

# Chemical and structural origin of lattice oxygen oxidation evolution electrocatalysts

Nature Energy

4, 329-338

DOI: [10.1038/s41560-019-0355-9](https://doi.org/10.1038/s41560-019-0355-9)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Superferric Exchange Interaction Induced Overall Optimization in Ferromagnetic Perovskite Oxides Enables Ultrafast Water Oxidation. <i>Small</i> , 2019, 15, e1903120.	5.2	67
2	Bimetallic Organic Framework Derived High-valence State Cu-Doped $\text{Co}_3\text{O}_4$ Porous Nanosheet Arrays for Efficient Oxygen Evolution and Water Splitting. <i>ChemCatChem</i> , 2019, 11, 4420-4426.	1.8	37
3	Recent Progress on Surface Reconstruction of Earth-Abundant Electrocatalysts for Water Oxidation. <i>Small</i> , 2019, 15, e1901980.	5.2	158
4	Water Oxidation Catalysts for Artificial Photosynthesis. <i>Advanced Materials</i> , 2019, 31, e1902069.	11.1	215
5	NiFe Alloyed Nanoparticles Encapsulated in Nitrogen Doped Carbon Nanotubes for Bifunctional Electrocatalysis Toward Rechargeable Zn-Air Batteries. <i>ChemCatChem</i> , 2019, 11, 5994-6001.	1.8	24
6	Identification of Key Reversible Intermediates in Self-Reconstructed Nickel-Based Hybrid Electrocatalysts for Oxygen Evolution. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 17458-17464.	7.2	255
7	Cation-Modulated HER and OER Activities of Hierarchical VOOH Hollow Architectures for High-Efficiency and Stable Overall Water Splitting. <i>Small</i> , 2019, 15, e1904688.	5.2	85
8	Regulating Electrocatalysts via Surface and Interface Engineering for Acidic Water Electrooxidation. <i>ACS Energy Letters</i> , 2019, 4, 2719-2730.	8.8	218
9	Ultrasmall $\text{Co@Co(OH)}_2$ Nanoclusters Embedded in N-Enriched Mesoporous Carbon Networks as Efficient Electrocatalysts for Water Oxidation. <i>ChemSusChem</i> , 2019, 12, 5117-5125.	3.6	26
10	A Lattice-Oxygen-Involvement Reaction Pathway to Boost Urea Oxidation. <i>Angewandte Chemie</i> , 2019, 131, 16976-16981.	1.6	38
11	Non-noble metal-nitride based electrocatalysts for high-performance alkaline seawater electrolysis. <i>Nature Communications</i> , 2019, 10, 5106.	5.8	742
12	Breaking the Local Symmetry of $\text{LiCoO}_2$ via Atomic Doping for Efficient Oxygen Evolution. <i>Nano Letters</i> , 2019, 19, 8774-8779.	4.5	35
13	Modulation of Inverse Spinel $\text{Fe}_3\text{O}_4$ by Phosphorus Doping as an Industrially Promising Electrocatalyst for Hydrogen Evolution. <i>Advanced Materials</i> , 2019, 31, e1905107.	11.1	225
14	Identification of Key Reversible Intermediates in Self-Reconstructed Nickel-Based Hybrid Electrocatalysts for Oxygen Evolution. <i>Angewandte Chemie</i> , 2019, 131, 17619-17625.	1.6	45
15	A Lattice-Oxygen-Involvement Reaction Pathway to Boost Urea Oxidation. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 16820-16825.	7.2	201
16	Simultaneous Cobalt and Phosphorous Doping of $\text{MoS}_2$ for Improved Catalytic Performance on Polysulfide Conversion in Lithium-Sulfur Batteries. <i>Advanced Energy Materials</i> , 2019, 9, 1902096.	10.2	118
17	Vanadium-cobalt oxyhydroxide shows ultralow overpotential for the oxygen evolution reaction. <i>Journal of Materials Chemistry A</i> , 2019, 7, 21911-21917.	5.2	59
18	$\text{MoS}_2$ -nanosheet-decorated C-N/ $\text{Co}_4\text{S}_3$ nanorod hybrid as a bifunctional electrocatalyst. <i>Electrochemistry Communications</i> , 2019, 106, 106515.	2.3	11

#	ARTICLE	IF	CITATIONS
19	Noncovalent phosphorylation of CoCr layered double hydroxide nanosheets with improved electrocatalytic activity for the oxygen evolution reaction. <i>Chemical Communications</i> , 2019, 55, 12076-12079.	2.2	20
20	Stabilizing the oxygen lattice and reversible oxygen redox in Na-deficient cathode oxides. <i>Journal of Power Sources</i> , 2019, 439, 227086.	4.0	27
21	Deep Reconstruction of Nickel-Based Precatalysts for Water Oxidation Catalysis. <i>ACS Energy Letters</i> , 2019, 4, 2585-2592.	8.8	137
22	Recent Advances and Prospective in Ruthenium-Based Materials for Electrochemical Water Splitting. <i>ACS Catalysis</i> , 2019, 9, 9973-10011.	5.5	491
23	Activating Inert ZnO by Surface Cobalt Doping for Efficient Water Oxidation in Neutral Media. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 18055-18060.	3.2	23
24	Structural evolution of CoMoO <sub>4</sub> to CoOOH by ion electrochemical etching for boosting oxygen evolution reaction. <i>Journal of Power Sources</i> , 2019, 442, 227252.	4.0	65
25	CeO <sub>2</sub> -Induced Interfacial Co <sup>2+</sup> Octahedral Sites and Oxygen Vacancies for Water Oxidation. <i>ACS Catalysis</i> , 2019, 9, 6484-6490.	5.5	278
26	Tailoring of Metal Boride Morphology via Anion for Efficient Water Oxidation. <i>Advanced Energy Materials</i> , 2019, 9, 1901503.	10.2	79
27	Prussian blue analogue-derived Ni and Co bimetallic oxide nanoplate arrays block-built from porous and hollow nanocubes for the efficient oxygen evolution reaction. <i>Nanoscale</i> , 2019, 11, 11765-11773.	2.8	50
28	Vacancy diffusion barriers in TaON and Ta <sub>3</sub> N <sub>5</sub> water-splitting photocatalysts. <i>Journal of Materials Chemistry A</i> , 2019, 7, 13029-13035.	5.2	25
29	2020 Roadmap on gas-involved photo- and electro- catalysis. <i>Chinese Chemical Letters</i> , 2019, 30, 2089-2109.	4.8	71
30	Clarifying the controversial catalytic active sites of Co <sub>3</sub> O <sub>4</sub> for the oxygen evolution reaction. <i>Journal of Materials Chemistry A</i> , 2019, 7, 23191-23198.	5.2	115
31	Cobalt Amide Imidate Imidazolate Frameworks as Highly Active Oxygen Evolution Model Materials. <i>ACS Applied Energy Materials</i> , 2019, 2, 8930-8938.	2.5	12
32	A partial sulfidation approach that significantly enhance the activity of FeCo layered double hydroxide for oxygen evolution reaction. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 31987-31994.	3.8	22
33	Strategies to Break the Scaling Relation toward Enhanced Oxygen Electrocatalysis. <i>Matter</i> , 2019, 1, 1494-1518.	5.0	316
34	Modulated transition metal-oxygen covalency in the octahedral sites of CoFe layered double hydroxides with vanadium doping leading to highly efficient electrocatalysts. <i>Nanoscale</i> , 2019, 11, 23296-23303.	2.8	48
35	Zn-Doped Porous CoNiP Nanosheet Arrays as Efficient and Stable Bifunctional Electrocatalysts for Overall Water Splitting. <i>Energy Technology</i> , 2020, 8, 1901079.	1.8	20
36	Synthesis of ultrathin Co <sub>2</sub> AlO <sub>4</sub> nanosheets with oxygen vacancies for enhanced electrocatalytic oxygen evolution. <i>Science China Materials</i> , 2020, 63, 91-99.	3.5	16

#	ARTICLE	IF	CITATIONS
37	Transition metal oxides for water oxidation: All about oxyhydroxides?. Science China Materials, 2020, 63, 3-7.	3.5	81
38	Self-dissociation-assembly of ultrathin metal-organic framework nanosheet arrays for efficient oxygen evolution. Nano Energy, 2020, 68, 104296.	8.2	95
39	Sandwich-like structured NiSe <sub>2</sub> /Ni <sub>2</sub> P@FeP interface nanosheets with rich defects for efficient electrocatalytic water splitting. Journal of Power Sources, 2020, 445, 227294.	4.0	56
40	Anion doped bimetallic selenide as efficient electrocatalysts for oxygen evolution reaction. Ceramics International, 2020, 46, 2792-2797.	2.3	10
41	In situ depositing an ultrathin CoO <sub>x</sub> H <sub>y</sub> layer on hematite in alkaline media for photoelectrochemical water oxidation. Applied Catalysis B: Environmental, 2020, 263, 118334.	10.8	18
42	Optimal Geometrical Configuration of Cobalt Cations in Spinel Oxides to Promote Oxygen Evolution Reaction. Angewandte Chemie, 2020, 132, 4766-4772.	1.6	37
43	Point-defect-optimized electron distribution for enhanced electrocatalysis: Towards the perfection of the imperfections. Nano Today, 2020, 31, 100833.	6.2	52
44	<i>Operando</i> diffuse reflectance UV-vis spectroelectrochemistry for investigating oxygen evolution electrocatalysts. Catalysis Science and Technology, 2020, 10, 517-528.	2.1	15
45	Anchoring Co <sub>3</sub> O <sub>4</sub> nanoparticles on MXene for efficient electrocatalytic oxygen evolution. Science Bulletin, 2020, 65, 460-466.	4.3	152
46	Optimal Geometrical Configuration of Cobalt Cations in Spinel Oxides to Promote Oxygen Evolution Reaction. Angewandte Chemie - International Edition, 2020, 59, 4736-4742.	7.2	134
47	Strain stabilized nickel hydroxide nanoribbons for efficient water splitting. Energy and Environmental Science, 2020, 13, 229-237.	15.6	78
48	Fe <sub>x</sub> Ni <sub>y</sub> /CeO <sub>2</sub> loaded on N-doped nanocarbon as an advanced bifunctional electrocatalyst for the overall water splitting. Inorganic Chemistry Frontiers, 2020, 7, 470-476.	3.0	27
49	Dehydration-triggered electronic structure modulation enables high-performance quasi-solid-state Li-ion capacitors. Chemical Engineering Journal, 2020, 392, 123795.	6.6	4
50	Fabrication of Hollow CoP/TiO <sub>x</sub> Heterostructures for Enhanced Oxygen Evolution Reaction. Small, 2020, 16, e1905075.	5.2	117
51	A Co-Doped Nanorod-like RuO <sub>2</sub> Electrocatalyst with Abundant Oxygen Vacancies for Acidic Water Oxidation. IScience, 2020, 23, 100756.	1.9	125
52	Progress and Challenges Toward the Rational Design of Oxygen Electrocatalysts Based on a Descriptor Approach. Advanced Science, 2020, 7, 1901614.	5.6	133
53	Activity Origins and Design Principles of Nickel-Based Catalysts for Nucleophile Electrooxidation. Chem, 2020, 6, 2974-2993.	5.8	302
54	Oxygen-deficient 3D-ordered multistage porous interfacial catalysts with enhanced water oxidation performance. Journal of Materials Chemistry A, 2020, 8, 22886-22892.	5.2	25

#	ARTICLE	IF	CITATIONS
55	Dopants fixation of Ruthenium for boosting acidic oxygen evolution stability and activity. <i>Nature Communications</i> , 2020, 11, 5368.	5.8	217
56	Preparation of nickel-iron hydroxides by microorganism corrosion for efficient oxygen evolution. <i>Nature Communications</i> , 2020, 11, 5075.	5.8	226
57	Anion Etching for Accessing Rapid and Deep Self-Reconstruction of Precatalysts for Water Oxidation. <i>Matter</i> , 2020, 3, 2124-2137.	5.0	177
58	Bifunctional Single Atom Electrocatalysts: Coordination-Performance Correlations and Reaction Pathways. <i>ACS Nano</i> , 2020, 14, 13279-13293.	7.3	107
59	Surface Reconstruction and Phase Transition on Vanadium-Cobalt-Iron Trimetal Nitrides to Form Active Oxyhydroxide for Enhanced Electrocatalytic Water Oxidation. <i>Advanced Energy Materials</i> , 2020, 10, 2002464.	10.2	155
60	Synergizing in-grown Ni <sub>3</sub> N/Ni heterostructured core and ultrathin Ni <sub>3</sub> N surface shell enables self-adaptive surface reconfiguration and efficient oxygen evolution reaction. <i>Nano Energy</i> , 2020, 78, 105355.	8.2	126
61	Porous Fe-Doped $\text{Ni}(\text{OH})_2$ Nanopyramid Array Electrodes for Water Splitting. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 36208-36219.	4.0	56
62	Trimetal atoms confined in openly accessible nitrogen-doped carbon constructs for an efficient ORR. <i>Journal of Materials Chemistry A</i> , 2020, 8, 17266-17275.	5.2	32
63	Unveiling the Origin of Catalytic Sites of Pt Nanoparticles Decorated on Oxygen-Deficient Vanadium-Doped Cobalt Hydroxide Nanosheet for Hybrid Sodium-Air Batteries. <i>ACS Applied Energy Materials</i> , 2020, 3, 7464-7473.	2.5	9
64	Self-crosslinkable polyaniline with coordinated stabilized CoOOH nanosheets as a high-efficiency electrocatalyst for oxygen evolution reaction. <i>Applied Surface Science</i> , 2020, 529, 147173.	3.1	25
65	Embedding Ultrafine Metal Oxide Nanoparticles in Monolayered Metal-Organic Framework Nanosheets Enables Efficient Electrocatalytic Oxygen Evolution. <i>ACS Nano</i> , 2020, 14, 1971-1981.	7.3	109
66	Trends in Alkaline Hydrogen Evolution Activity on Cobalt Phosphide Electrocatalysts Doped with Transition Metals. <i>Cell Reports Physical Science</i> , 2020, 1, 100136.	2.8	46
67	Ruddlesden-Popper perovskites in electrocatalysis. <i>Materials Horizons</i> , 2020, 7, 2519-2565.	6.4	139
68	In Situ-Grown Cobalt-Iron Phosphide-Based Integrated Electrode for Long-Term Water Splitting under a Large Current Density at the Industrial Electrolysis Temperature. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 17828-17838.	3.2	60
69	Tuning the dual-active sites of ZIF-67 derived porous nanomaterials for boosting oxygen catalysis and rechargeable Zn-air batteries. <i>Nano Research</i> , 2021, 14, 2353.	5.8	66
70	Boosting oxygen evolution reaction on graphene through engineering electronic structure. <i>Carbon</i> , 2020, 170, 414-420.	5.4	26
71	Nickel-Rich Phosphide ( $\text{Ni}_{12}\text{P}_5$ ) Nanosheets Coupled with Oxidized Multiwalled Carbon Nanotubes for Oxygen Evolution. <i>ACS Applied Nano Materials</i> , 2020, 3, 10914-10921.	2.4	23
72	Engineering of carbon nanotube-grafted carbon nanosheets encapsulating cobalt nanoparticles for efficient electrocatalytic oxygen evolution. <i>Journal of Materials Chemistry A</i> , 2020, 8, 25268-25274.	5.2	20

#	ARTICLE	IF	CITATIONS
73	Adaptive Bifunctional Electrocatalyst of Amorphous CoFe Oxide @ 2D Black Phosphorus for Overall Water Splitting. <i>Angewandte Chemie</i> , 2020, 132, 21292-21299.	1.6	26
74	Adaptive Bifunctional Electrocatalyst of Amorphous CoFe Oxide @ 2D Black Phosphorus for Overall Water Splitting. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 21106-21113.	7.2	182
75	Rational Design of Metal-Organic Frameworks towards Efficient Electrocatalysis. , 2020, 2, 1251-1267.		65
76	Breaking the scaling relationship <i>via</i> dual metal doping in a cobalt spinel for the OER: a computational prediction. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 18672-18680.	1.3	5
77	The surface structure of $\hat{I}^2$ -NiOOH (001) under reaction conditions and its effect on OER activity: An ab initio study. <i>Molecular Catalysis</i> , 2020, 493, 111082.	1.0	1
78	Thiourea-Zeolitic imidazolate Framework-67 assembly derived Co-CoO nanoparticles encapsulated in N, S Codoped open carbon shell as bifunctional oxygen electrocatalyst for rechargeable flexible solid Zn-Air batteries. <i>Journal of Power Sources</i> , 2020, 473, 228570.	4.0	45
79	Two-dimensional Metal-Organic Frameworks as Electrocatalysts for Oxygen Evolution Reaction. <i>Chemical Research in Chinese Universities</i> , 2020, 36, 504-510.	1.3	22
80	Lattice oxygen activation enabled by high-valence metal sites for enhanced water oxidation. <i>Nature Communications</i> , 2020, 11, 4066.	5.8	337
81	Ultrafine NiFe clusters anchored on N-doped carbon as bifunctional electrocatalysts for efficient water and urea oxidation. <i>Dalton Transactions</i> , 2020, 49, 13962-13969.	1.6	28
82	Atomically dispersed Ni in cadmium-zinc sulfide quantum dots for high-performance visible-light photocatalytic hydrogen production. <i>Science Advances</i> , 2020, 6, eaaz8447.	4.7	83
83	Advanced Electrocatalysts with Single-Metal-Atom Active Sites. <i>Chemical Reviews</i> , 2020, 120, 12217-12314.	23.0	563
84	Non-precious-metal catalysts for alkaline water electrolysis: <i>operando</i> characterizations, theoretical calculations, and recent advances. <i>Chemical Society Reviews</i> , 2020, 49, 9154-9196.	18.7	448
85	Loading of individual Se-doped Fe <sub>2</sub> O <sub>3</sub> -decorated Ni/NiO particles on carbon cloth: facile synthesis and efficient electrocatalysis for the oxygen evolution reaction. <i>Dalton Transactions</i> , 2020, 49, 15682-15692.	1.6	10
86	Understanding and Optimizing Ultra-Thin Coordination Polymer Derivatives with High Oxygen Evolution Performance. <i>Advanced Energy Materials</i> , 2020, 10, 2002228.	10.2	28
87	Promoting Electrocatalytic Hydrogen Evolution Reaction and Oxygen Evolution Reaction by Fields: Effects of Electric Field, Magnetic Field, Strain, and Light. <i>Small Methods</i> , 2020, 4, 2000494.	4.6	146
88	Iridium Single Atoms Coupling with Oxygen Vacancies Boosts Oxygen Evolution Reaction in Acid Media. <i>Journal of the American Chemical Society</i> , 2020, 142, 18378-18386.	6.6	334
89	Efficient electrocatalyst of $\hat{I}^{\pm}$ -Fe <sub>2</sub> O <sub>3</sub> nanorings for oxygen evolution reaction in acidic conditions. <i>RSC Advances</i> , 2020, 10, 29077-29081.	1.7	6
90	Alkali-Etched Ni(II)-Based Metal-Organic Framework Nanosheet Arrays for Electrocatalytic Overall Water Splitting. <i>Small</i> , 2020, 16, e1906564.	5.2	84

