232492.	7.8	19

#	Article	IF	CITATIONS
2592	Machine learning utilized for the development of proton exchange membrane electrolyzers. Journal of Power Sources, 2023, 556, 232389.	7.8	6
2593	Constructing nanoporous crystalline/amorphous NiFe2O4/NiO electrocatalyst for high efficiency OER/UOR. Journal of Alloys and Compounds, 2023, 936, 168206.	5.5	23
2594	Density functional investigation of the interaction of H2O with spinel Li1-xMn2O4 surfaces: Implications for aqueous Li-ion batteries. Applied Surface Science, 2023, 612, 155822.	6.1	3
2595	Untangling product selectivity on clean low index rutile TiO <sub>2</sub> surfaces using first-principles calculations. Physical Chemistry Chemical Physics, 2023, 25, 2203-2211.	2.8	1
2596	<i>Ab initio</i> insight into the electrolysis of water on basal and edge (fullerene C <sub>20</sub> ) surfaces of 4 Ã single-walled carbon nanotubes. RSC Advances, 2022, 12, 33552-33558.	3.6	2
2598	Recent Advances and Future Perspectives of Metalâ€Based Electrocatalysts for Overall Electrochemical Water Splitting. Chemical Record, 2023, 23, .	5.8	16
2599	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, .	2.8	10
2600	Perovskite Catalysts for Oxygen Evolution and Reduction Reactions in Zinc-Air Batteries. Catalysts, 2022, 12, 1490.	3.5	6
2601	Probing the Effects of Electrode Composition and Morphology on the Effectiveness of Silicon Oxide Overlayers to Enhance Selective Oxygen Evolution in the Presence of Chloride Ions. Journal of Physical Chemistry C, 2022, 126, 20314-20325.	3.1	1
2602	Discovery of LaAlO3 as an efficient catalyst for two-electron water electrolysis towards hydrogen peroxide. Nature Communications, 2022, 13, .	12.8	21
2603	Enabling Lattice Oxygen Participation in a Triple Perovskite Oxide Electrocatalyst for the Oxygen Evolution Reaction. ACS Energy Letters, 2023, 8, 565-573.	17.4	23
2604	N-doped LaPO4: An effective Pt-free catalyst for electrocatalytic oxygen reduction. Chem Catalysis, 2022, 2, 3590-3606.	6.1	40
2605	A review of modulation strategies for improving catalytic performance of transition metal phosphides for oxygen evolution reaction. Applied Catalysis B: Environmental, 2023, 325, 122313.	20.2	38
2606	Electrochemical and Photoelectrochemical Water Splitting: Operando Raman and Fourier Transform Infrared Spectroscopy as Useful Probing Techniques. Energy Technology, 2023, 11, .	3.8	10
2607	High-Performance Oxygen Evolution Reaction Electrocatalysts Discovered via High-Throughput Aerogel Synthesis. ACS Catalysis, 2023, 13, 601-611.	11.2	5
2608	Contrasting Pr <sub>1–<i>x</i></sub> Ca <sub><i>x</i></sub> MnO <sub>3</sub> OER Catalysts with Different Valences and Covalences. Journal of Physical Chemistry C, 2023, 127, 177-186.	3.1	1
2609	Recent progress of advanced manganese oxide-based materials for acidic oxygen evolution reaction: Fundamentals, performance optimization, and prospects. Journal of Energy Chemistry, 2023, 78, 537-553.	12.9	20
2610	First principles of Si-doped BC2N single layer for hydrogen evolution reaction (HER). International Journal of Hydrogen Energy, 2023, 48, 7294-7304.	7.1	5

#	Article	IF	CITATIONS
2611	Unravelling the Complex LiOHâ€Based Cathode Chemistry in Lithium–Oxygen Batteries**. Angewandte Chemie - International Edition, 2023, 62, .	13.8	6
2612	Selectively Enhanced Electrocatalytic Oxygen Evolution within Nanoscopic Channels Fitting a Specific Reaction Intermediate for Seawater Splitting. Small, 2023, 19, .	10.0	11
2613	Longâ€Term Stability Challenges and Opportunities in Acidic Oxygen Evolution Electrocatalysis. Angewandte Chemie, 2023, 135, .	2.0	2
2614	lridium single atoms incorporated in Co3O4 efficiently catalyze the oxygen evolution in acidic conditions. Nature Communications, 2022, 13, .	12.8	72
2615	Electrocatalysts for the Oxygen Evolution Reaction in Acidic Media. Advanced Materials, 2023, 35, .	21.0	35
2616	Implications of the M-OOâ^™â^™OO-M recombination mechanism on materials screening and the oxygen evolution reaction. JPhys Energy, 2023, 5, 014008.	5.3	3
2617	DFT–kMC Analysis for Identifying Novel Bimetallic Electrocatalysts for Enhanced NRR Performance by Suppressing HER at Ambient Conditions Via Active-Site Separation. ACS Catalysis, 2022, 12, 15609-15617.	11.2	30
2618	Creating Atomic Ordering in Electrocatalysis. Advanced Functional Materials, 2023, 33, .	14.9	2
2619	Dopantâ€Induced Surface Selfâ€Etching of Cobalt Carbonate Hydroxide Boosts Efficient Water Splitting. ChemSusChem, 2023, 16, .	6.8	2
2620	Single atom catalysts supported on metallic C5N monolayers for oxygen reduction/evolution reactions with more active sites than loaded metal atoms. Applied Surface Science, 2023, 614, 156048.	6.1	4
2621	Methane to Methanol Conversion over N-Doped Graphene Facilitated by Electrochemical Oxygen Evolution: A First-Principles Study. Journal of Physical Chemistry C, 2023, 127, 308-318.	3.1	5
2622	Unravelling the Complex LiOHâ€Based Cathode Chemistry in Lithium–Oxygen Batteries**. Angewandte Chemie, 0, , .	2.0	0
2623	Development of Anion Exchange Membrane Water Electrolysis and the Associated Challenges: A Review. ChemElectroChem, 2023, 10, .	3.4	15
2624	High-Entropy Materials: Controllable Synthesis, Deep Characterization, Electrochemical Energy Application, and Outlook. Energy & Fuels, 2023, 37, 36-57.	5.1	7
2625	Altering oxygen binding by redoxâ€inactive metal substitution to control catalytic activity: oxygen reduction on manganese oxide nanoparticles as a model system. Angewandte Chemie, 0, , .	2.0	0
2626	Altering Oxygen Binding by Redoxâ€Inactive Metal Substitution to Control Catalytic Activity: Oxygen Reduction on Manganese Oxide Nanoparticles as a Model System**. Angewandte Chemie - International Edition, 2023, 62, .	13.8	4
2627	Longâ€Term Stability Challenges and Opportunities in Acidic Oxygen Evolution Electrocatalysis. Angewandte Chemie - International Edition, 2023, 62, .	13.8	61
2628	AutoMat: Automated materials discovery for electrochemical systems. MRS Bulletin, 0, , .	3.5	1

#	Article	IF	CITATIONS
2629	Composition-Designed Multielement Perovskite Oxides for Oxygen Evolution Catalysis. Chemistry of Materials, 2022, 34, 10973-10981.	6.7	6
2630	Ni(II) supramolecular gel-derived Ni(0) nanoclusters decorated with optimal N, O-doped graphitized carbon as bifunctional electrocatalysts for oxygen and hydrogen evolution reactions. International Journal of Hydrogen Energy, 2023, 48, 8115-8126.	7.1	5
2631	Recent advances in Ru-based electrocatalysts for oxygen evolution reaction. Journal of Materials Chemistry A, 2023, 11, 1634-1650.	10.3	33
2632	啿œ‰ç"µåè°få^¶å¹³é¢å¼,è <sup>**</sup> 结的金属有机骨架纳米片用于é«~电æµå¯†åº¦å¨è§£æ°´. S	cie <b>iocæ</b> Chii	na Materials,
2633	Cation-Coordinated Inner-Sphere CO <sub>2</sub> Electroreduction at Au–Water Interfaces. Journal of the American Chemical Society, 2023, 145, 1897-1905.	13.7	31
2634	N-doped carbon nanotubes with high amount of graphitic nitrogen as an excellent electrocatalyst for water splitting in alkaline solution. Journal of Electroanalytical Chemistry, 2023, 931, 117160.	3.8	3
2635	Advancements in Liquid Jet Technology and X-ray Spectroscopy for Understanding Energy Conversion Materials during Operation. Accounts of Chemical Research, 0, , .	15.6	0
2636	Surface Reconstruction of Iron–Cobalt–Nickel Phosphides to Achieve High-Current-Density Water Oxidation Performance. ACS Applied Energy Materials, 2023, 6, 692-701.	5.1	8
2637	Latticeâ€Strain Engineering for Heterogenous Electrocatalytic Oxygen Evolution Reaction. Advanced Materials, 2023, 35, .	21.0	34
2638	Materials Screening by the Descriptor <i>G</i> <sub>max</sub> (î·): The Free-Energy Span Model in Electrocatalysis. ACS Catalysis, 2023, 13, 1740-1758.	11.2	19
2639	Arming Ru with Oxygenâ€Vacancyâ€Enriched RuO <sub>2</sub> Subâ€Nanometer Skin Activates Superior Bifunctionality for pHâ€Universal Overall Water Splitting. Advanced Materials, 2023, 35, .	21.0	61
2640	<i>In Situ</i> Spectroscopic Identification of the Electron-Transfer Intermediates of Photoelectrochemical Proton-Coupled Electron Transfer of Water Oxidation on Au. Journal of the American Chemical Society, 2023, 145, 2035-2039.	13.7	8
2641	Lattice oxygen activation in disordered rocksalts for boosting oxygen evolution. Physical Chemistry Chemical Physics, 2023, 25, 4113-4120.	2.8	2
2642	Parameters Affecting the Fuel Cell Reactions on Platinum Bimetallic Nanostructures. Electrochemical Energy Reviews, 2023, 6, .	25.5	9
2643	Data-Driven Design of Classes of Ruthenium Nanoparticles Using Multitarget Bayesian Inference. Chemistry of Materials, 2023, 35, 728-738.	6.7	1
2644	Growth of Ultrathin Well-Defined and Crystalline Films of Co <sub>3</sub> O <sub>4</sub> and CoOOH by Electrodeposition. Journal of the Electrochemical Society, 2023, 170, 012501.	2.9	2
2645	Demonstrating the source of inherent instability in NiFe LDH-based OER electrocatalysts. Journal of Materials Chemistry A, 2023, 11, 4067-4077.	10.3	34
2646	Galvanic displacement of Co with Rh boosts hydrogen and oxygen evolution reactions in alkaline media. Journal of Solid State Electrochemistry, 2023, 27, 1877-1887.	2.5	0

ARTICLE IF CITATIONS An underlying nickel difluoride material as bifunctional electrode for energy storage and hydrogen 3.8 4 2647 evolution reaction. Journal of Electroanalytical Chemistry, 2023, 929, 117138. Epitaxial interface stabilizing iridium dioxide toward the oxygen evolution reaction under high 2648 10.4 working potentials. Nano Research, 2023, 16, 4767-4774. IrO<sub>2</sub>/Ir Composite Nanoparticles (IrO<sub>2</sub>@Ir) Supported on TiN<sub>x</sub>O<sub>y</sub> Coated TiN: Efficient and Robust Oxygen Evolution Reaction Catalyst 2649 3.7 15 for Water Electrolysis. ChemCatChem, 2023, 15, . Coordination engineering on novel 2D pentagonal NiN2 for bifunctional oxygen electrocatalysts. 6.1 Applied Surface Science, 2023, 614, 156256. 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, 2651 6.1 2 156255. Curvature effect on graphene-based Co/Ni single-atom catalysts. Applied Surface Science, 2023, 615, 6.1 156357. Machine-Learning-Assisted Discovery of High-Efficient Oxygen Evolution Electrocatalysts. Journal of 2653 4.6 5 Physical Chemistry Letters, 2023, 14, 170-177. A Highly Active, Longâ€Lived Oxygen Evolution Electrocatalyst Derived from Openâ€Framework Iridates. 2654 21.0 20 Advanced Materials, 2023, 35, . Dual Integrating Oxygen and Sulphur on Surface of CoTe Nanorods Triggers Enhanced Oxygen 2655 11.2 14 Evolution Reaction. Advanced Science, 2023, 10, . Advances and status of anode catalysts for proton exchange membrane water electrolysis technology. Materials Chemistry Frontiers, 2023, 7, 1025-1045. Selective electrochemical reductive amination of benzaldehyde at heterogeneous metal surfaces. 2657 6.1 5 Chem Catalysis, 2023, 3, 100500. Nâ€Doped Carbon Shells Encapsulated Ruâ€Ni Nanoalloys for Efficient Hydrogen Evolution Reaction. 2658 6.8 ChemSusChem, 2023, 16, . A review on electrocatalysis for alkaline oxygen evolution reaction (OER) by Fe-based catalysts. 2659 3.7 3 Journal of Materials Science, 0, , . A comprehensive review on the electrochemical parameters and recent material development of 2660 3.6 electrochemical water splitting electrocatalysts. RSC Advances, 2023, 13, 3843-3876. Expediting Oxygen Evolution by Optimizing Cation and Anion Complexity in Electrocatalysts Based on 2661 2.0 2 Metal Phosphorous Trichalcogenides. Angewandte Chemie, 2023, 135, . Bimetallic Ni–Co selenide heterostructure aerogel for highly efficient overall water splitting. 2662 5.9 Materials Chemistry Frontiers, 2023, 7, 1365-1373. Participation of Lattice Oxygen in Perovskite Oxide as a Highly Sensitive Sensor for p-Phenylenediamine 2663 3.8 3 Detection. Molecules, 2023, 28, 1122. Theoretical study of single-nonmetal-modified V2CO2 MXene as an efficient electrocatalyst for 2664 7.1 overall water splitting. International Journal of Hydrogen Energy, 2023, 48, 15473-15482.

