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Ultrathin metalorganic framework nanosheets for electrocatalytic oxygen evolution

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1729	Metal-organic frameworks: Evolved oxygen evolution catalysts. <i>Nature Energy</i> , 2016 , 1,	62.3	56
1728	Modular and Stepwise Synthesis of a Hybrid Metal-Organic Framework for Efficient Electrocatalytic Oxygen Evolution. 2017 , 139, 1778-1781		273
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1724	Functionalized Metal-Organic Framework as a Biomimetic Heterogeneous Catalyst for Transfer Hydrogenation of Imines. 2017 , 9, 9772-9777		29
1723	Peptide-templated noble metal catalysts: syntheses and applications. 2017 , 8, 3310-3324		60
1722	Ball-in-cage nanocomposites of metal-organic frameworks and three-dimensional carbon networks: synthesis and capacitive performance. 2017 , 9, 6478-6485		32
1721	Is iron unique in promoting electrical conductivity in MOFs?. 2017 , 8, 4450-4457		106
1720	Influence of Ni to Co ratio in mixed Co and Ni phosphides on their electrocatalytic oxygen evolution activity. 2017 , 79, 41-45		22
1719	Carbon-embedded Ni nanocatalysts derived from MOFs by a sacrificial template method for efficient hydrogenation of furfural to tetrahydrofurfuryl alcohol. 2017 , 46, 6358-6365		61
1718	In situ hybridization of CoO nanoparticles on N-doped graphene through one step mineralization of co-responsive hydrogels. 2017 , 46, 6163-6167		10
1717	Highly active catalyst derived from a 3D foam of Fe(PO)/NiP for extremely efficient water oxidation. 2017 , 114, 5607-5611		225
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1715	DNA-Assembled Core-Satellite Upconverting-Metal-Organic Framework Nanoparticle Superstructures for Efficient Photodynamic Therapy. 2017 , 13, 1700504		88
1714	Ultrathin High Surface Area Nickel Boride (Ni ₃ B) Nanosheets as Highly Efficient Electrocatalyst for Oxygen Evolution. 2017 , 7, 1700381		245
1713	Electrocatalytic oxygen evolution reaction for energy conversion and storage: A comprehensive review. 2017 , 37, 136-157		860

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1706	3D Nitrogen-Anion-Decorated Nickel Sulfides for Highly Efficient Overall Water Splitting. 2017 , 29, 1701584	375
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1704	Hierarchical Fe-doped NiO x nanotubes assembled from ultrathin nanosheets containing trivalent nickel for oxygen evolution reaction. 2017 , 38, 167-174	122
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1697	From Mixed-Metal MOFs to Carbon-Coated Core-Shell Metal Alloy@Metal Oxide Solid Solutions: Transformation of Co/Ni-MOF-74 to CoNi@CoNiO@C for the Oxygen Evolution Reaction. 2017 , 56, 5203-5209	71
1696	Ultrafast Formation of Amorphous Bimetallic Hydroxide Films on 3D Conductive Sulfide Nanoarrays for Large-Current-Density Oxygen Evolution Electrocatalysis. 2017 , 29, 1700404	327
1695	Co-vacancy-rich Co _{1-x} S nanosheets anchored on rGO for high-efficiency oxygen evolution. 2017 , 10, 1819-1831	57

1694	Nitrogen-doped carbon encapsulating EMoC/Ni heterostructures for efficient oxygen evolution electrocatalysts. 2017 , 9, 5583-5588	50
1693	In Situ Coupling Strategy for the Preparation of FeCo Alloys and Co N Hybrid for Highly Efficient Oxygen Evolution. 2017 , 29, 1704091	136
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1691	Nanostructured Nickel Cobaltite Antispinel as Bifunctional Electrocatalyst for Overall Water Splitting. 2017 , 121, 25888-25897	30
1690	Platinum electrocatalysts with plasmonic nano-cores for photo-enhanced oxygen-reduction. 2017 , 41, 233-242	28
1689	Creating coordinatively unsaturated metal sites in metal-organic-frameworks as efficient electrocatalysts for the oxygen evolution reaction: Insights into the active centers. 2017 , 41, 417-425	274
1688	Electrocatalytic Metal-Organic Frameworks for Energy Applications. 2017 , 10, 4374-4392	139
1687	Ternary transition metal oxide derived from Prussian blue analogue for high-performance lithium ion battery. 2017 , 729, 518-525	28
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1685	Monitoring of Heparin Activity in Live Rats Using Metal-Organic Framework Nanosheets as Peroxidase Mimics. 2017 , 89, 11552-11559	162
1684	From covalent triazine-based frameworks to N-doped porous carbon/reduced graphene oxide nanosheets: efficient electrocatalysts for oxygen reduction. 2017 , 5, 23170-23178	47
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1682	MetalâOrganic Frameworks and Their Composites: Synthesis and Electrochemical Applications. 2017 , 1, 1700187	119
1681	Functionalized Carbon Nanotubes with Ni(II) Bipyridine Complexes as Efficient Catalysts for the Alkaline Oxygen Evolution Reaction. 2017 , 7, 8033-8041	46
1680	A flexible metalâorganic framework with a high density of sulfonic acid sites for proton conduction. <i>Nature Energy</i> , 2017 , 2, 877-883	62.3 377
1679	Co(II)-Doped Cd-MOF as an Efficient Water Oxidation Catalyst: Doubly Interpenetrated Boron Nitride Network with the Encapsulation of Free Ligand Containing Pyridine Moieties. 2017 , 9, 37548-37553	38
1678	Atomically Dispersed CopperâPlatinum Dual Sites Alloyed with Palladium Nanorings Catalyze the Hydrogen Evolution Reaction. 2017 , 129, 16263-16267	39
1677	Atomically Dispersed Copper-Platinum Dual Sites Alloyed with Palladium Nanorings Catalyze the Hydrogen Evolution Reaction. 2017 , 56, 16047-16051	164

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1674	Formation of Ni-Fe Mixed Diselenide Nanocages as a Superior Oxygen Evolution Electrocatalyst. 2017 , 29, 1703870	327
1673	Mesoporous Nanosheet Networked Hybrids of Cobalt Oxide and Cobalt Phosphate for Efficient Electrochemical and Photoelectrochemical Oxygen Evolution. 2017 , 13, 1701875	53
1672	Atomic-Level Coupled Interfaces and Lattice Distortion on CuS/NiS ₂ Nanocrystals Boost Oxygen Catalysis for Flexible Zn-Air Batteries. 2017 , 27, 1703779	154
1671	Electron Delocalization Boosting Highly Efficient Electrocatalytic Water Oxidation in Layered Hydrotalcites. 2017 , 121, 21962-21968	16
1670	Unraveling the Intrinsic Structures that Influence the Transport of Charges in TiO ₂ Electrodes. 2017 , 7, 1700886	19
1669	Signature of Metallic Behavior in the Metal-Organic Frameworks M(hexaiminobenzene) (M = Ni, Cu). 2017 , 139, 13608-13611	214
1668	Two-dimensional metal-organic frameworks with high oxidation states for efficient electrocatalytic urea oxidation. 2017 , 53, 10906-10909	218
1667	Three-Dimensional Hierarchical Architectures Derived from Surface-Mounted Metal-Organic Framework Membranes for Enhanced Electrocatalysis. 2017 , 56, 13781-13785	144
1666	Co-intercalation of multiple active units into graphene by pyrolysis of hydrogen-bonded precursors for zinc–air batteries and water splitting. 2017 , 5, 20882-20891	31
1665	Nickel-Based Electrocatalysts for Energy-Related Applications: Oxygen Reduction, Oxygen Evolution, and Hydrogen Evolution Reactions. 2017 , 7, 7196-7225	568
1664	In situ evolution of highly dispersed amorphous CoO clusters for oxygen evolution reaction. 2017 , 9, 11969-11975	110
1663	Functionalized Cobalt Triarylcorrole Covalently Bonded with Graphene Oxide: A Selective Catalyst for the Two- or Four-Electron Reduction of Oxygen. 2017 , 56, 8954-8963	24
1662	Cost-Effective Alkaline Water Electrolysis Based on Nitrogen- and Phosphorus-Doped Self-Supportive Electrocatalysts. 2017 , 29, 1702095	139
1661	Low-Cost Metallic Anode Materials for High Performance Rechargeable Batteries. 2017 , 7, 1700536	118
1660	ZIF-67 derived cobalt-based nanomaterials for electrocatalysis and nonenzymatic detection of glucose: Difference between the calcination atmosphere of nitrogen and air. 2017 , 799, 512-518	24
1659	High-Performance Pyrochlore-Type Yttrium Ruthenate Electrocatalyst for Oxygen Evolution Reaction in Acidic Media. 2017 , 139, 12076-12083	202

1658	Aromatic ring substituted g-C ₃ N ₄ for enhanced photocatalytic hydrogen evolution. 2017 , 5, 17199-17203	74
1657	Electrocatalysts Derived from Metal-Organic Frameworks for Oxygen Reduction and Evolution Reactions in Aqueous Media. 2017 , 13, 1701143	125
1656	In situ facile loading of noble metal nanoparticles on polydopamine nanospheres via galvanic replacement reaction for multifunctional catalysis. 2017 , 60, 1236-1242	19
1655	Surfactant-Assisted Phase-Selective Synthesis of New Cobalt MOFs and Their Efficient Electrocatalytic Hydrogen Evolution Reaction. 2017 , 56, 13001-13005	275
1654	In situ synthesis of ultrathin metal-organic framework nanosheets: a new method for 2D metal-based nanoporous carbon electrocatalysts. 2017 , 5, 18610-18617	120
1653	Atomic-Scale CoO _x Species in Metal-Organic Frameworks for Oxygen Evolution Reaction. 2017 , 27, 1702546	279
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1651	Interface-Engineered Ni(OH) ₂ /FeOOH Electrocatalysts for Highly Efficient and Stable Oxygen Evolution Reaction. 2017 , 12, 2720-2726	22
1650	Spinels: Controlled Preparation, Oxygen Reduction/Evolution Reaction Application, and Beyond. 2017 , 117, 10121-10211	789
1649	Heptanuclear Co, Ni and mixed Co-Ni clusters as high-performance water oxidation electrocatalysts. 2017 , 249, 343-352	20
1648	Ultrathin Manganese-Based Metal-Organic Framework Nanosheets: Low-Cost and Energy-Dense Lithium Storage Anodes with the Coexistence of Metal and Ligand Redox Activities. 2017 , 9, 29829-29838	90
1647	Ni ₂ P(O)/Fe ₂ P(O) Interface Can Boost Oxygen Evolution Electrocatalysis. 2017 , 2, 2257-2263	116
1646	Metal-organic frameworks and their derived materials for electrochemical energy storage and conversion: Promises and challenges. 2017 , 3, eaap9252	639
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1644	A Microribbon Hybrid Structure of CoO _x -MoC Encapsulated in N-Doped Carbon Nanowire Derived from MOF as Efficient Oxygen Evolution Electrocatalysts. 2017 , 13, 1702753	56
1643	Molecule-confined FeO _x nanocrystals mounted on carbon as stable anode material for high energy density nickel-iron batteries. 2017 , 42, 166-172	35
1642	Conductive Copper Benzenehexathiol Coordination Polymer as a Hydrogen Evolution Catalyst. 2017 , 9, 40752-40759	83
1641	Sugar Blowing-Induced Porous Cobalt Phosphide/Nitrogen-Doped Carbon Nanostructures with Enhanced Electrochemical Oxidation Performance toward Water and Other Small Molecules. 2017 , 13, 1700796	49

1640	In Situ Derived Co ₂ B Nanoarray: A High-Efficiency and Durable 3D Bifunctional Electrocatalyst for Overall Alkaline Water Splitting. 2017 , 13, 1700805	257
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1636	Porphyritic Metal-Organic Framework-Templated Fe-Ni-P/Reduced Graphene Oxide for Efficient Electrocatalytic Oxygen Evolution. 2017 , 9, 23852-23858	85
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1632	Air Plasma Activation of Catalytic Sites in a Metal-Cyanide Framework for Efficient Oxygen Evolution Reaction. 2018 , 8, 1800085	106
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1628	Atomar dispergierte Metallzentren in Metall-organischen Gerüststrukturen für die elektrokatalytische und photokatalytische Energieumwandlung. 2018 , 130, 9750-9780	49
1627	AgPO@UMOFNs Core-Shell Structure: Two-Dimensional MOFs Promoted Photoinduced Charge Separation and Photocatalysis. 2018 , 10, 8758-8769	70
1626	Metal-organic framework-derived porous materials for catalysis. 2018 , 362, 1-23	524
1625	Chiro-Spintronics: Spin-Dependent Electrochemistry and Water Splitting Using Chiral Molecular Films. 2018 , 2, 1700313	23
1624	The photo-, electro- and photoelectro-catalytic properties and application prospects of porous coordinate polymers. 2018 , 6, 6130-6154	54
1623	Achieving highly efficient electrocatalytic oxygen evolution with ultrathin 2D Fe-doped nickel thiophosphate nanosheets. 2018 , 47, 257-265	88

1622	Trends in activity for the oxygen evolution reaction on transition metal (M = Fe, Co, Ni) phosphide pre-catalysts. 2018 , 9, 3470-3476	309
1621	Electrochemical Exfoliation of Pillared-Layer Metal-Organic Framework to Boost the Oxygen Evolution Reaction. 2018 , 130, 4722-4726	63
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1619	Two facile routes to an AB ₂ Cu-MOF composite with improved hydrogen evolution reaction. 2018 , 753, 228-233	35
1618	Nickel-Copper bimetal organic framework nanosheets as a highly efficient catalyst for oxygen evolution reaction in alkaline media. 2018 , 42, 8346-8350	26
1617	The Design of Water Oxidation Electrocatalysts from Nanoscale Metal-Organic Frameworks. 2018 , 24, 15143-15155	46
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1615	Graphitic Carbon-NiCo Nanostructures as Efficient Non-Precious-Metal Electrocatalysts for the Oxygen Reduction Reaction. 2018 , 5, 1937-1943	13
1614	Strongly Coupled CoO Nanoclusters/CoFe LDHs Hybrid as a Synergistic Catalyst for Electrochemical Water Oxidation. 2018 , 14, e1800195	63
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1611	1D alignment of ZnO@ZIF-8/67 nanorod arrays for visible-light-driven photoelectrochemical water splitting. 2018 , 448, 254-260	41
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1606	A Highly Solvent-Stable Metal-Organic Framework Nanosheet: Morphology Control, Exfoliation, and Luminescent Property. 2018 , 14, e1703873	59
1605	Electrochemical study of acetaminophen oxidation by gold nanoparticles supported on a leaf-like zeolitic imidazolate framework. 2018 , 524, 1-7	51

1604	Self-supported Ni ₃ S ₂ @MoS ₂ core/shell nanorod arrays via decoration with CoS as a highly active and efficient electrocatalyst for hydrogen evolution and oxygen evolution reactions. 2018 , 43, 8794-8804	31
1603	Bottom-Up Fabrication of Ultrathin 2D Zr Metal-Organic Framework Nanosheets through a Facile Continuous Microdroplet Flow Reaction. 2018 , 30, 3048-3059	62
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1601	Ultrathin amorphous cobalt-manganese hydr(oxy)oxide catalysts for the oxygen evolution reaction. 2018 , 11, 1736-1741	211
1600	Amorphous Ni(Fe)O H-coated nanocone arrays self-supported on stainless steel mesh as a promising oxygen-evolving anode for large scale water splitting. 2018 , 389, 160-168	18
1599	Self-Supported Stainless Steel Nanocone Array Coated with a Layer of Ni-Fe Oxides/(Oxy)hydroxides as a Highly Active and Robust Electrode for Water Oxidation. 2018 , 10, 8786-8796	45
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1588	Development of a UiO-Type Thin Film Electrocatalysis Platform with Redox-Active Linkers. 2018 , 140, 2985-2994	84
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1584	High-yield bottom-up synthesis of 2D metal-organic frameworks and their derived ultrathin carbon nanosheets for energy storage. 2018 , 6, 2166-2175	178
1583	Electrochemically tuned cobalt hydroxide carbonate with abundant grain boundaries for highly efficient electro-oxidation of hydrazine. 2018 , 2, 369-375	7
1582	Evaluation of the H Evolving Activity of Benzenehexathiolate Coordination Frameworks and the Effect of Film Thickness on H Production. 2018 , 10, 1719-1727	67
1581	High Spin State Promotes Water Oxidation Catalysis at Neutral pH in Spinel Cobalt Oxide. 2018 , 57, 1441-1445	19
1580	General synthesis and definitive structural identification of Mn ₄ C ₄ single-atom catalysts with tunable electrocatalytic activities. 2018 , 1, 63-72	968
1579	A Stable Graphitic, Nanocarbon-Encapsulated, Cobalt-Rich Core-shell Electrocatalyst as an Oxygen Electrode in a Water Electrolyzer. 2018 , 8, 1702838	89
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1577	A LiAlO/nitrogen-doped hollow carbon spheres (NdHCSs) modified separator for advanced lithium-sulfur batteries.. 2018 , 8, 1632-1637	9
1576	Graphene-Like Nitrogen-Doped Carbon Nanosheet Prepared from Direct Calcination of Dopamine Confined by g-C ₃ N ₄ for Oxygen Reduction. 2018 , 5, 1800303	24
1575	Hybrid 2D Dual-Metal-Organic Frameworks for Enhanced Water Oxidation Catalysis. 2018 , 28, 1801554	367
1574	The Flexibility of an Amorphous Cobalt Hydroxide Nanomaterial Promotes the Electrocatalysis of Oxygen Evolution Reaction. 2018 , 14, e1703514	85
1573	Two-dimensional porous cuprous oxide nanoplatelets derived from metal-organic frameworks (MOFs) for efficient photocatalytic dye degradation under visible light. 2018 , 47, 7694-7700	29
1572	Microporosity as a new property control factor in graphene-like 2D allotropes. 2018 , 6, 10348-10353	12
1571	Efficient catalysts for oxygen evolution derived from cobalt-based alloy nanochains. 2018 , 8, 2427-2433	16
1570	In Situ Generation of Bifunctional, Efficient Fe-Based Catalysts from Mackinawite Iron Sulfide for Water Splitting. 2018 , 4, 1139-1152	175
1569	Non-noble metal@carbon nanosheet derived from exfoliated MOF crystal as highly reactive and stable heterogeneous catalyst. 2018 , 447, 222-234	32

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1566	Sub-5 nm Ultrasmall Metal-Organic Framework Nanocrystals for Highly Efficient Electrochemical Energy Storage. 2018 , 12, 3947-3953	87
1565	The electrochemical Na intercalation/extraction mechanism of ultrathin cobalt(II) terephthalate-based MOF nanosheets revealed by synchrotron X-ray absorption spectroscopy. 2018 , 14, 82-89	28
1564	Regulating the Charge and Spin Ordering of Two-Dimensional Ultrathin Solids for Electrocatalytic Water Splitting. 2018 , 4, 1263-1283	158
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1562	Charge-regulated sequential adsorption of anionic catalysts and cationic photosensitizers into metal-organic frameworks enhances photocatalytic proton reduction. 2018 , 224, 46-52	60
1561	Nitrogen and sulfur co-doped porous carbon derived from bio-waste as a promising electrocatalyst for zinc-air battery. 2018 , 143, 43-55	79
1560	New insights into evaluating catalyst activity and stability for oxygen evolution reactions in alkaline media. 2018 , 2, 237-251	107
1559	Electrochemical water oxidation: The next five years. 2018 , 7, 31-35	32
1558	Porous, Naturally Derived Hafnium Phytate for the Highly Chemoselective Transfer Hydrogenation of Aldehydes with Other Reducible Moieties. 2018 , 10, 725-730	5
1557	Cobalt-based hydroxide nanoparticles @ N-doping carbonic frameworks core-shell structures as highly efficient bifunctional electrocatalysts for oxygen evolution and oxygen reduction reactions. 2018 , 11, 1482-1489	32
1556	Metal-organic frameworks for electrocatalysis. 2018 , 373, 22-48	245
1555	Copper Oxide-Cobalt Nanostructures/Reduced Graphene Oxide/Biomass-Derived Macroporous Carbon for Glucose Sensing. 2018 , 5, 501-506	21
1554	Self-Supported Hierarchical Nanostructured NiFe-LDH and Cu ₃ P Weaving Mesh Electrodes for Efficient Water Splitting. 2018 , 6, 380-388	63
1553	Metal-Organic Frameworks as Platforms for Catalytic Applications. 2018 , 30, e1703663	833
1552	Hierarchical Hollow Nanoprisms Based on Ultrathin Ni-Fe Layered Double Hydroxide Nanosheets with Enhanced Electrocatalytic Activity towards Oxygen Evolution. 2018 , 57, 172-176	375
1551	Microwave-induced synthesis of a bimetallic charge-transfer metal organic framework: a promising host for the chemical fixation of CO ₂ . 2018 , 8, 591-600	61