#	ARTICLE	IF	CITATIONS
91	Synthesis and Optimization of Zeolitic Imidazolate Frameworks for the Oxygen Evolution Reaction. Chemistry - A European Journal, 2020, 26, 14167-14172.	1.7	14
92	Phase segregation reversibility in mixed-metal hydroxide water oxidation catalysts. Nature Catalysis, 2020, 3, 743-753.	16.1	199
93	First-row transition metal oxide oxygen evolution electrocatalysts: regulation strategies and mechanistic understandings. Sustainable Energy and Fuels, 2020, 4, 5417-5432.	2.5	86
94	NiCo <sub>2</sub> O <sub>4</sub> -Based Nanosheets with Uniform 4 nm Mesopores for Excellent Zn-Air Battery Performance. Advanced Materials, 2020, 32, e2001651.	11.1	120
95	High-Performance Zinc-Air Batteries with Scalable Metal-Organic Frameworks and Platinum Carbon Black Bifunctional Catalysts. ACS Applied Materials & Interfaces, 2020, 12, 42696-42703.	4.0	41
96	Insights on the Activation and Stabilization of NCA Cathode Interface: Surface Chemical State Modulations of Aluminum-Mediated Li <sub>0.73</sub> CoO <sub>2</sub> Coatings. ACS Sustainable Chemistry and Engineering, 2020, 8, 14975-14984.	3.2	12
97	Materializing efficient methanol oxidation via electron delocalization in nickel hydroxide nanoribbon. Nature Communications, 2020, 11, 4647.	5.8	117
98	Selective Surface Reconstruction of a Defective Iridium-Based Catalyst for High-Efficiency Water Splitting. Advanced Functional Materials, 2020, 30, 2004375.	7.8	85
99	Autoxidation of polythiophene tethered to carbon cloth boosts its electrocatalytic activity towards durable water oxidation. Journal of Materials Chemistry A, 2020, 8, 19793-19798.	5.2	11
100	Sequential Electrodeposition of Bifunctionally Active Structures in MoO <sub>3</sub> /Ni-NiO Composite Electrocatalysts for Selective Hydrogen and Oxygen Evolution. Advanced Materials, 2020, 32, e2003414.	11.1	206
101	Surface oxygenation of multicomponent nanoparticles toward active and stable oxidation catalysts. Nature Communications, 2020, 11, 4201.	5.8	25
102	Tuning the Electronic Structures of Multimetal Oxide Nanoplates to Realize Favorable Adsorption Energies of Oxygenated Intermediates. ACS Nano, 2020, 14, 17640-17651.	7.3	56
103	Effects of Structure and Constituent of Prussian Blue Analogs on Their Application in Oxygen Evolution Reaction. Molecules, 2020, 25, 2304.	1.7	24
104	Ternary Sn-Ti-O Electrocatalyst Boosts the Stability and Energy Efficiency of CO <sub>2</sub> Reduction. Angewandte Chemie - International Edition, 2020, 59, 12860-12867.	7.2	68
105	Ternary Sn-Ti-O Electrocatalyst Boosts the Stability and Energy Efficiency of CO <sub>2</sub> Reduction. Angewandte Chemie, 2020, 132, 12960-12967.	1.6	8
106	Boosting the bifunctional oxygen electrocatalytic performance of atomically dispersed Fe site via atomic Ni neighboring. Applied Catalysis B: Environmental, 2020, 274, 119091.	10.8	130
107	Aliovalent fluorine doping and anodization-induced amorphization enable bifunctional catalysts for efficient water splitting. Journal of Materials Chemistry A, 2020, 8, 10831-10838.	5.2	31
108	Activation strategies of water-splitting electrocatalysts. Journal of Materials Chemistry A, 2020, 8, 10096-10129.	5.2	67



#	ARTICLE	IF	CITATIONS
109	Dynamic active-site generation of atomic iridium stabilized on nanoporous metal phosphides for water oxidation. <i>Nature Communications</i> , 2020, 11, 2701.	5.8	204
110	High-performance metal-organic framework-perovskite hybrid as an important component of the air-electrode for rechargeable Zn-Air battery. <i>Journal of Power Sources</i> , 2020, 468, 228377.	4.0	52
111	Ultrafast room-temperature synthesis of porous S-doped Ni/Fe (oxy)hydroxide electrodes for oxygen evolution catalysis in seawater splitting. <i>Energy and Environmental Science</i> , 2020, 13, 3439-3446.	15.6	507
112	Atomically dispersed metal active centers as a chemically tunable platform for energy storage devices. <i>Journal of Materials Chemistry A</i> , 2020, 8, 15358-15372.	5.2	16
113	Dual-metal-driven Selective Pathway of Nitrogen Reduction in Orderly Atomic-hybridized $\text{Re}_{2}\text{MnS}_{6}$ Ultrathin Nanosheets. <i>Nano Letters</i> , 2020, 20, 4960-4967.	4.5	69
114	Performance enhancement of oxygen evolution reaction through incorporating bimetallic electrocatalysts in two-dimensional metal-organic frameworks. <i>Catalysis Science and Technology</i> , 2020, 10, 3897-3903.	2.1	34
115	<i>In situ</i> structural evolution of the multi-site alloy electrocatalyst to manipulate the intermediate for enhanced water oxidation reaction. <i>Energy and Environmental Science</i> , 2020, 13, 2200-2208.	15.6	101
116	Activating the lattice oxygen in $(\text{Bi}_{0.5}\text{Co}_{0.5})_{2}\text{O}_{3}$ by vacancy modulation for efficient electrochemical water oxidation. <i>Journal of Materials Chemistry A</i> , 2020, 8, 13150-13159.	5.2	50
117	Vacancy-Rich $\text{Ni}(\text{OH})_{2}$ Drives the Electrooxidation of Amino C-N Bonds to Nitrile C=N Bonds. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 16974-16981.	7.2	91
118	<i>Operando</i> Identification of the Dynamic Behavior of Oxygen Vacancy-Rich $\text{Co}_{3}\text{O}_{4}$ for Oxygen Evolution Reaction. <i>Journal of the American Chemical Society</i> , 2020, 142, 12087-12095.	6.6	736
119	Vacancy-Rich $\text{Ni}(\text{OH})_{2}$ Drives the Electrooxidation of Amino C-N Bonds to Nitrile C=N Bonds. <i>Angewandte Chemie</i> , 2020, 132, 17122-17129.	1.6	21
120	Enhanced Oxygen Evolution Reaction Activity by Encapsulating NiFe Alloy Nanoparticles in Nitrogen-Doped Carbon Nanofibers. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 31503-31513.	4.0	78
121	Surface-Guided Formation of Amorphous Mixed-Metal Oxyhydroxides on Ultrathin $\text{MnO}_{2}$ Nanosheet Arrays for Efficient Electrocatalytic Oxygen Evolution. <i>Advanced Energy Materials</i> , 2020, 10, 2001059.	10.2	87
122	Dynamic Reoxidation/Reduction-Driven Atomic Interdiffusion for Highly Selective $\text{CO}_{2}$ Reduction toward Methane. <i>Journal of the American Chemical Society</i> , 2020, 142, 12119-12132.	6.6	200
123	Dynamic stability of active sites in hydr(oxy)oxides for the oxygen evolution reaction. <i>Nature Energy</i> , 2020, 5, 222-230.	19.8	540
124	Intrinsic nature of photocatalysis by comparing with electrochemistry. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 7146-7154.	1.3	2
125	Revealing the Impact of Electrolyte Composition for Co-Based Water Oxidation Catalysts by the Study of Reaction Kinetics Parameters. <i>ACS Catalysis</i> , 2020, 10, 4160-4170.	5.5	43
126	Nickel induced electronic structural regulation of cobalt hydroxide for enhanced water oxidation. <i>Journal of Materials Chemistry A</i> , 2020, 8, 6699-6708.	5.2	29



#	ARTICLE	IF	CITATIONS
127	Rational Design of a N,S Co-Doped Supermicroporous CoFe-Organic Framework Platform for Water Oxidation. <i>ChemSusChem</i> , 2020, 13, 2564-2570.	3.6	29
128	Structural Designs and in-situ X-ray Characterizations of Metal Phosphides for Electrocatalysis. <i>ChemCatChem</i> , 2020, 12, 3621-3638.	1.8	13
129	Surface Assembling of Highly Interconnected and Vertically Aligned Porous Nanosheets of Gd-CoB on TiO <sub>2</sub> Nanoflowers for Durable Methanol oxidation Reaction. <i>ChemCatChem</i> , 2020, 12, 3585-3597.	1.8	18
130	Surface nitridation of nickel-cobalt alloy nanocactoids raises the performance of water oxidation and splitting. <i>Applied Catalysis B: Environmental</i> , 2020, 270, 118889.	10.8	95
131	Tailoring Lattice Oxygen Binding in Ruthenium Pyrochlores to Enhance Oxygen Evolution Activity. <i>Journal of the American Chemical Society</i> , 2020, 142, 7883-7888.	6.6	210
132	Thermal and light irradiation effects on the electrocatalytic performance of hemoglobin modified Co <sub>3</sub> O <sub>4</sub> -g-C <sub>3</sub> N <sub>4</sub> nanomaterials for the oxygen evolution reaction. <i>Nanoscale</i> , 2020, 12, 8477-8484.	2.8	14
133	Engineering pristine 2D metal-organic framework nanosheets for electrocatalysis. <i>Journal of Materials Chemistry A</i> , 2020, 8, 8143-8170.	5.2	180
134	Rapid Thermal Annealing toward High-Quality 2D Cobalt Fluoride Oxide as an Advanced Oxygen Evolution Electrocatalyst. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 6905-6913.	3.2	54
135	Boosting oxygen evolution reaction by activation of lattice-oxygen sites in layered Ruddlesden-Popper oxide. <i>EcoMat</i> , 2020, 2, e12021.	6.8	58
136	Alternate Integration of Vertically Oriented CuSe@FeOOH and CuSe@MnOOH Hybrid Nanosheets Frameworks for Flexible In-Plane Asymmetric Micro-supercapacitors. <i>ACS Applied Energy Materials</i> , 2020, 3, 3692-3703.	2.5	35
137	A review on fundamentals for designing oxygen evolution electrocatalysts. <i>Chemical Society Reviews</i> , 2020, 49, 2196-2214.	18.7	1,466
138	Revealing the defect-dominated oxygen evolution activity of hematene. <i>Journal of Materials Chemistry A</i> , 2020, 8, 6709-6716.	5.2	54
139	A general approach to the synthesis of transition metal phosphide nanoarrays on MXene nanosheets for pH-universal hydrogen evolution and alkaline overall water splitting. <i>Journal of Materials Chemistry A</i> , 2020, 8, 14234-14242.	5.2	120
140	NiCo/NiCo-OH and NiFe/NiFe-OH core shell nanostructures for water splitting electrocatalysis at large currents. <i>Applied Catalysis B: Environmental</i> , 2020, 278, 119326.	10.8	141
141	Metal Atom-Doped Co <sub>3</sub> O <sub>4</sub> Hierarchical Nanoplates for Electrocatalytic Oxygen Evolution. <i>Advanced Materials</i> , 2020, 32, e2002235.	11.1	332
142	Utilizing ion leaching effects for achieving high oxygen-evolving performance on hybrid nanocomposite with self-optimized behaviors. <i>Nature Communications</i> , 2020, 11, 3376.	5.8	122
143	Cadmium Hydroxide: A Missing Non-Noble Metal Hydroxide Electrocatalyst for the Oxygen Evolution Reaction. <i>ACS Applied Energy Materials</i> , 2020, 3, 1305-1310.	2.5	20
144	Well-defined Co-Pt-OH as an electronic pump-on Co-LDH nanocages for enhanced oxygen evolution reaction. <i>Applied Catalysis B: Environmental</i> , 2020, 269, 118782.	10.8	38

#	ARTICLE	IF	CITATIONS
145	Boosting the oxygen evolution catalytic performance of perovskites <i>via</i> optimizing calcination temperature. <i>Journal of Materials Chemistry A</i> , 2020, 8, 6480-6486.	5.2	32
146	Integrating ZnCo <sub>2</sub> O <sub>4</sub> submicro/nanospheres with Co <sub>x</sub> Se <sub>y</sub> nanosheets for the oxygen evolution reaction and zinc-air batteries. <i>Sustainable Energy and Fuels</i> , 2020, 4, 2184-2191.	2.5	12
147	Boosting alkaline hydrogen evolution and Zn-H <sub>2</sub> O cell induced by interfacial electron transfer. <i>Nano Energy</i> , 2020, 71, 104621.	8.2	82
148	Simultaneously Realizing Rapid Electron Transfer and Mass Transport in Jellyfish-Like Mott-Schottky Nanoreactors for Oxygen Reduction Reaction. <i>Advanced Functional Materials</i> , 2020, 30, 1910482.	7.8	173
149	Nanoparticle-Decorated Ultrathin La <sub>2</sub> O <sub>3</sub> Nanosheets as an Efficient Electrocatalysis for Oxygen Evolution Reactions. <i>Nano-Micro Letters</i> , 2020, 12, 49.	14.4	51
150	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> . <i>ACS Catalysis</i> , 2020, 10, 3650-3657.	5.5	339
151	Zinc Substitution-Induced Subtle Lattice Distortion Mediates the Active Center of Cobalt Diselenide Electrocatalysts for Enhanced Oxygen Evolution. <i>Small</i> , 2020, 16, e1907001.	5.2	37
152	<i>In situ</i> growth of free-standing perovskite hydroxide electrocatalysts for efficient overall water splitting. <i>Journal of Materials Chemistry A</i> , 2020, 8, 5919-5926.	5.2	21
153	A microwave-assisted bubble bursting strategy to grow Co <sub>8</sub> FeS <sub>8</sub> /CoS heterostructure on rearranged carbon nanotubes as efficient electrocatalyst for oxygen evolution reaction. <i>Journal of Power Sources</i> , 2020, 449, 227561.	4.0	44
154	Crystal phase tuning and valence engineering in non-noble catalysts for outstanding overall water splitting. <i>Journal of Materials Chemistry A</i> , 2020, 8, 4524-4532.	5.2	13
155	Interfacial electron transfer of heterostructured MIL-88A/Ni(OH) <sub>2</sub> enhances the oxygen evolution reaction in alkaline solutions. <i>Journal of Materials Chemistry A</i> , 2020, 8, 3311-3321.	5.2	41
156	Rational Design of Spinel Cobalt Vanadate Oxide Co <sub>2</sub> VO <sub>4</sub> for Superior Electrocatalysis. <i>Advanced Materials</i> , 2020, 32, e1907168.	11.1	134
157	Self-Templating Strategies for Transition Metal Sulfide Nanoboxes as Robust Bifunctional Electrocatalysts. <i>Chemistry of Materials</i> , 2020, 32, 1371-1383.	3.2	50
158	Synthesis of Co(II)-Fe(III) Hydroxide Nanocones with Mixed Octahedral/Tetrahedral Coordination toward Efficient Electrocatalysis. <i>Chemistry of Materials</i> , 2020, 32, 4232-4240.	3.2	26
159	Coupling Magnetic Single-Crystal Co <sub>2</sub> Mo <sub>3</sub> O <sub>8</sub> with Ultrathin Nitrogen-Rich Carbon Layer for Oxygen Evolution Reaction. <i>Angewandte Chemie</i> , 2020, 132, 12046-12055.	1.6	25
160	Photo/Bio-Electrochemical Systems for Environmental Remediation and Energy Harvesting. <i>ChemSusChem</i> , 2020, 13, 3391-3403.	3.6	10
161	Simple 2D/0D CoP Integration in a Metal-Organic Framework-Derived Bifunctional Electrocatalyst for Efficient Overall Water Splitting. <i>ChemSusChem</i> , 2020, 13, 3495-3503.	3.6	18
162	Examining the surface evolution of LaTiOxNy oxynitride solar water splitting photocatalyst. <i>Nature Communications</i> , 2020, 11, 1728.	5.8	29

#	ARTICLE	IF	CITATIONS
163	Fast cation exchange of layered sodium transition metal oxides for boosting oxygen evolution activity and enhancing durability. <i>Journal of Materials Chemistry A</i> , 2020, 8, 8075-8083.	5.2	9
164	Direct evidence of boosted oxygen evolution over perovskite by enhanced lattice oxygen participation. <i>Nature Communications</i> , 2020, 11, 2002.	5.8	366
165	Voltage- and time-dependent valence state transition in cobalt oxide catalysts during the oxygen evolution reaction. <i>Nature Communications</i> , 2020, 11, 1984.	5.8	120
166	Coupling Magnetic Single-Crystal $\text{Co}_2\text{Mo}_3\text{O}_8$ with Ultrathin Nitrogen-Rich Carbon Layer for Oxygen Evolution Reaction. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 11948-11957.	7.2	183
167	In-situ synthesis of free-standing FeNi-oxyhydroxide nanosheets as a highly efficient electrocatalyst for water oxidation. <i>Chemical Engineering Journal</i> , 2020, 395, 125180.	6.6	100
168	Prediction of room-temperature multiferroicity in strained $\text{MoCr}_2\text{S}_6$ monolayer. <i>Journal of Applied Physics</i> , 2020, 127, 155302.	1.1	4
169	Fabrication and Applications of 3D Nanoarchitectures for Advanced Electrocatalysts and Sensors. <i>Advanced Materials</i> , 2020, 32, e1907500.	11.1	17
170	Self-Assembled Ruddlesden-Popper/Perovskite Hybrid with Lattice Oxygen Activation as a Superior Oxygen Evolution Electrocatalyst. <i>Small</i> , 2020, 16, e2001204.	5.2	61
171	Recent trends in alkaline hydrogen evolution using nonprecious multi-metallic electrocatalysts. <i>Current Opinion in Green and Sustainable Chemistry</i> , 2020, 25, 100342.	3.2	7
172	Dynamic electrocatalyst with current-driven oxyhydroxide shell for rechargeable zinc-air battery. <i>Nature Communications</i> , 2020, 11, 1952.	5.8	185
173	Electrodeposition of (hydro)oxides for an oxygen evolution electrode. <i>Chemical Science</i> , 2020, 11, 10614-10625.	3.7	117
174	Chlorine-anion doping induced multi-factor optimization in perovskites for boosting intrinsic oxygen evolution. <i>Journal of Energy Chemistry</i> , 2021, 52, 115-120.	7.1	69
175	Synergy of copper doping and oxygen vacancies in porous $\text{CoOOH}$ nanoplates for efficient water oxidation. <i>Chemical Engineering Journal</i> , 2021, 405, 126198.	6.6	38
176	Heteromorphic $\text{Zn}_{0.76}\text{Co}_{0.24}\text{S}/\text{Co}_3\text{S}_4/\text{NF}$ as an efficient electrocatalyst to enhance hydrogen evolution reaction performance. <i>Ionics</i> , 2021, 27, 239-248.	1.2	2
177	A flexible $\text{Ni}_3\text{S}_2/\text{Ni}@CC$ electrode for high-performance battery-like supercapacitor and efficient oxygen evolution reaction. <i>Chemical Engineering Journal</i> , 2021, 420, 127646.	6.6	33
178	Graphdiyne@Janus Magnetite for Photocatalytic Nitrogen Fixation. <i>Angewandte Chemie</i> , 2021, 133, 3207-3211.	1.6	46
179	Advanced Electrocatalysis for Energy and Environmental Sustainability via Water and Nitrogen Reactions. <i>Advanced Materials</i> , 2021, 33, e2000381.	11.1	231
180	<i>In Situ/Operando</i> Electrocatalyst Characterization by X-ray Absorption Spectroscopy. <i>Chemical Reviews</i> , 2021, 121, 882-961.	23.0	358

