

Modulating Electronic Structures of Inorganic Nanomaterials for Electrocatalytic Water Splitting

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Double functionalization of N-doped carbon carved hollow nanocubes with mixed metal phosphides as efficient bifunctional catalysts for electrochemical overall water splitting. <i>Nano Energy</i> , 2019, 65, 103995.	8.2	111
2	N-enriched porous carbon encapsulated bimetallic phosphides with hierarchical structure derived from controlled electrodepositing multilayer ZIFs for electrochemical overall water splitting. <i>Applied Catalysis B: Environmental</i> , 2019, 259, 118053.	10.8	72
3	<i>In situ</i> epitaxial growth of Ag ₃ PO ₄ quantum dots on hematite nanotubes for high photocatalytic activities. <i>Inorganic Chemistry Frontiers</i> , 2019, 6, 2747-2755.	3.0	6
4	2D/2D Heterojunction of Ni ²⁺ /Co ²⁺ /P/Graphdiyne for Optimized Electrocatalytic Overall Water Splitting. <i>ChemCatChem</i> , 2019, 11, 5407-5411.	1.8	22
5	Fe ²⁺ -Doped Layered Double (Ni, Fe) Hydroxides as Efficient Electrocatalysts for Water Splitting and Self-Powered Electrochemical Systems. <i>Small</i> , 2019, 15, e1902551.	5.2	114
6	<i>In situ</i> generated electron-deficient metallic copper as the catalytically active site for enhanced hydrogen production from alkaline formaldehyde solution. <i>Catalysis Science and Technology</i> , 2019, 9, 5292-5300.	2.1	21
7	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
8	Enhanced Electrocatalytic Performance through Body Enrichment of Co-Based Bimetallic Nanoparticles In Situ Embedded Porous N-Doped Carbon Spheres. <i>Small</i> , 2019, 15, e1903395.	5.2	70
9	Nanoporous Al _{0.5} Ni _{0.5} Co _{0.5} Cr _{0.5} Mo High-Entropy Alloy for Record-High Water Splitting Activity in Acidic Environments. <i>Small</i> , 2019, 15, e1904180.	5.2	230
10	Solid-State Conversion Synthesis of Advanced Electrocatalysts for Water Splitting. <i>Chemistry - A European Journal</i> , 2020, 26, 3961-3972.	1.7	8
11	Modulation of Inverse Spinel Fe ₃ O ₄ by Phosphorus Doping as an Industrially Promising Electrocatalyst for Hydrogen Evolution. <i>Advanced Materials</i> , 2019, 31, e1905107.	11.1	225
12	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
13	Theory-Driven Design and Targeting Synthesis of a Highly-Conjugated Basal-Plane 2D Covalent Organic Framework for Metal-Free Electrocatalytic OER. <i>ACS Energy Letters</i> , 2019, 4, 2251-2258.	8.8	124
14	0.2 V Electrolysis Voltage-Driven Alkaline Hydrogen Production with Nitrogen-Doped Carbon Nanobowl-Supported Ultrafine Rh Nanoparticles of 1.4 nm. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 35039-35049.	4.0	27
15	Oxide Passivated CoNi@NC-Supported Ru(OH) _x Cl _y Cluster as Highly Efficient Catalysts for the Oxygen and Hydrogen Evolution. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 17227-17236.	3.2	22
16	Recent Advances and Prospective in Ruthenium-Based Materials for Electrochemical Water Splitting. <i>ACS Catalysis</i> , 2019, 9, 9973-10011.	5.5	491
17	Hierarchical Nanoporous V ₂ O ₃ Nanosheets Anchored with Alloy Nanoparticles for Efficient Electrocatalysis. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 38746-38753.	4.0	32
18	Converting surface-oxidized cobalt phosphides into Co ₂ (P ₂ O ₇)-CoP heterostructures for efficient electrocatalytic hydrogen evolution. <i>Nanotechnology</i> , 2019, 30, 394001.	1.3	10

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19	Ultrafast NaN ₃ -deflagration induced nitrogen vacancy-enriched g-C ₃ N ₄ for tailoring band structures and enhanced photocatalytic performance. <i>Journal of Power Sources</i> , 2019, 434, 226731.	4.0	32
20	Synergistic engineering of architecture and composition in Ni _x Co _{1-x} MoO ₄ @CoMoO ₄ nanobrush arrays towards efficient overall water splitting electrocatalysis. <i>Nanoscale</i> , 2019, 11, 22820-22831.	2.8	37
21	Galvanic replacement mediated 3D porous PtCu nano-frames for enhanced ethylene glycol oxidation. <i>Chemical Communications</i> , 2019, 55, 14526-14529.	2.2	12
22	Size-dependent catalytic activity of cobalt phosphides for hydrogen evolution reaction. <i>Journal of Energy Chemistry</i> , 2020, 43, 121-128.	7.1	51
23	In-situ synthesis strategy for CoM (M = Fe, Ni, Cu) bimetallic nanoparticles decorated N-doped 1D carbon nanotubes/3D porous carbon for electrocatalytic oxygen evolution reaction. <i>Journal of Alloys and Compounds</i> , 2020, 815, 152470.	2.8	43
24	Photocatalytic pure water splitting with high efficiency and value by Pt/porous brookite TiO ₂ nanoflutes. <i>Nano Energy</i> , 2020, 67, 104287.	8.2	124
25	In-situ formed NiS/Ni coupled interface for efficient oxygen evolution and hydrogen evolution. <i>Journal of Materials Science and Technology</i> , 2020, 42, 10-16.	5.6	52
26	Hierarchical porous bimetal-sulfide bi-functional nanocatalysts for hydrogen production by overall water electrolysis. <i>Journal of Colloid and Interface Science</i> , 2020, 560, 426-435.	5.0	38
27	Ce dopant significantly promotes the catalytic activity of Ni foam-supported Ni ₃ S ₂ electrocatalyst for alkaline oxygen evolution reaction. <i>Journal of Power Sources</i> , 2020, 450, 227654.	4.0	51
28	Sulfur doping enhanced desorption of intermediates on NiCoP for efficient alkaline hydrogen evolution. <i>Nanoscale</i> , 2020, 12, 1985-1993.	2.8	66
29	Molybdenum Carbide@Oxide Heterostructures: In Situ Surface Reconfiguration toward Efficient Electrocatalytic Hydrogen Evolution. <i>Angewandte Chemie</i> , 2020, 132, 3572-3576.	1.6	27
30	Molybdenum Carbide@Oxide Heterostructures: In Situ Surface Reconfiguration toward Efficient Electrocatalytic Hydrogen Evolution. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 3544-3548.	7.2	145
31	Temperature-regulated reversible transformation of spinel-to-oxyhydroxide active species for electrocatalytic water oxidation. <i>Journal of Materials Chemistry A</i> , 2020, 8, 1631-1635.	5.2	33
32	Atomic Structure Modification for Electrochemical Nitrogen Reduction to Ammonia. <i>Advanced Energy Materials</i> , 2020, 10, 1903172.	10.2	110
33	CoP Nanoframes as Bifunctional Electrocatalysts for Efficient Overall Water Splitting. <i>ACS Catalysis</i> , 2020, 10, 412-419.	5.5	361
34	Designed Single Atom Bifunctional Electrocatalysts for Overall Water Splitting: Transition Metal Atoms Doped Borophene Nanosheets. <i>ChemPhysChem</i> , 2020, 21, 2651-2659.	1.0	17
35	Enhanced water oxidation activity of 3D porous carbon by incorporation of heterogeneous Ni/NiO nanoparticles. <i>Applied Surface Science</i> , 2020, 530, 147192.	3.1	24
36	Enhanced Bifunctional Catalytic Activity of Cobalt Phosphide Flowers Anchored N-Doped Reduced Graphene Oxide for Hydrogen and Oxygen Evolution. <i>ChemElectroChem</i> , 2020, 7, 3319-3323.	1.7	13