1550	A novel method to significantly boost the electrocatalytic activity of carbon cloth for oxygen evolution reaction. 2018 , 129, 468-475	16
1549	Nanoporous Zn-doped Co ₃ O ₄ sheets with single-unit-cell-wide lateral surfaces for efficient oxygen evolution and water splitting. 2018 , 44, 371-377	111
1548	Well-Defined Cobalt Catalyst with N-Doped Carbon Layers Enwrapping: The Correlation between Surface Atomic Structure and Electrocatalytic Property. 2018 , 14, 1702074	41
1547	Hierarchical Hollow Nanoprisms Based on Ultrathin Ni-Fe Layered Double Hydroxide Nanosheets with Enhanced Electrocatalytic Activity towards Oxygen Evolution. 2018 , 130, 178-182	50
1546	In situ encapsulation of core-shell-structured Co@Co ₃ O ₄ into nitrogen-doped carbon polyhedra as a bifunctional catalyst for rechargeable Zn-air batteries. 2018 , 6, 1443-1453	129
1545	High-performance oxygen evolution catalyst using two-dimensional ultrathin metal-organic frameworks nanosheets. 2018 , 44, 345-352	190
1544	Engineering the coordination geometry of metal-organic complex electrocatalysts for highly enhanced oxygen evolution reaction. 2018 , 6, 805-810	57
1543	Defect-Rich Ni ₃ FeN Nanocrystals Anchored on N-Doped Graphene for Enhanced Electrocatalytic Oxygen Evolution. 2018 , 28, 1706018	127
1542	Boron- and Iron-Incorporated [Co(OH) ₂] Ultrathin Nanosheets as an Efficient Oxygen Evolution Catalyst. 2018 , 5, 593-597	16
1541	High-Performance Transition Metal Phosphide Alloy Catalyst for Oxygen Evolution Reaction. 2018 , 12, 158-167	231
1540	Metal-organic framework nanosheets-guided uniform lithium deposition for metallic lithium batteries. 2018 , 11, 267-273	61
1539	Co/CoP embedded in a hairy nitrogen-doped carbon polyhedron as an advanced tri-functional electrocatalyst. 2018 , 5, 108-115	135
1538	Remarkably enhanced water splitting activity of nickel foam due to simple immersion in a ferric nitrate solution. 2018 , 11, 3959-3971	45
1537	Nanoscale Trimetallic Metal-Organic Frameworks Enable Efficient Oxygen Evolution Electrocatalysis. 2018 , 130, 1906-1910	97
1536	Nanoscale Trimetallic Metal-Organic Frameworks Enable Efficient Oxygen Evolution Electrocatalysis. 2018 , 57, 1888-1892	398
1535	Kinetically Controlled Coprecipitation for General Fast Synthesis of Sandwiched Metal Hydroxide Nanosheets/Graphene Composites toward Efficient Water Splitting. 2018 , 28, 1704594	73
1534	Pristine Metal-Organic Frameworks and their Composites for Energy Storage and Conversion. 2018 , 30, e1702891	399
1533	Mechanistic Insights into Growth of Surface-Mounted Metal-Organic Framework Films Resolved by Infrared (Nano-) Spectroscopy. 2018 , 24, 187-195	40

1532	Ultrathin and Porous Carbon Nanosheets Supporting Bimetallic Nanoparticles for High-Performance Electrocatalysis. 2018 , 10, 1241-1247	3
1531	Mesoporous Metal-Organic Frameworks: Synthetic Strategies and Emerging Applications. 2018 , 14, e1801454	92
1530	Simultaneous determination of amlodipine and losartan using an iron metal-organic framework/mesoporous carbon nanocomposite-modified glassy carbon electrode by differential pulse voltammetry. 2018 , 10, 5423-5438	17
1529	Ni(ii)-based coordination polymers for efficient electrocatalytic oxygen evolution reaction.. 2018 , 8, 38562-38566	66
1528	Comparison of two water oxidation electrocatalysts by copper or zinc supermolecule complexes based on porphyrin ligand.. 2018 , 8, 40054-40059	6
1527	Ultrafine bimetallic phosphide nanoparticles embedded in carbon nanosheets: two-dimensional metal-organic framework-derived non-noble electrocatalysts for the highly efficient oxygen evolution reaction. 2018 , 10, 19774-19780	22
1526	Nickel Metal-Organic Framework Monolayers for Photoreduction of Diluted CO ₂ : Metal-Node-Dependent Activity and Selectivity. 2018 , 130, 17053-17057	43
1525	A Dynamically Stabilized Single-Nickel Electrocatalyst for Selective Reduction of Oxygen to Hydrogen Peroxide. 2018 , 24, 17011-17018	9
1524	Nickel Metal-Organic Framework Monolayers for Photoreduction of Diluted CO ₂ : Metal-Node-Dependent Activity and Selectivity. 2018 , 57, 16811-16815	259
1523	Metal-Organic Frameworks-Based Electrocatalysis: Insight and Future Perspectives. 2018 , 38, 166-209	8
1522	Phytic Acid-Assisted Formation of Hierarchical Porous CoP/C Nanoboxes for Enhanced Lithium Storage and Hydrogen Generation. 2018 , 12, 12238-12246	90
1521	Simulating Powder X-ray Diffraction Patterns of Two-Dimensional Materials. 2018 , 57, 15123-15132	18
1520	Metamagnetism in Nanosheets of Co-MOF with T at 26 K and a Giant Hysteretic Effect at 5 K. 2018 , 57, 15044-15047	7
1519	Hierarchical MoS ₂ /Ni ₃ S ₂ core-shell nanofibers for highly efficient and stable overall-water-splitting in alkaline media. 2018 , 10, 214-221	11
1518	Two-Dimensional Metal-Organic Layers on Carbon Nanotubes to Overcome Conductivity Constraint in Electrocatalysis. 2018 , 10, 36290-36296	27
1517	Boosting Electrocatalytic Oxygen Evolution Performance of Ultrathin Co/Ni-MOF Nanosheets via Plasmon-Induced Hot Carriers. 2018 , 10, 37095-37102	49
1516	Metal-Organic Frameworks Encapsulating Active Nanoparticles as Emerging Composites for Catalysis: Recent Progress and Perspectives. 2018 , 30, e1800702	248
1515	Insight into Fe(Salen) Encapsulated Co-Porphyrin Framework Derived Thin Film for Efficient Oxygen Evolution Reaction. 2018 , 18, 7150-7157	12

1514	Heterostructure CoS/NC@MoS ₂ Hollow Spheres for High-Performance Hydrogen Evolution Reactions and Lithium-ION Batteries. 2018 , 5, 3953-3960	25
1513	Predicting a new class of metal-organic frameworks as efficient catalyst for bi-functional oxygen evolution/reduction reactions. 2018 , 367, 206-211	45
1512	Bimetallic Hofmann-Type Metal-Organic Framework Nanoparticles for Efficient Electrocatalysis of Oxygen Evolution Reaction. 2018 ,	14
1511	Construction of Hierarchically Porous Nanoparticles@Metal-Organic Frameworks Composites by Inherent Defects for the Enhancement of Catalytic Efficiency. 2018 , 30, e1803263	68
1510	Preparation of a High Performance Electrocatalyst for Oxygen Reduction Reaction by Suppressing the Agglomeration of the Carbon Material with RbCl. 2018 , 10, 5190-5193	1
1509	Highly Efficient Acidic Oxygen Evolution Electrocatalysis Enabled by Porous Ir@Cu Nanocrystals with Three-Dimensional Electrocatalytic Surfaces. 2018 , 30, 8571-8578	53
1508	Two new 3D isostructural Co/Ni-MOFs showing four-fold polyrotaxane-like networks: Synthesis, crystal structures and hydrogen evolution reaction. 2018 , 98, 141-144	13
1507	Constructing NiCo/FeO Heteroparticles within MOF-74 for Efficient Oxygen Evolution Reactions. 2018 , 140, 15336-15341	193
1506	Ultrathin 2D Cobalt Zeolite-Imidazole Framework Nanosheets for Electrocatalytic Oxygen Evolution. 2018 , 5, 1801029	65
1505	Trimetallic Sulfide Mesoporous Nanospheres as Superior Electrocatalysts for Rechargeable Zn-Air Batteries. 2018 , 8, 1801839	69
1504	Two-Dimensional NiSe/N-Rich Carbon Nanocomposites Derived from Ni-Hexamine Frameworks for Superb Na-Ion Storage. 2018 , 10, 34193-34201	75
1503	Hierarchical Cobalt Borate/MXenes Hybrid with Extraordinary Electrocatalytic Performance in Oxygen Evolution Reaction. 2018 , 11, 3758-3765	40
1502	Tuning Ni-Foam into NiOOH/FeOOH Heterostructures toward Superior Water Oxidation Catalyst via Three-Step Strategy. 2018 , 3, 11009-11017	16
1501	Self-Templated Formation of Pt@ZIF-8/SiO ₂ Composite with 3D-Ordered Macropores and Size-Selective Catalytic Properties. 2018 , 2, 1800219	20
1500	A boron imidazolate framework with mechanochromic and electrocatalytic properties. 2018 , 5, 1151-1155	36
1499	Two-dimensional metal-organic frameworks nanosheets: Synthesis strategies and applications. 2018 , 483, 550-564	33
1498	Mosaic-Structured Cobalt Nickel Thiophosphate Nanosheets Incorporated N-doped Carbon for Efficient and Stable Electrocatalytic Water Splitting. 2018 , 28, 1805075	38
1497	Cobalt-Based Metal-Organic Framework Nanoarrays as Bifunctional Oxygen Electrocatalysts for Rechargeable Zn-Air Batteries. 2018 , 24, 18413-18418	40

1496	Copper-catalyzed one-pot domino reactions C-H bond activation: synthesis of 3-arylquinolines from 2-aminobenzylalcohols and propiophenones under metal-organic framework catalysis.. 2018 , 8, 31455-31464	10
1495	Ultrathin Nanobelts as an Excellent Bifunctional Oxygen Catalyst: Insight into the Subtle Changes in Structure and Synergistic Effects of Bimetallic Metal-Organic Framework. 2018 , 2, 1800240	57
1494	Mixed-Node Metal-Organic Frameworks as Efficient Electrocatalysts for Oxygen Evolution Reaction. 2018 , 3, 2520-2526	163
1493	Redox-Mediator-Assisted Electrocatalytic Hydrogen Evolution from Water by a Molybdenum Sulfide-Functionalized Metal-Organic Framework. 2018 , 8, 9848-9858	73
1492	Revealing the Role of Electrocatalyst Crystal Structure on Oxygen Evolution Reaction with Nickel as an Example. 2018 , 14, e1802895	13
1491	Ultrathin two-dimensional metal-organic framework nanosheets for functional electronic devices. 2018 , 377, 44-63	138
1490	Modulating Electronic Structure of Metal-Organic Framework for Efficient Electrocatalytic Oxygen Evolution. 2018 , 8, 1801564	178
1489	Modulation of Hydrogen Evolution Catalytic Activity of Basal Plane in Monolayer Platinum and Palladium Dichalcogenides. 2018 , 3, 10058-10065	29
1488	In situ growth of well-ordered NiFe-MOF-74 on Ni foam by Fe induction as an efficient and stable electrocatalyst for water oxidation. 2018 , 54, 7046-7049	119
1487	A bimetallic oxide FeMoO electrocatalyst with highly efficient hydrogen evolution reaction activity in alkaline and acidic media. 2018 , 9, 5640-5645	30
1486	A 2D Conductive Organic-Inorganic Hybrid with Extraordinary Volumetric Capacitance at Minimal Swelling. 2018 , 30, e1800400	27
1485	Synthetic Strategies for Constructing Two-Dimensional Metal-Organic Layers (MOLs): A Tutorial Review. 2018 , 36, 754-764	44
1484	Metal-Organic Framework Hybrid-Assisted Formation of Co O /Co-Fe Oxide Double-Shelled Nanoboxes for Enhanced Oxygen Evolution. 2018 , 30, e1801211	287
1483	Dual-Emitting UiO-66(Zr&Eu) Metal-Organic Framework Films for Ratiometric Temperature Sensing. 2018 , 10, 20854-20861	46
1482	Hierarchical Two-Dimensional Conductive Metal-Organic Framework/Layered Double Hydroxide Nanoarray for a High-Performance Supercapacitor. 2018 , 57, 6202-6205	68
1481	PPy enhanced Fe, W Co-doped Co ₃ O ₄ free-standing electrode for highly-efficient oxygen evolution reaction. 2018 , 48, 1189-1195	0
1480	A Cobalt-Based Metal-Organic Framework as Cocatalyst on BiVO Photoanode for Enhanced Photoelectrochemical Water Oxidation. 2018 , 11, 2710-2716	50
1479	In Situ Coupling of Multidimensional MOFs for Heterogeneous Metal-Oxide Architectures: Toward Sensitive Chemiresistors. 2018 , 4, 929-937	38

1478	Metal organic framework derived CoFe@N-doped carbon/reduced graphene sheets for enhanced oxygen evolution reaction. 2018 , 5, 1962-1966	29
1477	Electrochemical behavior of titanium oxide nanoparticles for oxygen reduction reaction environment in PEM fuel cells. 2018 , 9, 235-239	5
1476	Ultrathin Metal-Organic Framework Nanosheet-Derived Ultrathin CoO Nanomeshes with Robust Oxygen-Evolving Performance and Asymmetric Supercapacitors. 2018 , 10, 23721-23730	136
1475	First-principles design of bifunctional oxygen reduction and evolution catalysts through bimetallic centers in metal-organic frameworks. 2018 , 8, 3666-3674	13
1474	Conductive Leaflike Cobalt Metal-Organic Framework Nanoarray on Carbon Cloth as a Flexible and Versatile Anode toward Both Electrocatalytic Glucose and Water Oxidation. 2018 , 57, 8422-8428	69
1473	Solution-Phase Synthesis of Platinum Nanoparticle-Decorated Metal-Organic Framework Hybrid Nanomaterials as Biomimetic Nanoenzymes for Biosensing Applications. 2018 , 10, 24108-24115	79
1472	Binary Transition-Metal Oxide Hollow Nanoparticles for Oxygen Evolution Reaction. 2018 , 10, 24715-24724	47
1471	Two-dimensional metal-organic framework nanosheets: synthesis and applications. 2018 , 47, 6267-6295	662
1470	Systematic design of superaerophobic nanotube-array electrode comprised of transition-metal sulfides for overall water splitting. 2018 , 9, 2452	269
1469	Facile synthesis of silver nanowire-zeolitic imidazolate framework 67 composites as high-performance bifunctional oxygen catalysts. 2018 , 10, 15755-15762	32
1468	Two-Dimensional Metal-Organic Framework Nanosheets: A Rapidly Growing Class of Versatile Nanomaterials for Gas Separation, MALDI-TOF Matrix and Biomimetic Applications. 2018 , 24, 15131-15142	49
1467	Well-aligned metal-organic framework array-derived CoS ₂ nanosheets toward robust electrochemical water splitting. 2018 , 2, 1732-1738	21
1466	Surface Sulfurization of NiCo-Layered Double Hydroxide Nanosheets Enable Superior and Durable Oxygen Evolution Electrocatalysis. 2018 , 1, 4040-4049	45
1465	Activity enhancement via borate incorporation into a NiFe (oxy)hydroxide catalyst for electrocatalytic oxygen evolution. 2018 , 6, 16959-16964	14
1464	Atomic-level insight into super-efficient electrocatalytic oxygen evolution on iron and vanadium co-doped nickel (oxy)hydroxide. 2018 , 9, 2885	398
1463	Carbon-Rich Nanomaterials: Fascinating Hydrogen and Oxygen Electrocatalysts. 2018 , 30, e1800528	102
1462	Two-Dimensional Boron Sheets as Metal-Free Catalysts for Hydrogen Evolution Reaction. 2018 , 122, 19051-19055	41
1461	Superhydrophilic Heteroporous MoS ₂ /Ni ₃ S ₂ for Highly Efficient Electrocatalytic Overall Water Splitting. 2018 , 1, 3929-3936	43

1460	Metal/covalent-organic frameworks-based electrocatalysts for water splitting. 2018 , 6, 15905-15926	180
1459	Potassium vanadates with stable structure and fast ion diffusion channel as cathode for rechargeable aqueous zinc-ion batteries. 2018 , 51, 579-587	291
1458	Coupling confinement activating cobalt oxide ultra-small clusters for high-turnover oxygen evolution electrocatalysis. 2018 , 6, 15684-15689	21
1457	Iron Vacancies Induced Bifunctionality in Ultrathin Feoxyhyte Nanosheets for Overall Water Splitting. 2018 , 30, e1803144	160
1456	Metal-Organic Framework Nanosheet Electrocatalysts for Efficient H ₂ Production from Methanol Solution: Methanol-Assisted Water Splitting or Methanol Reforming?. 2018 , 10, 25422-25428	63
1455	Cobalt/Iron(Oxides) Heterostructures for Efficient Oxygen Evolution and Benzyl Alcohol Oxidation Reactions. 2018 , 3, 1854-1860	52
1454	Conductive two-dimensional metal-organic frameworks as multifunctional materials. 2018 , 54, 7873-7891	257
1453	Ni-MOF in-situ Decorating ZnO photoelectrode for photoelectrochemical water splitting. 2018 , 11, 1850085	8
1452	Catalysis and photocatalysis by metal organic frameworks. 2018 , 47, 8134-8172	751
1451	Metallic Cobalt-Carbon Composite as Recyclable and Robust Magnetic Photocatalyst for Efficient CO Reduction. 2018 , 14, e1800762	61
1450	Recent progress in two-dimensional polymers for energy storage and conversion: design, synthesis, and applications. 2018 , 6, 21676-21695	56
1449	In-situ immobilization and pyrolysis of metal-organic framework supported on biomorphic layered double hydroxides as highly active and stable heterogeneous catalyst. 2018 , 88, 78-88	12
1448	Atomically Thin 2D Multinary Nanosheets for Energy-Related Photo, Electrocatalysis. 2018 , 5, 1800244	39
1447	NiFe-Based Metal-organic Framework Nanosheets Directly Supported on Nickel Foam Acting as Robust Electrodes for Electrochemical Oxygen Evolution Reaction. 2018 , 8, 1800584	290
1446	Single Co Atoms Anchored in Porous N-Doped Carbon for Efficient Zinc-Air Battery Cathodes. 2018 , 8, 8961-8969	250
1445	Novel Cobalt Germanium Hydroxide for Electrochemical Water Oxidation. 2018 , 10, 30357-30366	12
1444	Metal-organic frameworks for direct electrochemical applications. 2018 , 376, 292-318	294
1443	Boosting electrocatalysis of oxygen reduction reaction through photovoltaic-driven potential manipulation strategy. 2018 , 10, 34-39	1

1442	Operando Spectroscopic Identification of Active Sites in NiFe Prussian Blue Analogues as Electrocatalysts: Activation of Oxygen Atoms for Oxygen Evolution Reaction. 2018 , 140, 11286-11292	239
1441	The interlocked in situ fabrication of graphene@prussian blue nanocomposite as high-performance supercapacitor. 2018 , 47, 13126-13134	20
1440	Overall Water-Splitting Electrocatalysts Based on 2D CoNi-Metal-Organic Frameworks and Its Derivative. 2018 , 5, 1800849	43
1439	Colloidal Synthesis of Ultrathin Monoclinic BiVO ₄ Nanosheets for Z-Scheme Overall Water Splitting under Visible Light. 2018 , 8, 8649-8658	105
1438	In Situ Grown Bimetallic MOF-Based Composite as Highly Efficient Bifunctional Electrocatalyst for Overall Water Splitting with Ultrastability at High Current Densities. 2018 , 8, 1801065	168
1437	Enhanced Electrocatalytic Oxygen Evolution by Exfoliation of a Metal-Organic Framework Containing Cationic One-Dimensional [Co ₄ (OH) ₂] ⁶⁺ Chains. 2018 , 1, 2446-2451	13
1436	hybridization of an MXene/TiO ₂ /NiFeCo-layered double hydroxide composite for electrochemical and photoelectrochemical oxygen evolution.. 2018 , 8, 20576-20584	46
1435	Electrode Materials for Sodium-Ion Batteries: Considerations on Crystal Structures and Sodium Storage Mechanisms. 2018 , 1, 200-237	130
1434	Ultrathin nanosheet-assembled [Ni(OH)(PTA)(HO)] ₂ HO hierarchical flowers for high-performance electrocatalysis of glucose oxidation reactions. 2018 , 10, 13270-13276	80
1433	Rational Design of Catalytic Centers in Crystalline Frameworks. 2018 , 30, e1707582	70
1432	Single-Atom Catalysts for Electrochemical Water Splitting. 2018 , 3, 1713-1721	198
1431	Ultrathin two-dimensional cobalt-organic framework nanosheets for high-performance electrocatalytic oxygen evolution. 2018 , 6, 22070-22076	182
1430	Layered Metal-Organic Framework-Derived Metal Oxide/Carbon Nanosheet Arrays for Catalyzing the Oxygen Evolution Reaction. 2018 , 3, 1655-1661	114
1429	Asymmetric 3d Electronic Structure for Enhanced Oxygen Evolution Catalysis. 2018 , 10, 23131-23139	40
1428	Secondary-Component Incorporated Hollow MOFs and Derivatives for Catalytic and Energy-Related Applications. 2019 , 31, e1800743	88
1427	In situ encapsulated nickel-copper nanoparticles in metal-organic frameworks for oxygen evolution reaction. 2019 , 770, 236-242	27
1426	Recent Approaches to Design Electrocatalysts Based on Metal-Organic Frameworks and Their Derivatives. 2019 , 14, 3474-3501	25
1425	Ultrathin yttrium fluoride nanostructures: controlled synthesis and polarized up-conversion emission property. 2019 , 7, 10918-10925	6

1424	Examination and prevention of ring collection failure during gas-evolving reactions on a rotating ring-disk electrode. 2019 , 850, 113363	12
1423	Morphology-Controlled Synthesis of Ni-MOFs with Highly Enhanced Electrocatalytic Performance for Urea Oxidation. 2019 , 58, 11449-11457	27
1422	Creating Giant Secondary Building Layers via Alkali-Etching Exfoliation for Precise Synthesis of Metal-Organic Frameworks. 2019 , 31, 7584-7589	22
1421	2D Metal-Organic Frameworks as Multifunctional Materials in Heterogeneous Catalysis and Electro/Photocatalysis. 2019 , 31, e1900617	199
1420	Core-shell-type ZIF-8@ZIF-67@POM hybrids as efficient electrocatalysts for the oxygen evolution reaction. 2019 , 6, 2514-2520	50
1419	Hierarchical Assembly of Prussian Blue Derivatives for Superior Oxygen Evolution Reaction. 2019 , 29, 1904955	48
1418	Surface-Restructured Core/Shell [email[protected]]3O4 Nanocomposites as Efficient Catalysts for the Oxygen Evolution Reaction. 2019 , 58, 16581-16587	14
1417	Ultralow-Content Iron-Decorated Ni-MOF-74 Fabricated by a Metal-Organic Framework Surface Reaction for Efficient Electrocatalytic Water Oxidation. 2019 , 58, 11500-11507	36
1416	Stable Iron Hydroxide Nanosheets@Cobalt-Metal-Organic-Framework Heterostructure for Efficient Electrocatalytic Oxygen Evolution. 2019 , 12, 4623-4628	27
1415	Hydrangea-like NiCo-based Bimetal-organic Frameworks, and their Pros and Cons as Supercapacitor Electrode Materials in Aqueous Electrolytes. 2019 , 645, 1022-1030	13
1414	2D materials as an emerging platform for nanopore-based power generation. 2019 , 4, 588-605	120
1413	Bifunctional Electrocatalytic Activity of Nitrogen-Doped NiO Nanosheets for Rechargeable Zinc-Air Batteries. 2019 , 11, 30865-30871	26
1412	Preparing LaMnO ₃ nanocrystals on surface graphitized micro-diamond for efficient oxygen reduction. 2019 , 807, 151684	2
1411	In Situ Generation of Bifunctional Fe-Doped MoS Nanocanopies for Efficient Electrocatalytic Water Splitting. 2019 , 58, 11202-11209	40
1410	Surface states in bulk single crystal of topological semimetal CoSnS toward water oxidation. 2019 , 5, eaaw9867	63
1409	Facile one-pot generation of metal oxide/hydroxide@metal-organic framework composites: highly efficient bifunctional electrocatalysts for overall water splitting. 2019 , 55, 10904-10907	97
1408	Optimization of oxygen evolution dynamics on RuO ₂ via controlling of spontaneous dissociation equilibrium. 2019 , 3, 1779-1785	6
1407	Hierarchical nanocomposite electrocatalyst of bimetallic zeolitic imidazolate framework and MoS ₂ sheets for non-Pt methanol oxidation and water splitting. 2019 , 258, 117970	136