#	ARTICLE	IF	CITATIONS
181	Trifunctional Co nanoparticle confined in defect-rich nitrogen-doped graphene for rechargeable Zn-air battery with a long lifetime. <i>Applied Catalysis B: Environmental</i> , 2021, 281, 119514.	10.8	138
182	Electrochemical Reduction of Carbon Dioxide and Iron Oxide in Molten Salts to Fe/Fe <sub>3</sub> C Modified Carbon for Electrocatalytic Oxygen Evolution. <i>Angewandte Chemie</i> , 2021, 133, 2148-2152.	1.6	14
183	Electrochemical Reduction of Carbon Dioxide and Iron Oxide in Molten Salts to Fe/Fe <sub>3</sub> C Modified Carbon for Electrocatalytic Oxygen Evolution. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 2120-2124.	7.2	92
184	A cobalt hydroxide coated metal-organic framework for enhanced water oxidation electrocatalysis. <i>Chemical Engineering Journal</i> , 2021, 408, 127319.	6.6	36
185	Oxygen-deficient Cobalt-based Oxides for Electrocatalytic Water Splitting. <i>ChemSusChem</i> , 2021, 14, 10-32.	3.6	103
186	Surface reconstruction of Ni doped Co-Fe Prussian blue analogues for enhanced oxygen evolution. <i>Catalysis Science and Technology</i> , 2021, 11, 1110-1115.	2.1	22
187	Oxygen evolution reaction activity and underlying mechanism of perovskite electrocatalysts at different pH. <i>Materials Advances</i> , 2021, 2, 345-355.	2.6	42
188	WO <sub>x</sub> Surface Decorated PtNi@Pt Dendritic Nanowires as Efficient pH-Universal Hydrogen Evolution Electrocatalysts. <i>Advanced Energy Materials</i> , 2021, 11, 2003192.	10.2	82
189	Oxygen vacancy-based ultrathin Co <sub>3</sub> O <sub>4</sub> nanosheets as a high-efficiency electrocatalyst for oxygen evolution reaction. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 5286-5295.	3.8	39
190	Water Dissociation Kinetic-oriented Design of Nickel Sulfides via Tailored Dual Sites for Efficient Alkaline Hydrogen Evolution. <i>Advanced Functional Materials</i> , 2021, 31, 2008578.	7.8	137
191	Nonwoven Ni-NiO/carbon fibers for electrochemical water oxidation. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 3798-3810.	3.8	28
192	Tailoring the 3d-orbital electron filling degree of metal center to boost alkaline hydrogen evolution electrocatalysis. <i>Applied Catalysis B: Environmental</i> , 2021, 284, 119718.	10.8	63
193	Recent advances of metal-organic frameworks and their composites toward oxygen evolution electrocatalysis. <i>Materials Today Energy</i> , 2021, 19, 100597.	2.5	34
194	Integrating hydrogen production with anodic selective oxidation of sulfides over a CoFe layered double hydroxide electrode. <i>Chemical Science</i> , 2021, 12, 938-945.	3.7	41
195	Engineering defect-rich Fe-doped NiO coupled Ni cluster nanotube arrays with excellent oxygen evolution activity. <i>Applied Catalysis B: Environmental</i> , 2021, 285, 119809.	10.8	103
196	Engineering heterointerfaces coupled with oxygen vacancies in lanthanum-based hollow microspheres for synergistically enhanced oxygen electrocatalysis. <i>Journal of Energy Chemistry</i> , 2021, 60, 503-511.	7.1	27
197	V-Bridged-Co <sub>2</sub> O <sub>3</sub> to Eliminate Charge Transfer Barriers and Drive Lattice Oxygen Oxidation during Water Splitting. <i>Advanced Functional Materials</i> , 2021, 31, 2008822.	7.8	40
198	Improving the electrocatalytic performance of sustainable Co/carbon materials for the oxygen evolution reaction by ultrasound and microwave assisted synthesis. <i>Sustainable Energy and Fuels</i> , 2021, 5, 720-731.	2.5	21

#	ARTICLE	IF	CITATIONS
199	Elevating the dâ€Band Center of Sixâ€Coordinated Octahedrons in Co <sub>9</sub> S <sub>8</sub> through Feâ€Incorporated Topochemical Deintercalation. <i>Advanced Energy Materials</i> , 2021, 11, 2003023.	10.2	121
200	Colloidal Ni <sub>2</sub> P Nanocrystals Encapsulated in Heteroatom-Doped Graphene Nanosheets: A Synergy of 0D@2D Heterostructure Toward Overall Water Splitting. <i>Chemistry of Materials</i> , 2021, 33, 234-245.	3.2	57
201	<i>In situ</i> identification of the electrocatalytic water oxidation behavior of a nickel-based metalâ€organic framework nanoarray. <i>Materials Horizons</i> , 2021, 8, 556-564.	6.4	75
202	Graphdiyne@Janus Magnetite for Photocatalytic Nitrogen Fixation. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 3170-3174.	7.2	174
203	Molecular and heterogeneous water oxidation catalysts: recent progress and joint perspectives. <i>Chemical Society Reviews</i> , 2021, 50, 2444-2485.	18.7	102
204	Bimetallic oxyhydroxide <i>in situ</i> derived from an Fe <sub>2</sub> Co-MOF for efficient electrocatalytic oxygen evolution. <i>Journal of Materials Chemistry A</i> , 2021, 9, 13271-13278.	5.2	27
205	Atomic heterointerface engineering overcomes the activity limitation of electrocatalysts and promises highly-efficient alkaline water splitting. <i>Energy and Environmental Science</i> , 2021, 14, 5228-5259.	15.6	198
206	Labile oxygen participant adsorbate evolving mechanism to enhance oxygen reduction in SmMn <sub>2</sub> O <sub>5</sub> with double-coordinated crystal fields. <i>Journal of Materials Chemistry A</i> , 2021, 9, 380-389.	5.2	14
207	Charged droplet-driven fast formation of nickelâ€iron (oxy)hydroxides with rich oxygen defects for boosting overall water splitting. <i>Journal of Materials Chemistry A</i> , 2021, 9, 20058-20067.	5.2	28
208	Multiâ€Scale Design of Metalâ€Organic Frameworkâ€Derived Materials for Energy Electrocatalysis. <i>Advanced Energy Materials</i> , 2022, 12, 2003410.	10.2	81
209	Zeolitic imidazole framework derived N-doped porous carbon/metal cobalt nanoparticles hybrid for oxygen electrocatalysis and rechargeable Znâ€air batteries. <i>RSC Advances</i> , 2021, 11, 15722-15728.	1.7	8
210	Tungsten doped manganese silicate films as stable and efficient oxygen evolution catalysts in near-neutral media. <i>Journal of Materials Chemistry A</i> , 2021, 9, 17893-17904.	5.2	14
211	Metalâ€organic frameworks and their derivatives as electrocatalysts for the oxygen evolution reaction. <i>Chemical Society Reviews</i> , 2021, 50, 2663-2695.	18.7	333
212	Rose-like, ruthenium-modified cobalt nitride nanoflowers grown <i>in situ</i> on an MXene matrix for efficient and stable water electrolysis. <i>Journal of Materials Chemistry A</i> , 2021, 9, 20758-20765.	5.2	25
213	Recent advances in activating surface reconstruction for the high-efficiency oxygen evolution reaction. <i>Chemical Society Reviews</i> , 2021, 50, 8428-8469.	18.7	452
214	Novel synthesis of <i>in situ</i> CeO <sub>x</sub> nanoparticles decorated on CoP nanosheets for highly efficient electrocatalytic oxygen evolution. <i>Inorganic Chemistry Frontiers</i> , 2021, 8, 4440-4447.	3.0	12
216	The structureâ€activity correlation of bifunctional MnO <sub>2</sub> polymorphic and MoS <sub>2</sub> -based heterostructures: a highly efficient, robust electrochemical water oxidation and reduction reaction catalyst in alkaline pH. <i>Sustainable Energy and Fuels</i> , 2021, 5, 1148-1157.	2.5	9
217	Layered double hydroxide-based electrocatalysts for the oxygen evolution reaction: identification and tailoring of active sites, and superaerophobic nanoarray electrode assembly. <i>Chemical Society Reviews</i> , 2021, 50, 8790-8817.	18.7	331

#	ARTICLE	IF	CITATIONS
219	The electronic structure of transition metal oxides for oxygen evolution reaction. <i>Journal of Materials Chemistry A</i> , 2021, 9, 19465-19488.	5.2	90
220	Lattice oxygen redox chemistry in solid-state electrocatalysts for water oxidation. <i>Energy and Environmental Science</i> , 2021, 14, 4647-4671.	15.6	190
221	Ultrathin Metal Silicate Hydroxide Nanosheets with Moderate Metal–Oxygen Covalency Enables Efficient Oxygen Evolution. <i>Energy and Environmental Materials</i> , 2022, 5, 231-237.	7.3	28
222	Doping regulation in transition metal compounds for electrocatalysis. <i>Chemical Society Reviews</i> , 2021, 50, 9817-9844.	18.7	245
223	Selective Electrochemical Alkaline Seawater Oxidation Catalyzed by Cobalt Carbonate Hydroxide Nanorod Arrays with Sequential Proton-Electron Transfer Properties. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 905-913.	3.2	25
224	An enhanced oxygen evolution reaction on 2D CoOOH <i>via</i> strain engineering: an insightful view from spin state transition. <i>Journal of Materials Chemistry A</i> , 2021, 9, 17749-17759.	5.2	44
225	Two-dimensional stable and ultrathin cluster-based metal–organic layers for efficient electrocatalytic water oxidation. <i>CrystEngComm</i> , 2021, 23, 4700-4707.	1.3	4
226	Ru doping induces the construction of a unique core–shell microflower self-supporting electrocatalyst for highly efficient overall water splitting. <i>Dalton Transactions</i> , 2021, 50, 13951-13960.	1.6	17
227	Surface Lattice Oxygen Activation on Sr <sub>2</sub> Sb <sub>2</sub> O <sub>7</sub> Enhances the Photocatalytic Mineralization of Toluene: from Reactant Activation, Intermediate Conversion to Product Desorption. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 5153-5164.	4.0	46
228	Recent Advances of CeO <sub>2</sub> -Based Electrocatalysts for Oxygen and Hydrogen Evolution as well as Nitrogen Reduction. <i>ChemElectroChem</i> , 2021, 8, 996-1020.	1.7	45
229	<i>In situ</i> encapsulation engineering boosts the electrochemical performance of highly graphitized N-doped porous carbon-based copper–cobalt selenides for bifunctional oxygen electrocatalysis. <i>Nanoscale</i> , 2021, 13, 17663-17674.	2.8	12
230	Porphyrin-based frameworks for oxygen electrocatalysis and catalytic reduction of carbon dioxide. <i>Chemical Society Reviews</i> , 2021, 50, 2540-2581.	18.7	249
231	Dynamically Stable Active Sites from Surface Evolution of Perovskite Materials during the Oxygen Evolution Reaction. <i>Journal of the American Chemical Society</i> , 2021, 143, 2741-2750.	6.6	156
232	Improved water oxidation with metal oxide catalysts via a regenerable and redox-inactive ZnOxHy overlay. <i>Chemical Communications</i> , 2021, 57, 10230-10233.	2.2	1
233	Stepwise chemical oxidation to access ultrathin metal (oxy)-hydroxide nanosheets for the oxygen evolution reaction. <i>Nanoscale</i> , 2021, 13, 15755-15762.	2.8	11
234	Fe <sup>2+</sup> -Induced In Situ Intercalation and Cation Exsolution of Co <sub>80</sub> Fe <sub>20</sub> (OH)(OCH <sub>3</sub> ) <sub>3</sub> with Rich Vacancies for Boosting Oxygen Evolution Reaction. <i>Advanced Functional Materials</i> , 2021, 31, 2009245.	7.8	38
235	Designing High-Valence Metal Sites for Electrochemical Water Splitting. <i>Advanced Functional Materials</i> , 2021, 31, 2009779.	7.8	195
236	Hydrogen production from water electrolysis: role of catalysts. <i>Nano Convergence</i> , 2021, 8, 4.	6.3	540



#	ARTICLE	IF	CITATIONS
237	Sulfur doping optimized intermediate energetics of FeCoOOH for enhanced oxygen evolution catalytic activity. <i>Cell Reports Physical Science</i> , 2021, 2, 100331.	2.8	7
238	A Molecular Tetrahedral Cobalt-Seleno-Based Complex as an Efficient Electrocatalyst for Water Splitting. <i>Molecules</i> , 2021, 26, 945.	1.7	13
239	Corrosion Engineering on Iron Foam toward Efficiently Electrocatalytic Overall Water Splitting Powered by Sustainable Energy. <i>Advanced Functional Materials</i> , 2021, 31, 2010437.	7.8	125
240	Perovskite Oxide Based Electrodes for the Oxygen Reduction and Evolution Reactions: The Underlying Mechanism. <i>ACS Catalysis</i> , 2021, 11, 3094-3114.	5.5	115
241	Host Modification of Layered Double Hydroxide Electrocatalyst to Boost the Thermodynamic and Kinetic Activity of Oxygen Evolution Reaction. <i>Advanced Functional Materials</i> , 2021, 31, 2009743.	7.8	71
242	Push-Pull Electronic Effects in Surface-Active Sites Enhance Electrocatalytic Oxygen Evolution on Transition Metal Oxides. <i>ChemSusChem</i> , 2021, 14, 1595-1601.	3.6	10
243	Recent progress in in situ/operando analysis tools for oxygen electrocatalysis. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 173001.	1.3	11
244	Carbon-Supported High-Entropy Oxide Nanoparticles as Stable Electrocatalysts for Oxygen Reduction Reactions. <i>Advanced Functional Materials</i> , 2021, 31, 2010561.	7.8	86
245	<i>Ab Initio</i> Thermodynamics and Kinetics of the Lattice Oxygen Evolution Reaction in Iridium Oxides. <i>ACS Energy Letters</i> , 2021, 6, 1124-1133.	8.8	56
246	Recent Development of Oxygen Evolution Electrocatalysts in Acidic Environment. <i>Advanced Materials</i> , 2021, 33, e2006328.	11.1	392
247	Noble metal-free electrocatalytic materials for water splitting in alkaline electrolyte. <i>EnergyChem</i> , 2021, 3, 100053.	10.1	68
248	Short-Range Ordered Iridium Single Atoms Integrated into Cobalt Oxide Spinel Structure for Highly Efficient Electrocatalytic Water Oxidation. <i>Journal of the American Chemical Society</i> , 2021, 143, 5201-5211.	6.6	287
249	Stabilizing Highly Active Ru Sites by Suppressing Lattice Oxygen Participation in Acidic Water Oxidation. <i>Journal of the American Chemical Society</i> , 2021, 143, 6482-6490.	6.6	204
250	Multiple perovskite layered lanthanum nickelate Ruddlesden-Popper systems as highly active bifunctional oxygen catalysts. <i>Chemical Engineering Journal</i> , 2021, 409, 128226.	6.6	27
251	How to get to best oxygen evolution behavior from the electrolysis practice of the seawater. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 12936-12943.	3.8	35
252	Trimetallic Spinel NiCo <sub>2</sub> FeO <sub>4</sub> Nanoboxes for Highly Efficient Electrocatalytic Oxygen Evolution. <i>Angewandte Chemie</i> , 2021, 133, 11947-11952.	1.6	33
253	Heteroatoms Adjusting Amorphous FeMn-Based Nanosheets via a Facile Electrodeposition Method for Full Water Splitting. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 5963-5971.	3.2	18
254	Surface galvanic formation of Co-OH on Birnessite and its catalytic activity for the oxygen evolution reaction. <i>Journal of Catalysis</i> , 2021, 396, 304-314.	3.1	5



#	ARTICLE	IF	CITATIONS
255	Strengthen metal-oxygen covalency of CoFe-layered double hydroxide for efficient mild oxygen evolution. <i>Nano Research</i> , 2022, 15, 162-169.	5.8	29
256	Partially reduced $\text{NiO}$ by cellulose as a highly active catalyst for oxygen evolution reaction: synergy between in situ generated $\text{Ni}^{3+}$ and lattice oxygen. <i>International Journal of Energy Research</i> , 2021, 45, 15544-15556.	2.2	6
257	One-Pot Synthesis of B/P-Codoped Co-Mo Dual-Nanowafers Electro-catalysts for Overall Water Splitting. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 20024-20033.	4.0	52
258	Structural and Electronic Engineering of Ir-Doped Ni-(Oxy)hydroxide Nanosheets for Enhanced Oxygen Evolution Activity. <i>ACS Catalysis</i> , 2021, 11, 5386-5395.	5.5	75
259	Trimetallic Spinel $\text{NiCo}_2\text{FeO}_4$ Nanoboxes for Highly Efficient Electrocatalytic Oxygen Evolution. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 11841-11846.	7.2	247
260	Synthesis of Ag-Ni-Fe-P Multielemental Nanoparticles as Bifunctional Oxygen Reduction/Evolution Reaction Electrocatalysts. <i>ACS Nano</i> , 2021, 15, 7131-7138.	7.3	45
261	Amorphous Bimetallic Phosphate-Carbon Precatalyst with Deep Self-Reconstruction toward Efficient Oxygen Evolution Reaction and Zn-Air Batteries. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 5345-5355.	3.2	22
262	Cost-effective and efficient plum-pudding-like $\text{Fe}_x\text{Ni}_{1-x}\text{S}_2/\text{C}$ composite electrocatalysts for oxygen evolution reaction. <i>Renewable Energy</i> , 2021, 168, 416-423.	4.3	12
263	Two-dimensional intrinsic ferromagnetic monolayer transition metal oxyhydroxide. <i>Physical Review B</i> , 2021, 103, .	1.1	10
264	Phosphate-induced interfacial electronic engineering in $\text{VPO}_4\text{-Ni}_2\text{P}$ heterostructure for improved electrochemical water oxidation. <i>Chinese Chemical Letters</i> , 2022, 33, 452-456.	4.8	12
265	Regulation of Perovskite Surface Stability on the Electrocatalysis of Oxygen Evolution Reaction. , 2021, 3, 721-737.		61
266	Dynamic Surface Chemistry of Catalysts in Oxygen Evolution Reaction. <i>Small Science</i> , 2021, 1, 2100011.	5.8	59
267	Common Strategy: Mounting the Rod-like Ni-Based MOF on Hydrangea-Shaped Nickel Hydroxide for Superior Electrocatalytic Methanol Oxidation Reaction. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 26472-26481.	4.0	51
268	Spin Effect on Oxygen Electrocatalysis. <i>Advanced Energy and Sustainability Research</i> , 2021, 2, 2100034.	2.8	32
269	Modifying redox properties and local bonding of $\text{Co}_3\text{O}_4$ by $\text{CeO}_2$ enhances oxygen evolution catalysis in acid. <i>Nature Communications</i> , 2021, 12, 3036.	5.8	262
270	Correlation and Improvement of Bimetallic Electronegativity on Metal-Organic Frameworks for Electrocatalytic Water Oxidation. <i>Advanced Energy and Sustainability Research</i> , 2021, 2, 2100055.	2.8	8
271	Metal Substitution Steering Electron Correlations in Pyrochlore Ruthenates for Efficient Acidic Water Oxidation. <i>ACS Nano</i> , 2021, 15, 8537-8548.	7.3	54
272	Electronic Modulation of Non-van der Waals 2D Electrocatalysts for Efficient Energy Conversion. <i>Advanced Materials</i> , 2021, 33, e2008422.	11.1	190