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37	Rational Design of Metal-Organic Frameworks towards Efficient Electrocatalysis. , 2020, 2, 1251-1267.		65
38	Iridium nanorods as a robust and stable bifunctional electrocatalyst for pH-universal water splitting. Applied Catalysis B: Environmental, 2020, 279, 119394.	10.8	90
39	The triple structure design of 2D amorphous Fe-doped indium phosphate nanosheets as a highly efficient electrocatalyst for water oxidation. Journal of Materials Chemistry A, 2020, 8, 18232-18243.	5.2	18
40	Rational design of sustainable transition metal-based bifunctional electrocatalysts for oxygen reduction and evolution reactions. Sustainable Materials and Technologies, 2020, 25, e00204.	1.7	17
41	Lattice-Strain Engineering of Homogeneous NiS _{0.5} Se _{0.5} Core-Shell Nanostructure as a Highly Efficient and Robust Electrocatalyst for Overall Water Splitting. Advanced Materials, 2020, 32, e2000231.	11.1	158
42	Origin of the enhanced oxygen evolution reaction activity and stability of a nitrogen and cerium co-doped CoS ₂ electrocatalyst. Journal of Materials Chemistry A, 2020, 8, 22694-22702.	5.2	23
43	The Catalytic Mechanics of Dynamic Surfaces: Stimulating Methods for Promoting Catalytic Resonance. ACS Catalysis, 2020, 10, 12666-12695.	5.5	54
44	High-Entropy Alloys as a Platform for Catalysis: Progress, Challenges, and Opportunities. ACS Catalysis, 2020, 10, 11280-11306.	5.5	308
45	Nano High-Entropy Materials: Synthesis Strategies and Catalytic Applications. Small Structures, 2020, 1, 2000033.	6.9	80
46	One-pot synthesis of Mn-Fe bimetallic oxide heterostructures as bifunctional electrodes for efficient overall water splitting. Nanoscale, 2020, 12, 19992-20001.	2.8	35
47	Generic synthesis of bimetallic nitride nanopore arrays as efficient electrocatalysts for hydrogen evolution reaction. Electrochimica Acta, 2020, 362, 137222.	2.6	17
48	Heterostructured Inter-Doped Ruthenium-Cobalt Oxide Hollow Nanosheet Arrays for Highly Efficient Overall Water Splitting. Angewandte Chemie, 2020, 132, 17372-17377.	1.6	33
49	Heterostructured Inter-Doped Ruthenium-Cobalt Oxide Hollow Nanosheet Arrays for Highly Efficient Overall Water Splitting. Angewandte Chemie - International Edition, 2020, 59, 17219-17224.	7.2	201
50	Plasma-assisted nitrogen doping in Ni-Co-P hollow nanocubes for efficient hydrogen evolution electrocatalysis. Nanoscale, 2020, 12, 13708-13718.	2.8	28
51	Hierarchical Porous NiS@NiO Nanoarrays in Situ Grown on Nickel Foam as Superior Electrocatalyst for Water Splitting. International Journal of Electrochemical Science, 2020, 15, 3563-3577.	0.5	7
52	Multiple Vacancies on (111) Facets of Single-Crystal NiFe ₂ O ₄ Spinel Boost Electrocatalytic Oxygen Evolution Reaction. Chemistry - an Asian Journal, 2020, 15, 3995-3999.	1.7	23
53	Multiphase Ni-Fe-selenide nanosheets for highly-efficient and ultra-stable water electrolysis. Applied Catalysis B: Environmental, 2020, 277, 119220.	10.8	52
54	Interface Catalysts of Ni/Co ₂ N for Hydrogen Electrochemistry. ACS Applied Materials & Interfaces, 2020, 12, 29357-29364.	4.0	8

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55	Dual-doping of ruthenium and nickel into Co_3O_4 for improving the oxygen evolution activity. <i>Materials Chemistry Frontiers</i> , 2020, 4, 1390-1396.	3.2	26
56	Bifunctional Heterostructured Transition Metal Phosphides for Efficient Electrochemical Water Splitting. <i>Advanced Functional Materials</i> , 2020, 30, 2003261.	7.8	352
57	Atomic Layer Deposition of Cobalt Phosphide for Efficient Water Splitting. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 17172-17176.	7.2	47
58	Die Atomlagenabscheidung von Cobaltphosphid zum Zwecke einer effizienten Wasserspaltung. <i>Angewandte Chemie</i> , 2020, 132, 17324-17329.	1.6	2
59	Photocatalytic activity enhanced via surface hybridization. , 2020, 2, 308-349.		68
60	Formation of cobalt phosphide nanodisks as a bifunctional electrocatalyst for enhanced water splitting. <i>Sustainable Energy and Fuels</i> , 2020, 4, 1616-1620.	2.5	14
61	ZIF-derived porous carbon composites coated on NiCo_2S_4 nanotubes array toward efficient water splitting. <i>Nanotechnology</i> , 2020, 31, 195402.	1.3	8
62	Layered transition-metal hydroxides for alkaline hydrogen evolution reaction. <i>Chinese Journal of Catalysis</i> , 2020, 41, 574-591.	6.9	72
63	Efficient Photocatalytic Nitrogen Fixation over $\text{Cu}^{\text{I}}/\text{ZnAl}_2\text{O}_4$ -Modified Defective Layered Double Hydroxide Nanosheets. <i>Advanced Energy Materials</i> , 2020, 10, 1901973.	10.2	173
64	Multi-channel V-doped CoP hollow nanofibers as high-performance hydrogen evolution reaction electrocatalysts. <i>Nanoscale</i> , 2020, 12, 9144-9151.	2.8	40
65	Nanoheterostructures of Partially Oxidized RuNi Alloy as Bifunctional Electrocatalysts for Overall Water Splitting. <i>ChemSusChem</i> , 2020, 13, 2739-2744.	3.6	23
66	High performance lithium-ion batteries with pillar[5]quinone/ion-liquid system. <i>Organic Electronics</i> , 2020, 83, 105743.	1.4	12
67	Enhanced OER Performances of Au@NiCo ₂ S ₄ Core-Shell Heterostructure. <i>Nanomaterials</i> , 2020, 10, 611.	1.9	18
68	Electrochemical fabrication of IrO _x nanoarrays with tunable length and morphology for solid polymer electrolyte water electrolysis. <i>Electrochimica Acta</i> , 2020, 348, 136302.	2.6	9
69	Fabrication and Applications of 3D Nanoarchitectures for Advanced Electrocatalysts and Sensors. <i>Advanced Materials</i> , 2020, 32, e1907500.	11.1	17
70	Hybrid NiCo hydrogen carbonate with Pt nanoparticles on nickel foam for alkaline water hydrogen evolution. <i>Journal of Alloys and Compounds</i> , 2020, 833, 155131.	2.8	13
71	2D Transition Metal Dichalcogenides: Design, Modulation, and Challenges in Electrocatalysis. <i>Advanced Materials</i> , 2021, 33, e1907818.	11.1	284
72	An account of the strategies to enhance the water splitting efficiency of noble-metal-free electrocatalysts. <i>Journal of Energy Chemistry</i> , 2021, 59, 160-190.	7.1	48