1406	Intermediate Modulation on Noble Metal Hybridized to 2D Metal-Organic Framework for Accelerated Water Electrocatalysis. 2019 , 5, 2429-2441	95
1405	ZIF-67-Derived Cobalt/Nitrogen-Doped Carbon Composites for Efficient Electrocatalytic N ₂ Reduction. 2019 , 2, 6071-6077	34
1404	Sublimation-Vapor Phase Pseudomorphic Transformation of Template-Directed MOFs for Efficient Oxygen Evolution Reaction. 2019 , 29, 1903875	28
1403	In-situ Growth of a Bimetallic Cobalt-Nickel Organic Framework on Iron Foam: Achieving the Electron Modification on a Robust Self-supported Oxygen Evolution Electrode. 2019 , 11, 6061-6069	14
1402	Expediting in-Situ Electrochemical Activation of Two-Dimensional Metal-Organic Frameworks for Enhanced OER Intrinsic Activity by Iron Incorporation. 2019 , 9, 7356-7364	117
1401	Bimetal-Organic Framework Derived High-Valence-State Cu-Doped Co ₃ O ₄ Porous Nanosheet Arrays for Efficient Oxygen Evolution and Water Splitting. 2019 , 11, 4420-4426	17
1400	Electrodeposition of sulfur-engineered amorphous nickel hydroxides on MIL-53(Fe) nanosheets to accelerate the oxygen evolution reaction. 2019 , 11, 14785-14792	29
1399	Layered metal-organic framework based on tetracyanonickelate as a cathode material for Li-ion storage.. 2019 , 9, 21363-21370	23
1398	A surface-mounted MOF thin film with oriented nanosheet arrays for enhancing the oxygen evolution reaction. 2019 , 7, 18519-18528	52
1397	Preparation of hierarchical trimetallic coordination polymer film as efficient electrocatalyst for oxygen evolution reaction. 2019 , 55, 9343-9346	12
1396	N,P co-doped hollow carbon nanofiber membranes with superior mass transfer property for trifunctional metal-free electrocatalysis. 2019 , 64, 103879	70
1395	A Surfactant-Free and Scalable General Strategy for Synthesizing Ultrathin Two-Dimensional Metal-Organic Framework Nanosheets for the Oxygen Evolution Reaction. 2019 , 131, 13699-13706	37
1394	A Surfactant-Free and Scalable General Strategy for Synthesizing Ultrathin Two-Dimensional Metal-Organic Framework Nanosheets for the Oxygen Evolution Reaction. 2019 , 58, 13565-13572	121
1393	Shape-Assisted 2D MOF/Graphene Derived Hybrids as Exceptional Lithium-Ion Battery Electrodes. 2019 , 29, 1902539	71
1392	Stable Bimetal-MOF Ultrathin Nanosheets for Pseudocapacitors with Enhanced Performance. 2019 , 58, 9543-9547	28
1391	NiFe (sulfur)oxyhydroxide porous nanoclusters/Ni foam composite electrode drives a large-current-density oxygen evolution reaction with an ultra-low overpotential. 2019 , 7, 18816-18822	17
1390	Overwhelming the Performance of Single Atoms with Atomic Clusters for Platinum-Catalyzed Hydrogen Evolution. 2019 , 9, 8213-8223	36
1389	Ca ²⁺ -doped ultrathin cobalt hydroxyl oxides derived from coordination polymers as efficient electrocatalysts for the oxidation of water. 2019 , 7, 19415-19422	20

1388	The effect of pore size and layer number of metalâ€porphyrin coordination nanosheets on sensing DNA. 2019 , 7, 10240-10246	15
1387	MoS2 coating on CoSx-embedded nitrogen-doped-carbon-nanosheets grown on carbon cloth for energy conversion. 2019 , 806, 1276-1284	4
1386	Photocatalytic Oxygenation and Deoxygenation Transformations over BCN Nanosheets. 2019 , 9, 8068-8072	28
1385	Metal-organic frameworks for catalysis: State of the art, challenges, and opportunities. 2019 , 1, 100005	204
1384	Ultrathin NiFeZn-MOF nanosheets containing few metal oxide nanoparticles grown on nickel foam for efficient oxygen evolution reaction of electrocatalytic water splitting. 2019 , 318, 957-965	30
1383	Heterometallic Metalâ€Organic Frameworks (MOFs): The Advent of Improving the Energy Landscape. 2019 , 4, 1938-1946	48
1382	Co3O4 Nanoparticles with Ultrasmall Size and Abundant Oxygen Vacancies for Boosting Oxygen Involved Reactions. 2019 , 29, 1903444	59
1381	Stability Trend of Metalâ€Organic Frameworks with Heterometal-Modified Hexanuclear Zr Building Units. 2019 , 123, 28266-28274	8
1380	Niâ€Be Phosphate/Ni Foam Electrode: Facile Hydrothermal Synthesis and Ultralong Oxygen Evolution Reaction Durability. 2019 , 7, 18332-18340	21
1379	Exploring the Influence of Halogen Coordination Effect of Stable Bimetallic MOFs on Oxygen Evolution Reaction. 2019 , 25, 15830-15836	19
1378	Partial Sulfurization of a 2D MOF Array for Highly Efficient Oxygen Evolution Reaction. 2019 , 11, 41595-41601	44
1377	Cooperative Stabilization of the [Pyridinium-CO-Co] Adduct on a Metal-Organic Layer Enhances Electrocatalytic CO Reduction. 2019 , 141, 17875-17883	66
1376	Boosting Enantioselectivity of Chiral Organocatalysts with Ultrathin Two-Dimensional Metal-Organic Framework Nanosheets. 2019 , 141, 17685-17695	88
1375	A Scalable General Synthetic Approach toward Ultrathin Imine-Linked Two-Dimensional Covalent Organic Framework Nanosheets for Photocatalytic CO Reduction. 2019 , 141, 17431-17440	201
1374	Heptanuclear brucite disk with cyanide bridges in a cocrystal and tracking its pyrolysis to an efficient oxygen evolution electrode. 2019 , 64, 1667-1674	10
1373	Tailoring Coordination Polymers by Substituent Effect: A Bifunctional Co -Doped 1D-Coordination Network with Electrochemical Water Oxidation and Nitroaromatics Sensing. 2019 , 14, 3742-3747	12
1372	Electrochemically accessing ultrathin Co (oxy)-hydroxide nanosheets and operando identifying their active phase for the oxygen evolution reaction. 2019 , 12, 739-746	98
1371	Engineering Bimetal Synergistic Electrocatalysts Based on Metal-Organic Frameworks for Efficient Oxygen Evolution. 2019 , 15, e1903410	82

1370	Mixed-Metal-Cluster Strategy for Boosting Electrocatalytic Oxygen Evolution Reaction of Robust Metal-Organic Frameworks. 2019 , 11, 45080-45086	24
1369	Universal scaling relations for the rational design of molecular water oxidation catalysts with near-zero overpotential. 2019 , 10, 4993	85
1368	A New Three-dimensional Metal-organic Framework based on Dinuclear Rare Earth Cluster and Olsalazine. 2019 , 645, 1267-1270	5
1367	In Situ Coordination Environment Tuning of Cobalt Sites for Efficient Water Oxidation. 2019 , 9, 11734-11742	20
1366	Boosting the activity of Prussian-blue analogue as efficient electrocatalyst for water and urea oxidation. 2019 , 9, 15965	23
1365	The Synergetic Effect of Ni and Fe Bi-metal Single Atom Catalysts on Graphene for Highly Efficient Oxygen Evolution Reaction. 2019 , 6,	14
1364	Fine-Tuning the Coordinatively Unsaturated Metal Sites of Metal-Organic Frameworks by Plasma Engraving for Enhanced Electrocatalytic Activity. 2019 , 11, 44300-44307	24
1363	A bio-inspired coordination polymer as outstanding water oxidation catalyst via second coordination sphere engineering. 2019 , 10, 5074	88
1362	Amorphous Fe-Ni-P-B-O Nanocages as Efficient Electrocatalysts for Oxygen Evolution Reaction. 2019 , 13, 12969-12979	80
1361	Atomic- and Molecular-Level Design of Functional Metal-Organic Frameworks (MOFs) and Derivatives for Energy and Environmental Applications. 2019 , 6, 1901129	77
1360	Metal-organic framework nanosheets: a class of glamorous low-dimensional materials with distinct structural and chemical natures. 2019 , 62, 1561-1575	23
1359	Theoretical Understanding of Electrocatalytic Hydrogen Production Performance by Low-Dimensional Metal-Organic Frameworks on the Basis of Resonant Charge-Transfer Mechanisms. 2019 , 10, 6955-6961	4
1358	Intercalated Iridium Diselenide Electrocatalysts for Efficient pH-Universal Water Splitting. 2019 , 58, 14764-14769	69
1357	Oxygen Evolution Reaction on 2D Ferromagnetic Fe ₃ GeTe ₂ : Boosting the Reactivity by the Self-Reduction of Surface Hydroxyl. 2019 , 29, 1904782	23
1356	Intercalated Iridium Diselenide Electrocatalysts for Efficient pH-Universal Water Splitting. 2019 , 131, 14906-14911	18
1355	From Low- to High-Crystallinity Bimetallic Organic Framework Nanosheet with Highly Exposed Boundaries: An Efficient and Stable Electrocatalyst for Oxygen Evolution Reaction. 2019 , 7, 16629-16639	29
1354	The synthetic strategies of metal-organic framework membranes, films and 2D MOFs and their applications in devices. 2019 , 7, 21004-21035	60
1353	Recent progress in two-dimensional nanomaterials: Synthesis, engineering, and applications. 2019 , 18, 100133	33

1352	Modulating the Electronic Structure of Porous Nanocubes Derived from Trimetallic Metal-Organic Frameworks to Boost Oxygen Evolution Reaction Performance. 2019 , 14, 3357-3362	7
1351	Ultrathin 2D nickel zeolitic imidazolate framework nanosheets for electrocatalytic reduction of CO. 2019 , 55, 11634-11637	35
1350	Photo-exfoliation of a highly photo-responsive two-dimensional metal-organic framework. 2019 , 55, 11715-11718	11
1349	Nano-confined crystallization of organic ultrathin nanostructure arrays with programmable geometries. 2019 , 10, 3912	21
1348	Oxygen-Evolution Catalysts Based on Iron-Mediated Nickel Metal-Organic Frameworks. 2019 , 2, 6334-6342	24
1347	Electrocatalytic Hydrogen Evolution from a Cobaloxime-Based Metal-Organic Framework Thin Film. 2019 , 141, 15942-15950	82
1346	Mass production of superhydrophilic sponges for efficient and stable solar-driven highly corrosive water evaporation. 2019 , 5, 2041-2047	5
1345	Investigation of mixed-metal (oxy)fluorides as a new class of water oxidation electrocatalysts. 2019 , 10, 9209-9218	29
1344	A new 3D 8-fold interpenetrating 66-dia topological Co-MOF: Syntheses, crystal structure, magnetic properties and electrocatalytic hydrogen evolution reaction. 2019 , 279, 120929	17
1343	Tetrahedral UMOFNs/AgPO Core-Shell Photocatalysts for Enhanced Photocatalytic Activity under Visible Light. 2019 , 4, 15975-15984	12
1342	Robust and efficient electrocatalyst for water oxidation based on 4,4'-oxybis(benzoate)-linked copper(II) hydroxido layers. 2019 , 497, 119080	5
1341	On the potential for nanoscale metal-organic frameworks for energy applications. 2019 , 7, 21545-21576	61
1340	Bifunctional Electrocatalytic Activity of Bis(iminothiolato)nickel Monolayer for Overall Water Splitting. 2019 , 123, 25651-25656	11
1339	Boosting the photocatalytic hydrogen evolution performance via an atomically thin 2D heterojunction visualized by scanning photoelectrochemical microscopy. 2019 , 65, 104053	11
1338	Electroactive metal-organic framework composites: Design and biosensing application. 2019 , 146, 111743	41
1337	Defect-Rich Porous CoS _{1.097} /MoS ₂ Hybrid Microspheres as Electrocatalysts for pH-Universal Hydrogen Evolution. 2019 , 2, 7504-7511	15
1336	Nickel-based MOF derived Ni @ NiO/Ni nanowires with core-shell structure for oxygen evolution reaction. 2019 , 324, 134814	41
1335	Noble metal-based 1D and 2D electrocatalytic nanomaterials: Recent progress, challenges and perspectives. 2019 , 28, 100774	47

1334	Two-dimensional Cobalt Oxy-hydrate Sulfide Nanosheets with Modified t _{2g} Orbital State of CoO ₆ Octahedron for Efficient Overall Water Splitting. 2019 , 7, 17325-17334	7
1333	Directly anchoring 2D NiCo metal-organic frameworks on few-layer black phosphorus for advanced lithium-ion batteries. 2019 , 7, 783-790	77
1332	Mesoporous cobalt-iron-organic frameworks: a plasma-enhanced oxygen evolution electrocatalyst. 2019 , 7, 3090-3100	57
1331	Exfoliation of amorphous phthalocyanine conjugated polymers into ultrathin nanosheets for highly efficient oxygen reduction. 2019 , 7, 3112-3119	55
1330	Cathodized copper porphyrin metal-organic framework nanosheets for selective formate and acetate production from CO electroreduction. 2019 , 10, 2199-2205	106
1329	Bimetallic metal-organic framework nanosheets as efficient electrocatalysts for oxygen evolution reaction. 2019 , 272, 32-37	34
1328	A 2D metal-organic framework/Ni(OH) heterostructure for an enhanced oxygen evolution reaction. 2019 , 11, 3599-3605	86
1327	Smart Yolk/Shell Hybrids as Efficient Electrocatalysts for the Oxygen Evolution Reaction. 2019 , 7, 5027-5033	72
1326	Metal-Organic Framework-Derived Hierarchical (Co,Ni)Se@NiFe LDH Hollow Nanocages for Enhanced Oxygen Evolution. 2019 , 11, 8106-8114	128
1325	Recent progress in metal-organic polymers as promising electrodes for lithium/sodium rechargeable batteries. 2019 , 7, 4259-4290	186
1324	Heterogeneous NiSe ₂ /Ni Ultrafine Nanoparticles Embedded into an N,S-Codoped Carbon Framework for pH-Universal Hydrogen Evolution Reaction. 2019 , 7, 4119-4127	20
1323	Ascorbic acid electrocatalytic activity in different electrolyte solutions using electrodeposited Co(OH) ₂ . 2019 , 25, 1911-1920	5
1322	Artificial photosynthesis with metal and covalent organic frameworks (MOFs and COFs): challenges and prospects in fuel-forming electrocatalysis. 2019 , 166, 460-471	20
1321	CoP-Doped MOF-Based Electrocatalyst for pH-Universal Hydrogen Evolution Reaction. 2019 , 58, 4679-4684	348
1320	NiCo hydroxide nanosheets on plasma-reduced Co-based metal-organic nanocages for electrocatalytic water oxidation. 2019 , 7, 4950-4959	42
1319	Facile synthesis of hierarchical porous NiCoSeO networks with controllable composition as a new and efficient water oxidation catalyst. 2019 , 11, 3268-3274	17
1318	Bifunctional iron disulfide nanoellipsoids for high energy density supercapacitor and electrocatalytic oxygen evolution applications. 2019 , 6, 659-670	20
1317	High Efficiency FeNi-Metal-Organic Framework Grown In-situ on Nickel Foam for Electrocatalytic Oxygen Evolution. 2019 , 4, 5988-5994	7

1316	Considerations for the scaling-up of water splitting catalysts. <i>Nature Energy</i> , 2019 , 4, 430-433	62.3 387
1315	Highly Mesoporous Ru-MIL-125-NH ₂ Produced by Supercritical Fluid for Efficient Photocatalytic Hydrogen Production. 2019 , 2, 4964-4970	23
1314	MOF-derived Co ₃ O ₄ thin film decorated BiVO ₄ for enhancement of photoelectrochemical water splitting. 2019 , 491, 497-504	42
1313	Fabrication of 2D metal-organic framework nanosheet@fiber composites by spray technique. 2019 , 55, 8293-8296	18
1312	Galvanic exchange carving growth of Co ²⁺ LDHs with enhanced water oxidation. 2019 , 44, 20085-20092	8
1311	Copper coordination polymer electrocatalyst for strong hydrogen evolution reaction activity in neutral medium: influence of coordination environment and network structure. 2019 , 9, 4347-4354	11
1310	A Fully Reversible Water Electrolyzer Cell Made Up from FeCoNi (Oxy)hydroxide Atomic Layers. 2019 , 9, 1901312	69
1309	MOF-templated in situ fabrication of surface-modified Ni/graphitic carbon nitride with enhanced photocatalytic hydrogen evolution. 2019 , 9, 3828-3835	10
1308	Coordination mode engineering in stacked-nanosheet metal-organic frameworks to enhance catalytic reactivity and structural robustness. 2019 , 10, 2779	52
1307	Room temperature thiosulfate ion redox reaction-driven synthesis of a robust porous copper-cobalt-sulfur-oxygen nanowire coating on copper foam for highly-efficient and low-cost oxygen evolution reaction. 2019 , 55, 8587-8590	
1306	Hollow Carbon Nanobelts Codoped with Nitrogen and Sulfur via a Self-Templated Method for a High-Performance Sodium-Ion Capacitor. 2019 , 15, e1902659	39
1305	Acetylene black enhancing the electrochemical performance of NiCo-MOF nanosheets for supercapacitor electrodes. 2019 , 492, 455-463	72
1304	Metal-organic frameworks as emerging platform for supporting isolated single-site catalysts. 2019 , 27, 178-197	44
1303	Metal-organic framework nanosheets: An emerging family of multifunctional 2D materials. 2019 , 395, 25-45	122
1302	General Synthesis of Ultrathin Metal Borate Nanomeshes Enabled by 3D Bark-Like N-Doped Carbon for Electrocatalysis. 2019 , 9, 1901130	30
1301	Self-assembled globular clusters-like cobalt hexacyanoferrate/carbon nanotubes hybrid as efficient nonprecious electrocatalyst for oxygen evolution reaction. 2019 , 434, 126670	27
1300	Role of Sulfur Vacancies and Undercoordinated Mo Regions in MoS Nanosheets toward the Evolution of Hydrogen. 2019 , 13, 6824-6834	229
1299	Stabilization of reactive CoO cubane oxygen-evolution catalysts within porous frameworks. 2019 , 116, 11630-11639	29

1298	FeNi-Based Coordination Crystal Directly Serving as Efficient Oxygen Evolution Reaction Catalyst and Its Density Functional Theory Insight on the Active Site Change Mechanism. 2019 , 11, 20778-20787	20
1297	Recent progress on MOF-derived electrocatalysts for hydrogen evolution reaction. 2019 , 16, 146-168	47
1296	Boosting Electrocatalytic Hydrogen Evolution over Metal-Organic Frameworks by Plasmon-Induced Hot-Electron Injection. 2019 , 131, 10823-10827	15
1295	Boosting Electrocatalytic Hydrogen Evolution over Metal-Organic Frameworks by Plasmon-Induced Hot-Electron Injection. 2019 , 58, 10713-10717	96
1294	Regulation of the Ni Content in a Hierarchical Urchin-Like MOF for High-Performance Electrocatalytic Oxygen Evolution. 2019 , 7, 411	9
1293	A Hybrid Electrocatalyst with a Coordinatively Unsaturated Metal-Organic Framework Shell and Hollow NiS/NiS Core for Oxygen Evolution Reaction Applications. 2019 , 11, 23180-23191	31
1292	A cobalt metal-organic framework (Co-MOF): a bi-functional electro active material for the oxygen evolution and reduction reaction. 2019 , 48, 10557-10564	70
1291	Pristine versus Pyrolyzed Metal-Organic Framework-based Oxygen Evolution Electrocatalysts: Evaluation of Intrinsic Activity Using Electrochemical Impedance Spectroscopy. 2019 , 10, 3630-3636	19
1290	How to Effectively Utilize MOFs for Electrocatalysis. 2019 , 4, 1443-1445	53
1289	Ultrathin Metal-Organic Framework Nanosheets with Ultrahigh Loading of Single Pt Atoms for Efficient Visible-Light-Driven Photocatalytic H ₂ Evolution. 2019 , 131, 10304-10309	56
1288	Self-directed hierarchical Cu ₃ (PO ₄) ₂ /Cu-BDC nanosheets array based on copper foam as an efficient and durable electrocatalyst for overall water splitting. 2019 , 313, 179-188	30
1287	Ultrathin 2D Cu-porphyrin MOF nanosheets as a heterogeneous catalyst for styrene oxidation. 2019 , 3, 1580-1585	30
1286	Two-dimensional bimetallic phosphide ultrathin nanosheets as non-noble electrocatalysts for a highly efficient oxygen evolution reaction. 2019 , 11, 9654-9660	26
1285	Rising Up: Hierarchical Metal-Organic Frameworks in Experiments and Simulations. 2019 , 31, e1901744	67
1284	Ultrathin Metal-Organic Framework Nanosheets with Ultrahigh Loading of Single Pt Atoms for Efficient Visible-Light-Driven Photocatalytic H Evolution. 2019 , 58, 10198-10203	239
1283	A novel electrochemical sensor based on 2D CuTCPP nanosheets and platelet ordered mesoporous carbon composites for hydroxylamine and chlorogenic acid. 2019 , 1075, 71-80	33
1282	Biomimetic design of ultrathin edge-riched FeOOH@Carbon nanotubes as high-efficiency electrocatalysts for water splitting. 2019 , 255, 117755	46
1281	MXene Boosted CoNi-ZIF-67 as Highly Efficient Electrocatalysts for Oxygen Evolution. 2019 , 9,	42