#	ARTICLE	IF	CITATIONS
273	Insight into the amorphous nickel-iron (oxy)hydroxide catalyst for efficient oxygen evolution reaction. <i>Journal of Colloid and Interface Science</i> , 2021, 591, 307-313.	5.0	34
274	Macroporous Array Induced Multiscale Modulation at the Surface/Interface of Co(OH) <sub>2</sub> /NiMo Self-Supporting Electrode for Effective Overall Water Splitting. <i>Advanced Functional Materials</i> , 2021, 31, 2102117.	7.8	97
275	Structural Design Strategy and Active Site Regulation of High-Efficient Bifunctional Oxygen Reaction Electrocatalysts for Zn-Air Battery. <i>Small</i> , 2021, 17, e2006766.	5.2	89
276	Opportunities and Challenges in Precise Synthesis of Transition Metal Single-Atom Supported by 2D Materials as Catalysts toward Oxygen Reduction Reaction. <i>Advanced Functional Materials</i> , 2021, 31, 2103558.	7.8	51
277	Recent Advances on MOF Derivatives for Non-Noble Metal Oxygen Electrocatalysts in Zinc-Air Batteries. <i>Nano-Micro Letters</i> , 2021, 13, 137.	14.4	84
278	High-Performance Perovskite Composite Electrocatalysts Enabled by Controllable Interface Engineering. <i>Small</i> , 2021, 17, e2101573.	5.2	128
279	Efficient fish-scale CeO <sub>2</sub> /NiFeCo composite material as electrocatalyst for oxygen evolution reaction. <i>Nanotechnology</i> , 2021, 32, 365403.	1.3	8
280	A chemical etching strategy to improve and stabilize RuO <sub>2</sub> -based nanoassemblies for acidic oxygen evolution. <i>Nano Energy</i> , 2021, 84, 105909.	8.2	58
281	Boosting the oxygen evolution activity over cobalt nitride nanosheets through optimizing the electronic configuration. <i>Applied Catalysis B: Environmental</i> , 2021, 286, 119894.	10.8	56
282	Mechanisms of water oxidation on heterogeneous catalyst surfaces. <i>Nano Research</i> , 2021, 14, 3446-3457.	5.8	34
283	Realizing the Synergy of Interface Engineering and Chemical Substitution for Ni <sub>3</sub> N Enables its Bifunctionality Toward Hydrazine Oxidation Assisted Energy-Saving Hydrogen Production. <i>Advanced Functional Materials</i> , 2021, 31, 2103673.	7.8	99
284	Tuning of lattice oxygen reactivity and scaling relation to construct better oxygen evolution electrocatalyst. <i>Nature Communications</i> , 2021, 12, 3992.	5.8	151
285	Clean and Affordable Hydrogen Fuel from Alkaline Water Splitting: Past, Recent Progress, and Future Prospects. <i>Advanced Materials</i> , 2021, 33, e2007100.	11.1	781
286	Surface Reconstruction for Forming the [IrO <sub>6</sub> ] <sup>2+</sup> [IrO <sub>6</sub> ] <sup>3+</sup> Framework: Key Structure for Stable and Activated OER Performance in Acidic Media. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 29654-29663.	4.0	26
287	Operando Investigation of Structural and Chemical Origin of Co <sub>3</sub> O <sub>4</sub> Stability in Acid under Oxygen Evolution Reaction. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 27140-27148.	4.0	33
288	In-situ transformation obtained defect-rich porous hollow CuO@CoZn-LDH nanoarrays as self-supported electrode for highly efficient overall water splitting. <i>Chemical Engineering Journal</i> , 2021, 414, 128809.	6.6	64
289	The Electro-oxidation of Hydrazine with Palladium Nanoparticle Modified Electrodes: Dissecting Chemical and Physical Effects: Catalysis, Surface Roughness, or Porosity?. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 6661-6666.	2.1	16
290	Octahedral distortion enhances exceptional oxygen catalytic activity of calcium manganite for advanced Zn-Air batteries. <i>Nano Energy</i> , 2021, 85, 106020.	8.2	32

#	ARTICLE	IF	CITATIONS
291	Engineering single-atomic ruthenium catalytic sites on defective nickel-iron layered double hydroxide for overall water splitting. <i>Nature Communications</i> , 2021, 12, 4587.	5.8	401
292	Unveiling Role of Sulfate Ion in Nickel-iron (oxy)Hydroxide with Enhanced Oxygen-Evolving Performance. <i>Advanced Functional Materials</i> , 2021, 31, 2102772.	7.8	158
293	Highly efficient and robust noble-metal free bifunctional water electrolysis catalyst achieved via complementary charge transfer. <i>Nature Communications</i> , 2021, 12, 4606.	5.8	119
294	Revealing the Correlation of OER with Magnetism: A New Descriptor of Curie/Neel Temperature for Magnetic Electrocatalysts. <i>Advanced Science</i> , 2021, 8, e2101000.	5.6	14
295	Adapting Early Transition Metal and Nonmetallic Dopants on CoFe Oxyhydroxides for Enhanced Alkaline and Neutral pH Saline Water Oxidation. <i>ACS Applied Energy Materials</i> , 2021, 4, 6942-6956.	2.5	28
296	Engineering Microdomains of Oxides in High-Entropy Alloy Electrodes toward Efficient Oxygen Evolution. <i>Advanced Materials</i> , 2021, 33, e2101845.	11.1	90
297	Stability challenges of electrocatalytic oxygen evolution reaction: From mechanistic understanding to reactor design. <i>Joule</i> , 2021, 5, 1704-1731.	11.7	416
298	Iridium-containing water-oxidation catalysts in acidic electrolyte. <i>Chinese Journal of Catalysis</i> , 2021, 42, 1054-1077.	6.9	66
299	Heterogeneous bimetallic sulfides based seawater electrolysis towards stable industrial-level large current density. <i>Applied Catalysis B: Environmental</i> , 2021, 291, 120071.	10.8	150
300	Manipulating the Local Coordination and Electronic Structures for Efficient Electrocatalytic Oxygen Evolution. <i>Advanced Materials</i> , 2021, 33, e2103004.	11.1	142
301	Engineering Self-Reconstruction via Flexible Components in Layered Double Hydroxides for Superior Oxygen-Evolving Performance. <i>Small</i> , 2021, 17, e2101671.	5.2	30
302	Confinement of sulfur-doped NiO nanoparticles into N-doped carbon nanotube/nanofiber-coupled hierarchical branched superstructures: Electronic modulation by anion doping boosts oxygen evolution electrocatalysis. <i>Journal of Energy Chemistry</i> , 2021, 63, 585-593.	7.1	20
303	Single Iridium Atom Doped Ni <sub>2</sub> P Catalyst for Optimal Oxygen Evolution. <i>Journal of the American Chemical Society</i> , 2021, 143, 13605-13615.	6.6	162
304	Activating Inert Sites in Cobalt Silicate Hydroxides for Oxygen Evolution through Atomically Doping. <i>Energy and Environmental Materials</i> , 2022, 5, 655-661.	7.3	21
305	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. <i>Journal of Physical Chemistry C</i> , 2021, 125, 18752-18761.	1.5	8
306	Unique Dual-Sites Boosting Overall CO <sub>2</sub> Photoconversion by Hierarchical Electron Harvesters. <i>Small</i> , 2021, 17, e2103796.	5.2	38
307	Confined Ir single sites with triggered lattice oxygen redox: Toward boosted and sustained water oxidation catalysis. <i>Joule</i> , 2021, 5, 2164-2176.	11.7	183
308	Activating localized lattice oxygen for durable acidic water oxidation. <i>Chem Catalysis</i> , 2021, 1, 506-508.	2.9	4

#	ARTICLE	IF	CITATIONS
309	Discharge-Induced Enhancement of the Oxygen Evolution Reaction. <i>Angewandte Chemie</i> , 2021, 133, 20195-20201.	1.6	3
310	Discharge-Induced Enhancement of the Oxygen Evolution Reaction. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 20042-20048.	7.2	20
311	Direct Oxidation of Cyclohexane to Adipic Acid by a WFeCo(OH) Catalyst: Role of Brønsted Acidity and Oxygen Vacancies. <i>ACS Catalysis</i> , 2021, 11, 10754-10766.	5.5	29
312	Construction of nickel- and iron-coordinated poly(5-amino-1,10-phenanthroline) film for electrocatalytic water oxidation reactions. <i>Journal of Power Sources</i> , 2021, 506, 230109.	4.0	4
313	Mechanistic insight into the active centers of single/dual-atom Ni/Fe-based oxygen electrocatalysts. <i>Nature Communications</i> , 2021, 12, 5589.	5.8	173
314	Single-atom catalyst for high-performance methanol oxidation. <i>Nature Communications</i> , 2021, 12, 5235.	5.8	113
315	Atomic Cation Vacancy Engineering of NiFe Layered Double Hydroxides for Improved Activity and Stability towards the Oxygen Evolution Reaction. <i>Angewandte Chemie</i> , 2021, 133, 24817-24824.	1.6	39
316	Synthesis and Electronic Modulation of Nanostructured Layered Double Hydroxides for Efficient Electrochemical Oxygen Evolution. <i>ChemSusChem</i> , 2021, 14, 5112-5134.	3.6	16
317	Self-supported amorphous iridium oxide catalysts for highly efficient and durable oxygen evolution reaction in acidic media. <i>Electrochimica Acta</i> , 2021, 391, 138955.	2.6	19
318	Restructuring highly electron-deficient metal-metal oxides for boosting stability in acidic oxygen evolution reaction. <i>Nature Communications</i> , 2021, 12, 5676.	5.8	92
319	Bimetallic Cu <sup>~</sup> Co <sup>~</sup> Se Nanotube Arrays Assembled on 3D Framework: an Efficient Bifunctional Electrocatalyst for Overall Water Splitting. <i>ChemSusChem</i> , 2021, 14, 5065-5074.	3.6	13
320	Unraveling Nanoscale Cobalt Oxide Catalysts for the Oxygen Evolution Reaction: Maximum Performance, Minimum Effort. <i>Journal of the American Chemical Society</i> , 2021, 143, 15022-15038.	6.6	44
321	NiCo-Based Electrocatalysts for the Alkaline Oxygen Evolution Reaction: A Review. <i>ACS Catalysis</i> , 2021, 11, 12485-12509.	5.5	204
322	Alloying strategy for constructing multi-component nano-catalysts towards efficient and durable oxygen evolution in alkaline electrolyte. <i>Electrochimica Acta</i> , 2021, 391, 138933.	2.6	8
323	Novel monoclinic ABO <sub>4</sub> oxide with single-crystal structure as next generation electrocatalyst for oxygen evolution reaction. <i>Chemical Engineering Journal</i> , 2021, 420, 130492.	6.6	12
324	A universal electrochemical activation enabling lattice oxygen activation in nickel-based catalyst for efficient water oxidation. <i>Chemical Engineering Journal</i> , 2022, 430, 132736.	6.6	22
325	Tuning Reconstruction Level of Precatalysts to Design Advanced Oxygen Evolution Electrocatalysts. <i>Molecules</i> , 2021, 26, 5476.	1.7	14
326	Boosting Nitrogen Reduction to Ammonia on FeN <sub>4</sub> Sites by Atomic Spin Regulation. <i>Advanced Science</i> , 2021, 8, e2102915.	5.6	64

#	ARTICLE	IF	CITATIONS
327	Atomic Cation Vacancy Engineering of NiFe Layered Double Hydroxides for Improved Activity and Stability towards the Oxygen Evolution Reaction. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 24612-24619.	7.2	259
328	Inductive effects in cobalt-doped nickel hydroxide electronic structure facilitating urea electrooxidation. <i>Chemosphere</i> , 2021, 279, 130550.	4.2	30
329	Modulation of dual centers on cobalt-molybdenum oxides featuring synergistic effect of intermediate activation and radical mediator for electrocatalytic urea splitting. <i>Nano Energy</i> , 2021, 87, 106217.	8.2	54
330	CoP Nanoparticles Fabricated Through the Nanoscale Kirkendall Effect Immobilized in 3D Hollow Carbon Frameworks for Oxygen Evolution Reaction. <i>Journal of the Electrochemical Society</i> , 2021, 168, 094501.	1.3	2
331	Electron Complementation-Induced Co Phosphide for Efficient Overall Water Splitting. <i>Advanced Energy Materials</i> , 2021, 11, 2101758.	10.2	92
332	Boosting Oxygen Reduction Catalysis Through Electronic Reconfiguration of Fe-N-C Induced by P Doping. <i>Electrocatalysis</i> , 2021, 12, 747-758.	1.5	6
333	Atomic layer deposition triggered Fe-In-S cluster and gradient energy band in ZnInS photoanode for improved oxygen evolution reaction. <i>Nature Communications</i> , 2021, 12, 5247.	5.8	36
334	Tunable one-dimensional inorganic perovskite nanomeshes library for water splitting. <i>Nano Energy</i> , 2021, 88, 106251.	8.2	12
335	Atmospheric pressure plasma engineered superhydrophilic CuO surfaces with enhanced catalytic activities. <i>Applied Surface Science</i> , 2021, 564, 150413.	3.1	9
336	Aligned Co <sub>3</sub> O <sub>4</sub> /CoOOH heterostructure nanosheet arrays grown on carbon paper with oxygen vacancies for enhanced and robust oxygen evolution. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 34287-34297.	3.8	14
337	Self-supported amorphous nickel-iron phosphorus oxides hollow spheres on Ni-Fe foam for highly efficient overall water splitting. <i>Electrochimica Acta</i> , 2021, 392, 138996.	2.6	16
338	Enhanced electrocatalytic oxygen evolution reaction kinetics using dual-phase engineering of self-supported hierarchical NiCoV(OH) <sub>x</sub> nanowire arrays. <i>Fuel</i> , 2021, 304, 121309.	3.4	6
339	Modulating electronic structure of metal-organic framework derived catalysts for electrochemical water oxidation. <i>Coordination Chemistry Reviews</i> , 2021, 447, 214144.	9.5	45
340	Electron-rich NiFe layered double hydroxides via interface engineering for boosting electrocatalytic oxygen evolution. <i>Applied Catalysis B: Environmental</i> , 2021, 297, 120453.	10.8	35
341	Strategies on improving the electrocatalytic hydrogen evolution performances of metal phosphides. <i>Chinese Journal of Catalysis</i> , 2021, 42, 1876-1902.	6.9	58
342	Free-standing trimodal porous NiZn intermetallic and Ni heterojunction as highly efficient hydrogen evolution electrocatalyst in the alkaline electrolyte. <i>Nano Energy</i> , 2021, 89, 106402.	8.2	48
343	Exceptional lattice-oxygen participation on artificially controllable electrochemistry-induced crystalline-amorphous phase to boost oxygen-evolving performance. <i>Applied Catalysis B: Environmental</i> , 2021, 297, 120484.	10.8	41
344	Modulating electronic structure of cobalt phosphide porous nanofiber by ruthenium and nickel dual doping for highly-efficiency overall water splitting at high current density. <i>Applied Catalysis B: Environmental</i> , 2021, 298, 120488.	10.8	93

#	ARTICLE	IF	CITATIONS
345	Surface reconstruction on silver nanoparticles decorated trimetallic hydroxide nanosheets to generate highly active oxygen-deficient (oxy)hydroxide layer for high-efficient water oxidation. <i>Chemical Engineering Journal</i> , 2021, 425, 131662.	6.6	19
346	Unlocking the synergy of interface and oxygen vacancy by core-shell nickel phosphide@oxyhydroxide nanosheets arrays for accelerating alkaline oxygen evolution kinetics. <i>Chemical Engineering Journal</i> , 2021, 425, 131491.	6.6	25
347	Utilizing the charge-transfer model to design promising electrocatalysts. <i>Current Opinion in Electrochemistry</i> , 2021, 30, 100805.	2.5	4
348	Mesoporous nanostructures of NiCo-LDH/ZnCo <sub>2</sub> O <sub>4</sub> as an efficient electrocatalyst for oxygen evolution reaction. <i>Journal of Colloid and Interface Science</i> , 2021, 604, 832-843.	5.0	46
349	Thermal-driven coordination adaption of metal sites in layered double hydroxides towards high-performance water oxidation. <i>Materials Today Communications</i> , 2021, 29, 102836.	0.9	0
350	In situ construction of Fe(Co)OOH through ultra-fast electrochemical activation as real catalytic species for enhanced water oxidation. <i>Chemical Engineering Journal</i> , 2021, 426, 131943.	6.6	84
351	High-valence Ni and Fe sites on sulfated NiFe-LDH nanosheets to enhance O-O coupling for water oxidation. <i>Chemical Engineering Journal</i> , 2021, 426, 130873.	6.6	70
352	Zr-doped CoFe-layered double hydroxides for highly efficient seawater electrolysis. <i>Journal of Colloid and Interface Science</i> , 2021, 604, 767-775.	5.0	43
353	A highly efficient and robust hybrid structure of CoNiN@NiFe LDH for overall water splitting by accelerating hydrogen evolution kinetics on NiFe LDH. <i>Applied Surface Science</i> , 2021, 570, 151182.	3.1	43
354	Remarkable synergistic effect in cobalt-iron nitride/alloy nanosheets for robust electrochemical water splitting. <i>Journal of Energy Chemistry</i> , 2022, 65, 405-414.	7.1	81
355	Tuning electrochemical transformation process of zeolitic imidazolate framework for efficient water oxidation activity. <i>Journal of Energy Chemistry</i> , 2022, 65, 505-513.	7.1	23
356	Zn-MOF decorated bio activated carbon for photocatalytic degradation, oxygen evolution and reduction catalysis. <i>Journal of Hazardous Materials</i> , 2022, 421, 126720.	6.5	42
357	Electronic structure modulation with ultrafine Fe <sub>3</sub> O <sub>4</sub> nanoparticles on 2D Ni-based metal-organic framework layers for enhanced oxygen evolution reaction. <i>Journal of Energy Chemistry</i> , 2022, 65, 78-88.	7.1	41
358	Tuning the interfacial electronic transitions of bi-dimensional nanocomposites (pGO/ZnO) towards photocatalytic degradation and energy application. <i>Environmental Research</i> , 2022, 204, 112050.	3.7	18
359	Application of lead oxide electrodes in wastewater treatment: A review. <i>Science of the Total Environment</i> , 2022, 806, 150088.	3.9	20
360	N, P-doped carbon supported ruthenium doped Rhenium phosphide with porous nanostructure for hydrogen evolution reaction using sustainable energies. <i>Journal of Colloid and Interface Science</i> , 2022, 606, 1874-1881.	5.0	24
361	Cobalt and vanadium co-doped FeOOH nanoribbons: an iron-rich electrocatalyst for efficient water oxidation. <i>Materials Chemistry Frontiers</i> , 2021, 5, 6485-6490.	3.2	7
362	Ruthenium Core-Shell Engineering with Nickel Single Atoms for Selective Oxygen Evolution via Nondestructive Mechanism. <i>Advanced Energy Materials</i> , 2021, 11, 2003448.	10.2	124