#	Article	IF	CITATIONS
2665	Transition Metalâ€based Perovskite Oxides: Emerging Electrocatalysts for Oxygen Evolution Reaction. ChemCatChem, 2023, 15, .	3.7	16
2666	2D Metal–Organic Frameworks as Competent Electrocatalysts for Water Splitting. Small, 2023, 19, .	10.0	31
2667	<i>Ab initio</i> study of changing the oxygen reduction activity of Co–Fe-based perovskites by tuning the B-site composition. Physical Chemistry Chemical Physics, 2023, 25, 4236-4242.	2.8	0
2668	Expediting Oxygen Evolution by Optimizing Cation and Anion Complexity in Electrocatalysts Based on Metal Phosphorous Trichalcogenides. Angewandte Chemie - International Edition, 2023, 62, .	13.8	7
2669	Deeper mechanistic insights into epitaxial nickelate electrocatalysts for the oxygen evolution reaction. Chemical Communications, 2023, 59, 4562-4577.	4.1	3
2670	A general but still unknown characteristic of active oxygen evolution electrocatalysts. Chemical Science, 2023, 14, 3622-3629.	7.4	6
2671	Insight into the Mechanism for Catalytic Activity of the Oxygen/Hydrogen Evolution Reaction on a Dual-Site Catalyst. Journal of Physical Chemistry Letters, 2023, 14, 2201-2207.	4.6	5
2672	Customized reaction route for ruthenium oxide towards stabilized water oxidation in high-performance PEM electrolyzers. Nature Communications, 2023, 14, .	12.8	66
2673	Divalent Oxidation State Ni as an Active Intermediate in Prussian Blue Analogues for Electrocatalytic Urea Oxidation. Inorganic Chemistry, 2023, 62, 3637-3645.	4.0	3
2674	Oxidation State Engineering in Octahedral Ni by Anchored Sulfate to Boost Intrinsic Oxygen Evolution Activity. ACS Nano, 2023, 17, 6770-6780.	14.6	17
2675	Recent advances in developing multiscale descriptor approach for the design of oxygen redox electrocatalysts. IScience, 2023, 26, 106624.	4.1	3
2676	Advanced in-situ electrochemical scanning probe microscopies in electrocatalysis. Chinese Journal of Catalysis, 2023, 47, 93-120.	14.0	7
2677	Unusual double ligand holes as catalytic active sites in LiNiO2. Nature Communications, 2023, 14, .	12.8	16
2678	Competition between Lattice Oxygen and Adsorbate Evolving Mechanisms in Rutile Ru-Based Oxide for the Oxygen Evolution Reaction. ACS Applied Materials & amp; Interfaces, 2023, 15, 20563-20570.	8.0	12
2679	Electrooxidation of CO on Platinum Nanoparticles Supported on NiO Thin Films. Journal of Physical Chemistry C, 0, , .	3.1	0
2680	High entropy materials as emerging electrocatalysts for hydrogen production through low-temperature water electrolysis. Materials Futures, 2023, 2, 022102.	8.4	10
2681	Density functional theory studies of Pt2Ga and Pd2Ga monolayers as multifunctional electrocatalytic materials. Computational Materials Science, 2023, 224, 112164.	3.0	0
2682	Dual MOF-derived Fe/N/P-tridoped carbon nanotube as high-performance oxygen reduction catalysts for zinc-air batteries. Applied Catalysis B: Environmental, 2023, 327, 122469.	20.2	58

#	Article	IF	CITATIONS
2683	In-situ construction of hexagonal-star-shaped MnCo2S4@MoS2 boosting overall water splitting performance at large-current-density: Compositional-electronic regulation, functions, and mechanisms. Chemical Engineering Journal, 2023, 464, 142592.	12.7	9
2684	Coordination chemistry in modulating electronic structures of perovskite-type oxide nanocrystals for oxygen evolution catalysis. Coordination Chemistry Reviews, 2023, 485, 215109.	18.8	10
2685	Through the Self-Optimization process to achieve high OER activity of SAC catalysts within the framework of TMO3@G and TMO4@G: A High-Throughput theoretical study. Journal of Colloid and Interface Science, 2023, 640, 405-414.	9.4	2
2686	Superior efficiency hydrogen peroxide production in acidic media through epoxy group adjacent to Co-O/C active centers on carbon black. Chemical Engineering Journal, 2023, 465, 142691.	12.7	3
2687	Interface and electronic structure regulation of Mo-doped NiSe2-CoSe2 heterostructure aerogel for efficient overall water splitting. Journal of Colloid and Interface Science, 2023, 640, 1040-1051.	9.4	10
2688	Structure evolution and durability of Metal-Nitrogen-Carbon (MÂ=ÂCo, Ru, Rh, Pd, Ir) based oxygen evolution reaction electrocatalyst: A theoretical study. Journal of Colloid and Interface Science, 2023, 640, 170-178.	9.4	11
2689	Understanding the copper-iridium nanocrystals as highly effective bifunctional pH-universal electrocatalysts for water splitting. Journal of Colloid and Interface Science, 2023, 642, 779-788.	9.4	2
2690	Photoreforming of Waste Polymers for Sustainable Hydrogen Fuel and Chemicals Feedstock: Waste to Energy. Chemical Reviews, 2023, 123, 4443-4509.	47.7	47
2691	Mainâ€Group <i>s</i> â€Block Element Lithium Atoms within Carbon Frameworks as Highâ€Active Sites for Electrocatalytic Reduction Reactions. Advanced Functional Materials, 2023, 33, .	14.9	4
2692	Influence of bubble generation on the microchannel electrochemical gas evolution reaction. Chemical Engineering Journal, 2023, 463, 142453.	12.7	4
2693	Single-Atom Iridium-Based Catalysts: Synthesis Strategies and Electro(Photo)-Catalytic Applications for Renewable Energy Conversion and Storage. Coordination Chemistry Reviews, 2023, 486, 215143.	18.8	8
2694	Fabrication of Co2Mn3O8@NiMnLDH nanocomposite array on nickel foam for oxygen evaluation reaction. Inorganic Chemistry Communication, 2023, 152, 110670.	3.9	0
2695	Ultra-high oxygen evolution potential of CuO5-Zn1 active sites on SnO2(1 1 0) surface and its origin: DFT theoretical study. Applied Surface Science, 2023, 616, 156469.	6.1	0
2696	The OER/ORR activities of copper oxyhydroxide series electrocatalysts. Molecular Catalysis, 2023, 537, 112942.	2.0	4
2697	Low-Voltage Hydrogen Peroxide Electrolyzer for Highly Efficient Power-to-Hydrogen Conversion. ACS Sustainable Chemistry and Engineering, 2023, 11, 2599-2606.	6.7	3
2698	Evaluating the stability of Ir single atom and Ru atomic cluster oxygen evolution reaction electrocatalysts. Electrochimica Acta, 2023, 444, 141982.	5.2	12
2699	Unraveling Sequential Oxidation Kinetics and Determining Roles of Multi-Cobalt Active Sites on Co <sub>3</sub> O <sub>4</sub> Catalyst for Water Oxidation. Journal of the American Chemical Society, 2023, 145, 3470-3477.	13.7	38
2700	Steering Selectivity in the Four-Electron and Two-Electron Oxygen Reduction Reactions: On the Importance of the Volcano Slope. ACS Physical Chemistry Au, 2023, 3, 190-198.	4.0	10

#	Article	IF	CITATIONS
2701	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.	12.7	17
2702	Recent advances of ruthenium-based electrocatalysts for hydrogen energy. Trends in Chemistry, 2023, 5, 225-239.	8.5	13
2703	Boosting Oxygen Electrocatalytic Activity of Fe–N–C Catalysts by Phosphorus Incorporation. Journal of the American Chemical Society, 2023, 145, 3647-3655.	13.7	93
2704	Perovskiteâ€based electrocatalyst discovery and design using word embeddings from retrained <scp>SciBERT</scp> language model. AICHE Journal, 2023, 69, .	3.6	1
2705	Toward data―and mechanisticâ€driven volcano plots in electrocatalysis. Electrochemical Science Advances, 2024, 4, .	2.8	3
2706	Nanoarchitectonics of Layered Metal Chalcogenides-Based Ternary Electrocatalyst for Water Splitting. Energies, 2023, 16, 1669.	3.1	3
2707	Understanding the Activity and Design Principle of Dual-Atom Catalysts Supported on C <sub>2</sub> N for Oxygen Reduction and Evolution Reactions: From Homonuclear to Heteronuclear. Journal of Physical Chemistry Letters, 2023, 14, 1674-1683.	4.6	10
2708	Investigation of Charge–Discharging Behavior of Metal Oxide–Based Anode Electrocatalysts for Alkaline Water Electrolysis to Suppress Degradation due to Reverse Current. Electrocatalysis, 2023, 14, 499-510.	3.0	1
2709	Tuning Catalytic Performance of C <sub>2</sub> N/GaN Heterostructure for Hydrogen Evolution Reaction by Doping. Advanced Theory and Simulations, 2023, 6, .	2.8	2
2710	Mechanistic insight into hydrothermally prepared molybdenum-based electrocatalyst for overall water splitting. Electrochimica Acta, 2023, 445, 142050.	5.2	8
2711	On the concept of metal–hydrogen peroxide batteries: improvement over metal–air batteries?. Energy Advances, 2023, 2, 522-529.	3.3	5
2713	In-situ/operando Raman techniques for in-depth understanding on electrocatalysis. Chemical Engineering Journal, 2023, 461, 141939.	12.7	26
2714	Facet Engineering of Advanced Electrocatalysts Toward Hydrogen/Oxygen Evolution Reactions. Nano-Micro Letters, 2023, 15, .	27.0	55
2715	Role of oxygen vacancies on surface reaction of water oxidation in WO3 studied by density functional theory (DFT) and experiment. Molecular Catalysis, 2023, 539, 113005.	2.0	3
2716	V-Shaped RuO <sub>2</sub> Nanotwin Complex Defect Facilitation of OER Reaction. Journal of Physical Chemistry C, 2023, 127, 4511-4518.	3.1	2
2717	Rhenium-Based Electrocatalysts for Water Splitting. ACS Materials Au, 2023, 3, 177-200.	6.0	11
2718	Nano Siâ€Doped Ruthenium Oxide Particles from Caged Precursors for Highâ€Performance Acidic Oxygen Evolution. Advanced Science, 2023, 10, .	11.2	9
2719	Concepts Relevant for the Kinetic Analysis of Reversible Reaction Systems. Chemical Reviews, 2023, 123, 2950-3006.	47.7	8

#	Article	IF	CITATIONS
2720	Recent progress in electrocatalytic selectivity in heterogeneous electro-Fenton processes. Journal of Materials Chemistry A, 2023, 11, 7387-7408.	10.3	3
2721	lridium-based catalysts for oxygen evolution reaction in acidic media: Mechanism, catalytic promotion effects and recent progress. , 2023, 2, e9120056.		55
2722	Remarkably Enhanced Lattice Oxygen Participation in Perovskites to Boost Oxygen Evolution Reaction. Nanomaterials, 2023, 13, 905.	4.1	3
2723	Spinel-Anchored Iridium Single Atoms Enable Efficient Acidic Water Oxidation via Intermediate Stabilization Effect. ACS Catalysis, 2023, 13, 3757-3767.	11.2	21
2724	First principles calculation study of single transition metal atom grafted Au25 as efficient electrocatalysts for OER and ORR. Molecular Catalysis, 2023, 540, 113030.	2.0	0
2725	Recent advances and future prospects on Ni3S2-Based electrocatalysts for efficient alkaline water electrolysis. Green Energy and Environment, 2024, 9, 659-683.	8.7	1
2727	The surface states of transition metal X-ides under electrocatalytic conditions. Journal of Chemical Physics, 2023, 158, .	3.0	23
2728	Computational Approaches to Materials Design for Enhanced Photocatalytic Activity. , 2023, , 308-330.		0
2729	Insulating High-Entropy Ruthenium Oxide as a Highly Efficient Oxygen-Evolving Electrocatalyst in Acid. ACS Catalysis, 2023, 13, 3983-3989.	11.2	6
2730	Distilling universal activity descriptors for perovskite catalysts from multiple data sources <i>via</i> multi-task symbolic regression. Materials Horizons, 2023, 10, 1651-1660.	12.2	4
2731	Supramolecular tuning of supported metal phthalocyanine catalysts for hydrogen peroxide electrosynthesis. Nature Catalysis, 2023, 6, 234-243.	34.4	51
2732	A High-Entropy Oxide as High-Activity Electrocatalyst for Water Oxidation. ACS Nano, 2023, 17, 5329-5339.	14.6	24
2733	Unraveling oxygen vacancy site mechanism of Rh-doped RuO2 catalyst for long-lasting acidic water oxidation. Nature Communications, 2023, 14, .	12.8	63
2734	Voltage-Dependent First-Principles Simulation of Insertion of Chloride Ions into Al/Al <sub>2</sub> O <sub>3</sub> Interfaces Using the Quantum Continuum Approximation. Journal of the Electrochemical Society, 2023, 170, 031506.	2.9	2
2735	Synthesis and Surface Chemistry of Bimetallic Chromium-Iron Carbide (CrxFe1-x) <sub>7</sub> C <sub>3</sub> Solid Solution Nanoparticles. ECS Journal of Solid State Science and Technology, 2023, 12, 031011.	1.8	0
2736	Single Phase Trimetallic Spinel CoCr <i><sub>x</sub></i> Rh <sub>2â€</sub> <i><sub>x</sub></i> O <sub>4</sub> Nanofibers for Highly Efficient Oxygen Evolution Reaction under Freshwater Mimicking Seawater Conditions. Advanced Functional Materials. 2023. 33	14.9	7
2737	H2O2 electrosynthesis and emerging applications, challenges, and opportunities: A computational perspective. Chem Catalysis, 2023, 3, 100568.	6.1	8
2738	Catalystâ€Support Interactions in Zr <sub>2</sub> ON <sub>2</sub> â€Supported IrO <sub>x</sub> Electrocatalysts to Break the Tradeâ€Off Relationship Between the Activity and Stability in the Acidic Oxygen Evolution Reaction. Advanced Functional Materials, 2023, 33, .	14.9	12