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73	Fullerenes as Key Components for Low-Dimensional (Photo)electrocatalytic Nanohybrid Materials. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 122-141.	7.2	64
74	High-Entropy Metal Sulfide Nanoparticles Promise High-Performance Oxygen Evolution Reaction. <i>Advanced Energy Materials</i> , 2021, 11, 2002887.	10.2	226
75	Recent Progress of Vacancy Engineering for Electrochemical Energy Conversion Related Applications. <i>Advanced Functional Materials</i> , 2021, 31, 2009070.	7.8	166
76	Building up bimetallic active sites for electrocatalyzing hydrogen evolution reaction under acidic and alkaline conditions. <i>Chemical Engineering Journal</i> , 2021, 413, 128027.	6.6	35
77	Fe-doped NiCoP/Prussian blue analog hollow nanocubes as an efficient electrocatalyst for oxygen evolution reaction. <i>Electrochimica Acta</i> , 2021, 367, 137492.	2.6	56
78	Tunable <i>d</i> Orbital Occupancy in Heusler Compounds for Oxygen Evolution Reaction**. <i>Angewandte Chemie</i> , 2021, 133, 5864-5869.	1.6	12
79	Tunable <i>d</i> Orbital Occupancy in Heusler Compounds for Oxygen Evolution Reaction**. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 5800-5805.	7.2	45
80	Nanoboxes endow non-noble-metal-based electrocatalysts with high efficiency for overall water splitting. <i>Journal of Materials Chemistry A</i> , 2021, 9, 857-874.	5.2	100
81	Further insights into bifunctional mechanism in alkaline hydrogen evolution for hybridized nanocatalysts and general route toward mechanism-oriented synthesis. <i>Nano Energy</i> , 2021, 81, 105645.	8.2	23
82	Graphite Carbon Nanosheet-Coated Cobalt-Doped Molybdenum Carbide Nanoparticles for Efficient Alkaline Hydrogen Evolution Reaction. <i>ACS Applied Nano Materials</i> , 2021, 4, 372-380.	2.4	16
83	Engineering the electronic states of Ni ₃ FeN via zinc ion regulation for promoting oxygen electrocatalysis in rechargeable Zn-air batteries. <i>Journal of Materials Chemistry A</i> , 2021, 9, 2301-2307.	5.2	36
84	Engineering nanointerface of molybdenum-based heterostructures to boost the electrocatalytic hydrogen evolution reaction. <i>Journal of Energy Chemistry</i> , 2021, 58, 370-376.	7.1	18
85	Synthesis and characterization of gold nanoparticles (AuNPs) and ZnO decorated zirconia as a potential adsorbent for enhanced arsenic removal from aqueous solution. <i>Journal of Molecular Structure</i> , 2021, 1228, 129482.	1.8	11
86	Recent advances in electrocatalysts for neutral and large-current-density water electrolysis. <i>Nano Energy</i> , 2021, 80, 105545.	8.2	187
87	Fullerenes as Key Components for Low-Dimensional (Photo)electrocatalytic Nanohybrid Materials. <i>Angewandte Chemie</i> , 2021, 133, 124-143.	1.6	11
88	In-situ tracking of phase conversion reaction induced metal/metal oxides for efficient oxygen evolution. <i>Science China Materials</i> , 2021, 64, 362-373.	3.5	19
89	Surface and Interface Engineering: Molybdenum Carbide-Based Nanomaterials for Electrochemical Energy Conversion. <i>Small</i> , 2021, 17, e1903380.	5.2	87
90	Two-dimension on two-dimension growth: hierarchical Ni _{0.2} Mo _{0.8} N/Fe-doped Ni ₃ N nanosheet array for overall water splitting. <i>RSC Advances</i> , 2021, 11, 19797-19804.	1.7	7

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91	Mesoporous RhRu Nanosponges with Enhanced Water Dissociation toward Efficient Alkaline Hydrogen Evolution. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 5052-5060.	4.0	30
92	Molecular and heterogeneous water oxidation catalysts: recent progress and joint perspectives. <i>Chemical Society Reviews</i> , 2021, 50, 2444-2485.	18.7	102
93	Heteroatom-Doping of Non-Noble Metal-Based Catalysts for Electrocatalytic Hydrogen Evolution: An Electronic Structure Tuning Strategy. <i>Small Methods</i> , 2021, 5, e2000988.	4.6	165
94	Dual modulation of lattice strain and charge polarization induced by Co(OH) ₂ /Ni(OH) ₂ interfaces for efficient oxygen evolution catalysis. <i>Journal of Materials Chemistry A</i> , 2021, 9, 13279-13287.	5.2	32
95	2D porous molybdenum nitride/cobalt nitride heterojunction nanosheets with interfacial electron redistribution for effective electrocatalytic overall water splitting. <i>Journal of Materials Chemistry A</i> , 2021, 9, 8620-8629.	5.2	72
96	Fluorine-doping-assisted vacancy engineering for efficient electrocatalyst toward hydrogen production. <i>Journal of Materials Chemistry A</i> , 2021, 9, 22626-22634.	5.2	16
97	Thermal Puffing Promoting the Synthesis of N-Doped Hierarchical Porous Carbon-CoO Composites for Alkaline Water Reduction. <i>ACS Omega</i> , 2021, 6, 6474-6481.	1.6	3
98	Elucidating intrinsic contribution of d-orbital states to oxygen evolution electrocatalysis in oxides. <i>Nature Communications</i> , 2021, 12, 824.	5.8	63
99	Engineered Nanoscale Single-Metal Oxides Catalytic Thin Films for High-Performance Water Oxidation. <i>Energy Technology</i> , 2021, 9, 2000896.	1.8	5
100	Regulative Electronic States around Ruthenium/Ruthenium Disulphide Heterointerfaces for Efficient Water Splitting in Acidic Media. <i>Angewandte Chemie</i> , 2021, 133, 12436-12442.	1.6	42
101	Regulative Electronic States around Ruthenium/Ruthenium Disulphide Heterointerfaces for Efficient Water Splitting in Acidic Media. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 12328-12334.	7.2	161
102	Non-stoichiometric NiOx nanocrystals for highly efficient electrocatalytic oxygen evolution reaction. <i>Journal of Electroanalytical Chemistry</i> , 2021, 885, 114966.	1.9	15
103	Lattice Mismatch in Ni ₃ Se ₄ -MoSe ₂ Nanoheterostructures with an Abundant Interface for Catalytic Hydrogen Evolution. <i>ACS Applied Nano Materials</i> , 2021, 4, 3493-3499.	2.4	18
104	2021 Roadmap: electrocatalysts for green catalytic processes. <i>JPhys Materials</i> , 2021, 4, 022004.	1.8	57
105	A Co ₃ O ₄ /CuO composite nanowire array as low-cost and efficient bifunctional electrocatalyst for water splitting. <i>Applied Physics A: Materials Science and Processing</i> , 2021, 127, 1.	1.1	9
106	Paired Ru-O-Mo ensemble for efficient and stable alkaline hydrogen evolution reaction. <i>Nano Energy</i> , 2021, 82, 105767.	8.2	86
107	Synthesis of MoS ₂ nanoparticles embedded, N, S co-doped mesoporous carbon via molten salt method as hydrogen evolution electrocatalyst under alkaline and neutral conditions. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 13936-13945.	3.8	9
108	Engineering P-doped Ni ₃ S ₂ -NiS hybrid nanorod arrays for efficient overall water electrolysis. <i>Journal of Alloys and Compounds</i> , 2021, 862, 158391.	2.8	26