#	ARTICLE	IF	CITATIONS
363	Synergistic effects of Co/CoO nanoparticles on imine-based covalent organic frameworks for enhanced OER performance. <i>Nanoscale</i> , 2021, 13, 14854-14865.	2.8	24
364	Surface Fluorination Engineering of NiFe Prussian Blue Analogue Derivatives for Highly Efficient Oxygen Evolution Reaction. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 5142-5152.	4.0	51
365	Gd-induced electronic structure engineering of a NiFe-layered double hydroxide for efficient oxygen evolution. <i>Journal of Materials Chemistry A</i> , 2021, 9, 2999-3006.	5.2	133
366	Local spin-state tuning of cobalt-iron selenide nanoframes for the boosted oxygen evolution. <i>Energy and Environmental Science</i> , 2021, 14, 365-373.	15.6	159
367	Transition metal-based bimetallic MOFs and MOF-derived catalysts for electrochemical oxygen evolution reaction. <i>Energy and Environmental Science</i> , 2021, 14, 1897-1927.	15.6	415
368	The use of amino-based functional molecules for the controllable synthesis of noble-metal nanocrystals: a minireview. <i>Nanoscale Advances</i> , 2021, 3, 1813-1829.	2.2	10
369	Lanthanum bismuth oxide photocatalysts for CO <sub>2</sub> reduction to CO with high selectivity. <i>Sustainable Energy and Fuels</i> , 2021, 5, 2688-2694.	2.5	6
370	Multimetallic Catalysts and Electrocatalysts: Dynamic Core-Shell Nanostructures. <i>Nanostructure Science and Technology</i> , 2021, , 61-82.	0.1	1
371	Review on Synthesis and Catalytic Coupling Mechanism of Highly Active Electrocatalysts for Water Splitting. <i>Energy Technology</i> , 2021, 9, 2000855.	1.8	11
372	Modulating the electronic structure of nanomaterials to enhance polysulfides confinement for advanced lithium-sulfur batteries. <i>Journal of Materials Chemistry A</i> , 2021, 9, 18927-18946.	5.2	62
373	Hierarchical CoP Nanostructures on Nickel Foam as Efficient Bifunctional Catalysts for Water Splitting. <i>ChemSusChem</i> , 2021, 14, 1094-1102.	3.6	20
374	Activating Basal Planes of NiPS <sub>3</sub> for Hydrogen Evolution by Nonmetal Heteroatom Doping. <i>Advanced Functional Materials</i> , 2020, 30, 1908708.	7.8	96
375	Boosting Polysulfide Redox Kinetics by Graphene-Supported Ni Nanoparticles with Carbon Coating. <i>Advanced Energy Materials</i> , 2020, 10, 2000907.	10.2	89
376	Efficient optimization of nickel-cerium interface by constructing ethylene glycol ligand environment for fast water oxidation reaction kinetics. <i>Science China Materials</i> , 2020, 63, 1731-1740.	3.5	5
377	The electrochemical overall water splitting promoted by MoS <sub>2</sub> in coupled nickel-iron (oxy)hydride/molybdenum sulfide/graphene composite. <i>Chemical Engineering Journal</i> , 2020, 397, 125454.	6.6	32
378	Surface/interface nanoengineering for rechargeable Zn-air batteries. <i>Energy and Environmental Science</i> , 2020, 13, 1132-1153.	15.6	344
379	Plasmon of Au nanorods activates metal-organic frameworks for both the hydrogen evolution reaction and oxygen evolution reaction. <i>Nanoscale</i> , 2020, 12, 17290-17297.	2.8	12
380	Boosting Lattice Oxygen Oxidation of Perovskite to Efficiently Catalyze Oxygen Evolution Reaction by FeOOH Decoration. <i>Research</i> , 2020, 2020, 6961578.	2.8	114



#	ARTICLE	IF	CITATIONS
381	Design principles of noble metal-free electrocatalysts for hydrogen production in alkaline media: combining theory and experiment. <i>Nanoscale Advances</i> , 2021, 3, 6797-6826.	2.2	23
382	Powering the Remediation of the Nitrogen Cycle: Progress and Perspectives of Electrochemical Nitrate Reduction. <i>Industrial &amp; Engineering Chemistry Research</i> , 2021, 60, 14635-14650.	1.8	39
383	Engineering Lattice Oxygen Activation of Iridium Clusters Stabilized on Amorphous Bimetal Borides Array for Oxygen Evolution Reaction. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 27126-27134.	7.2	106
384	Recent Progress of Metal Organic Frameworks-Based Electrocatalysts for Hydrogen Evolution, Oxygen Evolution, and Oxygen Reduction Reaction. <i>Energy and Environmental Materials</i> , 2022, 5, 1084-1102.	7.3	24
385	Design Principles for Tungsten Oxide Electrocatalysts for Water Splitting. <i>ChemElectroChem</i> , 2021, 8, 4427-4440.	1.7	15
386	Identification of the Active-Layer Structures for Acidic Oxygen Evolution from 9R-BaIrO <sub>3</sub> Electrocatalyst with Enhanced Iridium Mass Activity. <i>Journal of the American Chemical Society</i> , 2021, 143, 18001-18009.	6.6	73
387	Tailoring Competitive Adsorption Sites by Oxygen Vacancy on Cobalt Oxides to Enhance the Electrooxidation of Biomass. <i>Advanced Materials</i> , 2022, 34, e2107185.	11.1	162
388	Interpolation between W Dopant and Co Vacancy in CoOOH for Enhanced Oxygen Evolution Catalysis. <i>Advanced Materials</i> , 2022, 34, e2104667.	11.1	45
389	Schottky Heterojunction Nanosheet Array Achieving High Current Density Oxygen Evolution for Industrial Water Splitting Electrolyzers. <i>Advanced Energy Materials</i> , 2021, 11, 2102353.	10.2	177
390	Constructing spin pathways in LaCoO <sub>3</sub> by Mn substitution to promote oxygen evolution reaction. <i>Applied Physics Letters</i> , 2021, 119, .	1.5	12
391	Engineering Lattice Oxygen Activation of Iridium Clusters Stabilized on Amorphous Bimetal Borides Array for Oxygen Evolution Reaction. <i>Angewandte Chemie</i> , 2021, 133, 27332-27340.	1.6	6
392	Enhanced Catalytic Mechanism of Twin-Structured BiVO <sub>4</sub> . <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 10610-10615.	2.1	4
394	Significantly enhanced oxygen evolution reaction performance by tuning surface states of Co through Cu modification in alloy structure. <i>Journal of Electroanalytical Chemistry</i> , 2021, 903, 115823.	1.9	8
395	Structural Variations of Metal Oxide-Based Electrocatalysts for Oxygen Evolution Reaction. <i>Small Methods</i> , 2021, 5, e2100834.	4.6	42
396	HgO removal by palygorskite (PG) supported MnO catalyst. <i>Journal of Fuel Chemistry and Technology</i> , 2020, 48, 1442-1451.	0.9	5
397	Modulating Interband Energy Separation of Boron-Doped Fe <sub>7</sub> S <sub>8</sub> /FeS <sub>2</sub> Electrocatalysts to Boost Alkaline Hydrogen Evolution Reaction. <i>Advanced Functional Materials</i> , 2022, 32, 2107802.	7.8	53
398	Dynamic Surface Reconstruction Unifies the Electrocatalytic Oxygen Evolution Performance of Nonstoichiometric Mixed Metal Oxides. <i>Jacs Au</i> , 2021, 1, 2224-2241.	3.6	23
399	Graphdiyne-Induced Iron Vacancy for Efficient Nitrogen Conversion. <i>Advanced Science</i> , 2022, 9, e2102721.	5.6	28

#	ARTICLE	IF	CITATIONS
400	Late Transition Metal Doped MXenes Showing Superb Bifunctional Electrocatalytic Activities for Water Splitting via Distinctive Mechanistic Pathways. <i>Advanced Energy Materials</i> , 2021, 11, 2102388.	10.2	73
401	Hollow CoS Nanoparticles Grown on FeCo-LDH Microtubes for Enhanced Electrocatalytic Performances for the Oxygen Evolution Reaction. <i>ACS Applied Energy Materials</i> , 2021, 4, 12211-12223.	2.5	14
402	Oxygen Vacancy Engineering Synergistic with Surface Hydrophilicity Modification of Hollow Ru Doped CoNi-LDH Nanotube Arrays for Boosting Hydrogen Evolution. <i>Small</i> , 2022, 18, e2104323.	5.2	71
403	In Situ/Operando Insights into the Stability and Degradation Mechanisms of Heterogeneous Electrocatalysts. <i>Small</i> , 2022, 18, e2104205.	5.2	14
404	Facile Synthesis of Amorphous MoCo Lamellar Hydroxide for Alkaline Water Oxidation. <i>ChemSusChem</i> , 2022, 15, .	3.6	4
405	Critical Review, Recent Updates on Zeolitic Imidazolate Frameworks (ZIFs) and Its Derivatives for Electrochemical Water Splitting. <i>Advanced Materials</i> , 2022, 34, e2107072.	11.1	183
406	Sequence control of metals in MOF by coordination number precoding for electrocatalytic oxygen evolution. <i>Chem Catalysis</i> , 2022, 2, 84-101.	2.9	20
407	Recent progress and perspective of cobalt-based catalysts for water splitting: design and nanoarchitectonics. <i>Materials Today Energy</i> , 2022, 23, 100911.	2.5	28
408	Aerosol-assisted synthesis of bimetallic nanoparticle-loaded bamboo-like N-doped carbon nanotubes as an efficient bifunctional oxygen catalyst for Zn-air batteries. <i>International Journal of Energy Research</i> , 2022, 46, 5215-5225.	2.2	8
409	Crystallinity-Modulated Co <sub>2</sub> V <sub>4</sub> O <sub>4</sub> Nanoplates for Efficient Electrochemical Water Oxidation. <i>ACS Catalysis</i> , 2021, 11, 14884-14891.	5.5	23
410	Low-dimensional non-metal catalysts: principles for regulating p-orbital-dominated reactivity. <i>Npj Computational Materials</i> , 2021, 7, .	3.5	41
411	Dechlorination-facilitated deprotonation of CoFe (Oxy)hydroxide catalysts under electrochemical oxygen evolution. <i>Chemical Engineering Science</i> , 2022, 252, 117270.	1.9	4
412	Quench-Induced Surface Engineering Boosts Alkaline Freshwater and Seawater Oxygen Evolution Reaction of Porous NiCo <sub>2</sub> O <sub>4</sub> Nanowires. <i>Small</i> , 2022, 18, e2106187.	5.2	38
413	Shining Light on Anion-Mixed Nanocatalysts for Efficient Water Electrolysis: Fundamentals, Progress, and Perspectives. <i>Nano-Micro Letters</i> , 2022, 14, 43.	14.4	62
414	Tuning the microphase behavior of carbon-precursor polymer blends with surfactant-like nanotubes: Toward catalyst support for water splitting. <i>Chemical Engineering Journal</i> , 2022, 431, 134027.	6.6	4
415	Rational construction of core-branch Co <sub>3</sub> O <sub>4</sub> @CoNi-layered double hydroxide nanoarrays as efficient electrocatalysts for oxygen evolution reaction. <i>Journal of Alloys and Compounds</i> , 2022, 899, 163259.	2.8	9
416	Metallic Co and crystalline Co-Mo oxides supported on graphite felt for bifunctional electrocatalytic hydrogen evolution and urea oxidation. <i>Journal of Colloid and Interface Science</i> , 2022, 612, 413-423.	5.0	30
417	Sulfur-doping/leaching induced structural transformation toward boosting electrocatalytic water splitting. <i>Applied Catalysis B: Environmental</i> , 2022, 305, 121030.	10.8	40

#	ARTICLE	IF	CITATIONS
418	Deeply self-reconstructing CoFe(H <sub>3</sub> O)(PO <sub>4</sub> ) <sub>2</sub> to low-crystalline Fe <sub>0.5</sub> Co <sub>0.5</sub> OOH with Fe <sup>3+</sup> motifs for oxygen evolution reaction. <i>Applied Catalysis B: Environmental</i> , 2022, 304, 120986.	10.8	36
419	Boosting oxygen evolution over inverse spinel Fe-Co-Mn oxide nanocubes through electronic structure engineering. <i>Chemical Engineering Journal</i> , 2022, 433, 134446.	6.6	16
420	Dynamics and control of active sites in hierarchically nanostructured cobalt phosphide/chalcogenide-based electrocatalysts for water splitting. <i>Energy and Environmental Science</i> , 2022, 15, 727-739.	15.6	96
421	Biomimetic FeMo(Se, Te) as Joint Electron Pool Promoting Nitrogen Electrofixation. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	3
422	Dynamic shrinkage of metal-oxygen bonds in atomic Co-doped nanoporous RuO <sub>2</sub> for acidic oxygen evolution. <i>Science China Materials</i> , 2022, 65, 1262-1268.	3.5	15
423	Random Occupation of Multimetal Sites in Transition Metal-Organic Frameworks for Boosting the Oxygen Evolution Reaction. <i>Chemistry - A European Journal</i> , 2022, , .	1.7	7
424	Operando Monitoring and Deciphering the Structural Evolution in Oxygen Evolution Electrocatalysis. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	90
425	Surface-Tailored Medium Entropy Alloys as Radically Low Overpotential Oxygen Evolution Electrocatalysts. <i>Small</i> , 2022, 18, e2105611.	5.2	36
426	Constructing High Efficiency CoZn <sub>x</sub> Mn <sub>2x</sub> O <sub>4</sub> Electrocatalyst by Regulating the Electronic Structure and Surface Reconstruction. <i>Small</i> , 2022, 18, e2107268.	5.2	43
427	Interfacial Atom-Substitution Engineered Transition-Metal Hydroxide Nanofibers with High-Valence Fe for Efficient Electrochemical Water Oxidation. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	10
428	Regulating Na Occupation to Introduce Non-Fermi-Liquid States of Na <sub>x</sub> CoO <sub>2</sub> for Enhanced Water Oxidation Activity. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 784-791.	2.1	3
429	Intermolecular Energy Gap-Induced Formation of High-Valent Cobalt Species in CoOOH Surface Layer on Cobalt Sulfides for Efficient Water Oxidation. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	39
431	Implications of Nonelectrochemical Reaction Steps on the Oxygen Evolution Reaction: Oxygen Dimer Formation on Perovskite Oxide and Oxynitride Surfaces. <i>ACS Catalysis</i> , 2022, 12, 1433-1442.	5.5	12
432	Strategies for designing more efficient electrocatalysts towards the urea oxidation reaction. <i>Journal of Materials Chemistry A</i> , 2022, 10, 3296-3313.	5.2	80
433	Phase reconfiguration of multivalent nickel sulfides in hydrogen evolution. <i>Energy and Environmental Science</i> , 2022, 15, 633-644.	15.6	68
434	Bicontinuous Nanoporous Nitrogen/Carbon-Codoped FeCoNiMg Alloy as a High-Performance Electrode for the Oxygen Evolution Reaction. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 784-793.	4.0	18
435	Biomimetic FeMo(Se, Te) as Joint Electron Pool Promoting Nitrogen Electrofixation. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	29
436	In situ/operando analysis of surface reconstruction of transition metal-based oxygen evolution electrocatalysts. <i>Cell Reports Physical Science</i> , 2022, 3, 100729.	2.8	29

#	ARTICLE	IF	CITATIONS
437	Reconstruction of bimetal CoFe <sub>0.13</sub> -MOF to enhance the catalytic performance in the oxygen evolution reaction. <i>Chemical Communications</i> , 2022, 58, 1115-1118.	2.2	9
438	Intermolecular Energy Gap-Induced Formation of High-Valent Cobalt Species in CoOOH Surface Layer on Cobalt Sulfides for Efficient Water Oxidation. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	97
439	Coordination modulation of iridium single-atom catalyst maximizing water oxidation activity. <i>Nature Communications</i> , 2022, 13, 24.	5.8	99
440	Avoiding Pyrolysis and Calcination: Advances in the Benign Routes Leading to MOF-Derived Electrocatalysts. <i>ChemElectroChem</i> , 2022, 9, .	1.7	12
441	Activating the lattice oxygen oxidation mechanism in amorphous molybdenum cobalt oxide nanosheets for water oxidation. <i>Journal of Materials Chemistry A</i> , 2022, 10, 3659-3666.	5.2	24
442	Optimizing Hydrogen Adsorption by d-Orbital Modulation for Efficient Hydrogen Evolution Catalysis. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	57
443	Engineering Metallic Heterostructure Based on Ni <sub>3</sub> N and 2MoS <sub>2</sub> for Alkaline Water Electrolysis with Industry-Compatible Current Density and Stability. <i>Advanced Materials</i> , 2022, 34, e2108505.	11.1	104
444	Nitrogen vacancies enriched Ce-doped Ni <sub>3</sub> N hierarchical nanosheets triggering highly-efficient urea oxidation reaction in urea-assisted energy-saving electrolysis. <i>Journal of Energy Chemistry</i> , 2022, 69, 506-515.	7.1	97
445	Interfacial Atom-Substitution Engineered Transition-Metal Hydroxide Nanofibers with High-Valence Fe for Efficient Electrochemical Water Oxidation. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	64
446	The Pivotal Role of s, p, and f-Block Metals in Water Electrolysis: Status Quo and Perspectives. <i>Advanced Materials</i> , 2022, 34, e2108432.	11.1	55
447	NiCo <sub>2</sub> O <sub>4</sub> nanostructures loaded onto pencil graphite rod: An advanced composite material for oxygen evolution reaction. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 6650-6665.	3.8	30
448	Solution Combustion Synthesis of Novel S,B-Codoped CoFe Oxyhydroxides for the Oxygen Evolution Reaction in Saline Water. <i>ACS Omega</i> , 2022, 7, 5521-5536.	1.6	13
449	Effects of Fe on electrocatalytic oxygen evolution reaction activity for CoFe layered double hydroxide nanosheets. <i>Journal of Alloys and Compounds</i> , 2022, 903, 163994.	2.8	12
450	Dynamic dissolution and re-adsorption of molybdate ion in iron incorporated nickel-molybdenum oxyhydroxide for promoting oxygen evolution reaction. <i>Applied Catalysis B: Environmental</i> , 2022, 307, 121150.	10.8	88
451	Sacrificial W Facilitates Self-Reconstruction with Abundant Active Sites for Water Oxidation. <i>Small</i> , 2022, 18, e2107249.	5.2	17
452	Activating Surface Lattice Oxygen of a Cu/Zn <sub>1-x</sub> Cu <sub>x</sub> O Catalyst through Interface Interactions for CO Oxidation. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 9882-9890.	4.0	13
453	Synthesis of Remarkably Thin Co-Fe Phosphide/Carbon Nanosheet for Enhanced Oxygen Evolution Reaction Electrocatalysis Driven by Readily Generated Active Oxyhydroxide. <i>ACS Applied Energy Materials</i> , 2022, 5, 2400-2411.	2.5	7
454	Vanadium doped nickel hydroxide nanosheets for efficient overall alkaline water splitting. <i>Journal of Physics and Chemistry of Solids</i> , 2022, 164, 110634.	1.9	6