#	Article	IF	CITATIONS
2739	On the mechanistic complexity of oxygen evolution: potential-dependent switching of the mechanism at the volcano apex. Materials Horizons, 2023, 10, 2086-2095.	12.2	8
2740	Trends and Prospects of Bulk and Singleâ€Atom Catalysts for the Oxygen Evolution Reaction. Advanced Energy Materials, 2023, 13, .	19.5	25
2741	Superior oxygen evolution reaction performance of NiCoFe spinel oxide nanowires <i>in situ</i> grown on β-Ni(OH) <sub>2</sub> nanosheet-decorated Ni foam: case studies on stoichiometric and off-stoichiometric oxides. Journal of Materials Chemistry A, 2023, 11, 8972-8987.	10.3	7
2742	Oxygen Evolution/Reduction Reaction Catalysts: From <i>In Situ</i> Monitoring and Reaction Mechanisms to Rational Design. Chemical Reviews, 2023, 123, 6257-6358.	47.7	81
2743	Remote Synergy between Heterogeneous Single Atoms and Clusters for Enhanced Oxygen Evolution. Nano Letters, 2023, 23, 3309-3316.	9.1	17
2744	PtTe <sub>2</sub> /Sb <sub>2</sub> S <sub>3</sub> Nanoscale Heterostructures for the Photocatalytic Direct Z-Scheme with High Solar-to-Hydrogen Efficiency: A Theoretical Investigation. ACS Applied Nano Materials, 2023, 6, 5591-5601.	5.0	11
2745	Improving the Oxygen Evolution Reaction on Fe <sub>3</sub> O <sub>4</sub> (001) with Single-Atom Catalysts. ACS Catalysis, 2023, 13, 4811-4823.	11.2	7
2746	Amorphous Oxysulfide Reconstructed from Spinel NiCo <sub>2</sub> S <sub>4</sub> for Efficient Water Oxidation. Small, 2023, 19, .	10.0	5
2747	Highâ€Activity Fe <sub>3</sub> C as pHâ€Universal Electrocatalyst for Boosting Oxygen Reduction Reaction and Zincâ€Air Battery. Small, 2023, 19, .	10.0	15
2748	Interface-vacancy synergy of Co(OH)2/CoN to boost alkaline water splitting. Science China Materials, 2023, 66, 2246-2256.	6.3	4
2749	Atomically Dispersed Fe–N <sub>4</sub> Sites and NiFe-LDH Sub-Nanoclusters as an Excellent Air Cathode for Rechargeable Zinc–Air Batteries. ACS Applied Materials & Interfaces, 2023, 15, 16732-16743.	8.0	5
2750	An attempt to confirm the contribution to ORR activity of different N-species in M-NC (M = Fe, Co, Ni) catalysts with XPS analysis. Chemical Communications, 2023, 59, 4535-4538.	4.1	11
2751	Reducible Co <sup>3+</sup> –O Sites of Co–Ni–P–O <sub><i>x</i></sub> on CeO <sub>2</sub> Nanorods Boost Acidic Water Oxidation via Interfacial Charge Transfer-Promoted Surface Reconstruction. ACS Catalysis, 2023, 13, 5194-5204.	11.2	17
2752	Regulating the steric effect at the zero-dimensional interface. , 2023, 53, 0301.		0
2753	Ideal gas reference for association/dissociation reactions: Concentration bias and kinetic reference voltage/potentials in electrolysis. Journal of Chemical Physics, 2023, 158, 124129.	3.0	0
2754	First-Principles Investigation on Electronic Properties and Surface Reactions of NaTaO <sub>3</sub> Adsorbed with Single-Metal Atoms. Journal of Physical Chemistry C, 2023, 127, 6702-6713.	3.1	0
2755	High-entropy single-atom activated carbon catalysts for sustainable oxygen electrocatalysis. Nature Sustainability, 2023, 6, 816-826.	23.7	49
2756	Efficient solar fuel production enabled by an iodide oxidation reaction on atomic layer deposited MoS <sub>2</sub> . , 2023, 5, .		2

#	Article	IF	CITATIONS
2757	Electrochemical generation of hydrogen peroxide from a zinc gallium oxide anode with dual active sites. Nature Communications, 2023, 14, .	12.8	10
2758	<i>WhereWulff</i> : A Semiautonomous Workflow for Systematic Catalyst Surface Reactivity under Reaction Conditions. Journal of Chemical Information and Modeling, 2023, 63, 2427-2437.	5.4	1
2759	Synergistic effect of phosphorus doping and MoS2 co-catalysts on g-C3N4 photocatalysts for enhanced solar water splitting. Journal of Materials Science and Technology, 2023, 158, 171-179.	10.7	21
2760	Recent progress and perspective on molybdenum-based electrocatalysts for water electrolysis. International Journal of Hydrogen Energy, 2023, 48, 26084-26106.	7.1	13
2761	Accelerating the Discovery of Metastable IrO <sub>2</sub> for the Oxygen Evolution Reaction by the Self-Learning-Input Graph Neural Network. Jacs Au, 2023, 3, 1131-1140.	7.9	3
2762	Transition metal embedded in nonmetal-doped T-carbon [110]: A superior synergistic trifunctional electrocatalyst for HER, OER and ORR. Journal of Energy Chemistry, 2023, 83, 79-89.	12.9	12
2763	An ultrathin 2D NiCo-LDH nanosheet decorated NH <sub>2</sub> -UiO-66 MOF-nanocomposite with exceptional chemical stability for electrocatalytic water splitting. Journal of Materials Chemistry A, 2023, 11, 10309-10318.	10.3	21
2764	Exploring the Role of Multi-Catalytic Sites in an Amorphous Co–W–B Electrocatalyst for Hydrogen and Oxygen Evolution Reactions. ACS Applied Energy Materials, 2023, 6, 4630-4641.	5.1	7
2765	Recent Advances in Perovskite Oxides Electrocatalysts: Ordered Perovskites, Cations Segregation and Exsolution. ChemCatChem, 2023, 15, .	3.7	2
2766	Interfacial Electronic Modulation on Nickel Cobaltite/Black Phosphorus Heterostructures for Boosting the Electrocatalytic Oxygen Evolution Reaction. ACS Sustainable Chemistry and Engineering, 2023, 11, 6629-6640.	6.7	8
2767	Reinforcing CoO Covalency via Ce(4f)─O(2p)─Co(3d) Gradient Orbital Coupling for High‣fficiency Oxygen Evolution. Advanced Materials, 2023, 35, .	21.0	62
2768	Bimetallic Atom Dual-Doped MoS <sub>2</sub> -Based Heterostructures as a High-Efficiency Catalyst To Boost Solar-Assisted Alkaline Seawater Electrolysis. ACS Sustainable Chemistry and Engineering, 2023, 11, 6688-6697.	6.7	11
2769	Additively Manufactured Ironâ€Based Bulk Metallic Glass Composite Electrocatalysts: Effect of Microstructural States on the Oxygen Evolution Reaction Activity. Advanced Materials Interfaces, 2023, 10, .	3.7	1
2770	Review of Carbon Support Coordination Environments for Single Metal Atom Electrocatalysts (SACS). Advanced Materials, 2024, 36, .	21.0	13
2771	Nickel sulfide-based electrocatalysts for overall water splitting. International Journal of Hydrogen Energy, 2023, 48, 27992-28017.	7.1	8
2772	Molecular design and coordination regulation of atomically dispersed bi-functional catalysts for oxygen electrocatalysis. Journal of Materials Chemistry A, 2023, 11, 11089-11118.	10.3	3
2773	Epitaxial Design of Complex Nickelates as Electrocatalysts for the Oxygen Evolution Reaction. Advanced Energy Materials, 2023, 13, .	19.5	14
2774	Efficient Nitrate Generation through Electrochemical N <sub>2</sub> Oxidation with Nickel Oxyhydroxide Decorated Copper Hydroxide Driven by Solar Cells. Small, 2023, 19, .	10.0	2

#	Article	IF	CITATIONS
2775	3R-IrO <sub>2</sub> Two-Dimensional Nanosheets with Varying Layer Spacing and [IrO <sub>6</sub> ] Distortion for OER. ACS Applied Energy Materials, 2023, 6, 4757-4765.	5.1	2
2776	Structurally Robust Honeycomb Layered Strontium Iridate as an Oxygen Evolution Electrocatalyst in Acid. ACS Catalysis, 2023, 13, 7322-7330.	11.2	10
2777	Machine learning screening of high-performance single-atom electrocatalysts for two-electron oxygen reduction reaction. Journal of Colloid and Interface Science, 2023, 645, 956-963.	9.4	6
2778	On the Operando Structure of Ruthenium Oxides during the Oxygen Evolution Reaction in Acidic Media. ACS Catalysis, 2023, 13, 7488-7498.	11.2	10
2779	Designing a promising electrocatalysts based on iron single-atom doped in graphyne-like BN-yne for water splitting application. Journal of Physics and Chemistry of Solids, 2023, 180, 111454.	4.0	1
2780	Evoking Cooperative Geometric and Electronic Interactions at Nanometer Coherent Interfaces toward Enhanced Electrocatalysis. Advanced Functional Materials, 2023, 33, .	14.9	3
2781	Extracting Features of Active Transition Metal Electrodes for NO Electroreduction with Catalytic Matrices. ACS Applied Materials & amp; Interfaces, 2023, 15, 22176-22183.	8.0	3
2782	High-valent metal site incorporated heterointerface catalysts for high-performance anion-exchange membrane water electrolysers. Applied Catalysis B: Environmental, 2023, 333, 122816.	20.2	6
2783	Construction of Zn-doped RuO2 nanowires for efficient and stable water oxidation in acidic media. Nature Communications, 2023, 14, .	12.8	35
2784	Theoretical Investigation of HER and OER Electrocatalysts Based on the 2D R-graphyne Completely Composed of Anti-Aromatic Carbon Rings. Molecules, 2023, 28, 3888.	3.8	1
2785	Engineering Oxygen Vacancies in IrO <sub><i>x</i></sub> Clusters Supported on Metal–Organic Framework Derived Porous CeO <sub>2</sub> for Enhanced Oxygen Evolution in Acidic Media. Chemistry of Materials, 2023, 35, 3892-3901.	6.7	5
2786	Co <sub>3</sub> O <sub>4</sub> Nanoparticle/F, Nâ€codoped Graphene for High Efficiency Oxygen Reduction and Zincâ€air Battery. ChemistrySelect, 2023, 8, .	1.5	0
2787	La- and Mn-doped cobalt spinel oxygen evolution catalyst for proton exchange membrane electrolysis. Science, 2023, 380, 609-616.	12.6	88
2788	Distilling Accurate Descriptors from Multi-Source Experimental Data for Discovering Highly Active Perovskite OER Catalysts. Journal of the American Chemical Society, 2023, 145, 11457-11465.	13.7	6
2789	Electronic structure regulation of noble metal-free materials toward alkaline oxygen electrocatalysis. EScience, 2023, 3, 100141.	41.6	27
2790	Recent progress of advanced Co3O4-based materials for electrocatalytic oxygen evolution reaction in acid: from rational screening to efficient design. International Journal of Hydrogen Energy, 2023, 48, 31920-31942.	7.1	5
2791	Surface self-reconstruction of catalysts in electrocatalytic oxygen evolution reaction. , 2024, , 316-327.		0
2792	Hydrogen production activity of nickel deposited graphite electrodes doped with CoW and Colr nanoparticles. International Journal of Hydrogen Energy, 2023, 48, 31844-31854.	7.1	4

#	Article	IF	CITATIONS
2793	Insights into local coordination environment of main group metal-nitrogen-carbon catalysts for enhanced oxygen reduction reaction. Applied Surface Science, 2023, 631, 157581.	6.1	1
2794	Machine learning-enabled exploration of the electrochemical stability of real-scale metallic nanoparticles. Nature Communications, 2023, 14, .	12.8	3
2795	Constructing N,S and N,P Coâ€Coordination in Fe Singleâ€Atom Catalyst for Highâ€Performance Oxygen Redox Reaction. ChemSusChem, 2023, 16, .	6.8	3
2796	A critical look at alternative oxidation reactions for hydrogen production from water electrolysis. Cell Reports Physical Science, 2023, 4, 101427.	5.6	7
2797	Highâ€Valence Oxides for High Performance Oxygen Evolution Electrocatalysis. Advanced Science, 2023, 10, .	11.2	17
2798	Identifying the Local Atomic Environment of the "Cu <sup><b>3</b>+</sup> ―State in Alkaline Electrochemical Systems. ACS Applied Materials & Interfaces, 2023, 15, 27878-27892.	8.0	3
2799	Design strategies of electrocatalysts for acidic oxygen evolution reaction. EnergyChem, 2023, 5, 100104.	19.1	5
2800	Machine-learning-accelerated screening of single metal atoms anchored on MnPS <sub>3</sub> monolayers as promising bifunctional oxygen electrocatalysts. Nanoscale, 2023, 15, 11616-11624.	5.6	7
2801	Halide perovskite photovoltaic-electrocatalysis for solar fuel generation. Inorganic Chemistry Frontiers, 2023, 10, 3781-3807.	6.0	4
2802	Manipulating electron redistribution induced by asymmetric coordination for electrocatalytic water oxidation at a high current density. Science Bulletin, 2023, 68, 1389-1398.	9.0	34
2803	Revisiting electrocatalytic oxygen evolution reaction microkinetics from a mathematical viewpoint. Results in Chemistry, 2023, 5, 100985.	2.0	0
2804	2D/2D Janus BiTeCl/GeSe vdW heterostructure as a robust high-performance S-scheme photocatalyst for water splitting. Applied Surface Science, 2023, 635, 157694.	6.1	4
2805	Strategies for the design of ruthenium-based electrocatalysts toward acidic oxygen evolution reaction. , 2023, 1, 619-644.		2
2807	Understanding oxygen evolution mechanisms by tracking charge flow at the atomic level. IScience, 2023, 26, 107037.	4.1	1
2808	Transition metal single atoms anchoring VTe2 for efficient overall water splitting and oxygen reduction reactions: A first principles study. Applied Surface Science, 2023, 635, 157611.	6.1	4
2809	Regulation engineering of the surface and structure of perovskite-based electrocatalysts for the oxygen evolution reaction. Materials Chemistry Frontiers, 2023, 7, 4236-4258.	5.9	3
2810	Low-spin state of Fe in Fe-doped NiOOH electrocatalysts. Nature Communications, 2023, 14, .	12.8	14
2811	A coupling mechanism of anodic oxygen evolution reaction during organic pollutants oxidation. Journal of Electroanalytical Chemistry, 2023, 943, 117608.	3.8	2