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109	Tubular CoFeP@CN as a Mott-Schottky Catalyst with Multiple Adsorption Sites for Robust Lithium-Sulfur Batteries. <i>Advanced Energy Materials</i> , 2021, 11, 2100432.	10.2	125
110	Heterostructured CoP/MoO ₂ as high efficient electrocatalysts for hydrogen evolution reaction over all pH values. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 18353-18363.	3.8	15
111	Trimetallic Octahedral Ni-Co-W Phosphoxide Sprouted from Plasma-Defect-Engineered Ni-Co Support for Ultrahigh-Performance Electrocatalytic Hydrogen Evolution. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 7454-7465.	3.2	21
112	NiCoFeP Nanofibers as an Efficient Electrocatalyst for Oxygen Evolution Reaction and Zinc-Air Batteries. <i>Advanced Energy and Sustainability Research</i> , 2021, 2, 2000104.	2.8	18
113	Mesoporous manganese cobaltate: Colloid assisted ethylene glycol combustion synthesis and application in efficient water oxidation. <i>Journal of Alloys and Compounds</i> , 2021, 865, 158882.	2.8	6
114	Structural advantages and enhancement strategies of heterostructure water-splitting electrocatalysts. <i>Cell Reports Physical Science</i> , 2021, 2, 100443.	2.8	66
115	Principles of Water Electrolysis and Recent Progress in Cobalt, Nickel, and Iron-Based Oxides for the Oxygen Evolution Reaction. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	18
116	A Self-Standing 3D Heterostructured N-Doped Co ₄ S ₃ /Ni ₃ S ₂ /NF for High-Performance Overall Water Splitting. <i>Journal of the Electrochemical Society</i> , 2021, 168, 076504.	1.3	4
117	Differences and Similarities of Photocatalysis and Electrocatalysis in Two-Dimensional Nanomaterials: Strategies, Traps, Applications and Challenges. <i>Nano-Micro Letters</i> , 2021, 13, 156.	14.4	71
118	Principles of Water Electrolysis and Recent Progress in Cobalt, Nickel, and Iron-Based Oxides for the Oxygen Evolution Reaction. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	286
119	Enhancing electrocatalytic hydrogen evolution of WTe ₂ by formation of amorphous phosphate nanoshells. <i>Electrochimica Acta</i> , 2021, 385, 138409.	2.6	6
120	High Electrocatalytic Activity of Defected MX ₂ /Graphene Heterostructures (M = Mo, W; X = S, Se, Te). <i>Journal of Materials Chemistry A</i> , 2021, 9, 11111-11121.	1.5	11
121	Modulating oxygen electronic orbital occupancy of Cr-based MXenes via transition metal adsorbing for optimal HER activity. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 25457-25467.	3.8	7
122	First-principles simulation of oxygen evolution reaction (OER) catalytic performance of IrO ₂ bulk-like structures: Nanosphere, nanowire and nanotube. <i>Applied Surface Science</i> , 2021, 554, 149591.	3.1	35
123	NbSe ₂ Meets C ₂ N: A 2D Heterostructure Catalysts as Multifunctional Polysulfide Mediator in Ultra-Long-Life Lithium-Sulfur Batteries. <i>Advanced Energy Materials</i> , 2021, 11, 2101250.	10.2	89
124	Multi-Sites Electrocatalysis in High-Entropy Alloys. <i>Advanced Functional Materials</i> , 2021, 31, 2106715.	7.8	128
125	Electronic Reconfiguration of Metal Rhenium Induced by Strong Metal-Support Interaction Enhancing the Hydrogen Evolution Reaction. <i>Advanced Materials Interfaces</i> , 2021, 8, 2100545.	1.9	8
126	Photocatalytic nitrogen reduction to ammonia: Insights into the role of defect engineering in photocatalysts. <i>Nano Research</i> , 2022, 15, 2773-2809.	5.8	69