1280	The electronic structure underlying electrocatalysis of two-dimensional materials. 2019 , 9, e1418	11
1279	Targeted Exfoliation and Reassembly of Polymeric Carbon Nitride for Efficient Photocatalysis. 2019 , 29, 1901024	31
1278	Nitrogen-Doped Graphene-Encapsulated Nickel-Copper Alloy Nanoflower for Highly Efficient Electrochemical Hydrogen Evolution Reaction. 2019 , 15, e1901545	32
1277	Chemically Robust, Cu-based Porous Coordination Polymer Nanosheets for Efficient Hydrogen Evolution: Experimental and Theoretical Studies. 2019 , 11, 21086-21093	17
1276	Facile Synthesis of 3D [email[protected]]x Core-shell Nanostructures with Boosted Catalytic Activity toward Oxygen Evolution Reaction. 2019 , 2, 4188-4194	35
1275	Two-Dimensional Metal-Organic Layers for Electrochemical Acceptorless Dehydrogenation of N-Heterocycles. 2019 , 14, 3557-3560	13
1274	In-situ formation of MOF derived mesoporous Co ₃ N/amorphous N-doped carbon nanocubes as an efficient electrocatalytic oxygen evolution reaction. 2019 , 12, 1605-1611	70
1273	Boosting the capacitive storage performance of MOF-derived carbon frameworks via structural modulation for supercapacitors. 2019 , 23, 491-498	52
1272	Encapsulated spinel Cu _x Co _{3-x} O ₄ in carbon nanotubes as efficient and stable oxygen electrocatalysts. 2019 , 44, 11421-11430	25
1271	Ultrathin trimetallic metal-organic framework nanosheets for highly efficient oxygen evolution reaction. 2019 , 7, 14163-14168	54
1270	Structural Engineering of Low-Dimensional Metal-Organic Frameworks: Synthesis, Properties, and Applications. 2019 , 6, 1802373	138
1269	Two-Dimensional Metal-Organic Framework/Enzyme Hybrid Nanocatalyst as a Benign and Self-Activated Cascade Reagent for in Vivo Wound Healing. 2019 , 13, 5222-5230	202
1268	High-performance photoelectrochemical water splitting of BiVO ₄ @Co-MIm prepared by a facile in-situ deposition method. 2019 , 371, 885-892	97
1267	MOFs-derived ZnCo ₂ core-shell nanocages with remarkable oxygen evolution reaction performance. 2019 , 7, 17299-17305	32
1266	Nitrogen-coordinated single Fe sites for efficient electrocatalytic N ₂ fixation in neutral media. 2019 , 61, 420-427	198
1265	A bimetallic Co ₄ Mo ₈ cluster built from Mo ₈ oxothiomolybdate capped by a Co ₄ -thiacalix[4]arene unit: the observation of the Co-Mo synergistic effect for binder-free electrocatalysts. 2019 , 7, 12893-12899	24
1264	In Situ Decorating Coordinatively Unsaturated Fe Sites for Boosting Water Oxidation Performance of TiO ₂ Photoanode. 2019 , 7, 1801128	17
1263	A Single-Crystal Open-Capsule Metal-Organic Framework. 2019 , 141, 7906-7916	106

1262	Partially sulfurated ultrathin nickel-iron carbonate hydroxides nanosheet boosting the oxygen evolution reaction. 2019 , 309, 57-64	18
1261	Integration of Semiconductor Oxide and a Microporous (3,10)-Connected Co-Based Metal-Organic Framework for Enhanced Oxygen Evolution Reaction. 2019 , 58, 5837-5843	48
1260	Bottom-up synthesis of 2D Co-based metal-organic framework nanosheets by an ammonia-assisted strategy for tuning the crystal morphology. 2019 , 21, 3199-3208	14
1259	Nanocubic bimetallic organic framework self-templated from Ni precursor as efficient electrocatalysts for oxygen evolution reaction. 2019 , 44, 11705-11716	8
1258	Artificial photosynthesis: opportunities and challenges of molecular catalysts. 2019 , 48, 2216-2264	363
1257	Co O @Cu-Based Conductive Metal-Organic Framework Core-Shell Nanowire Electrocatalysts Enable Efficient Low-Overall-Potential Water Splitting. 2019 , 25, 6575-6583	50
1256	Robust and superwetting island-shaped phytate bimetallic oxyhydroxide porous nanoclusters via a mild self-assembly-etching-catching-electrochemical oxidization strategy for an enhanced oxygen evolution reaction. 2019 , 55, 4503-4506	2
1255	In situ synthesis of a FeS/MIL-53(Fe) hybrid catalyst for an efficient electrocatalytic hydrogen evolution reaction. 2019 , 55, 4570-4573	51
1254	NiCoO spinel embedded with carbon nanotubes derived from bimetallic NiCo metal-organic framework for the ultrasensitive detection of human immune deficiency virus-1 gene. 2019 , 133, 55-63	42
1253	Metal-Organic Frameworks for Nanoarchitectures: Nanoparticle, Composite, Core-Shell, Hierarchical, and Hollow Structures. 2019 , 151-194	
1252	Cobalt based metal-organic frameworks and their derivatives for electrochemical energy conversion and storage. 2019 , 370, 37-59	63
1251	Fabrication of MIL-88A/g-C3N4 direct Z-scheme heterojunction with enhanced visible-light photocatalytic activity. 2019 , 220, 16-24	49
1250	Unprecedented High Oxygen Evolution Activity of Electrocatalysts Derived from Surface-Mounted Metal-Organic Frameworks. 2019 , 141, 5926-5933	87
1249	Rapid, Room-Temperature and Template-Free Synthesis of Metal-Organic Framework Nanowires in Alcohol. 2019 , 11, 2058-2062	10
1248	A two-dimensional Ni(II) coordination polymer based on a 3,5-bis(1,2,4-triazol-1-yl)pyridine ligand for water electro-oxidation. 2019 , 9, 1769-1773	15
1247	Modulating the Electronic Structure of Single-Atom Catalysts on 2D Nanomaterials for Enhanced Electrocatalytic Performance. 2019 , 3, 1800438	60
1246	Three-dimensional graphene surface-mounted nickel-based metal organic framework for oxygen evolution reaction. 2019 , 305, 338-348	30
1245	NiFe Alloy Nanoparticles with hcp Crystal Structure Stimulate Superior Oxygen Evolution Reaction Electrocatalytic Activity. 2019 , 58, 6099-6103	160

1244	NiFe Alloy Nanoparticles with hcp Crystal Structure Stimulate Superior Oxygen Evolution Reaction Electrocatalytic Activity. 2019 , 131, 6160-6164	8
1243	Metal-organic framework nanosheets: Preparation and applications. 2019 , 388, 79-106	111
1242	Zeolitic Imidazolate Framework-Derived Core-Shell-Structured CoS ₂ /CoS ₂ -N-C Supported on Electrochemically Exfoliated Graphene Foil for Efficient Oxygen Evolution. 2019 , 2, 348-354	19
1241	Ultrathin Two-Dimensional Metal-Organic Framework Nanosheets with the Inherent Open Active Sites as Electrocatalysts in Aprotic Li-O Batteries. 2019 , 11, 11403-11413	67
1240	Rational Design of Holey 2D Nonlayered Transition Metal Carbide/Nitride Heterostructure Nanosheets for Highly Efficient Water Oxidation. 2019 , 9, 1803768	143
1239	Engineering 2D Metal-Organic Framework/MoS Interface for Enhanced Alkaline Hydrogen Evolution. 2019 , 15, e1805511	105
1238	Large-Scale, Bottom-Up Synthesis of Binary Metal-Organic Framework Nanosheets for Efficient Water Oxidation. 2019 , 131, 7125-7130	56
1237	Large-Scale, Bottom-Up Synthesis of Binary Metal-Organic Framework Nanosheets for Efficient Water Oxidation. 2019 , 58, 7051-7056	229
1236	Metal-organic frameworks-derived MnO/MnO microcuboids with hierarchically ordered nanosheets and TiC MXene/Au NPs composites for electrochemical pesticide detection. 2019 , 373, 367-376	121
1235	A general route via formamide condensation to prepare atomically dispersed metal-nitrogen-carbon electrocatalysts for energy technologies. 2019 , 12, 1317-1325	181
1234	Recent Progress in Defective Carbon-Based Oxygen Electrode Materials for Rechargeable Zink-Air Batteries. 2019 , 2, 509-523	26
1233	Metal-Organic Frameworks for High-Energy Lithium Batteries with Enhanced Safety: Recent Progress and Future Perspectives. 2019 , 2, 591-626	29
1232	Tuning CO ₂ conversion product selectivity of metal organic frameworks derived hybrid carbon photoelectrocatalytic reactors. 2019 , 148, 80-90	19
1231	Metal-organic framework based nanomaterials for electrocatalytic oxygen redox reaction. 2019 , 62, 417-429	34
1230	A trinuclear cobalt-based coordination polymer as an efficient oxygen evolution electrocatalyst at neutral pH. 2019 , 545, 269-275	18
1229	ZnO Nanoparticles Encapsulated in Nitrogen-Doped Carbon Material and Silicalite-1 Composites for Efficient Propane Dehydrogenation. 2019 , 13, 269-276	20
1228	Tracking the pyrolysis process of a 3-MeOsalophen-ligand based complex for promoted oxygen evolution reaction. 2019 , 10, 4560-4566	17
1227	Constructing a highly oriented layered MOF nanoarray from a layered double hydroxide for efficient and long-lasting alkaline water oxidation electrocatalysis. 2019 , 7, 8771-8776	61

1226	Co (II) Boron Imidazolate Framework with Rigid Auxiliary Linkers for Stable Electrocatalytic Oxygen Evolution Reaction. 2019 , 6, 1801920	33
1225	Self-Sacrificial Template-Directed Vapor-Phase Growth of MOF Assemblies and Surface Vulcanization for Efficient Water Splitting. 2019 , 31, e1806672	174
1224	Solvo-thermal synthesis of an ultra-stable 3D luminescent zinc(II) coordination material and its application as a bi-functional re-generable visual fluorescent probe for Nicotinamide and Tetraphenylboron anion. 2019 , 167, 51-59	1
1223	Bimetallic Metal-Organic-Framework/Reduced Graphene Oxide Composites as Bifunctional Electrocatalysts for Rechargeable Zn-Air Batteries. 2019 , 11, 15662-15669	71
1222	Ultrathin noble metal nanoplates decorated metal-organic framework nanosheets as 2D/2D heterojunction nanobionic catalysts for explosive residues monitoring. 2019 , 6, 035008	10
1221	Layer-by-layer integration of conducting polymers and metal organic frameworks onto electrode surfaces: enhancement of the oxygen reduction reaction through electrocatalytic nanoarchitectonics. 2019 , 4, 893-900	24
1220	Ambient Fast Synthesis and Active Sites Deciphering of Hierarchical Foam-Like Trimetal-Organic Framework Nanostructures as a Platform for Highly Efficient Oxygen Evolution Electrocatalysis. 2019 , 31, e1901139	239
1219	Tuning the coupling interface of ultrathin NiS@NiV-LDH heterogeneous nanosheet electrocatalysts for improved overall water splitting. 2019 , 11, 8855-8863	80
1218	Molecular discovery of half-metallic one-dimensional metal-organic framework. 2019 , 125, 142906	5
1217	Fabrication of 3D Co-doped Ni-based MOF hierarchical micro-flowers as a high-performance electrode material for supercapacitors. 2019 , 483, 1158-1165	86
1216	Binding Energy Optimization Strategy Inducing Enhanced Catalytic Performance on MIL-100(FeNi) To Catalyze Water Oxidation Directly. 2019 , 7, 7496-7501	20
1215	Highly active zigzag-like Pt-Zn alloy nanowires with high-index facets for alcohol electrooxidation. 2019 , 12, 1173-1179	39
1214	Synergistic Coupling of Anionic Ligands To Optimize the Electronic and Catalytic Properties of Metal-Organic Framework-Converted Oxygen-Evolving Catalysts. 2019 , 2, 2138-2148	24
1213	The Energy Level Regulation of CoMo Carbonate Hydroxide for the Enhanced Oxygen Evolution Reaction Activity. 2019 , 7, 6161-6169	17
1212	Rational Design of Nanoarray Architectures for Electrocatalytic Water Splitting. 2019 , 29, 1808367	186
1211	CoP-Doped MOF-Based Electrocatalyst for pH-Universal Hydrogen Evolution Reaction. 2019 , 131, 4727-4732	56
1210	Synergistic effect of charge transfer and short H-bonding on nanocatalyst surface for efficient oxygen evolution reaction. 2019 , 59, 443-452	21
1209	Alkene hydrosilylation catalyzed by easily assembled Ni(ii)-carboxylate MOFs. 2019 , 10, 3791-3795	14

1208	A 2D NiFe Bimetallic Metal-Organic Frameworks for Efficient Oxygen Evolution Electrocatalysis. 2019 , 2, 18-21	37
1207	Boosting photochemical activity by Ni doping of mesoporous CoO nanoparticle assemblies. 2019 , 6, 765-774	6
1206	Insights into Single-Atom Metal-Support Interactions in Electrocatalytic Water Splitting. 2019 , 3, 1800481	57
1205	Carbon Nanomaterials for Energy and Biorelated Catalysis: Recent Advances and Looking Forward. 2019 , 5, 389-408	50
1204	Ni(ii)-doped anionic metal-organic framework nanowire arrays for enhancing the oxygen evolution reaction. 2019 , 55, 4023-4026	22
1203	Stable Hierarchical Bimetal-Organic Nanostructures as High-Performance Electrocatalysts for the Oxygen Evolution Reaction. 2019 , 58, 4227-4231	309
1202	In situ growth and activation of an amorphous MoS _x catalyst on Co-containing metal-organic framework nanosheets for highly efficient dye-sensitized H ₂ evolution. 2019 , 43, 4152-4159	15
1201	Fabrication of Superior Single-Atom Catalysts toward Diverse Electrochemical Reactions. 2019 , 3, 1800497	68
1200	Nanoscale Surface and Interface Engineering of Solid Oxide Fuel Cells by Atomic Layer Deposition. 2019 , 6, 611-628	10
1199	Revealing the structural transformation of rutile RuO ₂ in situ X-ray absorption spectroscopy during the oxygen evolution reaction. 2019 , 48, 7122-7129	17
1198	Bifunctional oxygen electrocatalyst derived from photochlorinated graphene for rechargeable solid-state Zn-air battery. 2019 , 543, 84-95	16
1197	Stable Hierarchical Bimetal-Organic Nanostructures as High-Performance Electrocatalysts for the Oxygen Evolution Reaction. 2019 , 131, 4271-4275	25
1196	Ultrathin NiCo-MOF Nanosheets for High-Performance Supercapacitor Electrodes. 2019 , 2, 2063-2071	156
1195	Fabrication of hierarchical Co(OH) ₂ @Ni(OH) ₂ core-shell nanosheets on carbon cloth as an advanced electrocatalyst for oxygen evolution reaction. 2019 , 479, 1270-1276	34
1194	Cocatalysts for Selective Photoreduction of CO into Solar Fuels. 2019 , 119, 3962-4179	965
1193	Fabrication of dispersive FeCo(OH) ₂ nanosheets on graphene nanoribbons for boosting their oxygen evolution performance. 2019 , 54, 7692-7701	10
1192	Promoting Electrocatalytic Oxygen Evolution over Transition-Metal Phosphide-Based Nanocomposites via Architectural and Electronic Engineering. 2019 , 11, 46825-46838	17
1191	Defective glycerol-anchored cobalt(ii) for enhancing the oxygen evolution reaction. 2019 , 55, 12861-12864	5

1190	S-Edge-rich MoS arrays vertically grown on carbon aerogels as superior bifunctional HER/OER electrocatalysts. 2019 , 11, 20284-20294	22
1189	Engineering the coupling interface of rhombic dodecahedral NiCoP/C@FeOOH nanocages toward enhanced water oxidation. 2019 , 11, 19959-19968	25
1188	Confined carburization-engineered synthesis of ultrathin nickel oxide/nickel heterostructured nanosheets for enhanced oxygen evolution reaction. 2019 , 11, 22261-22269	8
1187	Ultrathin 2D Ni-UMOF Composites for Highly-Efficient 4-Nitrophenol Hydrogenation. 2019 , 4, 14300-14308	3
1186	Galvanic replacement mediated 3D porous PtCu nano-frames for enhanced ethylene glycol oxidation. 2019 , 55, 14526-14529	10
1185	Iron carbonate hydroxide templated binary metal-organic frameworks for highly efficient electrochemical water oxidation. 2019 , 55, 14773-14776	22
1184	Single atom electrocatalysts supported on graphene or graphene-like carbons. 2019 , 48, 5207-5241	238
1183	Intramolecular electronic coupling in porous iron cobalt (oxy)phosphide nanoboxes enhances the electrocatalytic activity for oxygen evolution. 2019 , 12, 3348-3355	147
1182	Hydrothermal synthesis of polydopamine-functionalized cobalt-doped lanthanum nickelate perovskite nanorods for efficient water oxidation in alkaline solution. 2019 , 11, 19579-19585	7
1181	Electronic modulation of composite electrocatalysts derived from layered NiFeMn triple hydroxide nanosheets for boosted overall water splitting. 2019 , 11, 20797-20808	17
1180	Ambient fast, large-scale synthesis of entropy-stabilized metal-organic framework nanosheets for electrocatalytic oxygen evolution. 2019 , 7, 26238-26242	42
1179	Single-atom catalysts templated by metal-organic frameworks for electrochemical nitrogen reduction. 2019 , 7, 26371-26377	76
1178	Thin Films of Fully Noble Metal-Free POM@MOF for Photocatalytic Water Oxidation. 2019 , 11, 47837-47845	31
1177	High-performance Fe ₃ O ₄ /Ni oxide electrocatalysts for oxygen evolution reaction. 2019 , 14, 100364	4
1176	Cobalt Metal-Organic Framework Based on Two Dinuclear Secondary Building Units for Electrocatalytic Oxygen Evolution. 2019 , 11, 46658-46665	26
1175	Metal-Layer Assisted Growth of Ultralong Quasi-2D MOF Nanoarrays on Arbitrary Substrates for Accelerated Oxygen Evolution. 2019 , 15, e1906086	25
1174	Recent Innovation of Metal-Organic Frameworks for Carbon Dioxide Photocatalytic Reduction. 2019 , 11,	28
1173	MXene Derived Metal-Organic Frameworks. 2019 , 141, 20037-20042	49

1172	A two-dimensional multi-shelled metal-organic framework and its derived bimetallic N-doped porous carbon for electrocatalytic oxygen reduction. 2019 , 55, 14805-14808	23
1171	Temperature-induced structural diversity of metal-organic frameworks and their applications in selective sensing of nitrobenzene and electrocatalyzing the oxygen evolution reaction.. 2019 , 9, 33890-33897	8
1170	Preparation and electrochemical performance of VO(A) hollow spheres as a cathode for aqueous zinc ion batteries.. 2019 , 9, 35117-35123	12
1169	Preparation of an FeNi MOF on nickel foam as an efficient and stable electrocatalyst for the oxygen evolution reaction.. 2019 , 9, 33558-33562	20
1168	Ternary dual -scheme graphitic carbon nitride/ultrathin metal-organic framework nanosheet/AgPO photocatalysts for boosted photocatalytic performance under visible light.. 2019 , 9, 39843-39853	10
1167	Coupling FeNi alloys and hollow nitrogen-enriched carbon frameworks leads to high-performance oxygen electrocatalysts for rechargeable zinc-air batteries. 2019 , 3, 136-141	25
1166	A low cytotoxic porous zinc-adeninate metal-organic framework carrier: pH-triggered drug release and anti-breast cancer study. 2019 , 16, 65-71	5
1165	High-performance Fe Co P alloy catalysts by electroless deposition for overall water splitting. 2019 , 44, 1328-1335	44
1164	Synthesis of Amino-Functionalized Ti-MOF Derived Yolk-Shell and Hollow Heterostructures for Enhanced Photocatalytic Hydrogen Production under Visible Light. 2019 , 7, 4868-4877	56
1163	2D Heterostructured UNiMOF/g-C ₃ N ₄ for Enhanced Photocatalytic H ₂ Production under Visible-Light Irradiation. 2019 , 7, 2492-2499	52
1162	Low-Crystalline Bimetallic Metal-Organic Framework Electrocatalysts with Rich Active Sites for Oxygen Evolution. 2019 , 4, 285-292	150
1161	Photocatalyst design based on two-dimensional materials. 2019 , 11, 197-216	60
1160	Coordination/Organometallic Compounds and Composites of Carbon Allotropes. 2019 , 413-575	2
1159	Pt nanoparticles embedded metal-organic framework nanosheets: A synergistic strategy towards bifunctional oxygen electrocatalysis. 2019 , 245, 389-398	48
1158	2D MOFs enriched g-C ₃ N ₄ nanosheets for highly efficient charge separation and photocatalytic hydrogen evolution from water. 2019 , 44, 2797-2810	39
1157	Phosphorus-Doped FeNi Alloys/NiFe ₂ O ₄ Imbedded in Carbon Network Hollow Bipyramid as Efficient Electrocatalysts for Oxygen Evolution Reaction. 2019 , 7, 2285-2295	21
1156	Multiwall carbon nanotube encapsulated Co grown on vertically oriented graphene modified carbon cloth as bifunctional electrocatalysts for solid-state Zn-air battery. 2019 , 144, 370-381	76
1155	NiCo-DH nanodots anchored on amorphous NiCo-Sulfide sheets as efficient electrocatalysts for oxygen evolution reaction. 2019 , 295, 1085-1092	27