#	Article	IF	CITATIONS
2812	Interface Catalysts of Ni <sub>3</sub> Fe <sub>1</sub> Layered Double Hydroxide and Titanium Carbide for High-Performance Water Oxidation in Alkaline and Natural Conditions. Journal of Physical Chemistry Letters, 2023, 14, 5692-5700.	4.6	2
2813	Recent advances in Ni (oxy) hydroxides and Ni sulfides catalysts for oxygen evolution reactions. Coordination Chemistry Reviews, 2023, 493, 215274.	18.8	13
2814	Interface engineering of transition metal-nitrogen-carbon by graphdiyne for boosting the oxygen reduction/evolution reactions: A computational study. Journal of Colloid and Interface Science, 2023, 649, 1-9.	9.4	6
2815	Engineering Iridium-Based Oxygen Evolution Reaction Electrocatalysts for Proton Exchange Membrane Water Electrolyzers. ACS Catalysis, 2023, 13, 8670-8691.	11.2	8
2816	Structure engineering of MoO <sub>3</sub> breaks the scaling relationship and achieves high electrocatalytic oxygen evolution activity in acidic conditions. Journal of Materials Chemistry A, 2023, 11, 14952-14958.	10.3	2
2817	Active Site Tailoring of Metalâ€Organic Frameworks for Highly Efficient Oxygen Evolution. Advanced Energy Materials, 2023, 13, .	19.5	6
2818	Progress on the mechanisms of Ru-based electrocatalysts for the oxygen evolution reaction in acidic media. Journal of Energy Chemistry, 2023, 85, 220-238.	12.9	17
2819	Electrochemical dealloying-assisted activity enhancement: The next big thing in water electrosplitting!. Nano Energy, 2023, 114, 108624.	16.0	3
2820	Adsorption mechanism of the N <sub>2</sub> and NRR intermediates on oxygen modified MnN <sub>4</sub> – graphene layers - a single atom catalysis perspective. Physical Chemistry Chemical Physics, 0, , .	2.8	1
2821	Heterojunction Engineering for Electrocatalytic Applications. ACS Applied Energy Materials, 2023, 6, 7737-7784.	5.1	5
2822	Single-atom electrocatalysis from first principles: Current status and open challenges. Current Opinion in Electrochemistry, 2023, 40, 101343.	4.8	4
2823	Unraveling the Influence of Oxygen Vacancies on the OER Performance of Co Single-Atom Catalysts Adsorbed on MXenes. Journal of Physical Chemistry C, 2023, 127, 12576-12585.	3.1	3
2824	Two-dimensional MN <sub>4</sub> materials as effective multifunctional electrocatalysts for the hydrogen-evolution, oxygen-evolution, and oxygen-reduction reactions. Nanoscale, 2023, 15, 11255-11267.	5.6	2
2825	Corrosion of Electrochemical Energy Materials: Stability Analyses Beyond Pourbaix Diagrams. Journal of Physical Chemistry C, 2023, 127, 14587-14598.	3.1	4
2826	Silicon Atom Doping in Heterotrimetallic Sulfides for Non-noble Metal Alkaline Water Electrolysis. Energy Advances, 0, , .	3.3	2
2827	Exploring the mechanisms of catalytic performance enhancement for HER and OER on nickel film by incorporating antimony atoms: DFT study and experimental validation. Surfaces and Interfaces, 2023, 40, 103125.	3.0	1
2828	Electrocatalysts for the oxygen evolution reaction: mechanism, innovative strategies, and beyond. Materials Chemistry Frontiers, 2023, 7, 4833-4864.	5.9	9
2829	Principles of Designing Electrocatalyst to Boost Reactivity for Seawater Splitting. Advanced Energy Materials, 2023, 13, .	19.5	15

#	Article	IF	CITATIONS
2830	Angstromâ€Confined Electrochemical Synthesis of Subâ€Unitâ€Cell Nonâ€Van Der Waals 2D Metal Oxides. Advanced Materials, 2023, 35, .	21.0	4
2831	Electrochemical CO <sub>2</sub> reduction towards formic acid and methanol on transition metal oxide surfaces as a function of CO coverage. Catalysis Science and Technology, 2023, 13, 3321-3336.	4.1	1
2832	Revealing the Synergistic Enhancement Effect of Dual Metal RuFe(Co) Sites for Bifunctional Oxygen Catalysis. , 2023, 5, 1656-1664.		8
2833	Oxidized Kinetic Normal Distribution Models for Sophisticated Electrochemical Windows. Journal of Physical Chemistry C, 2023, 127, 9554-9561.	3.1	0
2834	High Density Single Fe Atoms on Mesoporous Nâ€Doped Carbons: Noble Metalâ€Free Electrocatalysts for Oxygen Reduction Reaction in Acidic and Alkaline Media. Small, 2023, 19, .	10.0	8
2835	Synergistic effect and high performance of transition metal-anchored boron-doped graphyne electrocatalyst applied in the electroreduction of CO2 to C1 products: A DFT study. Applied Surface Science, 2023, 631, 157505.	6.1	4
2836	Single Ni atom-anchored BN-yne for enhanced water splitting. Materials Chemistry and Physics, 2023, 305, 127892.	4.0	0
2837	Catalytic Activity and Stability of Non-Platinum Group Metal Oxides for the Oxygen Evolution Reaction in Anion Exchange Membrane Electrolyzers. Journal of the Electrochemical Society, 2023, 170, 064506.	2.9	1
2838	Influence of Temperature on the Performance of Carbon- and ATO-supported Oxygen Evolution Reaction Catalysts in a Gas Diffusion Electrode Setup. ACS Catalysis, 2023, 13, 7568-7577.	11.2	5
2839	Synergy between Mo dopants and Ni vacancies in NiOOH for enhanced oxygen evolution reaction. Chemical Engineering Journal, 2023, 468, 143715.	12.7	8
2840	Tailoring the surface cation configuration of Ruddlesden–Popper perovskites for controllable water oxidation performance. Energy and Environmental Science, 2023, 16, 3331-3338.	30.8	6
2841	Atomically well-mixed quad-metallic sulfide as multi-functional electrocatalyst for overall water electrolysis and zinc-air battery. Chemical Engineering Journal, 2023, 469, 143855.	12.7	2
2842	Anion Exchange Membrane Water Electrolyzers: An Overview. Journal of Chemical Engineering of Japan, 2023, 56, .	0.6	2
2843	Recent Progress of Amorphous Nanomaterials. Chemical Reviews, 2023, 123, 8859-8941.	47.7	29
2844	The landscape of computational approaches for artificial photosynthesis. Nature Computational Science, 2023, 3, 504-513.	8.0	3
2845	Improving the Lattice Oxygen Reactivity of Rutile IrO <sub>2</sub> via Partial Sn Substitution for Acidic Water Oxidation. Journal of Physical Chemistry C, 2023, 127, 12541-12547.	3.1	7
2846	Molecular <i>versus</i> Silica‣upported Iridium Water Oxidation Catalysts. European Journal of Inorganic Chemistry, 0, , .	2.0	1
2847	Fundamental Understanding of Structural Reconstruction Behaviors in Oxygen Evolution Reaction Electrocatalysts. Advanced Energy Materials, 2023, 13, .	19.5	30

#	Article	IF	CITATIONS
2848	Strong electronic coupling induced by synergy of dopant and interface in Ru-Ni3S2/NixPy to boost efficient water splitting. Applied Surface Science, 2023, 637, 157940.	6.1	4
2849	Size-controlled liquid phase synthesis of colloidally stable Co <sub>3</sub> O <sub>4</sub> nanoparticles. Nanoscale Advances, 2023, 5, 3942-3954.	4.6	0
2850	Tetraphenylporphyrin electrocatalysts for the hydrogen evolution reaction: applicability of molecular volcano plots to experimental operating conditions. Dalton Transactions, 2023, 52, 10348-10362.	3.3	2
2851	Bypassing the scaling relationship with spin selectivity: construction of Lewis base-functionalized heterostructural 2D nanosheets for enhanced oxygen evolution reaction. Journal of Materials Chemistry A, 2023, 11, 16349-16362.	10.3	6
2852	Exploring Scaling Relations and Active Site Specificity of Graphite-Conjugated Catalysts Using Density Functional Theory. Journal of Physical Chemistry C, 2023, 127, 13582-13592.	3.1	0
2853	Combining descriptor-based analyses and mean-field modeling of the electrochemical interface to comprehend trends of catalytic processes at the solid/liquid interface. Journal of Energy Chemistry, 2023, 85, 288-290.	12.9	4
2854	Quasi-2D PdSi <sub>2–<i>x</i></sub> Ge <sub><i>x</i></sub> N <sub>4</sub> ( <i>x</i> = 0, 1, 2): Promising Candidates for Spontaneous Overall Water Splitting. ACS Applied Energy Materials, 2023, 6, 7578-7586.	5.1	2
2855	Efficient hydrogen production in an innovative S-doped CoMoO4-based electrolytic cell: 12.97% less energy consumption. Sustainable Materials and Technologies, 2023, 37, e00665.	3.3	2
2856	Enhanced nickel catalysts for producing electrolytic hydrogen. , 2023, 1, 1386-1393.		1
2857	Recent Progress in Metal-Organic Frameworks and their Derivatives as Advanced Electrocatalysts for Oxygen Reduction Reactions. , 2023, , 129-161.		0
2858	Electrocatalytic Meralorganic Frameworks and OER Based on Metal-organic Frameworks and their Structure. , 2023, , 86-128.		0
2859	The Oxygen Evolution Reaction Drives Passivity Breakdown for Ni–Cr–MoÂAlloys. Advanced Materials, 2023, 35, .	21.0	10
2860	Hexagonal Boron Nitride/Reduced Graphene Oxide Heterostructures as Promising Metalâ€Free Electrocatalysts for Oxygen Evolution Reaction Driven by Boron Radicals. Small Structures, 2023, 4, .	12.0	2
2861	Breaking linear scaling relationships with transition metal carbides. Catalysis Science and Technology, 0, , .	4.1	1
2862	Unraveling the Asymmetric O─O Radical Coupling Mechanism on Ru─O─Co for Enhanced Acidic Water Oxidation. Small, 0, , .	10.0	4
2863	Bifunctional electrocatalytic activity of Fe-embedded biphenylene for oxygen reduction and evolution reactions. Physical Chemistry Chemical Physics, 0, , .	2.8	0
2864	Selective Electrocatalytic Oxidation of Nitrogen to Nitric Acid Using Manganese Phthalocyanine. ACS Applied Materials & Interfaces, 2023, 15, 34642-34650.	8.0	5
2865	How data-driven approaches advance the search for materials relevant to energy conversion and storage. Materials Today Energy, 2023, 36, 101364.	4.7	1

#	Article	IF	CITATIONS
2866	Potential-dependent transition of reaction mechanisms for oxygen evolution on layered double hydroxides. Nature Communications, 2023, 14, .	12.8	22
2867	Cobalt compounds-based hollow structure electrocatalysts for water splitting: a review. International Journal of Hydrogen Energy, 2024, 49, 613-632.	7.1	3
2868	Identifying a Universal Activity Descriptor and a Unifying Mechanism Concept on Perovskite Oxides for Green Hydrogen Production. Advanced Materials, 2023, 35, .	21.0	44
2869	Recent advancements on designing transition metal-based carbon-supported single atom catalysts for oxygen electrocatalysis: Miles to go for sustainable Zn-air batteries. Energy Storage Materials, 2023, 61, 102890.	18.0	4
2870	Computational screening of M <sub>1</sub> /PW <sub>12</sub> O <sub>40</sub> single-atom electrocatalysts for water splitting and oxygen reduction reactions. Journal of Materials Chemistry A, 2023, 11, 16334-16348.	10.3	4
2871	Additive manufacturing: New paradigm for developing water splitting systems. International Journal of Hydrogen Energy, 2023, , .	7.1	1
2872	Oxynitride, Oxyfluoride, and Nitrofluoride Perovskites: Theoretical Evaluation of Photon Absorption Properties for Solar Water Splitting. Journal of Physical Chemistry C, 2023, 127, 15620-15629.	3.1	3
2873	Electrochemical assessment of refractory metallic catalysts for application in oxygen evolution reaction. Journal of Physics and Chemistry of Solids, 2023, 182, 111569.	4.0	1
2874	Potential–dependent Ru (0 0 0 1) surface oxidative corrosion and OER performance by grand canonical method. Computational and Theoretical Chemistry, 2023, 1227, 114253.	2.5	1
2875	Unveiling the Hidden Energy Profiles of the Oxygen Evolution Reaction via Machine Learning Analyses. Journal of Physical Chemistry Letters, 0, , 6808-6813.	4.6	0
2876	Machine Learning-aided Unraveling Importance of Structural Features for Electrocatalytic Oxygen Evolution Reaction on Multimetal Oxides based on their A-site Metal Configurations. Energy Advances, 0, , .	3.3	0
2877	Machine learning filters out efficient electrocatalysts in the massive ternary alloy space for fuel cells. Applied Catalysis B: Environmental, 2023, 339, 123128.	20.2	2
2878	Low Ruthenium Content Confined on Boron Carbon Nitride as an Efficient and Stable Electrocatalyst for Acidic Oxygen Evolution Reaction. Angewandte Chemie, 0, , .	2.0	0
2879	Low Ruthenium Content Confined on Boron Carbon Nitride as an Efficient and Stable Electrocatalyst for Acidic Oxygen Evolution Reaction. Angewandte Chemie - International Edition, 2023, 62, .	13.8	8
2880	DFT-guided design and synthesis of sea cucumber-derived N, S dual-doped porous carbon catalyst for enhanced oxygen reduction reaction and Zn-air battery performance. Journal of Materials Science, 0, , .	3.7	0
2881	Origin of the superior oxygen reduction activity of zirconium nitride in alkaline media. Chemical Science, 2023, 14, 9000-9009.	7.4	6
2882	Recent advances in proton exchange membrane water electrolysis. Chemical Society Reviews, 2023, 52, 5652-5683.	38.1	27
2883	A rational design of covalent organic framework supported single atom catalysts for hydrogen evolution reaction: A DFT study. International Journal of Hydrogen Energy, 2024, 51, 758-773.	7.1	5

щ		IF	Citations
#	ARTICLE Unveiled Performance of Iron-Based Phosphates as Precatalysts for Oxygen Evolution	IF	CHATIONS
2884	Electrocatalysis. ACS Applied Energy Materials, 2023, 6, 7928-7934.	5.1	0
2885	Grand canonical DFT based constant charge method for electrochemical deuterium/hydrogen evolution reaction micro-kinetics on Pt (1 1 1). Computational Materials Science, 2023, 229, 112397.	3.0	2
2886	Atomic layers of ruthenium oxide coupled with Mo2TiC2Tx MXene for exceptionally high catalytic activity toward water oxidation. Applied Catalysis B: Environmental, 2023, 339, 123139.	20.2	3
2887	Effect of intrinsic and extrinsic activity of electrocatalysts on anion exchange membrane water electrolyzer. Chemical Engineering Journal, 2023, 472, 145150.	12.7	1
2888	A structure-sensitive descriptor for the design of active sites on MoS <sub>2</sub> catalysts. Catalysis Science and Technology, 2023, 13, 5290-5300.	4.1	1
2889	Breaking the Activity and Stability Bottlenecks of Electrocatalysts for Oxygen Evolution Reactions in Acids. Advanced Materials, 2023, 35, .	21.0	9
2890	Robust and highly efficient electrocatalyst based on ZIF-67 and Ni2+ dimers for oxygen evolution reaction: In situ mechanistic insight. Journal of Energy Chemistry, 2023, 86, 263-276.	12.9	2
2891	Transition metal oxides for bifunctional ORR/OER electrocatalysis in unitized regenerative fuel cells. Journal of Electroanalytical Chemistry, 2023, 946, 117709.	3.8	1
2892	Highâ€Efficiency Oxygen Evolution Reaction: Controllable Reconstruction of Surface Interface. Small, 2023, 19, .	10.0	6
2893	A Review on MXene as Promising Support Materials for Oxygen Evolution Reaction Catalysts. Advanced Functional Materials, 2023, 33, .	14.9	5
2894	Non-precious metal-based catalysts for water electrolysis to produce H <sub>2</sub> under industrial conditions. Materials Chemistry Frontiers, 2023, 7, 5661-5692.	5.9	3
2895	Unlocking the Transition of Electrochemical Water Oxidation Mechanism Induced by Heteroatom Doping. Angewandte Chemie - International Edition, 2023, 62, .	13.8	24
2896	Unlocking the Transition of Electrochemical Water Oxidation Mechanism Induced by Heteroatom Doping. Angewandte Chemie, 2023, 135, .	2.0	0
2897	Augmenting bi-functional catalytic efficiency in vanadium based pseudo-monolayer: Chemical paradigm of functionalization, vacancy and external stimuli. International Journal of Hydrogen Energy, 2023, , .	7.1	0
2898	Two-dimensional Janus perovskite oxynitrides as active photocatalysts for overall water splitting with ferroelectric modulation. Journal of Materials Chemistry A, 2023, 11, 19074-19082.	10.3	1
2899	A 3D-hierarchical flower like architecture of anion induced layered double hydroxides for competing anodic reactions. Energy Advances, 0, , .	3.3	0
2900	Transition metal-doped V-shaped RuO <sub>2</sub> 103 nanotwins as highly active electrocatalysts for enhanced oxygen evolution in acidic media. Journal Physics D: Applied Physics, 2023, 56, 475501.	2.8	0
2901	Computation-aided design of oxygen-ligand-steered single-atom catalysts: Sewing unzipped carbon nanotubes. CheM, 2023, 9, 3304-3318.	11.7	4