#	ARTICLE	IF	CITATIONS
455	In-situ reconstructed Ru atom array on $\gamma$ -MnO <sub>2</sub> with enhanced performance for acidic water oxidation. <i>Nature Catalysis</i> , 2021, 4, 1012-1023.	16.1	324
456	Valence oscillation and dynamic active sites in monolayer NiCo hydroxides for water oxidation. <i>Nature Catalysis</i> , 2021, 4, 1050-1058.	16.1	272
457	Metal-Organic Frameworks-Derived Nickel-Iron Oxyhydroxide with Highly Active Edge Sites For Electrochemical Oxygen Evolution. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
458	Dynamic coordination transformation of active sites in single-atom MoS <sub>2</sub> catalysts for boosted oxygen evolution catalysis. <i>Energy and Environmental Science</i> , 2022, 15, 2071-2083.	15.6	33
459	Identification and manipulation of dynamic active site deficiency-induced competing reactions in electrocatalytic oxidation processes. <i>Energy and Environmental Science</i> , 2022, 15, 2386-2396.	15.6	71
460	In-Situ Electrochemical Surface Reconstruction of FeCoNi Trimetal Phosphides to Active Oxyhydroxide for Large-Current-Density Oxygen Evolution. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
461	Ultrahigh oxygen evolution reaction activity in Au doped co-based nanosheets. <i>RSC Advances</i> , 2022, 12, 6205-6213.	1.7	56
462	Three-dimensional CoOOH nanoframes confining high-density Mo single atoms for large-current-density oxygen evolution. <i>Journal of Materials Chemistry A</i> , 2022, 10, 6242-6250.	5.2	20
463	Molecular-Scale Manipulation of Layer Sequence in Heteroassembled Nanosheet Films toward Oxygen Evolution Electrocatalysts. <i>ACS Nano</i> , 2022, 16, 4028-4040.	7.3	29
464	Low-Dimensional Electrocatalysts for Acidic Oxygen Evolution: Intrinsic Activity, High Current Density Operation, and Long-Term Stability. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	51
465	Zn-Doped CoS <sub>2</sub> Nanoarrays for an Efficient Oxygen Evolution Reaction: Understanding the Doping Effect for a Precatalyst. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 14235-14242.	4.0	35
466	New Undisputed Evidence and Strategy for Enhanced Lattice Oxygen Participation of Perovskite Electrocatalyst through Cation Deficiency Manipulation. <i>Advanced Science</i> , 2022, 9, e2200530.	5.6	75
467	Carbon-based bifunctional electrocatalysts for oxygen reduction and oxygen evolution reactions: Optimization strategies and mechanistic analysis. <i>Journal of Energy Chemistry</i> , 2022, 71, 234-265.	7.1	78
468	Design strategies for low temperature aqueous electrolytes. , 2022, 1, e9120003.		94
469	Highly efficient water oxidation via a bimolecular reaction mechanism on rutile structured mixed-metal oxyfluorides. <i>Chem Catalysis</i> , 2022, 2, 1114-1127.	2.9	5
470	Interstitial boron-triggered electron-deficient Os aerogels for enhanced pH-universal hydrogen evolution. <i>Nature Communications</i> , 2022, 13, 1143.	5.8	152
471	Heterointerface Created on Au-Cluster-Loaded Unilamellar Hydroxide Electrocatalysts as a Highly Active Site for the Oxygen Evolution Reaction. <i>Advanced Materials</i> , 2022, 34, e2110552.	11.1	36
472	Interface design and composition regulation of cobalt-based electrocatalysts for oxygen evolution reaction. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 10547-10572.	3.8	34

#	ARTICLE	IF	CITATIONS
473	Mesoporous Single Crystals with Fe-Rich Skin for Ultralow Overpotential in Oxygen Evolution Catalysis. <i>Advanced Materials</i> , 2022, 34, e2200088.	11.1	33
474	Hydrogen spillover in complex oxide multifunctional sites improves acidic hydrogen evolution electrocatalysis. <i>Nature Communications</i> , 2022, 13, 1189.	5.8	122
475	Implanting an Electron Donor to Enlarge the $d\text{-}p$ Hybridization of High-Entropy (Oxy)hydroxide: A Novel Design to Boost Oxygen Evolution. <i>Advanced Materials</i> , 2022, 34, e2110511.	11.1	46
476	$\text{S}^{\ominus}$ -Doping Triggers Redox Reactivities of Both Iron and Lattice Oxygen in $\text{FeOOH}$ for Low-Cost and High-Performance Water Oxidation. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	79
477	Unraveling the Synergistic Effect of Heteroatomic Substitution and Vacancy Engineering in $\text{CoFe}_2\text{O}_4$ for Superior Electrocatalysis Performance. <i>Nano Letters</i> , 2022, 22, 3503-3511.	4.5	62
478	The nature of synergistic effects in transition metal oxides/in-situ intermediate-hydroxides for enhanced oxygen evolution reaction. <i>Current Opinion in Electrochemistry</i> , 2022, 34, 100987.	2.5	7
479	Synergy between Cobalt-Chromium-Layered Double Hydroxide Nanosheets and Oxidized Carbon Nanotubes for Electrocatalytic Oxygen Evolution. <i>ACS Applied Nano Materials</i> , 2022, 5, 4091-4101.	2.4	4
480	Large-Scale Synthesis of Fe-Doped Amorphous Cobalt Oxide Electrocatalysts at Room Temperature for the Oxygen Evolution Reaction. <i>ACS Applied Energy Materials</i> , 2022, 5, 3129-3136.	2.5	10
481	Oxygen Evolution Reaction in Alkaline Environment: Material Challenges and Solutions. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	209
482	Highly Efficient Nanoflower-like Bifunctional Electrocatalyst Co-W-B-P/CF for Overall Water Splitting. <i>ACS Applied Energy Materials</i> , 2022, 5, 4259-4269.	2.5	10
483	A Facile and Environmental-Friendly Approach to Synthesize $\text{S}^{\ominus}$ -Doped Fe/Ni Layered Double Hydroxide Catalyst with High Oxygen Evolution Reaction Efficiency in Water Splitting. <i>ChemElectroChem</i> , 2022, 9, .	1.7	3
484	Ligand Modulation of Active Sites to Promote Electrocatalytic Oxygen Evolution. <i>Advanced Materials</i> , 2022, 34, e2200270.	11.1	108
485	Electrochemical Urea Oxidation in Different Environment: From Mechanism to Devices. <i>ChemCatChem</i> , 2022, 14, .	1.8	21
486	Preparation of NiCo-LDH@NiCoV-LDH interconnected nanosheets as high-performance electrocatalysts for overall water splitting. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 15583-15592.	3.8	29
487	How computations accelerate electrocatalyst discovery. <i>CheM</i> , 2022, 8, 1575-1610.	5.8	23
488	Sea urchin-like NiMoO <sub>4</sub> nanorod arrays as highly efficient bifunctional catalysts for electrocatalytic/photovoltage-driven urea electrolysis. <i>Chinese Journal of Catalysis</i> , 2022, 43, 1267-1276.	6.9	25
489	In situ revealing the reconstruction behavior of monolayer rocksalt CoO nanosheet as water oxidation catalyst. <i>Journal of Energy Chemistry</i> , 2022, 70, 373-381.	7.1	16
490	Optimal surface/diffusion-controlled kinetics of bimetallic selenide nanotubes for hybrid supercapacitors. <i>Journal of Colloid and Interface Science</i> , 2022, 617, 304-314.	5.0	18



#	ARTICLE	IF	CITATIONS
491	Surface self-reconstruction of telluride induced by in-situ cathodic electrochemical activation for enhanced water oxidation performance. <i>Applied Catalysis B: Environmental</i> , 2022, 310, 121355.	10.8	16
492	Electronic modulation and vacancy engineering of Ni <sub>9</sub> S <sub>8</sub> to synergistically boost efficient water splitting: Active vacancy-metal pairs. <i>Applied Catalysis B: Environmental</i> , 2022, 310, 121356.	10.8	41
493	In Situ Transformation of Metal-Organic Frameworks into Hollow Nickel-Cobalt Double Hydroxide Arrays for Efficient Water Oxidation. <i>Inorganic Chemistry</i> , 2022, 61, 738-745.	1.9	5
494	Recent Progress in Layered Double Hydroxide-Based Electrocatalyst for Hydrogen Evolution Reaction. <i>ChemElectroChem</i> , 2022, 9, .	1.7	5
495	Promotion of the oxygen evolution performance of Ni-Fe layered hydroxides via the introduction of a proton-transfer mediator anion. <i>Science China Chemistry</i> , 2022, 65, 382-390.	4.2	20
496	Structure and Oxygen Evolution Activity of $\Gamma^2$ -NiOOH: Where Are the Protons?. <i>ACS Catalysis</i> , 2022, 12, 295-304.	5.5	28
497	Engineering Electrochemical Surface for Efficient Carbon Dioxide Upgrade. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	33
498	Highly active ruthenium sites stabilized by modulating electron-feeding for sustainable acidic oxygen-evolution electrocatalysis. <i>Energy and Environmental Science</i> , 2022, 15, 2356-2365.	15.6	101
499	Activating lattice oxygen in NiFe-based (oxy)hydroxide for water electrolysis. <i>Nature Communications</i> , 2022, 13, 2191.	5.8	179
500	High Configuration Entropy Activated Lattice Oxygen for O <sub>2</sub> Formation on Perovskite Electrocatalyst. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	96
501	Li <sub>2</sub> S <sub>4</sub> Anchoring Governs the Catalytic Sulfur Reduction on Defective SmMn <sub>2</sub> O <sub>5</sub> in Lithium-Sulfur Battery. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	29
502	Ion Intercalation in Lanthanum Strontium Ferrite for Aqueous Electrochemical Energy Storage Devices. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 18486-18497.	4.0	4
503	Manipulating the Water Dissociation Electrocatalytic Sites of Bimetallic Nickel-Based Alloys for Highly Efficient Alkaline Hydrogen Evolution. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	7
504	Manipulating the Water Dissociation Electrocatalytic Sites of Bimetallic Nickel-Based Alloys for Highly Efficient Alkaline Hydrogen Evolution. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	124
505	Reinforced Layered Double Hydroxide Oxygen-Evolution Electrocatalysts: A Polyoxometallic Acid Wet-Etching Approach and Synergistic Mechanism. <i>Advanced Materials</i> , 2022, 34, e2110696.	11.1	57
506	Electrochemical preparation of nano/micron structure transition metal-based catalysts for the oxygen evolution reaction. <i>Materials Horizons</i> , 2022, 9, 1788-1824.	6.4	32
507	Concurrent In-Situ Oxidation State Engineering of Heterostructured Catalyst Toward Near-Optimal Water Oxidation. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
508	Electronic modulation and surface reconstruction of cactus-like CoB <sub>2</sub> O <sub>4</sub> @FeOOH heterojunctions for synergistically triggering oxygen evolution reactions. <i>Journal of Materials Chemistry A</i> , 2022, 10, 11386-11393.	5.2	24



#	ARTICLE	IF	CITATIONS
509	Recent development in MOFs for oxygen evolution reactions. , 2022, , 135-163.		0
510	<i>In situ</i> Raman spectroscopy reveals the structure evolution and lattice oxygen reaction pathway induced by the crystalline/amorphous heterojunction for water oxidation. <i>Chemical Science</i> , 2022, 13, 5639-5649.	3.7	14
511	A two-dimensional zeolitic imidazolate framework loaded with an acrylate-substituted oxoiron cluster as an efficient electrocatalyst for the oxygen evolution reaction. <i>New Journal of Chemistry</i> , 2022, 46, 11095-11100.	1.4	4
512	Direct observation of dynamic surface reconstruction and active phases on honeycomb Ni <sub>3</sub> N-Co <sub>3</sub> N/CC for oxygen evolution reaction. <i>Science China Materials</i> , 2022, 65, 2445-2452.	3.5	5
513	Oxygen Evolution Reaction in Energy Conversion and Storage: Design Strategies Under and Beyond the Energy Scaling Relationship. <i>Nano-Micro Letters</i> , 2022, 14, 112.	14.4	104
514	Regulating the Spin State of Fe <sup>III</sup> Enhances the Magnetic Effect of the Molecular Catalysis Mechanism. <i>Journal of the American Chemical Society</i> , 2022, 144, 8204-8213.	6.6	111
515	Direct and indirect role of Fe doping in NiOOH monolayer for water oxidation catalysis**. <i>ChemPhysChem</i> , 2022, 23, .	1.0	3
516	Tuning the Electronic and Steric Interaction at the Atomic Interface for Enhanced Oxygen Evolution. <i>Journal of the American Chemical Society</i> , 2022, 144, 9271-9279.	6.6	76
517	Selectively anchoring single atoms on specific sites of supports for improved oxygen evolution. <i>Nature Communications</i> , 2022, 13, 2473.	5.8	73
518	Hierarchical Heterostructure of Amorphous CoFe@CoNi Hydroxides Composite on Nickel Foam as Efficient Electrocatalyst for Oxygen Evolution Reaction. <i>ChemCatChem</i> , 2022, 14, .	1.8	4
519	Optimizing electronic state in Sr <sub>2</sub> Co <sub>2</sub> O <sub>5-x</sub> with ferromagnetic state by improving oxygen vacancies for oxygen evolution reaction. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 19027-19037.	3.8	2
520	Carbon-based material-supported single-atom catalysts for energy conversion. <i>IScience</i> , 2022, 25, 104367.	1.9	20
521	Recent Development and Future Perspectives of Amorphous Transition Metal-Based Electrocatalysts for Oxygen Evolution Reaction. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	158
522	Dynamic active sites in NiFe oxyhydroxide upon Au nanoparticles decoration for highly efficient electrochemical water oxidation. <i>Nano Energy</i> , 2022, 98, 107328.	8.2	20
523	Constructing high-activity Cobalt-Based Perovskite hybrid by a top-down phase evolution method for the direct seawater electrolysis anode. <i>Journal of Alloys and Compounds</i> , 2022, 913, 165342.	2.8	9
524	Tailoring Oxygen Reduction Reaction Pathway on Spinel Oxides via Surficial Geometrical Site Occupation Modification Driven by the Oxygen Evolution Reaction. <i>Advanced Materials</i> , 2022, 34, e2202874.	11.1	52
525	Rational design of integrated electrodes for advancing high-rate alkaline electrolytic hydrogen production. <i>Journal of Materials Chemistry A</i> , 2022, 10, 12764-12787.	5.2	10
526	Triggering Lattice Oxygen Activation of Single-Atomic Mo Sites Anchored on Ni-Fe Oxyhydroxides Nanoarrays for Electrochemical Water Oxidation. <i>Advanced Materials</i> , 2022, 34, e2202523.	11.1	103

#	ARTICLE	IF	CITATIONS
527	NiCo-sulfide hetero-structured interface induced highly active nickel-dominated metal sites for oxygen evolution reaction. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 21352-21360.	3.8	9
528	Oxygen-Plasma-Induced Hetero-Interface NiFe <sub>2</sub> O <sub>4</sub> /NiMoO <sub>4</sub> Catalyst for Enhanced Electrochemical Oxygen Evolution. <i>Materials</i> , 2022, 15, 3688.	1.3	3
529	Intramolecular hydroxyl nucleophilic attack pathway by a polymeric water oxidation catalyst with single cobalt sites. <i>Nature Catalysis</i> , 2022, 5, 414-429.	16.1	85
530	S/Se dual-doping promotes the formation of active Ni/Fe oxyhydroxide for oxygen evolution reaction of (sea)water splitting. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 21753-21759.	3.8	15
531	First-row transition metal-based materials derived from bimetallic metal-organic frameworks as highly efficient electrocatalysts for electrochemical water splitting. <i>Energy and Environmental Science</i> , 2022, 15, 3119-3151.	15.6	125
532	Defect Structure Regulation and Mass Transfer Improvement of Cobalt-Based Oxides for Enhanced Oxygen Evolution Reaction. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
533	Nickel hydroxide array coated with NiFe alloy nanosheets for overall mixed water splitting. <i>Journal of Alloys and Compounds</i> , 2022, 918, 165564.	2.8	8
534	Nitrogen-Rich Carbonaceous Materials for Advanced Oxygen Electrocatalysis: Synthesis, Characterization, and Activity of Nitrogen Sites. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	59
535	Hydrogen production by electrocatalysis using the reaction of acidic oxygen evolution: a review. <i>Environmental Chemistry Letters</i> , 2022, 20, 3429-3452.	8.3	18
536	Coupling LaNiO <sub>3</sub> Nanorods with FeOOH Nanosheets for Oxygen Evolution Reaction. <i>Catalysts</i> , 2022, 12, 594.	1.6	7
537	Rapidly reconstructing the active surface of cobalt-based perovskites for alkaline seawater splitting. <i>Nanoscale</i> , 2022, 14, 10118-10124.	2.8	5
538	Boosting Activity and Stability of Electrodeposited Amorphous Ce-Doped NiFe-Based Catalyst for Electrochemical Water Oxidation. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	27
539	Metal-Organic Frameworks-Derived Nickel-Iron Oxyhydroxide with Highly Active Edge Sites for Electrochemical Oxygen Evolution. <i>Small Structures</i> , 2022, 3, .	6.9	3
540	Improving Co-Ni-FeO <sub>x</sub> Oxygen Evolution Electrocatalysts through Hydroxyl-Modulated Local Coordination Environment. <i>ACS Catalysis</i> , 2022, 12, 7443-7452.	5.5	12
541	Roles of heteroatoms in electrocatalysts for alkaline water splitting: A review focusing on the reaction mechanism. <i>Chinese Journal of Catalysis</i> , 2022, 43, 2091-2110.	6.9	36
542	Accelerated oxygen evolution kinetics on hematite by Zn <sup>2+</sup> for boosting the photoelectrochemical water oxidation. <i>Journal of Alloys and Compounds</i> , 2022, 919, 165853.	2.8	2
543	Operando deciphering the activity origins for potential-induced reconstructed oxygen-evolving catalysts. <i>Applied Catalysis B: Environmental</i> , 2022, 316, 121602.	10.8	10
544	Key roles of surface Fe sites and Sr vacancies in the perovskite for an efficient oxygen evolution reaction via lattice oxygen oxidation. <i>Energy and Environmental Science</i> , 2022, 15, 3912-3922.	15.6	95

#	ARTICLE	IF	CITATIONS
545	Ferric Ions Leached from Fe-Based Catalyst to Trigger the Dynamic Surface Reconstruction of Nickel Foam for High-Efficient Oer Activity. SSRN Electronic Journal, 0, , .	0.4	0
546	Promoting biomass electrooxidation via modulating proton and oxygen anion deintercalation in hydroxide. Nature Communications, 2022, 13, .	5.8	60
547	Ambient Fast Synthesis of Superaerophobic/Superhydrophilic Electrode for Superior Electrocatalytic Water Oxidation. Energy and Environmental Materials, 2023, 6, .	7.3	4
548	Rational Design of an FeCo <sub>2</sub> O <sub>4</sub> @FeCo <sub>2</sub> S <sub>4</sub> Heterostructure as an Efficient Bifunctional Electrocatalyst for Znâ€“Air Batteries. ACS Applied Energy Materials, 2022, 5, 9742-9749.	2.5	4
549	Fundamentals and Advances in Emerging Crystalline Porous Materials for Photocatalytic and Electrocatalytic Nitrogen Fixation. ACS Applied Energy Materials, 2022, 5, 9241-9265.	2.5	13
550	Hierarchical anions at the electrode-electrolyte interface for synergized neutral water oxidation. Chem, 2022, 8, 2700-2714.	5.8	20
551	Spin-related symmetry breaking induced by half-disordered hybridization in BixEr2-xRu2O7 pyrochlores for acidic oxygen evolution. Nature Communications, 2022, 13, .	5.8	66
552	Surface dissolution and amorphization of electrocatalysts during oxygen evolution reaction: Atomistic features and viewpoints. Materials Today, 2022, 58, 221-237.	8.3	11
553	Crystalline and amorphous phases: NiFeCo tri-metal phosphide as an efficient electrocatalyst to accelerate oxygen evolution reaction kinetics. Electrochimica Acta, 2022, 426, 140788.	2.6	11
554	Operando identification of active sites in Co-Cr oxyhydroxide oxygen evolution electrocatalysts. Nano Energy, 2022, 101, 107562.	8.2	14
555	Bi/BiFe(oxy)hydroxide for sustainable lattice oxygen-boosted electrocatalysis at a practical high current density. Applied Catalysis B: Environmental, 2022, 317, 121685.	10.8	7
556	Urchin-like CoNiO <sub>2</sub> microspheres supported on reduced graphene oxide with N and S co-doped for overall water splitting with trace load as the bifunctional electrocatalyst. Journal of Alloys and Compounds, 2022, 922, 166254.	2.8	4
557	Understanding of Oxygen Redox in the Oxygen Evolution Reaction. Advanced Materials, 2022, 34, .	11.1	109
558	Self-Supported Bimetallic Phosphide Heterojunction-Integrated Electrode Promoting High-Performance Alkaline Anion-Exchange Membrane Water Electrolysis. ACS Sustainable Chemistry and Engineering, 2022, 10, 9956-9968.	3.2	16
559	Oneâ€“Pot Synthesis of Nitrateâ€“Intercalated NiFe Layered Double Hydroxides with an 8.2 Å... Interlayer Spacing. Advanced Materials Interfaces, 2022, 9, .	1.9	3
560	Single-phase bimetal sulfide or metal sulfide heterojunction: Which one is better for reversible oxygen electrocatalyst?. Journal of Energy Chemistry, 2022, 74, 420-428.	7.1	27
561	Advances and challenges in two-dimensional materials for oxygen evolution. Nano Research, 2022, 15, 8714-8750.	5.8	53
562	Enhanced Electrocatalytic Reduction of Nitrate on Two-Dimensional Bimetallic Cu/Fe Metal-Organic Frameworks. SSRN Electronic Journal, 0, , .	0.4	0