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127	Electronic Structure Modulation of Non-Noble-Metal-Based Catalysts for Biomass Electrooxidation Reactions. <i>Small Structures</i> , 2021, 2, 2100095.	6.9	28
128	Highly Controllable Hierarchically Porous Ag/Ag ₂ S Heterostructure by Cation Exchange for Efficient Hydrogen Evolution. <i>Small</i> , 2021, 17, e2103064.	5.2	25
129	Understanding the doping effect on hydrogen evolution activity of transition-metal phosphides: Modeled with Ni ₂ P. <i>Applied Catalysis B: Environmental</i> , 2021, 295, 120283.	10.8	90
130	Cu-doped molybdenum carbide encapsulated within two-dimensional nanosheets assembled hierarchical tubular nitrogen-doped carbon for enhanced hydrogen evolution. <i>Journal of Electroanalytical Chemistry</i> , 2021, 900, 115731.	1.9	6
131	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
132	MoS ₂ @CoS ₂ heteronanosheet arrays coated on porous carbon microtube textile for overall water splitting. <i>Journal of Power Sources</i> , 2021, 514, 230580.	4.0	32
133	Nitrogen incorporated nickel molybdenum sulfide as efficient electrocatalyst for overall water splitting. <i>Journal of Materials Science and Technology</i> , 2022, 99, 270-276.	5.6	10
134	Ni ₃ S ₂ @Ni ₅ P ₄ nanosheets as highly productive catalyst for electrocatalytic oxygen evolution. <i>Chemical Engineering Science</i> , 2022, 247, 117020.	1.9	12
135	Hydrothermal combined with electrodeposition construction of a stable Co ₉ S ₈ /Ni ₃ S ₂ @NiFe-LDH heterostructure electrocatalyst for overall water splitting. <i>Sustainable Energy and Fuels</i> , 2021, 5, 1429-1438.	2.5	21
136	Oxygen-deficient TiO ₂ and carbon coupling synergistically boost the activity of Ru nanoparticles for the alkaline hydrogen evolution reaction. <i>Journal of Materials Chemistry A</i> , 2021, 9, 10160-10168.	5.2	28
137	A Co-MOF-derived Co ₉ S ₈ @NS-C electrocatalyst for efficient hydrogen evolution reaction. <i>RSC Advances</i> , 2021, 11, 5947-5957.	1.7	13
138	Boosting the efficiency and stability of CoMoS ₄ by N incorporation for electrocatalytic hydrogen evolution. <i>Chemical Communications</i> , 2021, 57, 2760-2763.	2.2	1
139	Fabrication of a porous NiFeP/Ni electrode for highly efficient hydrazine oxidation boosted H ₂ evolution. <i>Nanoscale Advances</i> , 2021, 3, 2280-2286.	2.2	25
140	Recent progress in pristine MOF-based catalysts for electrochemical hydrogen evolution, oxygen evolution and oxygen reduction. <i>Dalton Transactions</i> , 2021, 50, 5732-5753.	1.6	48
141	Electronic Modulation of Hierarchical Spongy Nanosheets toward Efficient and Stable Water Electrolysis. <i>Small</i> , 2021, 17, e2006881.	5.2	35
142	Multi-dimensional hierarchical CoS ₂ @MXene as trifunctional electrocatalysts for zinc-air batteries and overall water splitting. <i>Science China Materials</i> , 2021, 64, 1127-1138.	3.5	44
143	Few-layer FePS ₃ decorated with thin MoS ₂ nanosheets for efficient hydrogen evolution reaction in alkaline and acidic media. <i>Applied Surface Science</i> , 2020, 525, 146623.	3.1	32
144	TiO ₂ Nanorod Array Conformally Coated with a Monolayer MoS ₂ Film: An Efficient Electrocatalyst for Hydrogen Evolution Reaction. <i>ACS Applied Energy Materials</i> , 2020, 3, 10854-10862.	2.5	11

#	ARTICLE	IF	CITATIONS
145	Designed borophene/TMDs hybrid catalysts for enhanced hydrogen evolution reactions. Journal of Materials Chemistry C, 2021, 9, 15877-15885.	2.7	15
146	Emerging two-dimensional nanomaterials for electrochemical nitrogen reduction. Chemical Society Reviews, 2021, 50, 12744-12787.	18.7	75
147	Interfacial engineering of transition-metal sulfides heterostructures with built-in electric-field effects for enhanced oxygen evolution reaction. Chinese Journal of Chemical Engineering, 2022, 41, 320-328.	1.7	16
148	Elucidating the Strain-Vacancy-Activity Relationship on Structurally Deformed Co@CoO Nanosheets for Aqueous Phase Reforming of Formaldehyde. Small, 2021, 17, e2102970.	5.2	29
149	MnCo ₂ S ₄ @CoS _{1.097} Heterostructure Nanotubes as High Efficiency Cathode Catalysts for Stable and Long-Life Lithium-Oxygen Batteries Under High Current Conditions. Advanced Science, 2021, 8, e2103302.	5.6	42
150	Recent Advances in Complex Hollow Electrocatalysts for Water Splitting. Advanced Functional Materials, 2022, 32, 2108681.	7.8	107
151	Hierarchical Fe-Mn binary metal oxide core-shell nano-polyhedron as a bifunctional electrocatalyst for efficient water splitting. Dalton Transactions, 2021, 50, 17265-17274.	1.6	7
152	Single-atom-based catalysts for photoelectrocatalysis: challenges and opportunities. Journal of Materials Chemistry A, 2022, 10, 5878-5888.	5.2	17
153	Modulating the Electronic Properties of MoS ₂ Nanosheets for Electrochemical Hydrogen Production: A Review. ACS Applied Nano Materials, 2021, 4, 11413-11427.	2.4	24
154	Construction of SbVO ₄ @Co Foam Heterostructure as Efficient (Photo)electrocatalyst for Oxygen Evolution Reaction. Journal of Electronic Materials, 0, , 1.	1.0	1
155	Surface Electronic Structure Modulation of Cobalt Nitride Nanowire Arrays via Selenium Deposition for Efficient Hydrogen Evolution. Advanced Functional Materials, 2022, 32, .	7.8	43
156	Advancing Photoelectrochemical Energy Conversion through Atomic Design of Catalysts. Advanced Science, 2022, 9, e2104363.	5.6	21
157	Recent advances in photo-assisted electrocatalysts for energy conversion. Journal of Materials Chemistry A, 2021, 9, 27193-27214.	5.2	19
158	Intercalation of cobalt cations into Co ₉ S ₈ interlayers for highly efficient and stable electrocatalytic hydrogen evolution. Journal of Materials Chemistry A, 2022, 10, 3522-3530.	5.2	21
159	Structural, electronic, and electrocatalytic evaluation of spinel transition metal sulfide supported reduced graphene oxide. Journal of Materials Chemistry A, 2022, 10, 1999-2011.	5.2	51
160	Grain boundary density and electronic dual modulation of intermetallic Co ₂ B by Fe doping toward efficient catalyst for oxygen evolution reaction. Applied Catalysis B: Environmental, 2022, 305, 121034.	10.8	30
161	Nickel Quantum Dots Anchored in Biomass-Derived Nitrogen-Doped Carbon as Bifunctional Electrocatalysts for Overall Water Splitting. Advanced Materials Interfaces, 2022, 9, .	1.9	7
162	Process of metal-organic framework (MOF)/covalent-organic framework (COF) hybrids-based derivatives and their applications on energy transfer and storage. Nanoscale, 2022, 14, 1679-1699.	2.8	60