#	Article	IF	CITATIONS
2902	Boosting CeO <sub>2</sub> /Co <sub>3</sub> O <sub>4</sub> Heterojunctions Acidic Oxygen Evolution via Promoting OH Coverage. ACS Applied Energy Materials, 2023, 6, 8949-8956.	5.1	1
2903	Modulating interfacial electronic coupling of copper-mediated NiFe layered double hydroxide nanoprisms via structural engineering for efficient OER in wireless photovoltaic-coupled and anion exchange membrane water electrolysis. Applied Catalysis B: Environmental, 2024, 340, 123187.	20.2	3
2904	Transition metal-based self-supported anode for electrocatalytic water splitting at a large current density. Coordination Chemistry Reviews, 2023, 495, 215381.	18.8	6
2905	Understanding the role of surface oxygen-containing functional groups on carbon-supported cobalt catalysts for the oxygen evolution reaction. Journal of Materials Chemistry A, 2023, 11, 21066-21077.	10.3	3
2906	Acid–Base Chemistry of a Model IrO <sub>2</sub> Catalytic Interface. Journal of Physical Chemistry Letters, 0, , 7787-7794.	4.6	0
2907	Small-Molecule Adsorption Energy Predictions for High-Throughput Screening of Electrocatalysts. Journal of Chemical Information and Modeling, 0, , .	5.4	0
2908	Coordination engineering of atomically dispersed zirconium on graphene for the oxygen reduction reaction. Physical Chemistry Chemical Physics, 2023, 25, 25299-25308.	2.8	3
2909	Synthesis and Properties of Organotrialkoxysilane Functionalized Palladium–Cobalt Heterogeneous Catalysts for Oxygen Evolution Reaction. Russian Journal of Electrochemistry, 2023, 59, 604-615.	0.9	0
2910	Tuned morphology configuration to augment the electronic structure and durability of iron phosphide for efficient bifunctional electrocatalysis and charge storage. Journal of Energy Storage, 2023, 73, 108824.	8.1	4
2911	Oxygen desorption – Critical step for the oxygen evolution reaction. Current Opinion in Electrochemistry, 2023, 42, 101382.	4.8	Ο
2912	Ternary Heteroatomic Doping Induced Microenvironment Engineering of Low Feâ€N4‣oaded Carbon Nanofibers for Bifunctional Oxygen Electrocatalysis. Small, 2024, 20, .	10.0	1
2913	Identifying hexagonal 2D planar electrocatalysts with strong OCHO* binding for selective CO <sub>2</sub> reduction. Journal of Materials Chemistry A, 2023, 11, 20528-20538.	10.3	Ο
2914	Layered transition metal oxides (LTMO) for oxygen evolution reactions and aqueous Li-ion batteries. Chemical Science, 2023, 14, 10644-10663.	7.4	2
2915	Both layered trihydroxide hollow cubes and bismuth oxide derived from MOF templates for high-performance alkaline batteries. Inorganic Chemistry Frontiers, 2023, 10, 5969-5978.	6.0	1
2916	Ultrafine iridium nanoparticles prepared without a surfactant for the acidic oxygen evolution reaction. Materials Chemistry Frontiers, 2023, 7, 4900-4907.	5.9	3
2917	Recent advances in the rational design of alkaline OER catalysts: from electronic structures to industrial applications. Materials Chemistry Frontiers, 2023, 7, 5187-5214.	5.9	4
2918	d- and p-Block single-atom catalysts supported by BN nanocages toward electrochemical reactions of N <sub>2</sub> and O <sub>2</sub> . Physical Chemistry Chemical Physics, 2023, 25, 25761-25771.	2.8	0
2919	Firstâ€Row Transition Metals for Catalyzing Oxygen Redox. Small, 2023, 19, .	10.0	3

#	Article	IF	CITATIONS
2920	Electrochemically generated electrophilic peroxo species accelerates alkaline oxygen evolution reaction. Joule, 2023, 7, 1902-1919.	24.0	2
2921	Transition metal doped WSi <sub>2</sub> N <sub>4</sub> monolayer for water splitting electrocatalysts: a first-principles study. Journal of Physics Condensed Matter, 2023, 35, 485001.	1.8	1
2922	Recent advances in metal-organic frameworks for oxygen evolution reaction electrocatalysts. Science China Chemistry, 2023, 66, 2754-2779.	8.2	2
2923	Bifunctional Oxygen Electrocatalyst of Co <sub>4</sub> N and Nitrogenâ€Doped Carbon Nanowalls/Diamond for Highâ€Performance Flexible Zinc–Air Batteries. Advanced Energy Materials, 2023, 13, .	19.5	3
2924	Recent Progress on the Catalysts and Device Designs for (Photo)Electrochemical On‣ite H <sub>2</sub> O <sub>2</sub> Production. Advanced Energy Materials, 2023, 13, .	19.5	3
2925	Synergistic Co─Ir/Ru Composite Electrocatalysts Impart Efficient and Durable Oxygen Evolution Catalysis in Acid. Advanced Energy Materials, 2023, 13, .	19.5	5
2926	Current progress in metal–organic frameworks and their derivatives for electrocatalytic water splitting. Inorganic Chemistry Frontiers, 2023, 10, 6489-6505.	6.0	2
2927	Bi-directional strains increase the performance of iridium oxide nanoparticles towards the acidic oxygen evolution reaction in proton exchange membrane electrolyzers. Inorganic Chemistry Frontiers, 0, , .	6.0	0
2928	Research progress of spinel CoFe <sub>2</sub> O <sub>4</sub> as an electrocatalyst for the oxygen evolution reaction. Catalysis Science and Technology, 0, , .	4.1	0
2929	Single metal atoms supported on N-doped 2D M <sub>2</sub> C MXenes: an efficient electrocatalyst for overall water splitting. New Journal of Chemistry, 2023, 47, 18285-18294.	2.8	0
2930	Unlocking the performance of ternary metal (hydro)oxide amorphous catalysts <i>via</i> data-driven active-site engineering. Energy and Environmental Science, 2023, 16, 5065-5075.	30.8	2
2931	Hydrogen society: from present to future. Energy and Environmental Science, 2023, 16, 4926-4943.	30.8	22
2932	Biomass-Derived Carbon Aerogels for ORR/OER Bifunctional Oxygen Electrodes. Nanomaterials, 2023, 13, 2397.	4.1	2
2933	Designing active oxides for a durable oxygen evolution reaction. , 2023, 2, 817-827.		6
2934	Review of photoelectrochemical water splitting: From quantitative approaches to effect of sacrificial agents, oxygen vacancies, thermal and magnetic field on (photo)electrolysis. International Journal of Hydrogen Energy, 2024, 51, 1044-1067.	7.1	4
2935	Metal-Doped C <sub>3</sub> B Monolayer as the Promising Electrocatalyst for Hydrogen/Oxygen Evolution Reaction: A Combined Density Functional Theory and Machine Learning Study. ACS Applied Materials & Interfaces, 2023, 15, 40538-40548.	8.0	2
2936	Structureâ€property Relationship of Double Perovskite Oxide towards Trifunctional Electrocatalytic Activity: Strategy for Designing and Development. ChemCatChem, 2023, 15, .	3.7	2
2937	A self-circulating pathway for the oxygen evolution reaction. Energy and Environmental Science, 2023, 16, 5210-5219.	30.8	4

#	Article	IF	CITATIONS
2938	Spinelâ€Type Oxides for Acidic Oxygen Evolution Reaction: Mechanism, Modulation, and Perspective. Advanced Energy and Sustainability Research, 2023, 4, .	5.8	0
2939	Recent Advances in Synergistic Modulation of Transition-Metal-Based Electrocatalysts for Water Oxidation: A Mini Review. Catalysts, 2023, 13, 1230.	3.5	0
2940	Ultrathin two-dimensional cobalt-organic framework nanosheets as an effective electrocatalyst for overall water splitting under alkaline conditions. Electrochimica Acta, 2023, 466, 143075.	5.2	3
2941	A theoretical study on the ORR electrocatalytic activity of axial ligand modified cobalt polyphthalocyanine. Physical Chemistry Chemical Physics, 2023, 25, 27342-27351.	2.8	2
2942	ZnS-stabilized single atoms for highly-efficient water electrolysis. International Journal of Hydrogen Energy, 2024, 51, 540-550.	7.1	0
2943	Fine-structure sensitive deep learning framework for predicting catalytic properties with high precision. Chinese Journal of Catalysis, 2023, 50, 284-296.	14.0	0
2944	Electrocatalytic Mechanism of Water Splitting by Ultralow Content of RuO <sub>2</sub> -supported on Fluorine-Doped Graphene Using a Constant Potential Method. Journal of Physical Chemistry C, 2023, 127, 18350-18364.	3.1	1
2945	Band-engineered LaFeO3–LaNiO3 thin film interfaces for electrocatalysis of water. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2023, 41, .	2.1	1
2946	Nanostructured electrocatalysts for low-temperature water splitting: A review. Electrochimica Acta, 2023, 471, 143335.	5.2	4
2947	Potential-dependent OER performance on dual-Fe-Ir sites by grand canonical based constant charge method. Molecular Catalysis, 2023, 549, 113464.	2.0	2
2948	Electrocatalytic water splitting over perovskite oxide catalysts. Chinese Journal of Catalysis, 2023, 50, 109-125.	14.0	4
2949	Investigating the Influence of Amorphous/Crystalline Interfaces on the Stability of IrO <sub>2</sub> for the Oxygen Evolution Reaction in Acidic Electrolyte. ChemElectroChem, 2023, 10, .	3.4	0
2950	Zinc-Substituted Cobalt Phosphate [ZnCo <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ] as a Bifunctional Electrocatalyst. Inorganic Chemistry, 2023, 62, 12345-12355.	4.0	0
2951	Gas-phase errors in computational electrocatalysis: a review. , 2024, 2, 157-179.		2
2952	Stable and oxidative charged Ru enhance the acidic oxygen evolution reaction activity in two-dimensional ruthenium-iridium oxide. Nature Communications, 2023, 14, .	12.8	18
2953	Perovskite BaTaO <sub>2</sub> N: From Materials Synthesis to Solar Water Splitting. Advanced Science, 2023, 10, .	11.2	2
2954	Regulating Lattice Oxygen of Co <sub>3</sub> O <sub>4</sub> /CeO <sub>2</sub> Heterojunction Nanonetworks for Enhanced Oxygen Evolution. Advanced Energy and Sustainability Research, 2023, 4, .	5.8	3
2955	Role of defect-driven surface reconstructions in transition metal oxide electrocatalysis towards OER/ORR: A quantum-mechanical perspective. Current Opinion in Electrochemistry, 2023, 42, 101412.	4.8	Ο

#	Article	IF	Citations
<sup>1</sup> 2956	Electrocatalytic Water Oxidation Activity‣tability Maps for Perovskite Oxides Containing 3 <i>d</i> , 4 <i>d</i> and 5 <i>d</i> Transition Metals. Angewandte Chemie - International Edition, 2023, 62, .	13.8	1
2957	Electrocatalytic Water Oxidation Activity‣tability Maps for Perovskite Oxides Containing 3 <i>d</i> , 4 <i>d</i> and 5 <i>d</i> Transition Metals. Angewandte Chemie, 2023, 135, .	2.0	0
2958	A new popular transition metal-based catalyst: SmMn2O5 mullite-type oxide. Chinese Chemical Letters, 2023, , 109141.	9.0	0
2959	Perspectives on the development of highly active, stable, and costâ€effective OER electrocatalysts in acid. , 2023, 2, .		4
2960	Disordered Rocksalts with Lattice Oxygen Activation as Efficient Oxygen Evolution Electrocatalysts. Transactions of Tianjin University, 2023, 29, 304-312.	6.4	3
2961	Strategies for improving the stability of perovskite for photocatalysis: A review of recent progress. Chemosphere, 2023, 344, 140395.	8.2	4
2962	Facet-engineered TiO2 drives photocatalytic activity and stability of supported noble metal clusters during H2 evolution. Nature Communications, 2023, 14, .	12.8	8
2963	Highly mixed high-energy d-orbital states enhance oxygen evolution reactions in spinel catalysts. Applied Surface Science, 2023, 641, 158469.	6.1	9
2964	Amorphous <i>versus</i> nanocrystalline RuO <sub>2</sub> electrocatalysts: activity and stability for oxygen evolution reaction in sulfuric acid. Catalysis Science and Technology, 0, , .	4.1	1
2965	Establishing theoretical landscapes for identifying basal plane active sites in MBene toward multifunctional HER, OER, and ORR catalysts. Journal of Colloid and Interface Science, 2023, 652, 1954-1964.	9.4	3
2966	Anodic oxidation-accelerated self-reconstruction of tri-metallic Prussian blue analogue toward robust oxygen evolution reaction performance. Chemical Engineering Journal, 2023, 474, 145831.	12.7	2
2967	Non-metal doped Fe–C <sub>2</sub> N as an electrocatalyst for oxygen reduction reaction: a density functional calculation. New Journal of Chemistry, 0, , .	2.8	0
2968	Activity And Stability of Single―And Diâ€Atom Catalysts for the O <sub>2</sub> Reduction Reaction. Angewandte Chemie - International Edition, 2023, 62, .	13.8	7
2969	Recent progress of noble metal-based single-atom electrocatalysts for acidic oxygen evolution reaction. Current Opinion in Electrochemistry, 2023, 42, 101379.	4.8	2
2970	DFT-assisted low-dimensional carbon-based electrocatalysts design and mechanism study: a review. Frontiers in Chemistry, 0, 11, .	3.6	0
2971	Participation of the unstable lattice oxygen of cation-exchanged δ-MnO <sub>2</sub> in the water oxidation reaction. Journal of Materials Chemistry A, 2023, 11, 21686-21693.	10.3	0
2972	Next Generation Noble Metalâ€Engineered Catalysts: From Structure Evolution to Structureâ€Reactivity Correlation in Water Splitting. Advanced Functional Materials, 0, , .	14.9	0
2973	Basics of Water Electrolysis. , 2023, , 1-32.		0