1154	Tailoring the structure of clew-like carbon skeleton with 2D Co-MOF for advanced Li-S cells. 2019 , 469, 404-413	15
1153	Homogeneous cobalt and iron oxide hollow nanocages derived from ZIF-67 etched by Fe species for enhanced water oxidation. 2019 , 296, 418-426	17
1152	Metal-organic frameworks: Structures and functional applications. 2019 , 27, 43-68	321
1151	Carbon-Based Metal-Free Catalysts for Key Reactions Involved in Energy Conversion and Storage. 2019 , 31, e1801526	184
1150	Oxygen-Assisted Cathodic Deposition of Zeolitic Imidazolate Frameworks with Controlled Thickness. 2019 , 58, 1123-1128	20
1149	MoS ₂ /NiS Yolk-Shell Microsphere-Based Electrodes for Overall Water Splitting and Asymmetric Supercapacitor. 2019 , 15, e1803639	134
1148	Tunable nanocotton-like amorphous ternary Ni-Co-B: A highly efficient catalyst for enhanced oxygen evolution reaction. 2019 , 296, 644-652	49
1147	Oxygen-Assisted Cathodic Deposition of Zeolitic Imidazolate Frameworks with Controlled Thickness. 2019 , 131, 1135-1140	1
1146	Facile synthesis of ultrathin metal-organic framework nanosheets for Lewis acid catalysis. 2019 , 12, 437-440	54
1145	A General Method to Ultrathin Bimetal-MOF Nanosheets Arrays via In Situ Transformation of Layered Double Hydroxides Arrays. 2019 , 15, e1804761	96
1144	Mixed-metal organic framework-coated ZnO nanowires array for efficient photoelectrochemical water oxidation. 2019 , 44, 2446-2453	32
1143	A molybdenum disulfide and 2D metal-organic framework nanocomposite for improved electrocatalytic hydrogen evolution reaction. 2019 , 239, 155-158	16
1142	Engineering an Earth-Abundant Element-Based Bifunctional Electrocatalyst for Highly Efficient and Durable Overall Water Splitting. 2019 , 29, 1807031	89
1141	Fluorine-doped nickel cobalt oxide spinel as efficiently bifunctional catalyst for overall water splitting. 2019 , 299, 231-244	58
1140	Computational Design of Single-Molybdenum Catalysts for the Nitrogen Reduction Reaction. 2019 , 123, 2347-2352	50
1139	Delicate excavated trimetallic Prussian blue analogues for efficient oxygen evolution reactions. 2019 , 299, 575-581	14
1138	Lattice-strained metal-organic-framework arrays for bifunctional oxygen electrocatalysis. <i>Nature Energy</i> , 2019 , 4, 115-122	62.3 389
1137	Carbon-Based Metal-Free Catalysts for Electrocatalytic Reduction of Nitrogen for Synthesis of Ammonia at Ambient Conditions. 2019 , 31, e1805367	160

1136	Promotion of Overall Water Splitting Activity Over a Wide pH Range by Interfacial Electrical Effects of Metallic NiCo-nitrides Nanoparticle/NiCoO Nanoflake/graphite Fibers. 2019 , 6, 1801829	78
1135	Two-dimensional metal-organic framework and covalent-organic framework: synthesis and their energy-related applications. 2019 , 12, 34-60	69
1134	2D carbide nanomeshes and their assembling into 3D microflowers for efficient water splitting. 2019 , 243, 678-685	92
1133	MOF-derived carbonaceous materials enriched with nitrogen: Preparation and applications in adsorption and catalysis. 2019 , 25, 88-111	118
1132	Nanoporous gold induced vertically standing 2D NiCo bimetal-organic framework nanosheets for non-enzymatic glucose biosensing. 2019 , 281, 652-658	36
1131	Heterostructures Based on 2D Materials: A Versatile Platform for Efficient Catalysis. 2019 , 31, e1804828	78
1130	Nanocoral-like composite of nickel selenide nanoparticles anchored on two-dimensional multi-layered graphitic carbon nitride: A highly efficient electrocatalyst for oxygen evolution reaction. 2019 , 243, 463-469	78
1129	Multi-site electrocatalysts for hydrogen evolution in neutral media by destabilization of water molecules. <i>Nature Energy</i> , 2019 , 4, 107-114	62.3 264
1128	Ultrathin Nickel-Based Metal-Organic Framework Nanosheets as Reusable Heterogeneous Catalyst for Ethylene Dimerization. 2019 , 2, 136-142	15
1127	Semisacrificial Template Growth of Self-Supporting MOF Nanocomposite Electrode for Efficient Electrocatalytic Water Oxidation. 2019 , 29, 1807418	152
1126	Synergistically well-mixed MOFs grown on nickel foam as highly efficient durable bifunctional electrocatalysts for overall water splitting at high current densities. 2019 , 57, 1-13	127
1125	Fluoride-Induced Dynamic Surface Self-Reconstruction Produces Unexpectedly Efficient Oxygen-Evolution Catalyst. 2019 , 19, 530-537	134
1124	Single-Walled Carbon Nanotubes Wrapped CoFe ₂ O ₄ Nanorods with Enriched Oxygen Vacancies for Efficient Overall Water Splitting. 2019 , 2, 1026-1032	34
1123	Preparation of Bimetallic Metal-Organic Framework Microflowers by Spray Method. 2019 , 92, 175-177	5
1122	Rational Design of Transition Metal-Based Materials for Highly Efficient Electrocatalysis. 2019 , 3, 1800211	166
1121	Construction of surface lattice oxygen in metallic NiCuCoS _{1.97} porous nanowire for wearable Zn-air battery. 2019 , 34, 1-9	12
1120	Metal-organic frameworks and their derivatives for Li-air batteries. 2020 , 31, 635-642	17
1119	A highly alkaline-stable metal oxide@metal-organic framework composite for high-performance electrochemical energy storage. 2020 , 7, 305-314	265

1118	Metal-organic framework derived carbon materials for electrocatalytic oxygen reactions: Recent progress and future perspectives. 2020 , 156, 77-92	102
1117	High proton conductivity of MOFs-polymer composite membranes by phosphoric acid impregnation. 2020 , 292, 109763	14
1116	2D Electrocatalysts for Converting Earth-Abundant Simple Molecules into Value-Added Commodity Chemicals: Recent Progress and Perspectives. 2020 , 32, e1904870	49
1115	Metal-Organic Frameworks Based Electrocatalysts for the Oxygen Reduction Reaction. 2020 , 132, 4662-4678	58
1114	Metal-Organic Frameworks Based Electrocatalysts for the Oxygen Reduction Reaction. 2020 , 59, 4634-4650	232
1113	Surfactant-assisted controlled synthesis of a metal-organic framework on Fe ₂ O ₃ nanorod for boosted photoelectrochemical water oxidation. 2020 , 379, 122256	34
1112	2D Nanomaterials for Cancer Theranostic Applications. 2020 , 32, e1902333	193
1111	Ultra-thin metal-organic framework nanoribbons. 2020 , 7, 46-52	18
1110	Transition metal oxides for water oxidation: All about oxyhydroxides?. 2020 , 63, 3-7	45
1109	Self-dissociation-assembly of ultrathin metal-organic framework nanosheet arrays for efficient oxygen evolution. 2020 , 68, 104296	43
1108	Hatted 1T/2H-Phase MoS ₂ on Ni S Nanorods for Efficient Overall Water Splitting in Alkaline Media. 2020 , 26, 2034-2040	12
1107	Pressure-driven catalyst synthesis of Co-doped Fe ₃ C@Carbon nano-onions for efficient oxygen evolution reaction. 2020 , 268, 118385	27
1106	MOF-derived nitrogen-doped CoO@CoP arrays as bifunctional electrocatalysts for efficient overall water splitting. 2020 , 330, 135210	45
1105	MXene and MXene-based composites: synthesis, properties and environment-related applications. 2020 , 5, 235-258	240
1104	Emerging 2D functional metal-organic framework materials. 2020 , 7, 3-5	3
1103	Enhanced hydrogen evolution reaction catalyzed by carbon-rich Mo _{4.8} Si ₃ C _{0.6} /C/SiC nanocomposites via a PDC approach. 2020 , 103, 1385-1395	3
1102	Cobalt Nanoparticles and Atomic Sites in Nitrogen-Doped Carbon Frameworks for Highly Sensitive Sensing of Hydrogen Peroxide. 2020 , 16, e1902860	17
1101	Bimetal Networked Nanosheets Co _x Ni _{3-2x} S ₂ as An Efficient Electrocatalyst for Hydrogen Evolution. 2020 , 12, 609-614	6

1100	Metalocene implanted metalloporphyrin organic framework for highly selective CO ₂ electroreduction. 2020 , 67, 104233	43
1099	Advanced Bifunctional Oxygen Reduction and Evolution Electrocatalyst Derived from Surface-Mounted Metal-Organic Frameworks. 2020 , 132, 5886-5892	9
1098	Facile synthesis of a Ru-dispersed N-doped carbon framework catalyst for electrochemical nitrogen reduction. 2020 , 10, 1336-1342	22
1097	Cobalt-Based MOF-on-MOF Two-Dimensional Heterojunction Nanostructures for Enhanced Oxygen Evolution Reaction Electrocatalytic Activity. 2020 , 59, 1295-1305	56
1096	Advanced Bifunctional Oxygen Reduction and Evolution Electrocatalyst Derived from Surface-Mounted Metal-Organic Frameworks. 2020 , 59, 5837-5843	56
1095	Prussian blue analogues and their derived nanomaterials for electrocatalytic water splitting. 2020 , 407, 213156	81
1094	Tuning Palladium Nickel Phosphide toward Efficient Oxygen Evolution Performance. 2020 , 3, 879-888	11
1093	Metal-Organic Framework-Based Materials for Energy Conversion and Storage. 2020 , 5, 520-532	149
1092	Au-Decorated CoOOH Nanoplate Hierarchical Hollow Structure for Plasmon-Enhanced Electrocatalytic Water Oxidation. 2020 , 3, 943-950	6
1091	A review of non-precious metal single atom confined nanomaterials in different structural dimensions (1D&BD) as highly active oxygen redox reaction electrocatalysts. 2020 , 8, 2222-2245	39
1090	Unconventionally fabricating defect-rich NiO nanoparticles within ultrathin metal-organic framework nanosheets to enable high-output oxygen evolution. 2020 , 8, 2140-2146	33
1089	The synergistic effect of Co/Ni in ultrathin metal-organic framework nanosheets for the prominent optimization of non-enzymatic electrochemical glucose detection. 2020 , 8, 1008-1016	9
1088	A hybrid Co NPs@CNT nanocomposite as highly efficient electrocatalyst for oxygen evolution reaction. 2020 , 507, 145155	23
1087	Advanced Electrocatalysts Based on Metal-Organic Frameworks. 2020 , 5, 2495-2502	25
1086	Two-dimensional metal-organic frameworks for energy-related electrocatalytic applications. 2020 , 2, 021002	3
1085	Amorphous cobalt phosphate porous nanosheets derived from two-dimensional cobalt phosphonate organic frameworks for high performance of oxygen evolution reaction. 2020 , 18, 100517	18
1084	Controlled Synthesis of Hollow Bimetallic Prussian Blue Analog for Conversion into Efficient Oxygen Evolution Electrocatalyst. 2020 , 8, 1319-1328	17
1083	A review on NiFe-based electrocatalysts for efficient alkaline oxygen evolution reaction. 2020 , 448, 227375	116

1082	Investigation of anion doping effect to boost overall water splitting. 2020 , 381, 84-95	11
1081	Optimized trimetallic benzotriazole-5-carboxylate MOFs with coordinately unsaturated active sites as an efficient electrocatalyst for the oxygen evolution reaction. 2020 , 49, 750-756	15
1080	Strain stabilized nickel hydroxide nanoribbons for efficient water splitting. 2020 , 13, 229-237	43
1079	Metal-organic frameworks and their derivatives with graphene composites: preparation and applications in electrocatalysis and photocatalysis. 2020 , 8, 2934-2961	93
1078	Tailoring the nanostructure and electronic configuration of metal phosphides for efficient electrocatalytic oxygen evolution reactions. 2020 , 69, 104453	79
1077	An Interfacial Electron Transfer on Tetrahedral NiS /NiSe Heterocages with Dual-Phase Synergy for Efficiently Triggering the Oxygen Evolution Reaction. 2020 , 16, e1905083	67
1076	Synthesis of micro/nanoscaled metal-organic frameworks and their direct electrochemical applications. 2020 , 49, 301-331	416
1075	Content-dependent electroactivity enhancement of nickel hexacyanoferrate/multi-walled carbon nanotubes electrocatalyst: Cost-efficient construction and promising application for alkaline water splitting. 2020 , 45, 2754-2764	6
1074	Fabrication of Hollow CoP/TiO Heterostructures for Enhanced Oxygen Evolution Reaction. 2020 , 16, e1905075	67
1073	NiCo-MOF nanosheets wrapping polypyrrole nanotubes for high-performance supercapacitors. 2020 , 507, 145089	65
1072	Supercapacitor and oxygen evolution reaction performances based on morphology-dependent Co-MOFs. 2020 , 283, 121128	15
1071	Magnetic Polymer Chains of Iron and Zwitterionic Quinoidal Ligands on the Ag(111) Surface. 2020 , 124, 1346-1351	3
1070	Nitrogen-Stabilized Low-Valent Ni Motifs for Efficient CO ₂ Electrocatalysis. 2020 , 10, 1086-1093	45
1069	Enhanced electrocatalytic performance of CoCu-MOF/polyaniline for glycerol oxidation. 2020 , 857, 113748	20
1068	Hierarchical architecture derived from two-dimensional zeolitic imidazolate frameworks as an efficient metal-based bifunctional oxygen electrocatalyst for rechargeable Zn-air batteries. 2020 , 331, 135394	21
1067	Atomically Dispersed Mo Supported on Metallic Co ₉ S ₈ Nanoflakes as an Advanced Noble-Metal-Free Bifunctional Water Splitting Catalyst Working in Universal pH Conditions. 2020 , 10, 1903137	97
1066	Metal-free, active nitrogen-enriched, efficient bifunctional oxygen electrocatalyst for ultrastable zinc-air batteries. 2020 , 27, 514-521	44
1065	Layered Metal Hydroxides and Their Derivatives: Controllable Synthesis, Chemical Exfoliation, and Electrocatalytic Applications. 2020 , 10, 1902535	48

1064	Three-Dimensional Hierarchical Porous Nanotubes Derived from Metal-Organic Frameworks for Highly Efficient Overall Water Splitting. 2020 , 23, 100761	19
1063	Electrochemical Instability of Metal-Organic Frameworks: In Situ Spectroelectrochemical Investigation of the Real Active Sites. 2020 , 10, 81-92	113
1062	Boronization-Induced Ultrathin 2D Nanosheets with Abundant Crystalline-Amorphous Phase Boundary Supported on Nickel Foam toward Efficient Water Splitting. 2020 , 10, 1902714	111
1061	Formation of Supraparticles and Their Application in Catalysis. 2020 , 2, 95-106	27
1060	Oxygen Evolution on Metal-oxy-hydroxides: Beneficial Role of Mixing Fe, Co, Ni Explained via Bifunctional Edge/acceptor Route. 2020 , 12, 1436-1442	20
1059	A Morphologically Engineered Robust Bifunctional CuCo ₂ O ₄ Nanosheet Catalyst for Highly Efficient Overall Water Splitting. 2020 , 7, 1901515	22
1058	Recent Advances in Photocatalysis over Metal-Organic Frameworks-Based Materials. 2020 , 4, 1900438	11
1057	Constructing 2D MOFs from 2D LDHs: a highly efficient and durable electrocatalyst for water oxidation. 2020 , 8, 190-195	54
1056	Metal-organic framework membranes: From synthesis to electrocatalytic applications. 2020 , 31, 2189-2201	31
1055	2D Metal-Organic Framework Materials for Membrane-Based Separation. 2020 , 7, 1901514	38
1054	The synthesis strategies and photocatalytic performances of TiO ₂ /MOFs composites: A state-of-the-art review. 2020 , 391, 123601	77
1053	Self-Supported Electrocatalysts for Efficient Oxygen Evolution Reaction: Hierarchical CuOx@CoO Nanorods Grown on Cu Foam. 2020 , 12, 1639-1646	15
1052	Operando Spectral and Electrochemical Investigation into the Heterophase Stimulated Active Species Transformation in Transition-Metal Sulfides for Efficient Electrocatalytic Oxygen Evolution. 2020 , 10, 1855-1864	65
1051	Application of organic-inorganic hybrids in lithium batteries. 2020 , 15, 100289	8
1050	Strategies for improving Co/Ni-based bimetal-organic framework to water splitting. 2020 , 45, 28240-28251	6
1049	Recent Advances in Transition Metal Carbide Electrocatalysts for Oxygen Evolution Reaction. 2020 , 10, 1164	23
1048	Ultrathinning Nickel Sulfide with Modulated Electron Density for Efficient Water Splitting. 2020 , 10, 2001963	99
1047	Design and operando/in situ characterization of precious-metal-free electrocatalysts for alkaline water splitting. 2020 , 2, 582-613	35

1046	Digital Reticular Chemistry. 2020 , 6, 2219-2241	31
1045	Non-noble metal catalysts for transfer hydrogenation of levulinic acid: The role of surface morphology and acid-base pairs. 2020 , 18, 100501	4
1044	Room-Temperature Rapid Synthesis of Two-Dimensional Metal-Organic Framework Nanosheets with Tunable Hierarchical Porosity for Enhanced Adsorption Desulfurization Performance. 2020 , 59, 18857-18864	62
1043	Realizing Few-Layer Iodinene for High-Rate Sodium-Ion Batteries. 2020 , 32, e2004835	17
1042	Best Practices in Using Foam-Type Electrodes for Electrocatalytic Performance Benchmark. 2020 , 5, 3260-3264	42
1041	Tungsten Oxide/Carbide Surface Heterojunction Catalyst with High Hydrogen Evolution Activity. 2020 , 5, 3560-3568	27
1040	Two-dimensional metal-organic framework materials for energy conversion and storage. 2020 , 477, 228919	16
1039	A highly efficient electrochemical oxygen evolution reaction catalyst constructed from a S-treated two-dimensional Prussian blue analogue. 2020 , 49, 14290-14296	5
1038	Role of electron pathway in dimensionally increasing water splitting reaction sites in liquid electrolytes. 2020 , 362, 137113	7
1037	In situ electrochemical conversion of cobalt oxide@MOF-74 core-shell structure as an efficient and robust electrocatalyst for water oxidation. 2020 , 21, 100820	7
1036	3D Hydrangea Macrophylla-like Nickel-Vanadium Metal-Organic Frameworks Formed by Self-Assembly of Ultrathin 2D Nanosheets for Overall Water Splitting. 2020 , 12, 48495-48510	18
1035	Cascade Reactions Catalyzed by Planar Metal-Organic Framework Hybrid Architecture for Combined Cancer Therapy. 2020 , 16, e2004016	32
1034	Revisiting Metal-Organic Frameworks for Oxygen Evolution: A Case Study. 2020 , 59, 15335-15342	8
1033	In Situ Growth of Tetrametallic FeCoMnNi-MOF-74 on Nickel Foam as Efficient Bifunctional Electrocatalysts for the Evolution Reaction of Oxygen and Hydrogen. 2020 , 59, 15467-15477	15
1032	Construction of NiCo ₂ S ₄ heterostructure based on electrochemically exfoliated graphene for high-performance hybrid supercapacitor electrode. 2020 , 845, 156164	25
1031	Recent Progress on Two-dimensional Electrocatalysis. 2020 , 36, 611-621	84
1030	Two-dimensional metal-organic framework nanosheets-modified porous separator for non-aqueous redox flow batteries. 2020 , 612, 118463	8
1029	Trimetallic MOF-74 Films Grown on Ni Foam as Bifunctional Electrocatalysts for Overall Water Splitting. 2020 , 13, 5647-5653	19

1028	Conductive Metal-Organic Frameworks: Design, Synthesis, and Applications. 2020 , 4, 2000396	43
1027	Two-dimensional Metal-organic Frameworks and Derivatives for Electrocatalysis. 2020 , 36, 662-679	17
1026	Electronic Structure Modeling of Metal-Organic Frameworks. 2020 , 120, 8641-8715	73
1025	Growth of Crystalline Bimetallic Metal-Organic Framework Films via Transmetalation. 2020 , 36, 9900-9908	1
1024	Embedding Ultrafine Metal Oxide Nanoparticles in Monolayered Metal-Organic Framework Nanosheets Enables Efficient Electrocatalytic Oxygen Evolution. 2020 , 14, 1971-1981	57
1023	S element-doped synergistically well-mixed MOFs as highly efficient oxygen precipitation electrocatalyst. 2020 , 45, 24333-24340	12
1022	Highly dispersed ultrafine Ni particles embedded into MOF-74 arrays by partial carbonization for highly efficient hydrogen evolution. 2020 , 1, 1212-1219	5
1021	Constructing multifunctional "Nanoplatelet-on-Nanoarray" electrocatalyst with unprecedented activity towards novel selective organic oxidation reactions to boost hydrogen production. 2020 , 278, 119339	36
1020	Crystalline state transformation strategy for improving the catalytic performance of oxygen evolution reaction at high current density. 2020 , 18, 100564	4
1019	Metal-Organic Framework-Derived Fe-Doped NiFe/NiFeO Heteronanoparticle-Decorated Carbon Nanotube Network as a Highly Efficient and Durable Bifunctional Electrocatalyst. 2020 , 12, 55782-55794	21
1018	Low-cost valence-rich copper-iron-sulfur-oxygen porous nanocluster that drives an exceptional energy-saving carbohydrazide oxidization reaction in alkali and near-neutral electrolytes. 2020 , 8, 24419-24427 ¹	
1017	Rational Design of Ni-Based Electrocatalysts by Modulation of Iron Ions and Carbon Nanotubes for Enhanced Oxygen Evolution Reaction. 2020 , 4, 2000227	1
1016	Activity boosting of a metal-organic framework by Fe-Doping for electrocatalytic hydrogen evolution and oxygen evolution. 2020 , 292, 121696	5
1015	Ultrathin Mn Doped Ni-MOF Nanosheet Array for Highly Capacitive and Stable Asymmetric Supercapacitor. 2020 , 26, 17149-17155	23
1014	Rational Design of Metal-Organic Frameworks towards Efficient Electrocatalysis. 2020 , 2, 1251-1267	25
1013	Nickel-selenide templated binary metal-organic frameworks for efficient water oxidation. 2020 , 8, 16908-16912	20
1012	Zeolite-Like Boron Imidazolate Frameworks (BIFs): Synthesis and Application. 2020 , 10, 617	4
1011	Composition-balanced trimetallic MOFs as ultra-efficient electrocatalysts for oxygen evolution reaction at high current densities. 2020 , 279, 119375	48