#	ARTICLE	IF	CITATIONS
163	Interfacial engineering of lattice coherency at ZnO-ZnS photocatalytic heterojunctions. <i>Chem Catalysis</i> , 2022, 2, 125-139.	2.9	56
164	MOFs-derived hollow structure as a versatile platform for highly-efficient multifunctional electrocatalyst toward overall water-splitting and Zn-air battery. , 2022, , 251-270.		0
165	The Pivotal Role of sâ€, pâ€, and fâ€Block Metals in Water Electrolysis: Status Quo and Perspectives. <i>Advanced Materials</i> , 2022, 34, e2108432.	11.1	55
166	In-situ formed Cu-doped RuS ₂ hollow polyhedrons integrated with simultaneously heterostructure engineering with metallic Ru for boosting hydrogen evolution in alkaline media. <i>Materials Today Physics</i> , 2022, 23, 100625.	2.9	9
167	Homologous NiCoP@NiFeP Heterojunction Array Achieving High-Current Hydrogen Evolution for Alkaline Anion Exchange Membrane Electrolyzers. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
168	Synergistic Interface Engineering and Structural Optimization of Non-Noble Metal Telluride-Nitride Electrocatalysts for Sustainably Overall Seawater Electrolysis. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
169	Ruthenium Compositated NiCo ₂ O ₄ Spinel Nanocones with Oxygen Vacancies as a High-Efficient Bifunctional Catalyst for Overall Water Splitting. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
170	Homologous NiCoP@NiFeP heterojunction array achieving high-current hydrogen evolution for alkaline anion exchange membrane electrolyzers. <i>Journal of Materials Chemistry A</i> , 2022, 10, 10209-10218.	5.2	24
171	Efficient Recycling Blast Furnace Slag by Constructing Ti-Embedded Layered Double Hydroxide as Visible-Light-Driven Photocatalyst. <i>Materials</i> , 2022, 15, 1514.	1.3	2
172	Nanostructured Transition Metal Nitrides as Emerging Electrocatalysts for Water Electrolysis: Status and Challenges. <i>EnergyChem</i> , 2022, 4, 100072.	10.1	55
173	Plasma modified and tailored defective electrocatalysts for water electrolysis and hydrogen fuel cells. <i>EcoMat</i> , 2022, 4, .	6.8	22
174	Heterointerface Created on Auâ€Clusterâ€Loaded Unilamellar Hydroxide Electrocatalysts as a Highly Active Site for the Oxygen Evolution Reaction. <i>Advanced Materials</i> , 2022, 34, e2110552.	11.1	36
175	Wet Treatment of Ni-Containing Electroplating Wastewater Doped with Fe and Co as a Hydrogen Evolution Catalyst. <i>Energy & Fuels</i> , 2022, 36, 4107-4117.	2.5	4
176	Direct Synthesis of Stable 1Tâ€MoS ₂ Doped with Ni Single Atoms for Water Splitting in Alkaline Media. <i>Small</i> , 2022, 18, e2107238.	5.2	58
177	NiPN/Ni Nanoparticle-Decorated Carbon Nanotube Forest as an Efficient Bifunctional Electrocatalyst for Overall Water Splitting in an Alkaline Electrolyte. <i>ACS Applied Nano Materials</i> , 2022, 5, 5335-5345.	2.4	4
178	Oxygen Vacancyâ€Enhanced Ternary Nickelâ€Tungstenâ€Cerium Metal Alloyâ€Oxides for Efficient Alkaline Electrochemical Full Cell Water Splitting Using Anion Exchange Membrane. <i>ChemElectroChem</i> , 2022, 9, .	1.7	6
179	From fundamentals and theories to heterostructured electrocatalyst design: An in-depth understanding of alkaline hydrogen evolution reaction. <i>Nano Energy</i> , 2022, 98, 107231.	8.2	76
180	Interface oxygen vacancy enhanced alkaline hydrogen evolution activity of cobalt-iron phosphide/CeO ₂ hollow nanorods. <i>Chemical Engineering Journal</i> , 2022, 437, 135376.	6.6	35

#	ARTICLE	IF	CITATIONS
181	Interface Engineering of Anti-Perovskite Ni ₃ FeN/VN Heterostructure for High-Performance Rechargeable Zinc-Air batteries. <i>Chemical Engineering Journal</i> , 2022, 437, 135291.	6.6	81
182	Metal-organic frameworks-derived nitrogen-doped carbon with anchored dual-phased phosphides as efficient electrocatalyst for overall water splitting. <i>Sustainable Materials and Technologies</i> , 2022, 32, e00421.	1.7	6
183	Molten Salts Strategy for the Synthesis of CoP Nanoparticles Entrapped, N,P Co-doped Mesoporous Carbons as Electrocatalysts for Hydrogen Evolution. <i>Chemical Research in Chinese Universities</i> , 2022, 38, 237-242.	1.3	4
184	Enriched d-Band Holes Enabling Fast Oxygen Evolution Kinetics on Atomically Layered Defect-Rich Lithium Cobalt Oxide Nanosheets. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	24
185	Surface and Interface Engineering Strategies for MoS ₂ Towards Electrochemical Hydrogen Evolution. <i>Chemistry - an Asian Journal</i> , 2022, 17, .	1.7	6
186	A Molten-Salt Method to Synthesize Co ₉ S ₈ Embedded, N, S Co-Doped Mesoporous Carbons from Melamine Formaldehyde Resins for Electrocatalytic Hydrogen Evolution Reactions. <i>ChemPlusChem</i> , 2022, 87, e202200077.	1.3	2
187	Carbon-supported high-entropy Co-Zn-Cd-Cu-Mn sulfide nanoarrays promise high-performance overall water splitting. <i>Nano Research</i> , 2022, 15, 6054-6061.	5.8	47
188	Nitrogen-doped carbon encapsulating a RuCo heterostructure for enhanced electrocatalytic overall water splitting. <i>CrystEngComm</i> , 2022, 24, 4208-4214.	1.3	1
189	Visible Light Photoanode Material for Photoelectrochemical Water Splitting: A Review of Bismuth Vanadate. <i>Energy & Fuels</i> , 2022, 36, 11404-11427.	2.5	28
190	Ruthenium composited NiCo ₂ O ₄ spinel nanocones with oxygen vacancies as a high-efficient bifunctional catalyst for overall water splitting. <i>Chemical Engineering Journal</i> , 2022, 446, 137037.	6.6	14
191	Boosting the hydrogen evolution reaction of N-C@CoP through an N atom induced p-d orbital coupling. <i>Chemical Engineering Journal</i> , 2022, 446, 137132.	6.6	5
192	In-Situ Growth of Res ₂ /Ni ₃ Heterostructure on Ni Foam as an Ultra-Stable Electrocatalyst for Alkaline Hydrogen Generation. <i>SSRN Electronic Journal</i> , 0, .	0.4	0
193	Fe-Ni-Co trimetallic oxide hierarchical nanospheres as high-performance bifunctional electrocatalysts for water electrolysis. <i>New Journal of Chemistry</i> , 2022, 46, 13296-13302.	1.4	6
194	Recent Progress in Transition-Metal Sulfide Catalyst Regulation for Improved Oxygen Evolution Reaction. <i>Energy & Fuels</i> , 2022, 36, 6675-6694.	2.5	64
195	Hierarchical Rh ₃ -dimensional CoNi LDH@Ni ₃ S ₂ Supported on Ni Foam as a Stable and Efficient Electrocatalytic Material for Overall Water Splitting. <i>Electroanalysis</i> , 2023, 35, .	1.5	2
196	Non-equilibrium synthesis of stacking faults-abundant Ru nanoparticles towards electrocatalytic water splitting. <i>Applied Catalysis B: Environmental</i> , 2022, 316, 121682.	10.8	16
197	Multiphase nanosheet-nanowire cerium oxide and nickel-cobalt phosphide for highly-efficient electrocatalytic overall water splitting. <i>Applied Catalysis B: Environmental</i> , 2022, 316, 121678.	10.8	67
198	Highly Efficient Electrocatalytic Oxygen Evolution Over Atomically Dispersed Synergistic Ni/Co Dual Sites. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	81