#	Article	IF	CITATIONS
2974	High-efficient OER/ORR bifunctional electrocatalysts based on hexagonal boron nitride enabled by co-doping of transition metal and carbon. Applied Physics Letters, 2023, 123, .	3.3	2
2975	Competitive adsorption of oxygen-containing intermediates on ruthenium–tin solid-solution oxides for alkaline oxygen evolution. Journal of Materials Chemistry A, 2023, 11, 23489-23497.	10.3	2
2976	Edge-passivated graphene nanoribbons as metal free photocatalyst for efficiently photocatalytic overall water splitting with sunlight. International Journal of Hydrogen Energy, 2024, 51, 1556-1565.	7.1	1
2977	Spatial and electronic effects synergistically enhanced electrocatalytic oxygen evolution using atomic iridium-anchored cobalt oxyhydroxide nanosheets. Applied Catalysis B: Environmental, 2024, 340, 123227.	20.2	3
2978	Combining First-Principles Modeling and Symbolic Regression for Designing Efficient Single-Atom Catalysts in the Oxygen Evolution Reaction on Mo <sub>2</sub> CO <sub>2</sub> MXenes. ACS Applied Materials & Interfaces, 2023, 15, 43702-43711.	8.0	1
2979	Electrodeposited Multimetal Alloyed NiMoCo on Ni Mesh for Efficient Alkaline Hydrogen Evolution Reaction. Energy & Fuels, 2023, 37, 18137-18144.	5.1	4
2980	Coordination environments build up and tune a superior synergistic "genome―toward novel trifunctional (TM-NxO4â^'x)@g-C16N3-H3: High-throughput inspection of ultra-high activity for water splitting and oxygen reduction reactions. Nano Research, 0, , .	10.4	1
2981	Boosting the Oxygen Evolution Activity of FeNi Oxides/Hydroxides by Molecular and Atomic Engineering. Chemistry - A European Journal, 2024, 30, .	3.3	0
2982	Minimum conditions for accurate modeling of urea production via co-electrolysis. Communications Chemistry, 2023, 6, .	4.5	4
2983	Analysis of an Electrolyte's pH-Dependent Performance during Solar Water Splitting. Industrial & Engineering Chemistry Research, 2023, 62, 15406-15417.	3.7	0
2984	Origins of hydrogen peroxide selectivity during oxygen reduction on organic mixed ionic–electronic conducting polymers. Energy and Environmental Science, 2023, 16, 5409-5422.	30.8	1
2985	Understanding the Origin of Reconstruction in Transition Metal Oxide Oxygen Evolution Reaction Electrocatalysts. ChemSusChem, 2024, 17, .	6.8	0
2986	Engineering hexagonal-silicon monolayer for high-performance water splitting electrocatalysts. International Journal of Hydrogen Energy, 2024, 51, 1068-1078.	7.1	0
2987	Activity And Stability of Single―And Diâ€Atom Catalysts for the O <sub>2</sub> Reduction Reaction. Angewandte Chemie, 2023, 135, .	2.0	1
2988	Heterogeneous high-entropy catalyst nanoparticles for oxygen evolution reaction: Impact of oxygen and fluorine introduction. International Journal of Hydrogen Energy, 2024, 51, 1218-1228.	7.1	0
2989	Elucidating the Active Sites and Synergies in Water Splitting on Manganese Oxide Nanosheets on Graphite Support. Advanced Energy Materials, 2023, 13, .	19.5	0
2990	Design Strategies of Active and Stable Oxygen Evolution Catalysts for Proton Exchange Membrane Water Electrolysis. Energy & Fuels, 0, , .	5.1	1
2991	Ru rich Ru-Mn-O phases for selective suppression of chlorine evolution in sea water electrolysis. Electrochimica Acta, 2023, 470, 143295.	5.2	1

#	Article	IF	CITATIONS
2992	Correlations between the Electronic Structure and Energetics of the Catalytic Steps in Homogeneous Water Oxidation Catalysis. Journal of the American Chemical Society, 2023, 145, 23057-23067.	13.7	1
2993	New scaling relationships for the oxygen evolution reaction on single atom catalysts. Catalysis Today, 2024, 427, 114409.	4.4	0
2995	A critical review on amorphous–crystalline heterostructured electrocatalysts for efficient water splitting. Materials Chemistry Frontiers, 2023, 7, 6254-6280.	5.9	3
2996	Bifunctional Al-Doped Cobalt Ferrocyanide Nanocube Array for Energy-Saving Hydrogen Production via Urea Electrolysis. Molecules, 2023, 28, 7147.	3.8	Ο
2997	Electrocatalytic Mechanisms for an Oxygen Evolution Reaction at a Rhombohedral Boron Monosulfide Electrode/Alkaline Medium Interface. ACS Applied Materials & Interfaces, 2023, 15, 50174-50184.	8.0	2
2998	Noble Metal Single-Atom Coordinated to Nitrogen, Oxygen, and Carbon as Electrocatalysts for Oxygen Evolution. Catalysts, 2023, 13, 1378.	3.5	0
2999	Coâ^'Co Dinuclear Active Sites Dispersed on Zirconiumâ€doped Heterostructured Co <sub>9</sub> S <sub>8</sub> /Co <sub>3</sub> O <sub>4</sub> for Highâ€currentâ€density and Durable Acidic Oxygen Evolution. Angewandte Chemie - International Edition, 2023, 62, .	13.8	3
3000	Discovery of nonâ€noble metal Coâ€Co dinuclear active sites catalyst for highâ€currentâ€density and sustainable oxygenâ€evolving in acid. Angewandte Chemie, 0, , .	2.0	0
3001	A general strategy to enhance hydrogen peroxide generation via two-electron water oxidation by antimony modification for removal of triethyl phosphate and hexavalent chromium. Applied Catalysis B: Environmental, 2024, 342, 123427.	20.2	1
3002	Building up a view and understanding of the multifunctional activity of black phosphorous nanosheet modified with the metal atom. Journal of Chemical Physics, 2023, 159, .	3.0	0
3003	Tuning the N Coordination Environment of Ir Single-Atom-Catalyst for Highly Efficient ORR and OER: A Computational Study. Catalysis Letters, 0, , .	2.6	0
3004	Cobaltâ€Doping Induced Formation of Fiveâ€Coordinated Nickel Selenide for Enhanced Ethanol Assisted Overall Water Splitting. Small, 0, , .	10.0	0
3005	Research Progress on the Application of Topological Phase Transition Materials in the Field of Memristor and Neuromorphic Computing. Sensors, 2023, 23, 8838.	3.8	0
3006	Renewable hydrogen production from biomass derivatives or water on trimetallic based catalysts. Renewable and Sustainable Energy Reviews, 2024, 189, 113909.	16.4	2
3007	Recent progress of self-supported air electrodes for flexible Zn-air batteries. Journal of Energy Chemistry, 2024, 89, 110-136.	12.9	4
3008	Metal–organic framework electrocatalysis: More than a sum of parts?. , 2023, 1, .		0
3009	Templated synthesis of transition metal phosphide electrocatalysts for oxygen and hydrogen evolution reactions. Journal of Energy Chemistry, 2024, 89, 646-669.	12.9	5
3010	First-Principles Study of Oxygen Evolution Reaction on Ir with Different Coordination Numbers Anchoring at Specific Sites of Co3O4 (111) Surface. Catalysis Letters, 0, , .	2.6	0

#	Article	IF	CITATIONS
3011	Establishment of descriptor for screening high-performance catalysts for hydrogen peroxide production through surface stress modulation induced by metal atom doping. Applied Surface Science, 2024, 646, 158909.	6.1	0
3012	Advances in the mechanism investigation for the oxygen evolution reaction: fundamental theory and monitoring techniques. Materials Chemistry Frontiers, 2024, 8, 603-626.	5.9	1
3013	Molecular Mechanisms of Oxygen Evolution Reactions for Artificial Photosynthesis. Oxygen, 2023, 3, 407-451.	5.0	0
3014	Investigation of the Shift in Volcano Peak for the Oxygen Evolution Reaction at a High Reaction Rate. Journal of Physical Chemistry C, 2023, 127, 21526-21533.	3.1	0
3015	Importance of the Walden Inversion for the Activity Volcano Plot of Oxygen Evolution. Advanced Science, 2023, 10, .	11.2	0
3016	Highly efficient and stable vanadium-based electrocatalysts: Stoichiometric iron vanadium sulfides for water-oxidation at large current densities. Chemical Engineering Journal, 2023, 477, 146981.	12.7	0
3017	Investigation of dual atom doped single-layer MoS <sub>2</sub> for electrochemical reduction of carbon dioxide by first-principle calculations and machine-learning. , 0, 3, .		0
3018	Defective blue titanium oxide induces high valence of NiFe-(oxy)hydroxides over heterogeneous interfaces towards high OER catalytic activity. Chemical Science, 2023, 14, 13453-13462.	7.4	1
3019	Solvent-assisted phase modification of Ni P material to boost electrocatalytic water splitting and charge storage capacity. Journal of Energy Storage, 2024, 75, 109598.	8.1	0
3020	Adjustable antiperovskite ZnCCe3â^'xNix/CNFs as an efficient bifunctional Zn-air batteries electrocatalyst. Journal of Alloys and Compounds, 2024, 972, 172752.	5.5	0
3021	Transition-metal sulfides with excellent hydrogen and oxygen reactions: A mini-review. Journal of Solid State Chemistry, 2024, 329, 124445.	2.9	0
3022	Recent progress of cobalt-based electrocatalysts for water splitting: Electron modulation, surface reconstitution, and applications. Nano Research, 0, , .	10.4	0
3023	Toward Understanding the Relationship between the Surface Structure and Properties of SrNbO <sub>2</sub> N Photocatalyst. Journal of Physical Chemistry C, 2023, 127, 22387-22400.	3.1	0
3024	Metal Clusters Effectively Adjust the Local Environment of Polymeric Carbon Nitride for Bifunctional Overall Water Splitting. Journal of Physical Chemistry Letters, 2023, 14, 9804-9810.	4.6	0
3025	Mechanistic understanding on effect of doping nitrogen with graphene supported single-atom Ir toward HER and OER: A computational consideration. Chemical Physics Letters, 2024, 834, 140971.	2.6	1
3026	Current Trends of Iridiumâ€Based Catalysts for Oxygen Evolution Reaction in Acidic Water Electrolysis. Small Science, 0, , .	9.9	1
3027	Dynamic surface reconstruction of perovskite oxides in oxygen evolution reaction and its impacts on catalysis: A critical review. Materials Today Chemistry, 2023, 34, 101800.	3.5	1
3028	Motivating Inert Strontium Manganate with Iridium Dopants as Efficient Electrocatalysts for Oxygen Evolution in Acidic Electrolyte. Small, 0, , .	10.0	0

#	Article	IF	CITATIONS
3029	Two dimensional oxides for oxygen evolution reactions and related device applications. Materials Chemistry Frontiers, 2024, 8, 880-902.	5.9	0
3030	Stabilizing non-iridium active sites by non-stoichiometric oxide for acidic water oxidation at high current density. Nature Communications, 2023, 14, .	12.8	4
3031	Ion Mobility in Crystalline Battery Materials. Advanced Energy Materials, 2024, 14, .	19.5	1
3032	Recent progress and perspective for oxygen evolution reaction under acidic environments. Materials Chemistry Frontiers, 2024, 8, 986-1014.	5.9	0
3033	Nanoelectrocatalysts for Anodic Oxygen Evolution in Acid: A Review. ACS Applied Nano Materials, 2023, 6, 21424-21450.	5.0	1
3034	Comparative Study of Computational Hydrogen Electrodes and Constant Electrode Potential Models Applied to Electrochemical Reduction of CO <sub>2</sub> and Oxygen Evolution Reaction on Metal Oxides/Copper Catalysts. Journal of Physical Chemistry C, 2023, 127, 23170-23179.	3.1	1
3035	Controlled Electrochemical Barrier Calculations without Potential Control. Journal of Chemical Theory and Computation, 2023, 19, 8323-8331.	5.3	4
3036	A Review of Nanostructured Transition Metal Phosphide-Driven Electrocatalytic Oxygen Evolution Reaction. Energy & amp; Fuels, 2023, 37, 18291-18309.	5.1	1
3038	Low Ti Additions to Stabilize Ruâ€Ir Electrocatalysts for the Oxygen Evolution Reaction. ChemElectroChem, 2024, 11, .	3.4	0
3039	Surface Reconstruction Facilitated by Fluorine Migration and Bimetallic Center in NiCo Bimetallic Fluoride Toward Oxygen Evolution Reaction. Advanced Science, 2024, 11, .	11.2	0
3040	Intelligent design and synthesis of energy catalytic materials. Fundamental Research, 2023, , .	3.3	0
3042	The CatMath: an online predictive platform for thermal + electrocatalysis. Frontiers of Chemical Science and Engineering, 2023, 17, 2156-2160.	4.4	0
3043	Interfacial engineering-induced Janus heterostructures with enhanced electronic regulation for efficient oxygen electrocatalysis in rechargeable Zn-air batteries. Applied Catalysis B: Environmental, 2024, 342, 123459.	20.2	3
3044	Interpretable Machine Learning for Catalytic Materials Design toward Sustainability. Accounts of Materials Research, 0, , .	11.7	1
3045	Theoretical and Experimental Aspects of Electrocatalysts for Oxygen Evolution Reaction. Chemistry - A European Journal, 2024, 30, .	3.3	0
3047	Realizing a high OER activity in new single-atom catalysts formed by introducing TMN <sub><i>x</i></sub> ( <i>x</i> = 3 and 4) units into carbon nanotubes using high-throughput calculations. Nanoscale, 0, , .	5.6	0
3048	Ru-RuO2 nano-heterostructures stabilized by the sacrificing oxidation strategy of Mn3O4 substrate for boosting acidic oxygen evolution reaction. Applied Catalysis B: Environmental, 2024, 343, 123559.	20.2	2
3049	Reagent-adaptive active site switching on IrOx/Ni(OH)2 catalyst. Energy and Environmental Science, 0, ,	30.8	2