1010	MOF-based atomically dispersed metal catalysts: Recent progress towards novel atomic configurations and electrocatalytic applications. 2020 , 422, 213483	55
1009	Recent development of two-dimensional metal-organic framework derived electrocatalysts for hydrogen and oxygen electrocatalysis. 2020 , 12, 18497-18522	31
1008	Dual-metal NiCo nanoparticles in B-doped carbon layers as efficient and durable electrocatalyst for oxygen evolution reaction. 2020 , 532, 147381	13
1007	NiCo ₂ O ₄ @Ni ₂ P nanorods grown on nickel nanorod arrays as a bifunctional catalyst for efficient overall water splitting. 2020 , 17, 100490	14
1006	Two-dimensional Metal-Organic Frameworks as Electrocatalysts for Oxygen Evolution Reaction. 2020 , 36, 504-510	10
1005	Nickel/cobalt bimetallic phosphides derived metal-organic frameworks as bifunctional electrocatalyst for oxygen and hydrogen evolution reaction. 2020 , 847, 156514	26
1004	Lattice oxygen activation enabled by high-valence metal sites for enhanced water oxidation. 2020 , 11, 4066	105
1003	Recent Advances in MOF-Derived Single Atom Catalysts for Electrochemical Applications. 2020 , 10, 2001561	122
1002	Metallic single-atoms confined in carbon nanomaterials for the electrocatalysis of oxygen reduction, oxygen evolution, and hydrogen evolution reactions. 2020 , 10, 6420-6448	15
1001	Targeted Assembly of Ultrathin NiO/MoS Electrodes for Electrocatalytic Hydrogen Evolution in Alkaline Electrolyte. 2020 , 10,	1
1000	Facile directions for synthesis, modification and activation of MOFs. 2020 , 17, 100343	22
999	Hierarchical 2D yarn-ball like metal-organic framework NiFe(dobpdc) as bifunctional electrocatalyst for efficient overall electrocatalytic water splitting. 2020 , 8, 22974-22982	17
998	Insights into the electronic origin of enhancing the catalytic activity of Co ₃ O ₄ for oxygen evolution by single atom ruthenium. 2020 , 34, 100955	12
997	Atomically Dispersed Metals on Well-Defined Supports including Zeolites and Metal-Organic Frameworks: Structure, Bonding, Reactivity, and Catalysis. 2020 , 120, 11956-11985	50
996	Structural transformation of highly active metal-organic framework electrocatalysts during the oxygen evolution reaction. <i>Nature Energy</i> , 2020 , 5, 881-890	62.3 280
995	Controllable Conversion from Single-Crystal Nanorods to Polycrystalline Nanosheets of NiCoV-LTH for Oxygen Evolution Reaction at Large Current Density. 2020 , 8, 16091-16096	10
994	Modulating Charge Transfer Efficiency of Hematite Photoanode with Hybrid Dual-Metal-Organic Frameworks for Boosting Photoelectrochemical Water Oxidation. 2020 , 7, 2002563	18
993	Metal-Organic Layers for Electrocatalysis and Photocatalysis. 2020 , 6, 2149-2158	19

992	Cobalt Metal-Organic Framework Based on Layered Double Nanosheets for Enhanced Electrocatalytic Water Oxidation in Neutral Media. 2020 , 142, 19198-19208	22
991	Understanding and Optimizing Ultra-Thin Coordination Polymer Derivatives with High Oxygen Evolution Performance. 2020 , 10, 2002228	13
990	Lattice-Strain Engineering of Homogeneous NiS Se Core-Shell Nanostructure as a Highly Efficient and Robust Electrocatalyst for Overall Water Splitting. 2020 , 32, e2000231	79
989	Origin of the enhanced oxygen evolution reaction activity and stability of a nitrogen and cerium co-doped CoS ₂ electrocatalyst. 2020 , 8, 22694-22702	9
988	In situ X-ray diffraction and X-ray absorption spectroscopy of electrocatalysts for energy conversion reactions. 2020 , 8, 19079-19112	39
987	Fabrication of Nonmetal-Modulated Dual Metal-Organic Platform for Overall Water Splitting and Rechargeable Zinc-Air Batteries. 2020 , 12, 41704-41717	19
986	Two-dimensional metal-organic framework nanosheets for highly efficient electrocatalytic biomass 5-(hydroxymethyl)furfural (HMF) valorization. 2020 , 8, 20386-20392	32
985	Strong Electronic Interaction Enhanced Electrocatalysis of Metal Sulfide Clusters Embedded Metal-Organic Framework Ultrathin Nanosheets toward Highly Efficient Overall Water Splitting. 2020 , 7, 2001965	47
984	Recent Progress of Two-Dimensional Metal-Organic Frameworks and Their Derivatives for Oxygen Evolution Electrocatalysis. 2020 , 7, 4695-4712	10
983	Two-dimensional nonlayered materials for electrocatalysis. 2020 , 13, 3993-4016	31
982	Direct probing of atomically dispersed Ru species over multi-edged TiO ₂ for highly efficient photocatalytic hydrogen evolution. 2020 , 6,	62
981	Dual-function 2D cobalt metal-organic framework embedded on paper as a point-of-care diagnostic device: Application for the quantification of glucose. 2020 , 1139, 15-26	10
980	Fast-synthesis and catalytic property of heterogeneous Co-MOF catalysts for the epoxidation of Epinephrine with air. 2020 , 44, 17413-17421	4
979	Achieving delafossite analog by in situ electrochemical self-reconstruction as an oxygen-evolving catalyst. 2020 , 117, 21906-21913	31
978	NiCo ₂ O ₄ -Based Nanosheets with Uniform 4 nm Mesopores for Excellent Zn-Air Battery Performance. 2020 , 32, e2001651	39
977	Optimization of the overall water-splitting performance of N, S co-doped carbon-supported NiCoMnS _x O ₁₀ at high current densities by the introduction of sulfur defects and oxygen vacancies. 2020 , 22, 6239-6248	5
976	Oxygen Plasma Activation of Carbon Nanotubes-Interconnected Prussian Blue Analogue for Oxygen Evolution Reaction. 2020 , 12, 42634-42643	16
975	Navigating nMOF-mediated enzymatic reactions for catalytic tumor-specific therapy. 2020 , 7, 3176-3186	14

974	Synthesis of Two-dimensional Metallic Nanosheets: From Elemental Metals to Chemically Complex Alloys. 2020 , 6, 1683-1711	9
973	Nanomechanical behavior and interfacial deformation beyond the elastic limit in 2D metal-organic framework nanosheets. 2020 , 2, 5181-5191	4
972	In Situ Two-Step Preparation of 3D NiCo-BTC MOFs on a Glassy Carbon Electrode and a Graphitic Screen Printed Electrode as Nonenzymatic Glucose-Sensing Platforms. 2020 , 8, 14340-14352	27
971	Recent Electrochemical Applications of Metal-Organic Framework-Based Materials. 2020 , 20, 7034-7064	57
970	The Applications of 2D Nanomaterials in Energy-Related Process. 2020 , 219-251	0
969	Application of MOF-based materials in electrochemical sensing. 2020 , 49, 17121-17129	19
968	Magnetism in bimetallic NiII-CoII coordination polymer. 2020 ,	
967	Cu ²⁺ /NH ₂ based metal-organic framework nanosheets via drop-casting for highly efficient oxygen evolution catalysts durable at ultrahigh currents. 2020 , 8, 24408-24418	26
966	Synergistic effect of NiII and Co/FeIII in doped mixed-valence phosphonate for enhancing electrocatalytic oxygen evolution. 2020 ,	3
965	Recent Progress of Carbon-Supported Single-Atom Catalysts for Energy Conversion and Storage. 2020 , 3, 1442-1476	103
964	Two-Dimensional Materials and Composites as Potential Water Splitting Photocatalysts: A Review. 2020 , 10, 464	9
963	Electric-Field Assisted In Situ Hydrolysis of Bulk Metal-Organic Frameworks (MOFs) into Ultrathin Metal Oxyhydroxide Nanosheets for Efficient Oxygen Evolution. 2020 , 132, 13201-13208	3
962	Nanocomposites of cobalt benzene tricarboxylic acid MOF with rGO: An efficient and robust electrocatalyst for oxygen evolution reaction (OER). 2020 , 156, 1040-1054	61
961	Ultrathin Ni-MOF Nanobelts-Derived Composite for High Sensitive Detection of Nitrite. 2020 , 8, 330	9
960	Engineering of a highly stable metal-organic Co-film for efficient electrocatalytic water oxidation in acidic media. 2020 , 17, 100437	5
959	MOFs-derived core-shell Co ₃ Fe ₇ @Fe ₂ N nanoparticles supported on rGO as high-performance bifunctional electrocatalyst for oxygen reduction and oxygen evolution reactions. 2020 , 17, 100433	19
958	Two-dimensional material membranes for critical separations. 2020 , 7, 2560-2581	22
957	Single-atom Catalysts for Polymer Electrolyte Membrane Fuel Cells. 2020 , 36, 320-328	6

956	Multimetal Incorporation into 2D Conductive Metal-Organic Framework Nanowires Enabling Excellent Electrocatalytic Oxidation of Benzylamine to Benzonitrile. 2020 , 12, 24786-24795	20
955	The function of metal-organic frameworks in the application of MOF-based composites. 2020 , 2, 2628-2647	54
954	Activation strategies of water-splitting electrocatalysts. 2020 , 8, 10096-10129	35
953	Bimetallic manganese-vanadium functionalized N,S-doped carbon nanotubes as efficient oxygen evolution and oxygen reduction electrocatalysts. 2020 , 277, 119195	36
952	Advances and Challenges of Fe-MOFs Based Materials as Electrocatalysts for Water Splitting. 2020 , 20, 100692	19
951	High-performance metal-organic framework-perovskite hybrid as an important component of the air-electrode for rechargeable Zn-Air battery. 2020 , 468, 228377	32
950	High-performance Ni-V-Fe metal-organic framework electrocatalyst composed of integrated nanowires and nanosheets for oxygen evolution reaction. 2020 , 16, 100419	8
949	2D magnetic MOFs with micron-lateral size by liquid exfoliation. 2020 , 56, 7657-7660	13
948	Partially Pyrolyzed Binary Metal-Organic Framework Nanosheets for Efficient Electrochemical Hydrogen Peroxide Synthesis. 2020 , 132, 14479-14483	10
947	Improvement of Trisodium Citrate-Modified NiFe-Layered Double Hydroxide Nanosheets with Carbon Black for Oxygen Evolution Reaction. 2020 , 10, 431	1
946	Graphdiyne Interface Engineering: Highly Active and Selective Ammonia Synthesis. 2020 , 132, 13121-13127	5
945	Regulating the charge diffusion of two-dimensional cobalt-iron hydroxide/graphene composites for high-rate water oxidation. 2020 , 8, 11573-11581	9
944	Effect of structure: A new insight into nanoparticle assemblies from inanimate to animate. 2020 , 6, eaba1321	32
943	Slower Removing Ligands of Metal Organic Frameworks Enables Higher Electrocatalytic Performance of Derived Nanomaterials. 2020 , 16, e2002210	25
942	Graphene-nanoplatelets-supported NiFe-MOF: high-efficiency and ultra-stable oxygen electrodes for sustained alkaline anion exchange membrane water electrolysis. 2020 , 13, 3447-3458	69
941	Recent Progress in Stimulus-Responsive Two-Dimensional Metal-Organic Frameworks. 2020 , 2, 779-797	103
940	Partially Pyrolyzed Binary Metal-Organic Framework Nanosheets for Efficient Electrochemical Hydrogen Peroxide Synthesis. 2020 , 59, 14373-14377	56
939	Chemically stable two-dimensional MXene@UIO-66-(COOH) ₂ composite lamellar membrane for multi-component pollutant-oil-water emulsion separation. 2020 , 197, 108188	33

- 938 Coordination tailoring of water-labile 3D MOFs to fabricate ultrathin 2D MOF nanosheets. **2020**, 12, 12767-12772
- 937 Performance enhancement of oxygen evolution reaction through incorporating bimetallic electrocatalysts in two-dimensional metal-organic frameworks. **2020**, 10, 3897-3903 15
- 936 NiFe-coordinated zeolitic imidazolate framework derived trifunctional electrocatalyst for overall water-splitting and zinc-air batteries. **2020**, 579, 1-11 20
- 935 Twofold Interpenetrated 2D MOF Nanosheets Generated by an Instant In Situ Exfoliation Method: Morphology Control and Fluorescent Sensing. **2020**, 7, 2000813 18
- 934 Heterometallic Feed Ratio-Dominated Oxygen Evolution Activity in Self-Supported Metal-Organic Framework Nanosheet Arrays Electrocatalyst. **2020**, 646, 1412-1418 5
- 933 Enhanced Oxygen Evolution Reaction Activity by Encapsulating NiFe Alloy Nanoparticles in Nitrogen-Doped Carbon Nanofibers. **2020**, 12, 31503-31513 41
- 932 Bi-MOF derived micro/meso-porous Bi@C nanoplates for high performance lithium-ion batteries. **2020**, 12, 15214-15221 12
- 931 Trimetallic conductive metal-organic frameworks as precatalysts for the oxygen evolution reaction with enhanced activity. **2020**, 4, 4589-4597 9
- 930 Transition Bimetal Based MOF Nanosheets for Robust Aqueous Zn Battery. **2020**, 7, 5
- 929 Facile one-pot synthesis of binder-free nano/micro structured dendritic cobalt activated nickel sulfide: a highly efficient electrocatalyst for oxygen evolution reaction. **2020**, 45, 19304-19312 7
- 928 First-Principles Study on Chromium-Substituted γ -Cobalt Oxyhydroxides for Efficient Oxygen Evolution Reaction. **2020**, 3, 6486-6491 3
- 927 Electrochemically Triggered Dynamics within a Hybrid Metal-Organic Electrocatalyst. **2020**, 142, 12382-12393 19
- 926 Metal-organic frameworks as adsorbents for sequestering organic pollutants from wastewater. **2020**, 253, 123246 23
- 925 Mn-Doping-induced hierarchical petal growth of a flower-like 3D MOF assembled with black phosphorous nanosheets as an electrochemical aptasensor of human stress-induced phosphoprotein 1. **2020**, 12, 14538-14548 17
- 924 Effects of Extracellular Polymeric Substances on the Formation and Methylation of Mercury Sulfide Nanoparticles. **2020**, 54, 8061-8071 16
- 923 Structural evolution from a fence-like to pillared-layer metal-organic framework for the stable oxygen evolution reaction. **2020**, 56, 7722-7725 7
- 922 Phthalocyanine-Based 2D Conjugated Metal-Organic Framework Nanosheets for High-Performance Micro-Supercapacitors. **2020**, 30, 2002664 60
- 921 2D Boron Imidazolate Framework Nanosheets with Electrocatalytic Applications for Oxygen Evolution and Carbon Dioxide Reduction Reaction. **2020**, 16, e1907669 8

920	Seawater Desalination Using MOF-Incorporated Cu-Based Alginate Beads without Energy Consumption. 2020 , 12, 16319-16326	26
919	Energy-Efficient Ammonia Production from Air and Water Using Electrocatalysts with Limited Faradaic Efficiency. 2020 , 5, 1124-1127	13
918	Two-dimensional metal-organic framework nanosheets: synthetic methodologies and electrocatalytic applications. 2020 , 8, 15271-15301	40
917	Facet engineering in metal organic frameworks to improve their electrochemical activity for water oxidation. 2020 , 56, 4316-4319	14
916	Recent Advances in Metal-Organic Frameworks and Their Derived Materials for Electrocatalytic Water Splitting. 2020 , 7, 1805-1824	27
915	Graphdiyne: A Rising Star of Electrocatalyst Support for Energy Conversion. 2020 , 10, 2000177	53
914	Highly Efficient Oxygen Evolution by a Thermocatalytic Process Cascaded Electrocatalysis Over Sulfur-Treated Fe-Based Metal-Organic-Frameworks. 2020 , 10, 2000184	37
913	Hierarchical Ni-BDC coated FeOOH nanosheets: A coordination tuning synergistic electrocatalyst with enhanced activity for water oxidation. 2020 , 45, 9546-9554	2
912	Highly quaternized polystyrene ionomers for high performance anion exchange membrane water electrolyzers. <i>Nature Energy</i> , 2020 , 5, 378-385	62.3 147
911	Bifunctional electrocatalysts for Zn-air batteries: recent developments and future perspectives. 2020 , 8, 6144-6182	81
910	Rational Design of a N,S Co-Doped Supermicroporous CoFe-Organic Framework Platform for Water Oxidation. 2020 , 13, 2564-2570	14
909	In Situ/Operando Studies for Designing Next-Generation Electrocatalysts. 2020 , 5, 1281-1291	156
908	Unravelling the Role of Fe-Mn Binary Active Sites Electrocatalyst for Efficient Oxygen Reduction Reaction and Rechargeable Zn-Air Batteries. 2020 , 59, 5194-5205	27
907	Investigation on the Component Evolution of a Tetranuclear Nickel-Cluster-Based Metal-Organic Framework in an Electrochemical Oxidation Reaction. 2020 , 59, 4764-4771	29
906	Metal-Organic Frameworks in Heterogeneous Catalysis: Recent Progress, New Trends, and Future Perspectives. 2020 , 120, 8468-8535	448
905	Engineering pristine 2D metal-organic framework nanosheets for electrocatalysis. 2020 , 8, 8143-8170	89
904	Trifunctional catalytic activities of trimetallic FeCoNi alloy nanoparticles embedded in a carbon shell for efficient overall water splitting. 2020 , 8, 9021-9031	42
903	Insights into the binding mechanism of 2D copper-tetrakis-(4-carboxyphenyl)-porphyrin metal-organic framework nanosheets with Rhodamine B: Spectroscopic and thermodynamics studies. 2020 , 534, 110743	5

902	Ultrahigh-Loading of Ir Single Atoms on NiO Matrix to Dramatically Enhance Oxygen Evolution Reaction. 2020 , 142, 7425-7433	186
901	Revealing the defect-dominated oxygen evolution activity of hematene. 2020 , 8, 6709-6716	23
900	Two-Dimensional MOF and COF Nanosheets: Synthesis and Applications in Electrochemistry. 2020 , 26, 6402-6422	75
899	Efficient Electronic Transport in Partially Disordered Co ₃ O ₄ Nanosheets for Electrocatalytic Oxygen Evolution Reaction. 2020 , 3, 3071-3081	14
898	Supramolecular Porous Organic Nanocomposites for Heterogeneous Photocatalysis of a Sulfur Mustard Simulant. 2020 , 32, e2001592	10
897	Ion-Induced Delamination of Layered Bulk Metal-Organic Frameworks into Ultrathin Nanosheets for Boosting the Oxygen Evolution Reaction. 2020 , 8, 10554-10563	9
896	Two-dimensional porous coordination polymers and nano-composites for electrocatalysis and electrically conductive applications. 2020 , 8, 14356-14383	19
895	MOF-derived zinc manganese oxide nanosheets with valence-controllable composition for high-performance Li storage. 2020 ,	8
894	NiMn-Based Bimetal-Organic Framework Nanosheets Supported on Multi-Channel Carbon Fibers for Efficient Oxygen Electrocatalysis. 2020 , 132, 18391-18396	13
893	Fishnet-like superstructures constructed from ultrafine and ultralong Ni-MOF nanowire arrays directionally grown on highly rough and conductive scaffolds: synergistic activating effect for efficient and robust alkaline water oxidation activity. 2020 , 529, 147030	4
892	In situ construction and post-electrolysis structural study of porous Ni ₂ P@C nanosheet arrays for efficient water splitting. 2020 , 7, 2960-2968	6
891	Template confined strategy for constructing nickel cobalt selenide nanoarrays for efficient oxygen evolution reaction. 2020 , 17, 100468	3
890	2D iron-doped nickel MOF nanosheets grown on nickel foam for highly efficient oxygen evolution reaction. 2020 , 529, 147201	30
889	Enhanced oxygen evolution reaction of defective CoP/MOF-integrated electrocatalyst by partial phosphating. 2020 , 8, 14099-14105	23
888	Metal Atom-Doped Co O Hierarchical Nanoplates for Electrocatalytic Oxygen Evolution. 2020 , 32, e2002235	151
887	In situ conversion of layered double hydroxide arrays into nanoflowers of Ni _x V _{1-x} -MOF as a highly efficient and stable electrocatalyst for the oxygen evolution reaction. 2020 , 10, 4509-4512	10
886	NiMn-Based Bimetal-Organic Framework Nanosheets Supported on Multi-Channel Carbon Fibers for Efficient Oxygen Electrocatalysis. 2020 , 59, 18234-18239	97
885	Interfacial electron transfer on heterostructured Ni ₃ Se ₄ /FeOOH endows highly efficient water oxidation in alkaline solutions. 2020 , 17, 100462	15