#	ARTICLE	IF	CITATIONS
199	Hollow Nanowire Constructed by NiCo Doped RuO ₂ Nanoparticles for Robust Hydrogen Evolution at High Current Density. ChemSusChem, 2022, 15, .	3.6	3
200	Highly Efficient Electrocatalytic Oxygen Evolution Over Atomically Dispersed Synergistic Ni/Co Dual Sites. Angewandte Chemie, 2022, 134, .	1.6	14
201	Design principle of electrocatalysts for the electrooxidation of organics. Chem, 2022, 8, 2594-2629.	5.8	44
202	Vanadium-Based Trimetallic Metal-Organic-Framework Family as Extremely High-Performing and Ultrastable Electrocatalysts for Water Splitting. ACS Applied Materials & Interfaces, 2022, 14, 37804-37813.	4.0	19
203	Synergistic interface engineering and structural optimization of non-noble metal telluride-nitride electrocatalysts for sustainably overall seawater electrolysis. Applied Catalysis B: Environmental, 2022, 318, 121834.	10.8	57
204	Variable nanosheets for highly efficient oxygen evolution reaction. Chem, 2022, 8, 3241-3251.	5.8	21
205	Interfacial component coupling effects towards precise heterostructure design for efficient electrocatalytic water splitting. Nano Energy, 2022, 103, 107753.	8.2	47
206	Vacancy and strain engineering of Co ₃ O ₄ for efficient water oxidation. Journal of Colloid and Interface Science, 2023, 629, 346-354.	5.0	7
207	Universal strategy of iron/cobalt-based materials for boosted electrocatalytic activity of water oxidation. Journal of Colloid and Interface Science, 2023, 629, 144-154.	5.0	10
208	In-situ growth of ReS ₂ /NiS heterostructure on Ni foam as an ultra-stable electrocatalyst for alkaline hydrogen generation. Chemical Engineering Journal, 2023, 451, 138905.	6.6	12
209	Improving the hydrogen evolution performance of self-supported hierarchical NiFe layered double hydroxide via NH ₃ -inducing at room temperature. Journal of Materials Chemistry A, 2022, 10, 20626-20634.	5.2	10
210	Self-sacrificial reconstruction of MoO ₄ ²⁻ intercalated NiFe LDH/Co ₂ P heterostructures enabling interfacial synergies and oxygen vacancies for triggering oxygen evolution reaction. Journal of Colloid and Interface Science, 2023, 629, 896-907.	5.0	16
211	Deciphering the Space Charge Effect of the p-n Junction between Copper Sulfides and Molybdenum Selenides for Efficient Water Electrolysis in a Wide pH Range. ACS Nano, 2022, 16, 15425-15439.	7.3	59
212	FeOOH nanospheres decorated bimetallic NiFe-MOF as efficient dual-functional catalyst towards superior electrocatalytic performance. Journal of Materials Science, 0, , .	1.7	3
213	Interfacial stress induced by the adaptive construction of hydrangea-like heterojunctions based on in situ electrochemical phase reconfiguration for highly efficient oxygen evolution reaction at high current density. Journal of Materials Chemistry A, 2022, 10, 23580-23589.	5.2	10
214	In situ electrochemical activation of Co(OH) ₂ @Ni(OH) ₂ heterostructures for efficient ethanol electrooxidation reforming and innovative zinc-air batteries. Energy and Environmental Science, 2022, 15, 5300-5312.	15.6	54
215	Two-dimensional carbon-based heterostructures as bifunctional electrocatalysts for water splitting and metal-air batteries. Nano Materials Science, 2022, , .	3.9	12
216	Electronic structural engineering of transition metal-based electrocatalysts for the hydrogen evolution reaction. Nano Energy, 2022, 104, 107882.	8.2	61

#	ARTICLE	IF	CITATIONS
217	Tailoring of Active Sites from Single to Dual Atom Sites for Highly Efficient Electrocatalysis. ACS Nano, 2022, 16, 17572-17592.	7.3	59
218	Facile Synthesis of Medium-Entropy Metal Sulfides as High-Efficiency Electrocatalysts toward Oxygen Evolution Reaction. Advanced Functional Materials, 2023, 33, .	7.8	33
219	Recent progress in electronic modulation of electrocatalysts for high-efficient polysulfide conversion of Li-S batteries. Chinese Journal of Catalysis, 2022, 43, 2946-2965.	6.9	14
220	Porous carbon foam loaded CoSe ₂ nanoparticles based on inkjet-printing technology as self-supporting electrodes for efficient water splitting. Electrochimica Acta, 2023, 438, 141594.	2.6	0
221	Carbon paper supported gold nanoflowers for tunable glycerol electrooxidation boosting efficient hydrogen evolution. Carbon, 2023, 203, 88-96.	5.4	9
222	The acidic OER activation-decay process of highly active Ir-Ni mixed oxide modified by capping agent for both particle fining and Ir-OH formation. International Journal of Hydrogen Energy, 2023, 48, 7549-7558.	3.8	2
223	Synchronous regulation of morphology and electronic structure of FeNi-P nanosheet arrays by Zn implantation for robust overall water splitting. Nano Research, 2023, 16, 5733-5742.	5.8	4
224	Application of HTS in Green Hydrogen and Fuel Cells. Nanostructure Science and Technology, 2023, , 13-54.	0.1	0
225	Atomic Ruthenium-Riveted Metal-Organic Framework with Tunable d-Band Modulates Oxygen Redox for Lithium-Oxygen Batteries. Journal of the American Chemical Society, 2022, 144, 23239-23246.	6.6	39
226	Rare-Earth Doping Transitional Metal Phosphide for Efficient Hydrogen Evolution in Natural Seawater. Small Structures, 2023, 4, .	6.9	8
227	Screening Nickel-Doped Mo ₂ C Nanorod Arrays for Ultrastable and Efficient Hydrogen Evolution over a Wide pH Range. ChemPlusChem, 0, , .	1.3	0
228	Revealing Intrinsic Relations Between Cu Scales and Radical/Nonradical Oxidations to Regulate Nucleophilic/Electrophilic Catalysis. Advanced Functional Materials, 2023, 33, .	7.8	15
229	Mechanism Exploration and Catalyst Design for Hydrogen Evolution Reaction Accelerated by Density Functional Theory Simulations. ACS Sustainable Chemistry and Engineering, 2023, 11, 467-481.	3.2	8
230	Lattice-Strain Engineering for Heterogenous Electrocatalytic Oxygen Evolution Reaction. Advanced Materials, 2023, 35, .	11.1	34
231	Entropy-Stabilized Multicomponent Porous Spinel Nanowires of NiFeXO ₄ (X = Fe, Ni, Al). ACS Nano, 2023, 17, 1485-1494.	7.3	27
232	Electronic structure modulation of MoO ₂ via Er-doping for efficient overall water/seawater splitting and Mg/seawater batteries. Applied Surface Science, 2023, 615, 156360.	3.1	18
233	Tapping the Potential of High-Valent Mo and W Metal Centers for Dynamic Electronic Structures in Multimetallic FeVO(OH)/Ni(OH) ₂ for Ultrastable and Efficient Overall Water Splitting. ACS Applied Materials & Interfaces, 2023, 15, 5336-5344.	4.0	11
234	Defect-engineered two-dimensional transition metal dichalcogenides towards electrocatalytic hydrogen evolution reaction. , 2023, 5, .		26