#	ARTICLE	IF	CITATIONS
563	Ultrafast transformation of metal-organic frameworks into advanced oxygen evolution electrocatalysts with good universality and scalability. <i>Journal of Materials Chemistry A</i> , 2022, 10, 17552-17560.	5.2	9
564	Artificially steering electrocatalytic oxygen evolution reaction mechanism by regulating oxygen defect contents in perovskites. <i>Science Advances</i> , 2022, 8, .	4.7	54
565	Synergizing high valence metal sites and amorphous/crystalline interfaces in electrochemical reconstructed CoFeOOH heterostructure enables efficient oxygen evolution reaction. <i>Nano Research</i> , 2022, 15, 8857-8864.	5.8	13
566	Synergistic Incorporating RuO <sub>2</sub> and NiFeOOH Layers onto Ni <sub>3</sub> S <sub>2</sub> Nanoflakes with Modulated Electron Structure for Efficient Water Splitting. <i>Small Methods</i> , 2022, 6, .	4.6	15
567	A bipolar hydrogen production electrolysis system. <i>Science Bulletin</i> , 2022, 67, 1713-1715.	4.3	1
568	Probing Dynamic Self-Reconstruction on Perovskite Fluorides toward Ultrafast Oxygen Evolution. <i>Advanced Science</i> , 2022, 9, .	5.6	19
569	Dynamics of Both Active Phase and Catalysis Pathway for Spinel Water Oxidation Catalysts. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	21
570	Dense Heterointerfaces and Unsaturated Coordination Synergistically Accelerate Electrocatalysis in Pt/Pt <sub>5</sub> P <sub>2</sub> Porous Nanocages. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	23
571	Combined Corner-Sharing and Edge-Sharing Networks in Hybrid Nanocomposite with Unusual Lattice-Oxygen Activation for Efficient Water Oxidation. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	26
572	Strain Modified Oxygen Evolution Reaction Performance in Epitaxial, Freestanding, and Van Der Waals Manganite Thin Films. <i>Nano Letters</i> , 2022, 22, 7066-7072.	4.5	9
573	Abundant Dislocation Layered Double Hydroxides Synthesis by Molten Salt with Bound Water Boosting Oxygen Evolution. <i>Small</i> , 2022, 18, .	5.2	5
574	Dual-Scale Integration Design of Sn-ZnO Catalyst toward Efficient and Stable CO <sub>2</sub> Electroreduction. <i>Advanced Materials</i> , 2022, 34, .	11.1	28
575	Tuning the Surface Wettability of a BiVO <sub>4</sub> Photoanode for Kinetically Modulating Water Oxidative H <sub>2</sub> O <sub>2</sub> Accumulation. <i>ACS Energy Letters</i> , 2022, 7, 3024-3031.	8.8	24
576	Co <sub>3</sub> S <sub>4</sub> /Fe <sub>3</sub> S <sub>4</sub> heterostructured bifunctional catalyst evolved from CoFe LDH for effective overall water splitting in alkaline solution. <i>Journal of Alloys and Compounds</i> , 2022, 925, 166787.	2.8	10
577	Highly efficient oxygen evolution reaction enabled by phosphorus-boron facilitating surface reconstruction of amorphous high-entropy materials. <i>Journal of Colloid and Interface Science</i> , 2022, 628, 242-251.	5.0	12
578	Synthesis of Mo-doped NiFe-phosphate hollow bird-nest architecture for efficient and stable seawater electrolysis. <i>Applied Surface Science</i> , 2022, 604, 154588.	3.1	6
579	Structural engineering and electronic state tuning optimization of molybdenum-doped cobalt hydroxide nanosheet self-assembled hierarchical microtubules for efficient electrocatalytic oxygen evolution. <i>Journal of Colloid and Interface Science</i> , 2022, 628, 398-406.	5.0	5
580	The critical role of A, B-site cations and oxygen vacancies on the OER electrocatalytic performances of Bi <sub>0.15</sub> Sr <sub>0.85</sub> Co <sub>1-x</sub> Fe <sub>x</sub> O <sub>3-δ</sub> (0.2 ≤ x ≤ 1) perovskites in alkaline media. <i>Chemical Engineering Journal</i> , 2023, 451, 138646.		16

#	ARTICLE	IF	CITATIONS
581	Regulating Ru-based double perovskite against lattice oxygen oxidation by incorporating Ir for efficient and stable acidic oxygen evolution reaction. <i>Applied Surface Science</i> , 2022, 605, 154727.	3.1	14
582	Defect structure regulation and mass transfer improvement of cobalt-based oxides for enhanced oxygen evolution reaction. <i>Journal of Alloys and Compounds</i> , 2022, 928, 167210.	2.8	7
583	Ferric ions leached from Fe-based catalyst to trigger the dynamic surface reconstruction of nickel foam for high-efficient OER activity. <i>Applied Catalysis B: Environmental</i> , 2022, 319, 121921.	10.8	28
584	“Uncapped” metal-organic framework (MOF) dispersions driven by O <sub>2</sub> plasma towards superior oxygen evolution electrocatalysis. <i>Journal of Materials Chemistry A</i> , 2022, 10, 20813-20818.	5.2	5
585	Optimal rule-of-thumb design of NiFeMo layered double hydroxide nanoflakes for highly efficient and durable overall water-splitting at large currents. <i>Journal of Materials Chemistry A</i> , 2022, 10, 20497-20508.	5.2	21
586	Alkali metal-mediated interfacial charge redistribution toward near-optimal water oxidation. <i>Journal of Materials Chemistry A</i> , 0, , .	5.2	0
587	Electrocatalyst design for the conversion of energy molecules: electronic state modulation and mass transport regulation. <i>Chemical Communications</i> , 2022, 58, 10907-10924.	2.2	11
588	Rapid Fabrication of NiFe(OH)X/Fe <sub>0.2</sub> Co-Se Complexes for Oxygen Evolution Reaction Electrocatalysis. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
589	Theory and Computation in Photo-Electro-Chemical Catalysis: Highlights, Challenges, and Prospects. <i>Engineering Materials</i> , 2022, , 3-43.	0.3	0
590	Unveiling the role of counter-anions in amorphous transition metal-based oxygen evolution electrocatalysts. <i>Applied Catalysis B: Environmental</i> , 2023, 320, 121988.	10.8	21
591	Binary Layered Double Hydroxide Electrode Array Synthesized via Metal Alloy Corrosion for Oxygen Evolution Reaction. <i>ACS Applied Energy Materials</i> , 2022, 5, 10883-10890.	2.5	3
592	Ge-Doped Cobalt Oxide for Electrocatalytic and Photocatalytic Water Splitting. <i>ACS Catalysis</i> , 2022, 12, 12000-12013.	5.5	58
593	High-Entropy Catalyst—A Novel Platform for Electrochemical Water Splitting. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	35
594	Recent Advances on Perovskite Electrocatalysts for Water Oxidation in Alkaline Medium. <i>Energy &amp; Fuels</i> , 2022, 36, 11724-11744.	2.5	7
595	Recent Progress in Developing a LiOH-Based Reversible Nonaqueous Lithium-Air Battery. <i>Advanced Materials</i> , 2023, 35, .	11.1	7
596	Optimized NiFe-Based Coordination Polymer Catalysts: Sulfur-Tuning and Operando Monitoring of Water Oxidation. <i>ACS Nano</i> , 2022, 16, 15318-15327.	7.3	12
597	Synthesis of octahedral shaped Mn <sub>3</sub> O <sub>4</sub> and its reduced graphene oxide composite for electrocatalytic oxygen evolution reaction. <i>Catalysis Today</i> , 2023, 423, 113897.	2.2	4
598	Unveiling the role of Ni in Ru-Ni oxide for oxygen evolution: Lattice oxygen participation enhanced by structural distortion. <i>Journal of Energy Chemistry</i> , 2023, 77, 54-61.	7.1	14

#	ARTICLE	IF	CITATIONS
599	Surface-Exposed Single-Ni Atoms with Potential-Driven Dynamic Behaviors for Highly Efficient Electrocatalytic Oxygen Evolution. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	30
600	Scalloped nickel/iron vanadium oxide-coated vanadium dioxides based on chemical etching-induced reconstruction strategy for efficient oxygen evolution. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 33352-33360.	3.8	4
601	Unraveling the Role of Defects in Electrocatalysts for Water Splitting: Recent Advances and Perspectives. <i>Energy &amp; Fuels</i> , 2022, 36, 11660-11690.	2.5	15
602	Surface-Exposed Single-Ni Atoms with Potential-Driven Dynamic Behaviors for Highly Efficient Electrocatalytic Oxygen Evolution. <i>Angewandte Chemie</i> , 0, , .	1.6	0
603	Layered Double Hydroxides for Oxygen Evolution Reaction towards Efficient Hydrogen Generation. <i>Energy Material Advances</i> , 2022, 2022, .	4.7	16
604	Electronic and Nano-structural Modulation of Co(OH) <sub>2</sub> Nanosheets by Fe-Benzenedicarboxylate for Efficient Oxygen Evolution. <i>Chemical Research in Chinese Universities</i> , 2023, 39, 219-223.	1.3	4
605	Modulating hydrogen bonding in single-atom catalysts to break scaling relation for oxygen evolution. <i>Chem Catalysis</i> , 2022, 2, 2764-2777.	2.9	10
606	Regulating the interfacial charge transfer and constructing symmetry-breaking sites for the enhanced N <sub>2</sub> electroreduction activity. , 2023, 5, .		13
607	High valence metals engineering strategies of Fe/Co/Ni-based catalysts for boosted OER electrocatalysis. <i>Journal of Energy Chemistry</i> , 2023, 76, 195-213.	7.1	114
608	Cation Defect Engineering of Transition Metal Electrocatalysts for Oxygen Evolution Reaction. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	61
609	Continuous CO <sub>2</sub> electrolysis using a CO <sub>2</sub> exsolution-induced flow cell. <i>Nature Energy</i> , 2022, 7, 978-988.	19.8	60
610	Sulfur induced surface reconfiguration of Ni <sub>1</sub> Cu <sub>3</sub> S-T/CP anode for high-efficiency ammonia electro-oxidation. <i>Chemical Engineering Journal</i> , 2023, 452, 139582.	6.6	18
611	Coupling of nanocrystal hexagonal array and two-dimensional metastable substrate boosts H <sub>2</sub> -production. <i>Nature Communications</i> , 2022, 13, .	5.8	22
612	Multi-heterointerfaces for selective and efficient urea production. <i>National Science Review</i> , 2023, 10, .	4.6	52
613	Identifying and Interpreting Geometric Configuration-Dependent Activity of Spinel Catalysts for Water Reduction. <i>Journal of the American Chemical Society</i> , 2022, 144, 19163-19172.	6.6	34
614	Effective Formation of a Mn-ZIF-67 Nanofibrous Network via Electrospinning: An Active Electrocatalyst for OER in Alkaline Medium. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 46581-46594.	4.0	14
615	Non-metal/metalloid modification of perovskite oxide enables lattice oxygen participation in accelerating oxygen evolution activity. <i>International Journal of Hydrogen Energy</i> , 2022, , .	3.8	2
616	Interfacial stress induced by the adaptive construction of hydrangea-like heterojunctions based on <i>in situ</i> electrochemical phase reconfiguration for highly efficient oxygen evolution reaction at high current density. <i>Journal of Materials Chemistry A</i> , 2022, 10, 23580-23589.	5.2	10



#	ARTICLE	IF	CITATIONS
617	Lattice Oxygen Activation in NiFe (Oxy)hydroxide using Se. Korean Journal of Materials Research, 2022, 32, 339-344.	0.1	1
618	Simultaneously Improved Surface and Bulk Participation of Evolved Perovskite Oxide for Boosting Oxygen Evolution Reaction Activity Using a Dynamic Cation Exchange Strategy. Small, 2022, 18, .	5.2	9
619	Constructing Air-Stable and Reconstruction-Inhibited Transition Metal Sulfide Catalysts via Tailoring Electron-Deficient Distribution for Water Oxidation. ACS Catalysis, 2022, 12, 13234-13246.	5.5	37
620	Pivotal role of reversible NiO <sub>6</sub> geometric conversion in oxygen evolution. Nature, 2022, 611, 702-708.	13.7	119
621	Orbital Occupancy and Spin Polarization: From Mechanistic Study to Rational Design of Transition Metal-Based Electrocatalysts toward Energy Applications. ACS Nano, 2022, 16, 17847-17890.	7.3	48
622	A hybrid of Co <sub>3</sub> O <sub>4</sub> nanoparticles coupled with B, Co/N-codoped C@B <sub>4</sub> C as an efficient bifunctional catalyst for oxygen reduction and oxygen evolution reactions. International Journal of Hydrogen Energy, 2023, 48, 542-552.	3.8	5
623	Recommended practices and benchmarking of foam electrodes in water splitting. Trends in Chemistry, 2022, 4, 1065-1077.	4.4	10
624	Reconstruction of Thiospinel to Active Sites and Spin Channels for Water Oxidation. Advanced Materials, 2023, 35, .	11.1	27
625	Effects of Cationic and Anionic Defects on NiFe LDH in Electrocatalytic Oxygen Evolution. ACS Sustainable Chemistry and Engineering, 2022, 10, 14474-14485.	3.2	16
626	Exceptional catalytic activity of oxygen evolution reaction via two-dimensional graphene multilayer confined metal-organic frameworks. Nature Communications, 2022, 13, .	5.8	63
627	Probing the activity origin of the enhanced methanol electrooxidation on Ni-induced Pd <sub>Ni</sub> (OH) <sub>y</sub> -TaN/C catalyst with nitrogen vacancies. Applied Catalysis B: Environmental, 2023, 322, 122142.	10.8	7
628	Active bimetallic Fe-Co sites built on 2D trimetallic complex spinel oxides for industrially oxygen evolution electrocatalyst. Materials Today Chemistry, 2022, 26, 101214.	1.7	2
629	Hierarchical porous structured trimetallic non-oxides CoFeMo-A (A= P, Se) as electrocatalysts for oxygen evolution reaction. Journal of Alloys and Compounds, 2023, 932, 167538.	2.8	7
630	Upcycling contaminated biomass into metal-supported heterogeneous catalyst for electro-Fenton degradation of thiamethoxam: Preparation, mechanisms, and implications. Chemical Engineering Journal, 2023, 453, 139814.	6.6	10
631	Bimetallic co-doping engineering over nickel-based oxy-hydroxide enables high-performance electrocatalytic oxygen evolution. Journal of Colloid and Interface Science, 2023, 631, 173-181.	5.0	7
632	Tailoring of Active Sites from Single to Dual Atom Sites for Highly Efficient Electrocatalysis. ACS Nano, 2022, 16, 17572-17592.	7.3	59
633	2D Schottky heterostructure coupling of FeS nanosheets and Co <sub>9</sub> S <sub>8</sub> nanoparticles for long-term industrial-level water oxidation. Nano Research, 2023, 16, 5929-5937.	5.8	8
634	In Situ Reconstruction Ni <sub>2</sub> O Octahedral Active Sites for Promoting Electrocatalytic Oxygen Evolution of Nickel Phosphate. Small, 2023, 19, .	5.2	5



#	ARTICLE	IF	CITATIONS
635	Bioinspired and Bioderived Aqueous Electrocatalysis. <i>Chemical Reviews</i> , 2023, 123, 2311-2348.	23.0	22
636	Identifying the geometric catalytic active sites of crystalline cobalt oxyhydroxides for oxygen evolution reaction. <i>Nature Communications</i> , 2022, 13, .	5.8	36
637	Modulation to favorable surface adsorption energy for oxygen evolution reaction intermediates over carbon-tunable alloys towards sustainable hydrogen production. <i>Materials for Renewable and Sustainable Energy</i> , 2022, 11, 169-213.	1.5	3
638	Highly Stable Two-Dimensional Cluster-Based Ni/Co Organic Layers for High-Performance Supercapacitors. <i>Inorganic Chemistry</i> , 2022, 61, 18743-18751.	1.9	5
639	Progress of Heterogeneous Iridium-Based Water Oxidation Catalysts. <i>ACS Nano</i> , 2022, 16, 17761-17777.	7.3	29
640	Laser irradiation synthesized carbon encapsulating ultrafine transition metal nanoparticles for highly efficient oxygen evolution. <i>Journal of Electroanalytical Chemistry</i> , 2023, 928, 117007.	1.9	1
641	Cobalt containing bimetallic ZIFs and their derivatives as OER electrocatalysts: A critical review. <i>Coordination Chemistry Reviews</i> , 2023, 477, 214925.	9.5	32
642	Self-reconstruction of highly active NiCo <sub>2</sub> O <sub>4</sub> with triple-continuous transfer of electrons, ions, and oxygen for Zn-air batteries. <i>Chemical Engineering Journal</i> , 2023, 455, 140855.	6.6	9
643	Nitrogen-doped carbon fibers loaded with Co/Co <sub>2</sub> Mn <sub>3</sub> O <sub>8</sub> alloy nanoparticles as bifunctional oxygen electrocatalysts for rechargeable zinc-air batteries. <i>Journal of Alloys and Compounds</i> , 2023, 936, 168210.	2.8	3
644	Iridium single-atom catalyst coupled with lattice oxygen activated CoNi <sub>2</sub> for accelerating the oxygen evolution reaction. <i>Journal of Materials Chemistry A</i> , 2022, 10, 25692-25700.	5.2	13
645	Enabling Lattice Oxygen Participation in a Triple Perovskite Oxide Electrocatalyst for the Oxygen Evolution Reaction. <i>ACS Energy Letters</i> , 2023, 8, 565-573.	8.8	23
646	Self-Reconstruction of Single-Atom-Thick A Layers in Nanolaminated MAX Phases for Enhanced Oxygen Evolution. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	5
647	Sulfate-Decorated Amorphous-Crystalline Cobalt-Iron Oxide Nanosheets to Enhance O-O Coupling in the Oxygen Evolution Reaction. <i>ACS Nano</i> , 2023, 17, 825-836.	7.3	38
648	High-Performance Oxygen Evolution Reaction Electrocatalysts Discovered via High-Throughput Aerogel Synthesis. <i>ACS Catalysis</i> , 2023, 13, 601-611.	5.5	5
649	Magnetoelectric Coupling for Metal-Air Batteries. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	8
650	Synchronous regulation of morphology and electronic structure of FeNi-P nanosheet arrays by Zn implantation for robust overall water splitting. <i>Nano Research</i> , 2023, 16, 5733-5742.	5.8	4
651	Bimetallic-Based Electrocatalysts for Oxygen Evolution Reaction. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	31
652	Iridium single atoms incorporated in Co <sub>3</sub> O <sub>4</sub> efficiently catalyze the oxygen evolution in acidic conditions. <i>Nature Communications</i> , 2022, 13, .	5.8	72