884	Recent progress on metal-organic frameworks and their derived materials for electrocatalytic water splitting. 2020 , 8, 14326-14355	42
883	A hybrid of MIL-53(Fe) and conductive sulfide as a synergistic electrocatalyst for the oxygen evolution reaction. 2020 , 8, 14574-14582	16
882	Ultrathin 2D Metal-Organic Framework Nanosheets In situ Interpenetrated by Functional CNTs for Hybrid Energy Storage Device. 2020 , 12, 46	57
881	Molecular Design of Single-Atom Catalysts for Oxygen Reduction Reaction. 2020 , 10, 1903815	139
880	Rational modulating electronegativity of substituents in amorphous metal-organic frameworks for water oxidation catalysis. 2020 , 45, 9723-9732	10
879	Uncovering near-free platinum single-atom dynamics during electrochemical hydrogen evolution reaction. 2020 , 11, 1029	184
878	In-situ optimizing the valence configuration of vanadium sites in NiV-LDH nanosheet arrays for enhanced hydrogen evolution reaction. 2020 , 47, 263-271	29
877	Metal-organic framework-based materials as an emerging platform for advanced electrochemical sensing. 2020 , 410, 213222	187
876	Ni-Based Nanoparticle-Embedded N-Doped Carbon Nanohorns Derived from Double Core-Shell CNH@PDA@NiMOFs for Oxygen Electrocatalysis. 2020 , 12, 12743-12754	16
875	Self-transforming ultrathin $\text{Co}(\text{OH})_2$ nanosheet arrays from metal-organic framework modified graphene oxide with sandwichlike structure for efficient electrocatalytic oxygen evolution. 2020 , 13, 810-817	30
874	Two-sites are better than one: revisiting the OER mechanism on CoOOH by DFT with electrode polarization. 2020 , 22, 7031-7038	20
873	Ultrathin nanosheet-assembled accordion-like Ni-MOF for hydrazine hydrate amperometric sensing. 2020 , 187, 168	14
872	Preparation of FeCoP@Gr/NF Coating via Electroless Composite Plating as Efficient Electrocatalysts for Overall Water Splitting. 2020 , 16, 164-173	5
871	$\text{FeNi}_3\text{@Fe}_3\text{O}_4$ Heterogeneous Nanoparticles Anchored on 2D MOF Nanosheets/1D CNT Matrix as Highly Efficient Bifunctional Electrocatalysts for Water Splitting. 2020 , 8, 3820-3831	43
870	Boosting alkaline hydrogen evolution and Zn@ZnO cell induced by interfacial electron transfer. 2020 , 71, 104621	48
869	A solvent-assisted ligand exchange approach enables metal-organic frameworks with diverse and complex architectures. 2020 , 11, 927	44
868	General Approach to Metal-Organic Framework Nanosheets With Controllable Thickness by Using Metal Hydroxides as Precursors. 2020 , 7,	10
867	Mxene-modulated dual-heterojunction generation on a metal-organic framework (MOF) via surface constitution reconstruction for enhanced photocatalytic activity. 2020 , 390, 124519	62

866	Tetra-carboxylic acid based metal-organic framework as a high-performance bifunctional electrocatalyst for HER and OER. 2020 , 45, 11077-11088	20
865	Electrochemical Activation of Heterometallic Nanofibers for Hydrogen Evolution. 2020 , 3, 2393-2401	6
864	CoNi-based metal-organic framework nanoarrays supported on carbon cloth as bifunctional electrocatalysts for efficient water-splitting. 2020 , 44, 1694-1698	11
863	General anion-exchange reaction derived amorphous mixed-metal oxides hollow nanoprisms for highly efficient water oxidation electrocatalysis. 2020 , 266, 118642	34
862	Tuning Polarity of Cu-O Bond in Heterogeneous Cu Catalyst to Promote Additive-free Hydroboration of Alkynes. 2020 , 6, 725-737	53
861	Metal-organic frameworks as a platform for clean energy applications. 2020 , 2, 100027	377
860	Cobalt-Exchanged Poly(Heptazine Imides) as Transition Metal-N Electrocatalysts for the Oxygen Evolution Reaction. 2020 , 32, e1903942	30
859	Two-dimensional materials for energy conversion and storage. 2020 , 111, 100637	73
858	Metal-organic frameworks with different spatial dimensions for supercapacitors. 2020 , 44, 3147-3167	27
857	A Universal Lab-on-Salt-Particle Approach to 2D Single-Layer Ordered Mesoporous Materials. 2020 , 32, e1906653	19
856	Bimetal-MOF nanosheets as efficient bifunctional electrocatalysts for oxygen evolution and nitrogen reduction reaction. 2020 , 8, 3658-3666	57
855	High-Valence Nickel Single-Atom Catalysts Coordinated to Oxygen Sites for Extraordinarily Activating Oxygen Evolution Reaction. 2020 , 7, 1903089	93
854	Recent advances in pristine tri-metallic metal-organic frameworks toward the oxygen evolution reaction. 2020 , 12, 4816-4825	44
853	Ionic Liquid-Assisted Exfoliation of Two-Dimensional Metal-Organic Frameworks for Luminescent Sensing. 2020 , 8, 2167-2175	11
852	Exfoliation of metal-organic frameworks into efficient single-layer metal-organic nanosheet electrocatalysts by the synergistic action of host-guest interactions and sonication. 2020 , 12, 3623-3629	31
851	Reversible ternary nickel-cobalt-iron catalysts for intermittent water electrolysis. 2020 , 2, e12012	6
850	Prussian blue analog nanocubes tuning synthesis of coral-like Ni ₃ S ₂ @MIL-53(NiFeCo) core-shell nanowires array and boosting oxygen evolution reaction. 2020 , 451, 227295	8
849	Low-Spin-State Hematite with Superior Adsorption of Anionic Contaminations for Water Purification. 2020 , 32, e1905988	30

848	Interfacial Engineering of Cobalt Nitrides and Mesoporous Nitrogen-Doped Carbon: Toward Efficient Overall Water-Splitting Activity with Enhanced Charge-Transfer Efficiency. 2020 , 5, 692-700	63
847	Organic Small Molecule Activates Transition Metal Foam for Efficient Oxygen Evolution Reaction. 2020 , 32, e1906015	27
846	A Thiadiazole-Based Covalent Organic Framework: A Metal-Free Electrocatalyst toward Oxygen Evolution Reaction. 2020 , 10, 5623-5630	58
845	Electric-Field Assisted In Situ Hydrolysis of Bulk Metal-Organic Frameworks (MOFs) into Ultrathin Metal Oxyhydroxide Nanosheets for Efficient Oxygen Evolution. 2020 , 59, 13101-13108	47
844	Metal-Organic Framework-Based Catalysts with Single Metal Sites. 2020 , 120, 12089-12174	291
843	Facile synthesis of substrate supported ultrathin two-dimensional cobalt-based metal organic frameworks nanoflakes. 2020 , 134, 105910	7
842	2D Layered Double Hydroxide Nanosheets and Their Derivatives Toward Efficient Oxygen Evolution Reaction. 2020 , 12, 86	71
841	Nanostructure and doping engineering of ZnCoP for high performance electrolysis of water. 2020 , 16, 100412	26
840	Salen-Based Conjugated Microporous Polymers for Efficient Oxygen Evolution Reaction. 2020 , 26, 7720-7726	10
839	Metal-organic Framework of [Cu ₂ (BIPA-TC)(DMA) ₂] _n : A Promising Anode Material for Lithium-Ion Battery. 2020 , 5, 4160-4164	5
838	Metal-organic frameworks for photocatalysis. 2020 , 31, 541-579	6
837	Designed synthesis of three-dimensional callistemon-like networks structural multifunctional electrocatalyst: Graphitic-carbon-encapsulated Co nanoparticles/N-doped carbon nanotubes@carbon nanofibers for Zn-air batteries application. 2020 , 193, 108058	25
836	Graphdiyne coordinated transition metals as single-atom catalysts for nitrogen fixation. 2020 , 22, 9216-9224	33
835	Delocalized electron effect on single metal sites in ultrathin conjugated microporous polymer nanosheets for boosting CO cycloaddition. 2020 , 6, eaaz4824	38
834	Graphdiyne Interface Engineering: Highly Active and Selective Ammonia Synthesis. 2020 , 59, 13021-13027	89
833	Direct evidence of boosted oxygen evolution over perovskite by enhanced lattice oxygen participation. 2020 , 11, 2002	166
832	Ultrathin nickel terephthalate nanosheet three-dimensional aggregates with disordered layers for highly efficient overall urea electrolysis. 2020 , 395, 125166	31
831	Bimetallic metal-organic frameworks and their derivatives. 2020 , 11, 5369-5403	115

830	Composite Polymer Electrolyte Incorporating Metal-Organic Framework Nanosheets with Improved Electrochemical Stability for All-Solid-State Li Metal Batteries. 2020 , 12, 20514-20521	34
829	Electronic engineering of CoSe/FeSe hollow nanospheres for efficient water oxidation. 2020 , 12, 10196-10204	24
828	One-pot synthesis of ruthenium nanoparticles embedded nitrogen-doped carbon framework for electrocatalytic hydrogen evolution reaction. 2020 , 116, 107914	10
827	Non-destructive in-operando investigation of catalyst layer degradation for water electrolyzers using synchrotron radiography. 2020 , 16, 100394	1
826	Bifunctional HER/OER or OER/ORR Catalytic Activity of Two-Dimensional TM ₃ (HITP) ₂ with TM = Fe, Ni. 2020 , 124, 9350-9359	32
825	Lattice Strain Induced by Linker Scission in Metal-Organic Framework Nanosheets for Oxygen Evolution Reaction. 2020 , 10, 5691-5697	49
824	The synthesis of interface-modulated ultrathin Ni(ii) MOF/g-CN heterojunctions as efficient photocatalysts for CO reduction. 2020 , 12, 10010-10018	29
823	Ultrathin two-dimensional conjugated metal-organic framework single-crystalline nanosheets enabled by surfactant-assisted synthesis. 2020 , 11, 7665-7671	44
822	Ultrafast assembly of swordlike Cu(1,3,5-benzenetricarboxylate) metal-organic framework crystals with exposed active metal sites. 2020 , 5, 1050-1057	9
821	Metal-Organic Framework-Based Engineered Materials-Fundamentals and Applications. 2020 , 25,	32
820	3D Porous TiC MXene/NiCo-MOF Composites for Enhanced Lithium Storage. 2020 , 10,	26
819	Carambola-like metal-organic frameworks for high-performance electrocatalytic oxygen evolution reaction. 2021 , 53, 358-363	13
818	Pyridine-modulated Ni/Co bimetallic metal-organic framework nanoplates for electrocatalytic oxygen evolution. 2021 , 64, 137-148	27
817	Well-Defined Nanostructures for Electrochemical Energy Conversion and Storage. 2021 , 11, 2001537	47
816	Hydrangea-like Ni/NiO/C composites derived from metal-organic frameworks with superior microwave absorption. 2021 , 173, 69-79	51
815	NiFe hydroxide pillared by metaborate for efficient oxygen evolution reaction. 2021 , 366, 137427	3
814	Ultrafine Fe/Fe ₃ C decorated on Fe-N _x -C as bifunctional oxygen electrocatalysts for efficient Zn-air batteries. 2021 , 56, 72-79	27
813	Preparation of MOF Film/Aerogel Composite Catalysts via Substrate-Seeding Secondary-Growth for the Oxygen Evolution Reaction and CO ₂ Cycloaddition. 2021 , 133, 711-715	4

812	Fabrication of ultra-thin 2D covalent organic framework nanosheets and their application in functional electronic devices. 2021 , 429, 213616	20
811	Organic carboxylate-based MOFs and derivatives for electrocatalytic water oxidation. 2021 , 428, 213619	35
810	Directly application of bimetallic 2D-MOF for advanced electrocatalytic oxygen evolution. 2021 , 46, 416-424	8
809	Emerging porous nanosheets: From fundamental synthesis to promising applications. 2021 , 14, 1-28	27
808	Metal-organic frameworks-derived novel nanostructured electrocatalysts for oxygen evolution reaction. 2021 , 3, 66-100	28
807	Toward high-performance and flexible all-solid-state micro-supercapacitors: MOF bulk vs. MOF nanosheets. 2021 , 413, 127520	15
806	High-Entropy Metal Sulfide Nanoparticles Promise High-Performance Oxygen Evolution Reaction. 2021 , 11, 2002887	67
805	Review MXenes as a new type of nanomaterial for environmental applications in the photocatalytic degradation of water pollutants. 2021 , 47, 7321-7343	24
804	Carbon nanotube boosting electrocatalytic oxygen evolution of NiFe-polyphenol coordination catalyst through donor-acceptor modulation. 2021 , 582, 396-404	6
803	Irreversible capacity loss in additive-free Ni metal organic framework-derived hollow NiO/Ni nanocomposite electrodes as a testbed for energy storage applications. 2021 , 285, 129102	0
802	A critical review in recent developments of metal-organic-frameworks (MOFs) with band engineering alteration for photocatalytic CO ₂ reduction to solar fuels. 2021 , 43, 101381	58
801	Glucose oxidase@Cu-hemin metal-organic framework for colorimetric analysis of glucose. 2021 , 118, 111511	14
800	Recent advances of electrically conductive metal-organic frameworks in electrochemical applications. 2021 , 13, 100105	17
799	Fe-modified Co(OH)Cl microspheres for highly efficient oxygen evolution reaction. 2021 , 582, 803-814	6
798	Recent advances of metal-organic frameworks and their composites toward oxygen evolution electrocatalysis. 2021 , 19, 100597	16
797	Preparation of a Dual-MOF Heterostructure (ZIF@MIL) for Enhanced Oxygen Evolution Reaction Activity. 2021 , 16, 64-71	6
796	ZIF-8@ZIF-67-derived ZnCo ₂ O ₄ @nitrogen-doped carbon/carbon nanotubes wrapped by a carbon layer: a stable oxygen reduction catalyst with a competitive strength in acid media. 2021 , 19, 100574	4
795	Efficient air epoxidation of cycloalkenes over bimetal-organic framework ZnCo-MOF materials. 2021 , 499, 111300	2

794	spectroscopy of nanoscopic metal/covalent organic framework electrocatalysts. 2021 , 13, 1507-1514	8
793	Electrochemical Synthesis of Large Area Two-Dimensional Metal-Organic Framework Films on Copper Anodes. 2021 , 60, 2887-2891	31
792	Novel voltammetric detection of norfloxacin in urine and blood serum using a flexible Ni foam based Ni-Co-MOF ultrathin nanosheets derived from Ni-Co-LDH. 2021 , 160, 105747	12
791	Polyoxometalate/metal-organic framework hybrids and their derivatives for hydrogen and oxygen evolution electrocatalysis. 2021 , 19, 100618	12
790	Smart oxygen vacancy engineering to enhance water oxidation efficiency by separating the different effects of bulk and surface vacancies. 2021 , 19, 100619	4
789	Tailoring Crystal Facets of Metal-Organic Layers to Enhance Photocatalytic Activity for CO ₂ Reduction. 2021 , 133, 413-418	4
788	Fabrication of ultrathin single-layer 2D metal-organic framework nanosheets with excellent adsorption performance via a facile exfoliation approach. 2021 , 9, 546-555	19
787	Electrochemical Synthesis of Large Area Two-Dimensional Metal-Organic Framework Films on Copper Anodes. 2021 , 133, 2923-2927	7
786	Two-Dimensional Metal-Organic Frameworks-Based Electrocatalysts for Oxygen Evolution and Oxygen Reduction Reactions. 2021 , 2, 2000067	12
785	In situ identification of the electrocatalytic water oxidation behavior of a nickel-based metal-organic framework nanoarray. 2021 , 8, 556-564	31
784	Linker Defects Triggering Boosted Oxygen Reduction Activity of Co/Zn-ZIF Nanosheet Arrays for Rechargeable Zn-Air batteries. 2021 , 17, e2007085	15
783	Efficient and durable FeCoNi-(Oxy)hydroxide anode: Stoichiometric ration regulated morphology-, defect- and valence-dependent water oxidation performance. 2021 , 417, 127934	1
782	In-situ phase transition induced nanoheterostructure for overall water splitting. 2021 , 409, 128156	5
781	2D framework materials for energy applications. 2020 , 12, 1600-1619	24
780	MOFs derived NiFeP porous nanoflowers for boosted electrocatalytic water splitting. 2021 , 312, 110760	9
779	In-situ decoration of unsaturated Cu sites on Cu ₂ O photocathode for boosting nitrogen reduction reaction. 2021 , 413, 127453	13
778	Strategies to Develop Earth-Abundant Heterogeneous Oxygen Evolution Reaction Catalysts for pH-Neutral or pH-Near-Neutral Electrolytes.. 2021 , 5, e2000719	9
777	The Role of Metal-Organic Frameworks in Electronic Sensors. 2021 , 133, 15320-15340	4

776	Preparation of MOF Film/Aerogel Composite Catalysts via Substrate-Seeding Secondary-Growth for the Oxygen Evolution Reaction and CO Cycloaddition. 2021 , 60, 701-705	44
775	Electrochemical synergies of Fe-Ni bimetallic MOF CNTs catalyst for OER in water splitting. 2021 , 850, 156583	37
774	Tailoring Crystal Facets of Metal-Organic Layers to Enhance Photocatalytic Activity for CO Reduction. 2021 , 60, 409-414	65
773	The Role of Metal-Organic Frameworks in Electronic Sensors. 2021 , 60, 15192-15212	21
772	Green Energy Generation Using Metal-Organic Frameworks. 2021 , 55-109	
771	Defects as catalytic sites for the oxygen evolution reaction in Earth-abundant MOF-74 revealed by DFT. 2021 , 11, 1443-1450	4
770	Recent advances in electrocatalytic chloride oxidation for chlorine gas production. 2021 , 9, 18974-18993	13
769	A novel Co-based MOF/Pd composite: synergy of charge-transfer towards the electrocatalytic oxygen evolution reaction. 2021 , 23, 2982-2991	3
768	Structural and electronic modulation of conductive MOFs for efficient oxygen evolution reaction electrocatalysis. 2021 , 9, 11248-11254	9
767	Bimetallic oxyhydroxide in situ derived from an Fe ₂ Co-MOF for efficient electrocatalytic oxygen evolution. 2021 , 9, 13271-13278	10
766	A MOF-74(Ni) derived partially oxidized Ni@C catalyst for SO ₂ electro-oxidation integrated with solar driven hydrogen evolution. 2021 , 5, 3588-3592	0
765	Numerical Simulation of Electrified Solid-Liquid Interfaces. 2021 , 1-18	
764	In situ assembly of bimetallic MOF composites on IF as efficient electrocatalysts for the oxygen evolution reaction. 2021 , 50, 4720-4726	8
763	Enhanced OER performance of composite Co-Fe-based MOF catalysts via a one-pot ultrasonic-assisted synthetic approach. 2021 , 5, 1095-1102	6
762	Role of Framework-Carrier Interactions in Proton-Conducting Crystalline Porous Materials. 2021 , 21, 1378-1388	7
761	Heterogeneous photocatalytic reversible deactivation radical polymerization. 2021 , 12, 2357-2373	13
760	Electrochemical oxidation of 5-hydroxymethylfurfural on ternary metal-organic framework nanoarrays: enhancement from electronic structure modulation. 2021 , 9, 14270-14275	10
759	Optimized hierarchical nickel sulfide as a highly active bifunctional catalyst for overall water splitting. 2021 , 50, 7776-7782	12

758	synthesis of hierarchical NiCo-MOF@NiCo(OH) heterostructures for enhanced pseudocapacitor and oxygen evolution reaction performances. 2021 , 50, 3060-3066	4
757	Metal-organic frameworks and their derivatives as electrocatalysts for the oxygen evolution reaction. 2021 , 50, 2663-2695	107
756	Carbon nano-onion encapsulated cobalt nanoparticles for oxygen reduction and lithium-ion batteries. 2021 , 9, 7227-7237	5
755	Tunable metal-organic framework nanoarrays on carbon cloth constructed by a rational self-sacrificing template for efficient and robust oxygen evolution reactions.	2
754	Metal-organic framework derived nanomaterials for electrocatalysis: recent developments for CO and N reduction. 2021 , 8, 1	29
753	Newly Emerging Metal-Organic Frameworks (MOF), MXenes, and Zeolite Nanosheets in Solutes Removal from Water. 2021 , 219-247	
752	Multifunctional book-like CuCo-MOF for highly sensitive glucose detection and electrocatalytic oxygen evolution. 2021 , 45, 16714-16721	4
751	Effective enhancement of capacitive performance by the facile exfoliation of bulk metal-organic frameworks into 2D-functionalized nanosheets. 2021 , 13, 13273-13284	1
750	Highly Efficient Electrocatalytic Water Splitting. 2021 , 1335-1367	
749	Metal-organic frameworks of linear trinuclear cluster secondary building units: structures and applications. 2021 , 50, 12692-12707	4
748	Two-dimensional TiC MXene-based nanostructures for emerging optoelectronic applications. 2021 , 8, 2929-2963	7
747	A membrane-less desalination battery with ultrahigh energy efficiency. 2021 , 9, 7216-7226	2
746	Two-dimensional stable and ultrathin cluster-based metal-organic layers for efficient electrocatalytic water oxidation. 2021 , 23, 4700-4707	0
745	An electrochemical method for the sensitive and rapid sensing of Sudan I in food based on Ni-Fe bimetal organic frameworks. 2021 , 45, 13585-13591	2
744	Electrochemical aspects of metal-organic frameworks. 2021 , 65-109	1
743	Catalytically active sites of MOF-derived electrocatalysts: synthesis, characterization, theoretical calculations, and functional mechanisms. 2021 , 9, 20320-20344	3
742	Rationally constructing a hierarchical two-dimensional NiCo metal-organic framework/graphene hybrid for highly efficient Li ⁺ ion storage. 2021 , 5, 4589-4595	4
741	2D metal-organic framework-based materials for electrocatalytic, photocatalytic and thermocatalytic applications. 2021 , 13, 3911-3936	58