#	ARTICLE	IF	CITATIONS
235	Construction of a S and Fe co-regulated metal Ni electrocatalyst for efficient alkaline overall water splitting. <i>Journal of Materials Chemistry A</i> , 2023, 11, 4661-4671.	5.2	13
236	IrO ₂ Nanoparticle-Decorated Ir-Doped WO ₃ Nanowires with High Mass Specific OER Activity for Proton Exchange Membrane Electrolysis. <i>ACS Applied Materials & Interfaces</i> , 2023, 15, 6912-6922.	4.0	13
237	Recent Progress in Metal Phosphorous Chalcogenides: Potential High-Performance Electrocatalysts. <i>Small</i> , 2023, 19, .	5.2	39
239	Rapid synthesis of doped metal oxides via Joule heating for oxygen electrocatalysis regulation. <i>Journal of Materials Chemistry A</i> , 2023, 11, 10267-10276.	5.2	6
240	Understanding the spatial configurations of Sm ₂ O ₃ in ZnO surface-loaded or embedded for the electrocatalytic oxygen evolution reaction. <i>Journal of Sol-Gel Science and Technology</i> , 2023, 106, 215-225.	1.1	7
241	Surface state engineering of carbon dot/carbon nanotube heterojunctions for boosting oxygen reduction performance. <i>Journal of Colloid and Interface Science</i> , 2023, 637, 173-181.	5.0	29
242	Nickel-Cobalt-Iron Ternary Layered Double Hydroxide Nanoarrays for Superior Performance of Electrocatalytic Water Splitting. <i>Coatings</i> , 2023, 13, 726.	1.2	1
243	High entropy materials as emerging electrocatalysts for hydrogen production through low-temperature water electrolysis. <i>Materials Futures</i> , 2023, 2, 022102.	3.1	10
244	Deciphering the electrocatalysis essence of cobalt diselenide in lithium-sulfur electrochemistry from crystal-phase engineering. <i>Chemical Engineering Journal</i> , 2023, 463, 142416.	6.6	3
245	Top-down and matchable interfacial engineering to construct hierarchical deformed NiS/NiCoP for hydrogen evolution reaction over a broad pH range. <i>Applied Surface Science</i> , 2023, 622, 156896.	3.1	5
246	Rational design of photoelectrocatalytic systems for the transformation of plastic wastes. <i>Applied Catalysis B: Environmental</i> , 2023, 332, 122744.	10.8	10
247	Magnetic-thermal external field activate the pyro-magnetic effect of pyroelectric crystal (NaNbO ₃) to build a promising multi-field coupling-assisted photoelectrochemical water splitting system. <i>Applied Catalysis B: Environmental</i> , 2023, 328, 122486.	10.8	37
248	External electric field-assisted electronic restructuring of transition metal oxides derived from spent lithium-ion batteries to enhance persulfate activation. <i>Applied Surface Science</i> , 2023, 625, 157120.	3.1	3
249	A hint from phosphine complex: The π back-bonding in cobalt-phosphorene composite enables enhanced electrocatalytic performance. <i>Progress in Natural Science: Materials International</i> , 2023, 33, 100-107.	1.8	2
250	Recent Advancements in the Synthetic Mechanism and Surface Engineering of Transition Metal Selenides for Energy Storage and Conversion Applications. <i>Energy Technology</i> , 2023, 11, .	1.8	5
251	Construction of 2D C,N-co-doped ZnO/Co ₃ O ₄ over Ni(OH) ₂ mesoporous ultrathin nanosheets on Ni foam as high-performance electrocatalysts for benzyl-alcohol oxidation and accelerating hydrogen evolution. <i>New Journal of Chemistry</i> , 2023, 47, 5970-5976.	1.4	0
252	Cation mixing effect regulation by niobium for high voltage single-crystalline nickel-rich cathodes. <i>Chemical Engineering Journal</i> , 2023, 461, 142093.	6.6	10
253	Palladium Modified FeCoS ₂ Nanosheet Arrays on Ni Foam as Bifunctional Electrodes for Overall Alkaline Water Splitting. <i>ChemistrySelect</i> , 2023, 8, .	0.7	0

#	ARTICLE	IF	CITATIONS
254	Progress and Perspectives for Solar-Driven Water Electrolysis to Produce Green Hydrogen. <i>Advanced Energy Materials</i> , 2023, 13, .	10.2	28
255	A hierarchical cactus-like nanostructure as a bifunctional catalyst for overall water splitting. <i>Electrochimica Acta</i> , 2023, 449, 142219.	2.6	6
256	Extending MoS ₂ -based materials into the catalysis of non-acidic hydrogen evolution: challenges, progress, and perspectives. <i>Materials Futures</i> , 2023, 2, 022103.	3.1	12
257	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
258	Photogenerated Carrier-Assisted Electrocatalysts for Efficient Water Splitting. <i>Catalysts</i> , 2023, 13, 712.	1.6	4
259	Design of high-performance ion-doped CoP systems for hydrogen evolution: From multi-level screening calculations to experiment. <i>Journal of Energy Chemistry</i> , 2023, 82, 307-316.	7.1	4
260	Optimizing electronic structure of NiFe LDH with Mn-doping and Fe _{0.64} Ni _{0.36} alloy for alkaline water oxidation under industrial current density. <i>Nano Research</i> , 2023, 16, 8953-8960.	5.8	2
261	Sulfuration of hierarchical Mn-doped NiCo LDH heterostructures as efficient electrocatalyst for overall water splitting. <i>International Journal of Hydrogen Energy</i> , 2023, 48, 27631-27641.	3.8	8
278	Electrocatalysts for the oxygen evolution reaction: mechanism, innovative strategies, and beyond. <i>Materials Chemistry Frontiers</i> , 2023, 7, 4833-4864.	3.2	9
282	Opportunities and challenges of strain engineering for advanced electrocatalyst design. <i>Nano Research</i> , 2023, 16, 8655-8669.	5.8	6
295	Non-precious metal-based catalysts for water electrolysis to produce H ₂ under industrial conditions. <i>Materials Chemistry Frontiers</i> , 2023, 7, 5661-5692.	3.2	3
300	Uncovering the photoelectronic/catalytic property modulation and applications of 2D MoS ₂ : from the perspective of constructing heterogeneous interfaces. <i>Journal of Materials Chemistry A</i> , 2023, 11, 19736-19763.	5.2	2
323	High-performance artificial leaf: from electrocatalyst design to solar-to-chemical conversion. <i>Materials Chemistry Frontiers</i> , 2024, 8, 1300-1333.	3.2	0