#	ARTICLE	IF	CITATIONS
653	Advances in Selective Electrochemical Oxidation of 5-Hydroxymethylfurfural to Produce High-Value Chemicals. <i>Advanced Science</i> , 2023, 10, .	5.6	26
654	Ru-Substituted MnO <sub>2</sub> for Accelerated Water Oxidation: The Feedback of Strain-Induced and Polymorph-Dependent Structural Changes to the Catalytic Activity and Mechanism. <i>ACS Catalysis</i> , 2023, 13, 256-266.	5.5	15
655	Molecule-Enhanced Electrocatalysis of Sustainable Oxygen Evolution Using Organoselenium Functionalized Metal-Organic Nanosheets. <i>Journal of the American Chemical Society</i> , 2023, 145, 1144-1154.	6.6	16
656	Identification of the Origin for Reconstructed Active Sites on Oxyhydroxide for Oxygen Evolution Reaction. <i>Advanced Materials</i> , 2023, 35, .	11.1	54
657	Metal Single-Site Molecular Complex-MXene Heteroelectrocatalysts Interspersed Graphene Nanonetwork for Efficient Dual-Task of Water Splitting and Metal-Air Batteries. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	16
658	Development of Anion Exchange Membrane Water Electrolysis and the Associated Challenges: A Review. <i>ChemElectroChem</i> , 2023, 10, .	1.7	15
659	Ruthenium-doped 3D Cu <sub>2</sub> O nanochains as efficient electrocatalyst towards hydrogen evolution and hydrazine oxidation. <i>Applied Catalysis B: Environmental</i> , 2023, 325, 122305.	10.8	69
660	Boosting NiFe-LDH by ruthenium dioxide for effective overall water splitting. <i>International Journal of Hydrogen Energy</i> , 2023, 48, 8888-8897.	3.8	7
661	Switchable metal and oxygen redox chemistry for highly-efficient oxygen evolution reaction. , 2023, 2, 100044.		1
662	Charge-transfer-regulated bimetal ferrocene-based organic frameworks for promoting electrocatalytic oxygen evolution. , 2023, 5, .		18
663	Recent advances in Ru-based electrocatalysts for oxygen evolution reaction. <i>Journal of Materials Chemistry A</i> , 2023, 11, 1634-1650.	5.2	33
664	Electrochemical Oxidation of 5-Hydroxymethylfurfural on CeO <sub>2</sub> -Modified Co <sub>3</sub> O <sub>4</sub> with Regulated Intermediate Adsorption and Promoted Charge Transfer. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	30
665	Mechanisms of Oxygen Evolution Reaction in Metal Oxides: Adsorbate Evolution Mechanism versus Lattice Oxygen Mechanism. , 0, 2, .		0
666	Surface Reconstruction of Iron-Cobalt-Nickel Phosphides to Achieve High-Current-Density Water Oxidation Performance. <i>ACS Applied Energy Materials</i> , 2023, 6, 692-701.	2.5	8
667	Directing in-situ self-optimization of single-atom catalysts for improved oxygen evolution. <i>Journal of Energy Chemistry</i> , 2023, 80, 284-290.	7.1	3
668	Acidic oxygen evolution reaction: Mechanism, catalyst classification, and enhancement strategies. , 2023, 2, 53-90.		36
669	Cobalt single atom anchored on N-doped carbon nanoboxes as typical single-atom catalysts (SACs) for boosting the overall water splitting. <i>Chemical Engineering Journal</i> , 2023, 458, 141435.	6.6	27
670	Regulation of electronic structure in medium-entropy metal sulfides nanoparticles as highly efficient bifunctional electrocatalysts for zinc-air battery. <i>Applied Catalysis B: Environmental</i> , 2023, 325, 122356.	10.8	21

#	ARTICLE	IF	CITATIONS
671	Tuning OER Electrocatalysts toward LOM Pathway through the Lens of Multi-Descriptor Feature Selection by Artificial Intelligence-Based Approach. , 2023, 5, 299-320.		10
672	Modern Technologies of Hydrogen Production. Processes, 2023, 11, 56.	1.3	17
673	Advances and status of anode catalysts for proton exchange membrane water electrolysis technology. Materials Chemistry Frontiers, 2023, 7, 1025-1045.	3.2	19
674	Lattice Oxygen Activation for Enhanced Electrochemical Oxygen Evolution. Journal of Physical Chemistry C, 2023, 127, 2147-2159.	1.5	6
675	Participation of Lattice Oxygen in Perovskite Oxide as a Highly Sensitive Sensor for p-Phenylenediamine Detection. Molecules, 2023, 28, 1122.	1.7	3
676	The coupling effect of carbon spheres and cobalt-involved carbon nitrides stacked on TiO <sub>2</sub> nanorod arrays for promoted solar water oxidation. International Journal of Hydrogen Energy, 2023, 48, 16690-16703.	3.8	1
677	Tracking the Role of Defect Types in Co <sub>3</sub> O <sub>4</sub> Structural Evolution and Active Motifs during Oxygen Evolution Reaction. Journal of the American Chemical Society, 2023, 145, 2271-2281.	6.6	77
678	Iridium-based electrocatalysts for the acidic oxygen evolution reaction: engineering strategies to enhance the activity and stability. Materials Chemistry Frontiers, 2023, 7, 1248-1267.	3.2	6
679	Customized reaction route for ruthenium oxide towards stabilized water oxidation in high-performance PEM electrolyzers. Nature Communications, 2023, 14, .	5.8	66
680	Unveiling the role of trace metal doping in transition metal oxides for boosting oxygen evolution reaction. Journal of Materials Science, 2023, 58, 5234-5243.	1.7	0
681	Unveiling the Position Effect of Ce within Layered MnO <sub>2</sub> to Prolong the Ambient Removal of Indoor HCHO. Environmental Science & Technology, 2023, 57, 4598-4607.	4.6	12
682	Recent advances in developing multiscale descriptor approach for the design of oxygen redox electrocatalysts. IScience, 2023, 26, 106624.	1.9	3
683	Activating Lattice Oxygen in Spinel ZnCo <sub>2</sub> O <sub>4</sub> through Filling Oxygen Vacancies with Fluorine for Electrocatalytic Oxygen Evolution. Angewandte Chemie, 2023, 135, .	1.6	9
684	Simultaneously mastering operando strain and reconstruction effects via phase-segregation strategy for enhanced oxygen-evolving electrocatalysis. Journal of Energy Chemistry, 2023, 82, 572-580.	7.1	36
685	Competition between Lattice Oxygen and Adsorbate Evolving Mechanisms in Rutile Ru-Based Oxide for the Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2023, 15, 20563-20570.	4.0	12
686	Tailoring Ni-Fe-Se film on Ni foam via electrodeposition optimization for efficient oxygen evolution reaction. Electrochimica Acta, 2023, 451, 142294.	2.6	4
687	Production of furan chemicals from contaminated biomass using hydrothermal-assisted activated persulfate strategy: Exploring the critical role of heavy metals on products. Chemical Engineering Journal, 2023, 464, 142594.	6.6	3
688	Metal-oxoacid-mediated oxyhydroxide with proton acceptor to break adsorption energy scaling relation for efficient oxygen evolution. Journal of Energy Chemistry, 2023, 80, 594-602.	7.1	7

#	ARTICLE	IF	CITATIONS
689	Electrocatalytic oxygen evolution activities of metal chalcogenides and phosphides: Fundamentals, origins, and future strategies. <i>Journal of Energy Chemistry</i> , 2023, 81, 167-191.	7.1	31
690	Electrochemical refining of long-chain biomass saccharide to high-value d-glucaric acid by preferential 1,4-glycosidic bond cleavage. <i>Applied Surface Science</i> , 2023, 623, 157046.	3.1	0
691	Charge redistribution in FeOOH nanoarray by ecological oxygen-reduction deposition for boosting electrocatalytic water oxidation. <i>Applied Catalysis B: Environmental</i> , 2023, 330, 122595.	10.8	9
692	Self-supported iridium-ruthenium oxides catalysts with enriched phase interfaces for boosting oxygen evolution reaction in acid. <i>Applied Surface Science</i> , 2023, 622, 156945.	3.1	6
693	Spectroscopically unraveling high-valence Ni-Fe catalytic synergism in NiSe <sub>2</sub> /FeSe <sub>2</sub> heterostructure. <i>Applied Catalysis B: Environmental</i> , 2023, 330, 122600.	10.8	10
694	Loose spherical FeOOH/MnO nanoarrays from a simple in situ hydrothermal method for enhanced oxygen evolution electrocatalysis. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2023, 665, 131228.	2.3	4
695	Activated FeS <sub>2</sub> @NiS <sub>2</sub> Core-Shell Structure Boosting Cascade Reaction for Superior Electrocatalytic Oxygen Evolution. <i>Small</i> , 2023, 19, .	5.2	11
696	Rational Design of NiZn <sub>2</sub> @CuO Nanoarray Architectures for Electrocatalytic Oxidation of Methanol. <i>ACS Applied Materials &amp; Interfaces</i> , 0, .	4.0	2
697	Single-Atom-Mediated Spinel Octahedral Structures for Elevated Performances of Li-Oxygen Batteries. <i>Angewandte Chemie - International Edition</i> , 2023, 62, .	7.2	8
698	Single-Atom-Mediated Spinel Octahedral Structures for Elevated Performances of Li-Oxygen Batteries. <i>Angewandte Chemie</i> , 2023, 135, .	1.6	2
699	Identification of Active Sites Formed on Cobalt Oxyhydroxide in Glucose Electrooxidation. <i>Angewandte Chemie</i> , 2023, 135, .	1.6	5
700	Identification of Active Sites Formed on Cobalt Oxyhydroxide in Glucose Electrooxidation. <i>Angewandte Chemie - International Edition</i> , 2023, 62, .	7.2	16
701	Achieving Efficient Electrocatalytic Oxygen Evolution in Acidic Media on Yttrium Ruthenate Pyrochlore through Cobalt Incorporation. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	25
702	Hybrid Heterostructure Ni <sub>3</sub> N NiFeP/FF Self-Supporting Electrode for High-Current-Density Alkaline Water Electrolysis. <i>Small Methods</i> , 2023, 7, .	4.6	11
703	Recent Advances on Transition-Metal-Based Layered Double Hydroxides Nanosheets for Electrocatalytic Energy Conversion. <i>Advanced Science</i> , 2023, 10, .	5.6	30
704	Bimetallic Pt-Hg Aerogels for Electrocatalytic Upgrading of Ethanol to Acetate. <i>Small</i> , 2023, 19, .	5.2	5
705	Recent advances and future prospects on Ni <sub>3</sub> S <sub>2</sub> -Based electrocatalysts for efficient alkaline water electrolysis. <i>Green Energy and Environment</i> , 2024, 9, 659-683.	4.7	1
706	Electrolysis Synthesis of Carbides and Carbon Dioxide Capture in Molten Salts. <i>Small</i> , 2023, 19, .	5.2	4

#	ARTICLE	IF	CITATIONS
707	Controlled synthesis of MOF-derived hollow and yolk-shell nanocages for improved water oxidation and selective ethylene glycol reformation. <i>EScience</i> , 2023, 3, 100118.	25.0	18
708	Phase shuttling-enhanced electrochemical ozone production. , 2023, 1, 301-311.		5
709	Unraveling oxygen vacancy site mechanism of Rh-doped RuO <sub>2</sub> catalyst for long-lasting acidic water oxidation. <i>Nature Communications</i> , 2023, 14, .	5.8	63
711	Mechanistic Regulation by Oxygen Vacancies in Structural Evolution Promoting Electrocatalytic Water Oxidation. <i>ACS Catalysis</i> , 2023, 13, 4398-4408.	5.5	7
712	Interfacial Engineering of Bimetallic Ni/Co-MOFs with H-Substituted Graphdiyne for Ammonia Electrosynthesis from Nitrate. <i>ACS Nano</i> , 2023, 17, 6687-6697.	7.3	18
713	Synthesis of FeOOH scaly hollow tubes based on Cu <sub>2</sub> O wire templates toward high-efficiency oxygen evolution reaction. <i>Rare Metals</i> , 2023, 42, 1836-1846.	3.6	6
714	Trends and Prospects of Bulk and Single-Atom Catalysts for the Oxygen Evolution Reaction. <i>Advanced Energy Materials</i> , 2023, 13, .	10.2	25
715	Activating Lattice Oxygen in Spinel ZnCo <sub>2</sub> O <sub>4</sub> through Filling Oxygen Vacancies with Fluorine for Electrocatalytic Oxygen Evolution. <i>Angewandte Chemie - International Edition</i> , 2023, 62, .	7.2	54
716	Light-Driven Orderly Assembly of Ir-Atomic Chains to Integrate a Dynamic Reaction Pathway for Acidic Oxygen Evolution. <i>Angewandte Chemie</i> , 2023, 135, .	1.6	0
717	Light-Driven Orderly Assembly of Ir-Atomic Chains to Integrate a Dynamic Reaction Pathway for Acidic Oxygen Evolution. <i>Angewandte Chemie - International Edition</i> , 2023, 62, .	7.2	10
718	Oxygen Evolution/Reduction Reaction Catalysts: From <i>In Situ</i> Monitoring and Reaction Mechanisms to Rational Design. <i>Chemical Reviews</i> , 2023, 123, 6257-6358.	23.0	81
719	Remote Synergy between Heterogeneous Single Atoms and Clusters for Enhanced Oxygen Evolution. <i>Nano Letters</i> , 2023, 23, 3309-3316.	4.5	17
720	Polysulfide-Induced Synthesis of Coral-Like MoS <sub>2</sub> /NiS <sub>2</sub> Nanostructures for Overall Water Splitting. <i>ACS Applied Nano Materials</i> , 2023, 6, 5136-5144.	2.4	3
721	Atomic design of carbon-based dual-metal site catalysts for energy applications. <i>Nano Research</i> , 2023, 16, 6477-6506.	5.8	25
722	High-Density Cationic Defects Coupling with Local Alkaline-Enriched Environment for Efficient and Stable Water Oxidation. <i>Angewandte Chemie - International Edition</i> , 2023, 62, .	7.2	8
723	High-Density Cationic Defects Coupling with Local Alkaline-Enriched Environment for Efficient and Stable Water Oxidation. <i>Angewandte Chemie</i> , 2023, 135, .	1.6	2
724	Heterostructure iron selenide/cobalt phosphide films grown on nickel foam for oxygen evolution. <i>Journal of Materials Chemistry A</i> , 2023, 11, 8330-8341.	5.2	3
725	Ex Situ Reconstruction-Shaped Ir/CoO/Perovskite Heterojunction for Boosted Water Oxidation Reaction. <i>ACS Catalysis</i> , 2023, 13, 5007-5019.	5.5	14

#	ARTICLE	IF	CITATIONS
726	Halogen chlorine triggered oxygen vacancy-rich Ni(OH) <sub>2</sub> with enhanced reaction kinetics for pseudocapacitive energy storage. <i>Journal of Energy Chemistry</i> , 2023, 82, 296-306.	7.1	6
727	Hydrogen Dissociation Reaction on First-Row Transition Metal Doped Nanobelts. <i>Materials</i> , 2023, 16, 2792.	1.3	5
728	Electrocatalytic water splitting: Mechanism and electrocatalyst design. <i>Nano Research</i> , 2023, 16, 9142-9157.	5.8	39
729	Recent progress of two-dimensional metal-organic-frameworks: From synthesis to electrocatalytic oxygen evolution. <i>Nano Research</i> , 2023, 16, 8614-8637.	5.8	6
730	Ce Site in Amorphous Iron Oxyhydroxide Nanosheet toward Enhanced Electrochemical Water Oxidation. <i>Small</i> , 0, .	5.2	2
731	Regulating electronic states of nitride/hydroxide to accelerate kinetics for oxygen evolution at large current density. <i>Nature Communications</i> , 2023, 14, .	5.8	73
732	Atomically dispersed Ru oxide catalyst with lattice oxygen participation for efficient acidic water oxidation. <i>CheM</i> , 2023, 9, 1882-1896.	5.8	32
733	Interface engineering and heterometal doping Co@Mo/FeS for oxygen evolution reaction. <i>International Journal of Hydrogen Energy</i> , 2023, 48, 25730-25740.	3.8	3
734	Transition Metal-Doped C <sub>20</sub> Fullerene-Based Single-Atom Catalysts with High Catalytic Activity for Hydrogen Dissociation Reaction. <i>ACS Omega</i> , 2023, 8, 14077-14088.	1.6	5
735	Constructing Built-in Electric Field in Heterogeneous Nanowire Arrays for Efficient Overall Water Electrolysis. <i>Angewandte Chemie - International Edition</i> , 2023, 62, .	7.2	55
736	Constructing Built-in Electric Field in Heterogeneous Nanowire Arrays for Efficient Overall Water Electrolysis. <i>Angewandte Chemie</i> , 2023, 135, .	1.6	12
737	Key concepts for understanding alkaline oxygen evolution reaction at the atomic/molecular scale. <i>Current Opinion in Electrochemistry</i> , 2023, 39, 101298.	2.5	3
738	Evolution of Intermediates on Metal Oxide Photoanodes in a Full pH Range. <i>ACS Catalysis</i> , 2023, 13, 5841-5849.	5.5	2
739	Highly Efficient Spatial Three-Level CoP@ZIF-8/pNF Based on Modified Porous NF as Dual Functional Electrocatalyst for Water Splitting. <i>Nanomaterials</i> , 2023, 13, 1386.	1.9	2
740	Reinforcing Co <sub>2</sub> O Covalency via Ce(4f)→O(2p)→Co(3d) Gradient Orbital Coupling for High-Efficiency Oxygen Evolution. <i>Advanced Materials</i> , 2023, 35, .	11.1	62
752	Surface self-reconstruction of catalysts in electrocatalytic oxygen evolution reaction. , 2024, , 316-327.		0
760	Regulation engineering of the surface and structure of perovskite-based electrocatalysts for the oxygen evolution reaction. <i>Materials Chemistry Frontiers</i> , 2023, 7, 4236-4258.	3.2	3
784	Recent Progress of Amorphous Nanomaterials. <i>Chemical Reviews</i> , 2023, 123, 8859-8941.	23.0	29



#	ARTICLE	IF	CITATIONS
809	Non-precious metal-based catalysts for water electrolysis to produce H <sub>2</sub> under industrial conditions. <i>Materials Chemistry Frontiers</i> , 2023, 7, 5661-5692.	3.2	3
813	Recent Advances in the Comprehension and Regulation of Lattice Oxygen Oxidation Mechanism in Oxygen Evolution Reaction. <i>Transactions of Tianjin University</i> , 2023, 29, 247-253.	3.3	1
825	Recent advances in the rational design of alkaline OER catalysts: from electronic structures to industrial applications. <i>Materials Chemistry Frontiers</i> , 2023, 7, 5187-5214.	3.2	4
876	Advances in the mechanism investigation for the oxygen evolution reaction: fundamental theory and monitoring techniques. <i>Materials Chemistry Frontiers</i> , 2024, 8, 603-626.	3.2	1
884	Recent progress of cobalt-based electrocatalysts for water splitting: Electron modulation, surface reconstitution, and applications. <i>Nano Research</i> , 0, , .	5.8	0
894	Recent progress in bimetallic carbide-based electrocatalysts for water splitting. <i>Materials Chemistry Frontiers</i> , 2024, 8, 627-651.	3.2	3
907	Rare earth oxide based electrocatalysts: synthesis, properties and applications. <i>Chemical Society Reviews</i> , 2024, 53, 714-763.	18.7	2
941	Computational chemistry for water-splitting electrocatalysis. <i>Chemical Society Reviews</i> , 2024, 53, 2771-2807.	18.7	1
960	Electronic Modulation of Electrocatalysts for Enhanced Water Electrolysis. <i>Materials Horizons</i> , 2024, , 153-175.	0.3	0