#	Article	IF	CITATIONS
3050	Unveiling Oxygen Evolution Reaction on LiCoO <sub>2</sub> Cathode: Insights for the Development of Highâ€Performance Aqueous Lithiumâ€ion Batteries. Batteries and Supercaps, 2024, 7, .	4.7	0
3051	Bifunctional diatomic site catalysts supported by l² <sub>12</sub> -borophene for efficient oxygen evolution and reduction reactions. Physical Chemistry Chemical Physics, 0, , .	2.8	0
3052	Fe species-decorated nickel selenides on Ni foam (FNS/NF) for efficient overall water splitting. International Journal of Hydrogen Energy, 2024, 53, 1285-1292.	7.1	0
3053	Structural regulation of covalent organic frameworks for advanced electrocatalysis. Nano Energy, 2024, 120, 109155.	16.0	5
3054	Recent advances of bifunctional electrocatalysts and electrolyzers for overall seawater splitting. Journal of Materials Chemistry A, 2024, 12, 634-656.	10.3	4
3055	Robust Ruâ€VO <sub>2</sub> Bifunctional Catalysts for Allâ€pH Overall Water Splitting. Advanced Materials, 2024, 36, .	21.0	4
3056	lridium-Cooperated, Symmetry-Broken Manganese Oxide Nanocatalyst for Water Oxidation. Journal of the American Chemical Society, 0, , .	13.7	1
3057	Nickel tungstate-based electrocatalyst, photocatalyst, and photoelectrocatalyst in water splitting applications. International Journal of Hydrogen Energy, 2024, 53, 859-874.	7.1	1
3058	Understanding the synergistic catalysis effect on the dual-metal-N4 embedding single-walled carbon nanotubes from first principles. Materials Today Communications, 2024, 38, 107800.	1.9	0
3060	Recent Progress in Ruthenium-Based Electrocatalysts for Water Oxidation under Acidic Condition. ACS Sustainable Chemistry and Engineering, 0, , .	6.7	0
3061	Bifunctional Electrocatalytic Activity of Two-Dimensional Metallophthalocyanine-Based Metal–Organic-Frameworks for Overall Water Splitting: A DFT Study. ACS Catalysis, 0, , 16307-16317.	11.2	1
3062	Recent Advances of Covalent Organic Frameworks as Water Splitting Electrocatalysts. Organic Materials, 0, , .	2.0	0
3063	Intercalation of Hydrogen in Perovskite Oxide for Pseudocapacitive Energy Storage. Chemistry of Materials, 0, , .	6.7	0
3065	Transition metal sulfide and nickel-iron layered double hydroxide nanohybrids for promising alkaline seawater oxidations. Applied Surface Science, 2024, 649, 159097.	6.1	0
3066	Harnessing the Electronic Structure of the Active Metal to Lower the Overpotential of the Electrocatalytic Oxygen Evolution Reaction. Chemical Science, 0, , .	7.4	0
3067	First-principles study of the discharge electrochemical and catalytic performance of the sulfur cathode host Fe <sub>0.875</sub> M <sub>0.125</sub> S <sub>2</sub> (M = Ti, V). Physical Chemistry Chemical Physics, 2024, 26, 2249-2259.	2.8	0
3068	Complimentary Computational Cues for Water Electrocatalysis: A DFT and MLÂPerspective. Advanced Functional Materials, 2024, 34, .	14.9	0
3069	Unlocking single-atom catalysts via amorphous substrates. Nano Research, 0, , .	10.4	0

#	Article	IF	CITATIONS
3070	Crystal-facet-dependent surface transformation dictates the oxygen evolution reaction activity in lanthanum nickelate. Nature Communications, 2023, 14, .	12.8	1
3071	Carbon Capture and Utilization by MXene-Based Materials. , 2024, , .		0
3072	Recent advances in Ru/Ir-based electrocatalysts for acidic oxygen evolution reaction. Applied Catalysis B: Environmental, 2024, 343, 123584.	20.2	5
3073	A Review of the Recent Advances in Development of Noble Metalâ€Free Materials as Electrocatalysts for Hydrogen and Oxygen Evolution Reactions. ChemElectroChem, 0, , .	3.4	0
3074	The synthesis and application of crystalline–amorphous hybrid materials. Chemical Society Reviews, 2024, 53, 684-713.	38.1	0
3075	In-situ spatial-embedding construction of FeCo nucleus-bound carbon skeletons for durable rechargeable liquid and flexible Zn-air batteries. Energy Storage Materials, 2024, 65, 103106.	18.0	1
3076	Heterostructured Bimetallic MOFâ€onâ€MOF Architectures for Efficient Oxygen Evolution Reaction. Advanced Materials, 2024, 36, .	21.0	4
3077	Deoxidation Electrolysis of Hematite in Alkaline Solution: Impact of Cell Configuration and Process Parameters on Reduction Efficiency. ChemElectroChem, 2023, 10, .	3.4	0
3078	Surface-Modified Carbon Nanotubes with Ultrathin Co <sub>3</sub> O <sub>4</sub> Layer for Enhanced Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2023, 15, 58377-58387.	8.0	0
3079	High-performance artificial leaf: from electrocatalyst design to solar-to-chemical conversion. Materials Chemistry Frontiers, 2024, 8, 1300-1333.	5.9	0
3080	First-Principles Study of the Auxetic and Photocatalytic Properties of Rippled Ge <sub>9</sub> C <sub>15</sub> Monolayers: Implications for Photocatalytic Water Splitting. ACS Applied Nano Materials, 0, , .	5.0	0
3081	Single Atom Iridium Decorated Nickel Alloys Supported on Segregated MoO <sub>2</sub> for Alkaline Water Electrolysis. Advanced Materials, 0, , .	21.0	0
3082	Boosting electrocatalytic performance via electronic structure regulation for acidic oxygen evolution. IScience, 2024, 27, 108738.	4.1	6
3083	Defects engineering of layered double hydroxide-based electrocatalyst for water splitting. Chinese Journal of Catalysis, 2023, 55, 116-136.	14.0	1
3084	Highly efficient sustainable strategies toward carbon-neutral energy production. Energy and Environmental Science, 2024, 17, 1007-1045.	30.8	1
3085	Application progress of NiMoO <sub>4</sub> electrocatalyst in basic oxygen evolution reaction. Catalysis Science and Technology, 2024, 14, 533-554.	4.1	0
3086	Catalytic Activity of Nanometer-Sized Ir–O <sub><i>x</i></sub> Catalysts with Different Coordination Numbers for Electrocatalytic Oxygen Evolution. ACS Applied Nano Materials, 0, , .	5.0	0
3087	Orientation-Dependent Oxygen Evolution Activity of Epitaxial Ruddlesden–Popper Pr <sub>0.5</sub> Ca <sub>1.5</sub> MnO <sub>4</sub> Thin Films. Journal of Physical Chemistry C, 0, , .	3.1	0

# 3088	ARTICLE Designing of Hexagonal Nanosheets with Edgeâ€Sharing [IrO <sub>6</sub> ] Octahedral Crystals for Efficient and Stable Acidic Water Splitting. Advanced Functional Materials, 0, , .	IF 14.9	CITATIONS 0
3090	Single-atom catalysts for electrocatalytic applications: Synthetic strategies, in-situ characterization, and future challenges. Applied Materials Today, 2024, 36, 102037.	4.3	0
3091	Distribution of high valence Fe sites in nickel–iron hydroxide catalysts for water oxidation. Journal of Materials Chemistry A, 2024, 12, 2830-2838.	10.3	1
3092	Direct Capturing and Regulating Key Intermediates for Highâ€Efficiency Oxygen Evolution Reactions. Small Methods, 0, , .	8.6	0
3093	Nano-Scale Engineering of Heterojunction for Alkaline Water Electrolysis. Materials, 2024, 17, 199.	2.9	1
3094	The role of SO42â^' in manipulating partial charge distribution to boost alkaline water oxidation in Co9S8/C–Ni(OH)2. Journal of Physics and Chemistry of Solids, 2024, 187, 111862.	4.0	0
3095	Coordination regulated cobalt-based electrocatalysts for electrochemical water splitting. Separation and Purification Technology, 2024, 336, 126188.	7.9	2
3096	Novel sulfate solid supported binary Ru-Ir oxides for superior electrocatalytic activity towards OER and CER. Journal of Colloid and Interface Science, 2023, , .	9.4	0
3097	Selfâ€Supported Earthâ€Abundant Carbonâ€Based Substrates in Electrocatalysis Landscape: Unleashing the Potentials Toward Paving the Way for Water Splitting and Alcohol Oxidation. Advanced Energy Materials, 2024, 14, .	19.5	1
3098	Electrocatalytic Reactors for Syngas Production From Natural Gas. , 2024, , .		0
3099	Highly efficient electrocatalysts for seawater electrolysis under high current density: A critical review. , 0, , .		0
3100	Toward Next-Generation Heterogeneous Catalysts: Empowering Surface Reactivity Prediction with Machine Learning. Engineering, 2024, , .	6.7	0
3101	Local reaction environment in electrocatalysis. Chemical Society Reviews, 2024, 53, 2022-2055.	38.1	2
3102	Identifying the distinct roles of dual dopants in stabilizing the platinum-nickel nanowire catalyst for durable fuel cell. Nature Communications, 2024, 15, .	12.8	0
3103	What can Blyholder teach us about PFAS degradation on metal surfaces?. Environmental Science Advances, 2024, 3, 383-401.	2.7	0
3104	Electrochemical water oxidation for hydrogen peroxide production: Focus on catalyst and reaction medium design. Journal of Environmental Chemical Engineering, 2024, 12, 111960.	6.7	0
3105	Non-noble metal-based electro-catalyst for the oxygen evolution reaction (OER): Towards an active & stable electro-catalyst for PEM water electrolysis. International Journal of Hydrogen Energy, 2024, 58, 556-582.	7.1	0
3106	The component-activity interrelationship of cobalt-based bifunctional electrocatalysts for overall water splitting: Strategies and performance. Journal of Energy Chemistry, 2024, 91, 453-474.	12.9	0

#	Article	IF	CITATIONS
3107	Lotus root-like Rulr alloys with close-packed (0001) branches: Strain-driven performance for acidic water oxidation. Journal of Energy Chemistry, 2024, 92, 579-590.	12.9	0
3108	Strainâ€modulated Ruâ€O Covalency in Ruâ€Sn Oxide Enabling Efficient and Stable Water Oxidation in Acidic Solution. Angewandte Chemie, 2024, 136, .	2.0	0
3109	Strainâ€modulated Ruâ€O Covalency in Ruâ€Sn Oxide Enabling Efficient and Stable Water Oxidation in Acidic Solution. Angewandte Chemie - International Edition, 2024, 63, .	13.8	0
3110	RuO2 Catalysts for Electrocatalytic Oxygen Evolution in Acidic Media: Mechanism, Activity Promotion Strategy and Research Progress. Molecules, 2024, 29, 537.	3.8	0
3111	Optimizing Edge Active Sites via Intrinsic Inâ€Plane Iridium Deficiency in Layered Iridium Oxides for Oxygen Evolution Electrocatalysis. Advanced Materials, 2024, 36, .	21.0	0
3112	Single-atom catalysts supported on two-dimensional tetragonal transition metal chalcogenides for hydrogen and oxygen evolution. IScience, 2024, 27, 108788.	4.1	1
3113	Questing for Highâ€Performance Electrocatalysts for Oxygen Evolution Reaction: Importance of Chemical Complexity, Active Phase, and Surfaceâ€Adsorbed Species. ChemSusChem, 2024, 17, .	6.8	0
3114	Review of acidic titanium-based oxygen evolution anode catalyst design: Mechanistic, compositional design, and research status. Journal of Alloys and Compounds, 2024, 979, 173576.	5.5	0
3115	Unraveling oxygen vacancy changes of WO3 photoanodes for promoting oxygen evolution reaction. Applied Catalysis B: Environmental, 2024, 345, 123682.	20.2	0
3116	Electronic structure regulation of the Fe-based single-atom catalysts for oxygen electrocatalysis. Nano Energy, 2024, 121, 109268.	16.0	0
3117	Automated de Novo Design of Olefin Metathesis Catalysts: Computational and Experimental Analysis of a Simple Thermodynamic Design Criterion. Journal of Chemical Information and Modeling, 2024, 64, 412-424.	5.4	0
3118	Single rhodium atom embedded two dimensional MoSi2N4: A promising electrocatalyst for oxygen reduction reaction. Applied Surface Science, 2024, 653, 159361.	6.1	0
3119	Recent strategies for improving the catalytic activity of ultrathin transition metal sulfide nanosheets toward the oxygen evolution reaction. Materials Today Energy, 2024, 40, 101492.	4.7	1
3120	Progress on Bifunctional Carbonâ€Based Electrocatalysts for Rechargeable Zinc–Air Batteries Based on Voltage Difference Performance. Advanced Energy Materials, 2024, 14, .	19.5	0
3121	Site-specific metal-support interaction to switch the activity of Ir single atoms for oxygen evolution reaction. Nature Communications, 2024, 15, .	12.8	0
3122	Material Dynamics of Manganese-Based Oxychlorides for Oxygen Evolution Reaction in Acid. Chemistry of Materials, 2024, 36, 1299-1307.	6.7	1
3123	MOF-based/derived catalysts for electrochemical overall water splitting. Journal of Colloid and Interface Science, 2024, 661, 409-435.	9.4	1
3124	The oxygen path mechanism from Ni-OOOO-Fe species in oxygen evolution reaction on NiFe layered double hydroxides. Molecular Catalysis, 2024, 555, 113864.	2.0	0

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#	Article	IF	CITATIONS
3125	Pâ€Incorporation Induced Enhancement of Lattice Oxygen Participation in Double Perovskite Oxides to Boost Water Oxidation. Small, 0, , .	10.0	0
3126	Enhanced OER catalytic activity of single metal atoms supported by the pentagonal NiN <sub>2</sub> monolayer: insight from density functional theory calculations. Physical Chemistry Chemical Physics, 2024, 26, 6292-6299.	2.8	0
3127	Recent Advances for Seawater Hydrogen Evolution. ChemCatChem, 0, , .	3.7	0
3128	Enhanced catalytic activity of ZnWO4 by nickel-doping in oxygen evolution reactions. Materials Science in Semiconductor Processing, 2024, 173, 108151.	4.0	0
3129	Precise Engineering of the Electrocatalytic Activity of FeN <sub>4</sub> -Embedded Graphene on Oxygen Electrode Reactions by Attaching Electrides. Journal of Physical Chemistry Letters, 2024, 15, 1121-1129.	4.6	1
3130	Theoretical Insights on the Charge State and Bifunctional OER/ORR Electrocatalyst Activity in 4d-Transition-Metal-Doped g-C <sub>3</sub> N <sub>4</sub> Monolayers. ACS Applied Materials & Interfaces, 2024, 16, 5779-5791.	8.0	0
3131	LNS-TiO2 nanosheets supported with transition metal single atoms for water splitting: First-principles screening. International Journal of Hydrogen Energy, 2024, 58, 547-555.	7.1	0
3133	Fabrication of vanadium telluride anchored on carbon nanotubes nanocomposite for overall water splitting. Journal of the American Ceramic Society, 2024, 107, 4027-4041.	3.8	0
3134	Unveiling The Multifunction of Beaded Stream‣ike Co <sub>9</sub> Se <sub>8</sub> Catalysts for Water Splitting, Reactive Oxygen Species Scavenging, and Hydrogen Antiâ€Inflammation. Advanced Energy Materials, 2024, 14, .	19.5	0
3135	Layered Quasi-Nevskite Metastable-Phase Cobalt Oxide Accelerates Alkaline Oxygen Evolution Reaction Kinetics. ACS Nano, 2024, 18, 5029-5039.	14.6	0
3136	Electronic Structure Engineering in NiFe Sulfide via A Third Metal Doping as Efficient Bifunctional OER/ORR Electrocatalyst for Rechargeable Zincâ€Air Battery. Advanced Functional Materials, 0, , .	14.9	0
3137	First-Principles Landscape of Single Atomic Catalysts to Metal Catalysts. Journal of Physical Chemistry C, 2024, 128, 1964-1970.	3.1	0
3138	Interface engineering towards overall water electrolysis over NiCo <sub>2</sub> O <sub>4</sub> /NiMo hybrid catalysts. Catalysis Science and Technology, 2024, 14, 1349-1358.	4.1	0
3139	MBenes-supported single-atom catalysts for oxygen reduction and oxygen evolution reactions by first-principles study and machine learning. , 2024, , 20230043.		0
3140	Emerging Technologies in Catalyst Research. Advances in Material Research and Technology, 2024, , 1-21.	0.6	0
3141	Noble-Metal-Free Bifunctional Electrocatalysts for Overall Water Splitting in Alkaline Medium. Advances in Material Research and Technology, 2024, , 279-337.	0.6	0
3142	Doubleâ€Walled Tubular Heuslerâ€Type Platinum–Ruthenium Phosphide as Allâ€pH Hydrogen Evolution Reaction Catalyst Outperforming Platinum and Ruthenium. Advanced Energy Materials, 2024, 14, .	19.5	0
3143	Regulating Excess Electrons in Reducible Metal Oxides for Enhanced Oxygen Evolution Reaction Activity: A Miniâ€Review. ChemPhysChem, 2024, 25, .	2.1	0

#	Article	IF	CITATIONS
3144	Defect and doping engineered Ga2XY as electrocatalyst for hydrogen evolution reaction: First principles study. International Journal of Hydrogen Energy, 2024, 58, 1396-1405.	7.1	0
3145	Computationally screening non-precious single atom catalysts for oxygen reduction in alkaline media. Catalysis Today, 2024, 431, 114560.	4.4	0
3146	Computational chemistry for water-splitting electrocatalysis. Chemical Society Reviews, 2024, 53, 2771-2807.	38.1	1
3147	Targeted synthesis, characterization, and electrochemical analysis of transition-metal-oxide catalysts for the oxygen evolution reaction. Chem Catalysis, 2024, 4, 100905.	6.1	0
3148	Insights into the active nickel centers embedded in graphitic carbon nitride for the oxygen evolution reaction. Journal of Materials Chemistry A, 2024, 12, 6652-6662.	10.3	0
3149	The atomic structural descriptor based on cluster expansion method and superior performance of oxygen reduction on PtTi surface alloys from theoretical perspective. International Journal of Hydrogen Energy, 2024, 59, 359-368.	7.1	0
3150	Measurement of Enthalpy and Entropy of a Model Electrocatalyst for the Oxygen Evolution Reaction. ChemCatChem, 0, , .	3.7	0
3151	Catalyst-Specific Accelerated Stress Tests in Proton Exchange Membrane Low-Temperature Electrolysis for Intermittent Operation. Journal of the Electrochemical Society, 2024, 171, 024505.	2.9	0
3152	Computational Screening of a Single-Atom Catalyst Supported by Monolayer Nb <sub>2</sub> S <sub>2</sub> C for Oxygen Reduction Reaction. Langmuir, 0, , .	3.5	0
3153	Alkaline Water Electrolysis for Green Hydrogen Production. Accounts of Chemical Research, 0, , .	15.6	0
3154	Accurate construction of cobalt vacancies in Co3O4 to promote oxyhydroxide formation for water oxidation. Science China Materials, 2024, 67, 780-787.	6.3	0
3155	Experimental evidences of the direct influence of external magnetic fields on the mechanism of the electrocatalytic oxygen evolution reaction. , 2024, 2, .		0
3156	Influence of mixing time on a reversal tolerant anode measured ex situ for a PEMFC. International Journal of Hydrogen Energy, 2024, 59, 1166-1173.	7.1	0
3157	Magnetic Fieldâ€Assisted Water Splitting: Mechanism, Optimization Strategies, and Future Perspectives. Advanced Functional Materials, 0, , .	14.9	0
3158	Novel nanotubes based on methylene-bridged cycloparaphenyleneas as highly efficient catalysts for oxygen evolution reaction. Computational and Theoretical Chemistry, 2024, 1233, 114502.	2.5	0
3159	Enhancing the bifunctional oxygen reduction/evolution reaction activity of atomically dispersed zirconium on graphene using boron and nitrogen co-dopants. Surfaces and Interfaces, 2024, 46, 104070.	3.0	1
3160	Key role of subsurface doping in optimizing active sites of IrO <sub>2</sub> for the oxygen evolution reaction. Chemical Communications, 2024, 60, 3453-3456.	4.1	0
3161	Single Transitionâ€Metal Atom Anchored on a Rhenium Disulfide Monolayer: An Efficient Bifunctional Electrocatalyst for the Oxygen Evolution and Oxygen Reduction Reactions. Small, 0, , .	10.0	Ο

		CITATION REPORT		
#	Article		IF	Citations
3162	Chiral Induced Spin Selectivity. Chemical Reviews, 2024, 124, 1950-1991.		47.7	1
3163	Atomic-level insights into bioinspired Fe/Ni bimetallic active sites on carbon nitrides for electrocatalytic O2 evolution. Chemical Engineering Journal, 2024, 485, 149799.		12.7	0
3164	A doping strategy to regulate the adsorption energy of Li <sub>2</sub> S <sub>4</sub> and Li <sub>2</sub> S to promote sulfur reduction on Chevrel phase Mo <sub>6</sub> Se <sub>8</sub> lithium–sulfur batteries. Nanoscale, 2024, 16, 5352-5361.	in	5.6	0
3165	Alkali Containing Layered Metal Oxides as Catalysts for the Oxygen Evolution Reaction. ChemElectroChem, 2024, 11, .		3.4	0
3166	Doping Ru on FeNi LDH/Fe <sup>II/III</sup> –MOF heterogeneous core–shell structure for effici oxygen evolution. Dalton Transactions, 2024, 53, 5291-5300.	ent	3.3	0
3167	Catalyzing Sustainable Water Splitting with Single Atom Catalysts: Recent Advances. Chemical Rec 2024, 24, .	ord,	5.8	0
3168	High-Performance Iridium–Molybdenum Oxide Electrocatalysts for Water Oxidation in Acid: Baye Optimization Discovery and Experimental Testing. Journal of the American Chemical Society, 2024, 5511-5522.		13.7	0
3169	Mn-doped RuO <sub>2</sub> nanocrystals with abundant oxygen vacancies for enhanced oxygen evolution in acidic media. Inorganic Chemistry Frontiers, 2024, 11, 1912-1922.		6.0	0
3170	Dataâ€Driven Screening of Pivotal Subunits in Edgeâ€Anchored Single Atom Catalysts for Oxygen Reactions. Advanced Functional Materials, 0, , .		14.9	0
3171	Defect engineering in transitionâ€metal (Fe, Co, and Ni)â€based electrocatalysts for water splitting	g. , 0, , .		0
3172	The role of strain in oxygen evolution reaction. Journal of Energy Chemistry, 2024, 93, 322-344.		12.9	0
3173	Dynamic interactions between adsorbates and catalyst surfaces over long-term OER stability testin in acidic media. Journal of Catalysis, 2024, 431, 115387.	g	6.2	0
3174	Stability challenges and opportunities of NiFeâ€based electrocatalysts for oxygen evolution reactio alkaline media. , 2024, 3, 172-198.	n in		0
3175	Site-specific reactivity of stepped Pt surfaces driven by stress release. Nature, 2024, 626, 1005-101	0.	27.8	0
3176	2D Ge <sub>2</sub> Se <sub>2</sub> P <sub>4</sub> Monolayer: A Versatile Photocatalyst for Sustainable Water Splitting. Journal of Physical Chemistry C, 2024, 128, 4245-4257.		3.1	0
3177	Tuning the oxygen vacancies and mass transfer of porous conductive ceramic supported IrOx catal via polyether-derived composite oxide pyrolysis: Toward a highly efficient oxygen evolution reaction catalyst for water electrolysis. Advanced Composites and Hybrid Materials, 2024, 7, .	yst 1	21.1	0
3178	Computational study of oxygen evolution reaction on flat and stepped surfaces of strontium titanate. Catalysis Today, 2024, 432, 114609.		4.4	0
3179	Single- and double-atom catalyst anchored on graphene-like C2N for ORR and OER: mechanistic ins and catalyst screening. Carbon Letters, 0, , .	ight	5.9	0

#	Article	IF	CITATIONS
3180	<scp>3D</scp> â€Printed Monolith Metallic <scp>Ni–Mo</scp> Electrodes for Ultrahigh Current Hydrogen Evolution. Energy and Environmental Materials, 0, , .	12.8	0
3181	Metal-organic framework Cu-BTC for overall water splitting: A density functional theory study. Chinese Chemical Letters, 2024, , 109720.	9.0	0
3182	Circumventing the Theoretical Scaling Relation Limit for the Oxygen Evolution Reaction. Journal of Physical Chemistry Letters, 2024, 15, 2859-2866.	4.6	0
3183	Surface regulation of perovskite oxides with cation preference for efficient trifunctional electrocatalysts. Catalysis Communications, 2024, 187, 106896.	3.3	0
3184	Understanding piezocatalysis, pyrocatalysis and ferrocatalysis. Frontiers in Nanotechnology, 0, 6, .	4.8	0
3185	Defect engineering in two-dimensional Janus pentagonal noble metal sulfide MXY (M=Pd, Pt; X, Y S, Se,) Tj ETQq1 Journal of Hydrogen Energy, 2024, 62, 462-472.	1 0.78431 7.1	l4 rgBT /C∨d 0
3186	Thermal evaporation-driven fabrication of Ru/RuO <sub>2</sub> nanoparticles onto nickel foam for efficient overall water splitting. Nanoscale, 2024, 16, 6662-6668.	5.6	0
3187	Trace Fe activates perovskite nickelate OER catalysts in alkaline media via redox-active surface Ni species formed during electrocatalysis. Journal of Catalysis, 2024, 432, 115443.	6.2	0
3188	2D Ferromagnetic M <sub>3</sub> GeTe <sub>2</sub> (M = Ni/Fe) for Boosting Intermediates Adsorption toward Faster Water Oxidation. Advanced Science, 0, , .	11.2	0
3189	Ru/Irâ€Based Electrocatalysts for Oxygen Evolution Reaction in Acidic Conditions: From Mechanisms, Optimizations to Challenges. Advanced Science, 0, , .	11.2	0
3190	Catalytic Activity and Electrochemical Stability of Ru <sub>1–<i>x</i></sub> M <sub><i>x</i></sub> O <sub>2</sub> (M = Zr, Nb, Ta): Computational and Experimental Study of the Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2024, 16, 16373-16398.	8.0	0
3191	Ultrathin amorphous NalrRuOx nanosheets with rich oxygen vacancies for efficient acidic water oxidation. Catalysis Today, 2024, 433, 114660.	4.4	0
3192	Role of Electrolyte pH on Water Oxidation for Iridium Oxides. Journal of the American Chemical Society, 2024, 146, 8928-8938.	13.7	0
3193	Cobalt molybdenum di-selenide surface modification: A path to improved trifunctional catalysis via partial oxygenation. Applied Surface Science, 2024, 658, 159834.	6.1	0
3194	In pursuit of a bifunctional designing toward highly efficient overall water splitting in a hydrogen-functionalized two-dimensional covalent organic framework via single transition metal mapping. International Journal of Hydrogen Energy, 2024, 62, 48-61.	7.1	0
3195	Progress on the Design of Electrocatalysts for Largeâ€Current Hydrogen Production by Tuning Thermodynamic and Kinetic Factors. Advanced Functional Materials, 0, , .	14.9	0
3196	Interface oxidation induced amorphous/crystalline 1D hollandite Rb0.17IrO2 for efficient oxygen evolution reaction. Applied Surface Science, 2024, 659, 159881.	6.1	0
3197	Unraveling the Oxygen Vacancy Site Mechanism of a Self-Assembly Hybrid Catalyst for Efficient Alkaline Water Oxidation. ACS Catalysis, 2024, 14, 4523-4535.	11.2	0

ARTICLE IF CITATIONS Regulating Spin-Valence States of Vanadium-Based Single-Atom Oxygen Reduction Catalysts through 3198 5.1 0 Substrate and Axial Ligand Engineering. Energy & amp; Fuels, 2024, 38, 6260-6268. Benchmarking pH-field coupled microkinetic modeling against oxygen reduction in large-scale 3199 7.4 Fe–azaphthalocyanine catalysts. Chemical Science, 2024, 15, 5123-5132. Influence of Alkali Metal Cations on the Oxygen Reduction Activity of Pt<sub>5</sub>Y and 3200 3.1 0 Pt<sub>5</sub>Gd Alloys. Journal of Physical Chemistry C, 2024, 128, 4969-4977. MOF/MXene Composites: Synthesis, Application and Future Perspectives. Advanced Sustainable Systems, Unleashing the versatility of porous nanoarchitectures: A voyage for sustainable electrocatalytic 3202 14.0 0 water splitting. Chinese Journal of Catalysis, 2024, 58, 37-85. Unveiling the synergistic effect of amorphous CoW-phospho-borides for overall alkaline water electrolysis. International Journal of Hydrogen Energy, 2024, 63, 645-656. 7.1 Unraveling the crucial contribution of additive chromate to efficient and stable alkaline seawater oxidation on Ni-based layered double hydroxides. Journal of Colloid and Interface Science, 2024, 665, 3204 9.4 0 240-251. Cooperative Effects Drive Water Oxidation Catalysis in Cobalt Electrocatalysts through the 3205 13.7 Destabilization of Intermediates. Journal of the American Chemical Society, 2024, 146, 8915-8927. Bifunctional Electrocatalysts for Overall and Hybrid Water Splitting. Chemical Reviews, 2024, 124, 3206 47.7 0 3694-3812. Nitrogen doped leather waste-derived carbon materials as electrocatalyst for oxygen evolution reaction. Inorganic Chemistry Communication, 2024, 162, 112295. Recent progress of electrocatalysts for acidic oxygen evolution reaction. Coordination Chemistry 3208 18.8 0 Reviews, 2024, 508, 215758.