740	Diffusion driven nanostructuring of metal-organic frameworks (MOFs) for graphene hydrogel based tunable heterostructures: highly active electrocatalysts for efficient water oxidation. 2021 , 9, 7640-7649	7
739	Rational incorporation of defects within metal-organic frameworks generates highly active electrocatalytic sites. 2021 , 12, 7324-7333	16
738	Lattice-matching Ni-based scaffold with a spongy cover for uniform electric field against lithium dendrites. 2021 , 57, 9442-9445	1
737	Cobalt-based metal-organic frameworks as functional materials for battery applications. 2021 , 23, 5140-5152	0
736	Enhanced Photoelectrochemical Water Splitting on Nickel-Doped Cobalt Phosphate by Modulating both Charge Transfer and Oxygen Evolution Efficiencies. 2021 , 14, 1414-1422	3
735	Transition-Metal (Fe, Co, and Ni)-Based Nanofiber Electrocatalysts for Water Splitting. 2021 , 3, 210-228	24
734	Two-Dimensional Metal-Organic Framework Materials: Synthesis, Structures, Properties and Applications. 2021 , 121, 3751-3891	131
733	Graphdiyne Ultrathin Nanosheets for Efficient Water Splitting. 2021 , 31, 2010112	19
732	Electrochemical Water Splitting. 2021 , 533-555	1
731	Carbon-supported layered double hydroxide nanodots for efficient oxygen evolution: Active site identification and activity enhancement. 2021 , 14, 3329-3336	5
730	2D Copper Tetrahydroxyquinone Conductive Metal-Organic Framework for Selective CO Electrolysis at Low Overpotentials. 2021 , 33, e2004393	39
729	600 nm induced nearly 99% selectivity of CH ₄ from CO ₂ photoreduction using defect-rich monolayer structures. 2021 , 2, 100322	8
728	Hybrid Zeolitic Imidazolate Frameworks for Promoting Electrocatalytic Oxygen Evolution via a Dual-Site Relay Mechanism. 2021 , 60, 3074-3081	7
727	Facile Construction of Metal Phosphides (MP, M = Co, Ni, Fe, and Cu) Wrapped in Three-Dimensional N,P-Codoped Carbon Skeleton toward Highly Efficient Hydrogen Evolution Catalysis and Lithium-Ion Storage. 2021 , 13, 9820-9829	13
726	Three-phase composites of NiFeO/Ni@C nanoparticles derived from metal-organic frameworks as electrocatalysts for the oxygen evolution reaction. 2021 , 32, 175701	4
725	Amorphous nickel-cobalt bimetal-organic framework nanosheets with crystalline motifs enable efficient oxygen evolution reaction: Ligands hybridization engineering. 2021 , 53, 251-259	9
724	2D Materials Bridging Experiments and Computations for Electro/Photocatalysis. 2003841	35
723	In Situ Growth of Ni-Based Metal-Organic Framework Nanosheets on Carbon Nanotube Films for Efficient Oxygen Evolution Reaction. 2021 , 60, 3439-3446	7

722	Facile electron delivery from graphene template to ultrathin metal-organic layers for boosting CO photoreduction. 2021 , 12, 813	40
721	Bimetallic Hollow Tubular NiCoO as a Bifunctional Electrocatalyst for Enhanced Oxygen Reduction and Evolution Reaction. 2021 , 13, 7334-7342	8
720	Recent progress in in situ/operando analysis tools for oxygen electrocatalysis. 2021 , 54, 173001	6
719	Single-Crystalline Ultrathin 2D Porous Nanosheets of Chiral Metal-Organic Frameworks. 2021 , 143, 3509-3518	28
718	Spontaneous migration induced Co nanocavities encapsulated in N-doped carbon hybrids for efficient oxygen electrocatalyst. 2021 , 14, 4569	1
717	Metal-Organic-Framework-Supported Molecular Electrocatalysis for the Oxygen Reduction Reaction. 2021 , 60, 8472-8476	51
716	Improving and Understanding the Hydrogen Evolving Activity of a Cobalt Dithiolene Metal-Organic Framework. 2021 , 13, 16384-16395	9
715	Novel cobalt-based metal-organic frameworks with superior catalytic performance on N-(4-aminobutyl)-N-ethylisoluminol chemiluminescent reaction. 2021 , 1148, 238174	2
714	Tailoring Electronic Structure and Size of Ultrastable Metalated Metal-Organic Frameworks with Enhanced Electroconductivity for High-Performance Supercapacitors. 2021 , 133, 10316-10326	0
713	Iron Coordination Polymer, Fe(oxalate)(HO) Nanorods Grown on Nickel Foam via One-Step Electrodeposition as an Efficient Electrocatalyst for Oxygen Evolution Reaction. 2021 , 60, 5140-5152	5
712	Engineering the Activity and Stability of MOF-Nanocomposites for Efficient Water Oxidation. 2021 , 11, 2003759	35
711	Modulating Metal-Organic Frameworks as Advanced Oxygen Electrocatalysts. 2021 , 11, 2003291	34
710	Dendrimer-Ni-Based Material: Toward an Efficient Ni-Fe Layered Double Hydroxide for Oxygen-Evolution Reaction. 2021 , 60, 6073-6085	5
709	Metal-Organic-Framework-Supported Molecular Electrocatalysis for the Oxygen Reduction Reaction. 2021 , 133, 8553-8557	6
708	Metal-Organic Fragments with Adhesive Excipient and Their Utilization to Stabilize Multimetallic Electrocatalysts for High Activity and Robust Durability in Oxygen Evolution Reaction. 2021 , 8, e2100044	3
707	Tailoring the Electronic Structures of the La ₂ NiMnO ₆ Double Perovskite as Efficient Bifunctional Oxygen Electrocatalysis. 2021 , 33, 2062-2071	22
706	Tailoring Electronic Structure and Size of Ultrastable Metalated Metal-Organic Frameworks with Enhanced Electroconductivity for High-Performance Supercapacitors. 2021 , 60, 10228-10238	19
705	Engineering Nanoscale Metal-Organic Frameworks for Heterogeneous Catalysis. 2021 , 2, 2000141	15

704	Modulating electronic structure of metal-organic frameworks by introducing atomically dispersed Ru for efficient hydrogen evolution. 2021 , 12, 1369	104
703	Designing MOF Nanoarchitectures for Electrochemical Water Splitting. 2021 , 33, e2006042	76
702	In Situ Anchoring Polymetallic Phosphide Nanoparticles within Porous Prussian Blue Analogue Nanocages for Boosting Oxygen Evolution Catalysis. 2021 , 21, 3016-3025	75
701	Recent advances in vacancy engineering of metal-organic frameworks and their derivatives for electrocatalysis. 2021 , 1, 66-87	87
700	Enhancing One-Dimensional Charge Transport in Metal-organic Framework Hexagonal Nanorods for Electrocatalytic Oxygen Evolution. 2021 , 14, 1830-1834	4
699	Co-Cu Bimetallic Metal Organic Framework Catalyst Outperforms the Pt/C Benchmark for Oxygen Reduction. 2021 , 143, 4064-4073	44
698	Structural tuning of heterogeneous molecular catalysts for electrochemical energy conversion. 2021 , 7,	11
697	Two-dimensional bimetallic coordination polymers as bifunctional evolved electrocatalysts for enhanced oxygen evolution reaction and urea oxidation reaction. 2021 ,	8
696	High-Yield Two-Dimensional Metal-Organic Framework Derivatives for Wideband Electromagnetic Wave Absorption. 2021 , 13, 20459-20466	18
695	Two-Dimensional Metal-Organic Frameworks and Covalent-Organic Frameworks for Electrocatalysis: Distinct Merits by the Reduced Dimension. 2003990	12
694	High-efficient liquid exfoliation of 2D metal-organic framework using deep-eutectic solvents. 2021 , 72, 105461	10
693	Micro/Nano-Scaled Metal-Organic Frameworks and Their Derivatives for Energy Applications. 2003970	12
692	Metal-Organic Frameworks Nanocomposites with Different Dimensionalities for Energy Conversion and Storage. 2100346	25
691	Metal organic framework (MOF) in aqueous energy devices. 2021 , 48, 270-270	16
690	An Efficient Interfacial Synthesis of Two-Dimensional Metal-Organic Framework Nanosheets for Electrochemical Hydrogen Peroxide Production. 2021 , 133, 11290-11295	1
689	Facile Synthesis of Two-Dimensional Iron/Cobalt Metal-Organic Framework for Efficient Oxygen Evolution Electrocatalysis. 2021 , 133, 12204-12209	5
688	Design and Fabrication of Hierarchical NiCoP-MOF Heterostructure with Enhanced Pseudocapacitive Properties. 2021 , 17, e2100353	31
687	Carbon Nitride-Based Photoanode with Enhanced Photostability and Water Oxidation Kinetics. 2021 , 31, 2101724	16

686	Metal-Organic Frameworks as Heterogeneous Electrocatalysts for Water Splitting and CO ₂ Fixation. 2021 , 21, 3123-3142	12
685	Facile Synthesis of Two-Dimensional Iron/Cobalt Metal-Organic Framework for Efficient Oxygen Evolution Electrocatalysis. 2021 , 60, 12097-12102	44
684	Ferrocene-Based Metal-Organic Framework Nanosheets as a Robust Oxygen Evolution Catalyst. 2021 , 60, 12770-12774	22
683	Open Framework Material Based Thin Films: Electrochemical Catalysis and State-of-the-art Technologies. 2003499	4
682	Favorable morphology and electronic conductivity of functional sublayers for highly efficient water splitting electrodes. 2021 , 36, 102342	5
681	Ferrocene-Based Metal-Organic Framework Nanosheets as a Robust Oxygen Evolution Catalyst. 2021 , 133, 12880-12884	2
680	In-Situ Activated NiFePBA-FeOOH Electrocatalyst for Oxygen Evolution Reaction and Zinc-Air Battery. 2021 , 6, 3683-3691	0
679	An Efficient Interfacial Synthesis of Two-Dimensional Metal-Organic Framework Nanosheets for Electrochemical Hydrogen Peroxide Production. 2021 , 60, 11190-11195	24
678	Removing Pb ²⁺ and As(V) from polluted water by highly reusable Fe-Mg metal-organic complex adsorbent. 2021 , 383, 104-114	6
677	Ultrathin Trimetal-Organic Framework Nanosheet Electrocatalysts for the Highly Efficient Oxygen Evolution Reaction. 2021 , 6, 13946-13952	4
676	Discovery of Single-Atom Catalyst: Customized Heteroelement Dopants on Graphene. 2021 , 2, 394-406	3
675	Programmable Logic in Metal-Organic Frameworks for Catalysis. 2021 , 33, e2007442	22
674	Ligand and Anion Co-Leaching Induced Complete Reconstruction of Polyoxomolybdate-Organic Complex Oxygen-Evolving Pre-Catalysts. 2021 , 31, 2101792	10
673	Metal-Organic Frameworks and Metal-Organic Gels for Oxygen Electrocatalysis: Structural and Compositional Considerations. 2021 , 33, e2008023	21
672	Solution-Processable Metal-Organic Framework Nanosheets with Variable Functionalities. 2021 , 33, e2101257	8
671	Structural changes of a NiFe-based metal-organic framework during the oxygen-evolution reaction under alkaline conditions. 2021 , 46, 19245-19253	8
670	Gold nanoparticle decorated rGO-encapsulated metal-organic framework composite sensor for the detection of dopamine. 2021 , 99, 465-473	1
669	Assembly of a Metal-Organic Framework (MOF) Membrane on a Solid Electrocatalyst: Introducing Molecular-Level Control Over Heterogeneous CO ₂ Reduction. 2021 , 133, 13535-13541	3

668	Atomic Co/Ni dual sites with N/P-coordination as bifunctional oxygen electrocatalyst for rechargeable zinc-air batteries. 2021 , 14, 3482-3488	27
667	2D/2D NiCo-MOFs/GO hybrid nanosheets for high-performance asymmetrical supercapacitor. 2021 , 115, 108358	7
666	Ligand-Promoted Cooperative Electrochemical Oxidation of Bio-Alcohol on Distorted Cobalt Hydroxides for Bio-Hydrogen Extraction. 2021 , 14, 2612-2620	3
665	An Efficient and Reversible Battery Anode Electrode Derived from a Lead-Based Metal-Organic Framework. 2021 , 35, 9669-9682	4
664	Effect of unsaturated coordination on photoelectrochemical properties of Ni-MOF/TiO ₂ photoanode for water splitting. 2021 , 46, 17741-17750	12
663	Metal-Organic Frameworks for Photo/Electrocatalysis. 2021 , 2, 2100033	47
662	Ternary nickel-tungsten-copper alloy rivals platinum for catalyzing alkaline hydrogen oxidation. 2021 , 12, 2686	20
661	Assembly of a Metal-Organic Framework (MOF) Membrane on a Solid Electrocatalyst: Introducing Molecular-Level Control Over Heterogeneous CO Reduction. 2021 , 60, 13423-13429	14
660	Tandem Synthesis of γ -Caprolactam from Cyclohexanone by an Acidified Metal-organic Framework. 2021 , 13, 3084-3089	
659	Fluorinated pillared-layer metal-organic framework microrods for improved electrochemical cycling stability. 2021 , 32, 3817-3817	12
658	Development of a novel 2D Ni-MOF derived NiO@C nanosheet arrays modified Ti/TiO ₂ NTs/PbO ₂ electrode for efficient electrochemical degradation of salicylic acid wastewater. 2021 , 263, 118368	14
657	Oxygen-evolving catalytic atoms on metal carbides. 2021 , 20, 1240-1247	58
656	Electronic Modulation of Non-van der Waals 2D Electrocatalysts for Efficient Energy Conversion. 2021 , 33, e2008422	68
655	Facet Selectivity Guided Assembly of Nanoarchitectures onto Two-Dimensional Metal-Organic Framework Nanosheets. 2021 , 133, 17705-17710	1
654	Fabrication an electrochemical sensor based on composite of Cu-TCPP nanosheets and PSS functionalized graphene for simultaneous and sensitive determination of dihydroxybenzene isomers. 2021 , 890, 115232	6
653	Enhancing Electrocatalytic Production of H ₂ O ₂ by Modulating Coordination Environment of Cobalt Center. 2021 , 42, 1155-1160	3
652	Self-Optimized Metal-Organic Framework Electrocatalysts with Structural Stability and High Current Tolerance for Water Oxidation. 2021 , 11, 7132-7143	20
651	Single atomically anchored iron on graphene quantum dots for a highly efficient oxygen evolution reaction. 2021 , 20, 100693	11

650	Tuning the morphology and electron structure of metal-organic framework-74 as bifunctional electrocatalyst for OER and HER using bimetallic collaboration strategy. 2021 , 865, 158795	7
649	Discovery of Quantitative Electronic Structure-OER Activity Relationship in Metal-Organic Framework Electrocatalysts Using an Integrated Theoretical-Experimental Approach. 2021 , 31, 2102066	16
648	Advances in CoP electrocatalysts for water splitting. 2021 , 20, 100698	27
647	In-situ generated Ni-MOF/LDH heterostructures with abundant phase interfaces for enhanced oxygen evolution reaction. 2021 , 286, 119906	30
646	Iron Phthalocyanine/Two-Dimensional Metal-Organic Framework Composite Nanosheets for Enhanced Alkaline Hydrogen Evolution. 2021 , 60, 9987-9995	10
645	Amorphous Ni _{1-x} Fe _x Oxyhydroxide Nanosheets with Integrated Bulk and Surface Iron for a High and Stable Oxygen Evolution Reaction. 2021 , 4, 6833-6841	2
644	Facet Selectivity Guided Assembly of Nanoarchitectures onto Two-Dimensional Metal-Organic Framework Nanosheets. 2021 , 60, 17564-17569	5
643	Recent advances in nanostructured electrocatalysts for hydrogen evolution reaction. 2021 , 40, 3375-3405	18
642	Recent Advances on Electrocatalysis Using Pristine Conductive Metal-Organic Frameworks and Covalent Organic Frameworks. 2021 , 8, 2764-2777	2
641	Rational construction of dual cobalt active species encapsulated by ultrathin carbon matrix from MOF for boosting photocatalytic H ₂ generation. 2021 , 286, 119924	15
640	Understanding the Evolution of Cobalt-Based Metal-Organic Frameworks in Electrocatalysis for the Oxygen Evolution Reaction. 2021 , 14, 3163-3173	6
639	Multi-scale regulation in S, N co-incorporated carbon encapsulated Fe-doped Co ₉ S ₈ achieving efficient water oxidation with low overpotential. 1	7
638	Improving the electrocatalytic activity of NiFe bimetal-organic framework toward oxygen evolution reaction by Zr doping. 2021 , 381, 138292	2
637	CO ₂ -Induced 2D Ni-BDC Metal-Organic Frameworks with Enhanced Photocatalytic CO ₂ Reduction Activity. 2021 , 8, 2100205	5
636	Electrically Conductive Metal-Organic Frameworks for Electrocatalytic Applications. 2100100	4
635	Defect-Rich Fe-Doped CoP Nanosheets as Efficient Oxygen Evolution Electrocatalysts. 2021 , 35, 10890-10897	8
634	Hierarchical multi-component nanosheet array electrode with abundant NiCo/MoNi ₄ heterostructure interfaces enables superior bifunctionality towards hydrazine oxidation assisted energy-saving hydrogen generation. 2021 , 414, 128818	9
633	Tuning the Catalytic Water Oxidation Activity through Structural Modifications of High-Nuclearity Mn-oxo Clusters [Mn ₁₈ M] (M = Sr ²⁺ , Mn ²⁺). 2021 , 13, 2042	0

- 632 Boosting the Activity and Stability with Dual-Metal-N Couplings for Li⁺/O₂ Battery. 4
- 631 Cu-alanine complex-derived CuO electrocatalysts with hierarchical nanostructures for efficient oxygen evolution. **2021**, 32, 2239-2242 2
- 630 Metal-Organic Frameworks for Electrocatalysis: Catalyst or Precatalyst?. **2021**, 6, 2838-2843 31
- 629 Adsorptive removal of different pollutants using metal-organic framework adsorbents. **2021**, 333, 115593 25
- 628 Bioinspired cobalt molecular electrocatalyst for water oxidation coupled with carbon dioxide reduction. **2021**, 35, e6371 2
- 627 FeO/NiO Interface for the Electrochemical Oxygen Evolution in Seawater and Domestic Sewage. **2021**, 13, 37152-37161 7
- 626 Advances in Understanding the Electrocatalytic Reconstruction Chemistry of Coordination Compounds. **2021**, 17, e2100629 1
- 625 Laser-Induced Graphitic Carbon with Ultrasmall Nickel Nanoparticles for Efficient Overall Water Splitting. **2021**, 38, 2100119 2
- 624 An atom-economy route for the fabrication of MnS@C microball with ultrahigh supercapacitance: The significance of in-situ vulcanization. **2021**, 594, 186-194 2
- 623 Late transition metal nanocomplexes: Applications for renewable energy conversion and storage. **2021**, 145, 111103 5
- 622 Metal-Organic Framework Derived Nanostructured Bifunctional Electrocatalysts for Water Splitting. **2021**, 8, 3782 0
- 621 Cu[Ni(2,3-pyrazinedithiolate)] Metal-Organic Framework for Electrocatalytic Hydrogen Evolution. **2021**, 13, 34419-34427 5
- 620 Interfacing or Doping? Role of Ce in Highly Promoted Water Oxidation of NiFe-Layered Double Hydroxide. **2021**, 11, 2101281 30
- 619 Metal-Organic Framework Nanosheets: Programmable 2D Materials for Catalysis, Sensing, Electronics, and Separation Applications. **2021**, 31, 2103723 23
- 618 Preparation of CeO₂/Cu-MOF/GO composite for efficient electrocatalytic oxygen evolution reaction. **2021**, 27, 4347-4360 4
- 617 Photoelectrochemical Biosensor for MicroRNA-21 Based on High Photocurrent of TiO₂/Two-Dimensional Coordination Polymer CuCl(MBA) Photoelectrode. **2021**, 93, 11010-11018 6
- 616 High-performance electrocatalyst of vanadium-iron bimetal organic framework arrays on nickel foam for overall water splitting. **2021**, 32, 2263-2268 8
- 615 Porous Materials Confining Single Atoms for Catalysis. **2021**, 9, 717201 4

614	Heterojunction catalyst in electrocatalytic water splitting. 2021 , 439, 213953	39
613	Highly Dispersive Ni@C and Co@C Nanoparticles Derived from Metal-Organic Monolayers for Enhanced Photocatalytic CO Reduction. 2021 , 60, 10738-10748	8
612	Recent advances in the development of electronically and ionically conductive metal-organic frameworks. 2021 , 439, 213915	40
611	Structural visualization of ultrathin chiral porous metal-organic framework nanosheet. 2021 , 4, 2669-2671	1
610	Bimetallic organic framework NiFeMOF driven by tiny Ag particles for PVDF dielectric composites. 2021 , 147, 106432	6
609	Fabrication of 2D Metal-Organic Framework Nanosheets with Highly Colloidal Stability and High Yield through Coordination Modulation. 2021 , 13, 39755-39762	1
608	Strategies for the enhanced water splitting activity over metal-organic frameworks-based electrocatalysts and photocatalysts. 2021 , 15, 100124	8
607	Composition-Balanced Bi-Metallic MOFs Directly Grown on Nickel Foam for High-Efficiency Oxygen Evolution Reaction. 2021 , 168, 082504	1
606	Building CoP/Co-MOF heterostructure in 2D nanosheets for improving electrocatalytic hydrogen evolution over a wide pH range. 2021 , 895, 115514	6
605	Facet Engineering in Ultrathin Two-Dimensional NiFe Metal-Organic Frameworks by Coordination Modulation for Enhanced Electrocatalytic Water Oxidation. 2021 , 9, 10892-10901	8
604	Marigold-flower-like TiO ₂ /MIL-125 core-shell composite for enhanced photocatalytic Cr(VI) reduction. 2021 , 9, 105451	3
603	Metal-Organic Frameworks for Electrocatalysis: Beyond Their Derivatives. 2100015	30
602	Recent Developments of Microenvironment Engineering of Single-Atom Catalysts for Oxygen Reduction toward Desired Activity and Selectivity. 2021 , 31, 2103857	25
601	Ultrathin nanosheet metal-organic framework@NiO/Ni nanorod composites. 2021 , 417, 129201	10
600	Defects Engineering of Lightweight Metal-Organic Frameworks-Based Electrocatalytic Membrane for High-Loading Lithium-Sulfur Batteries. 2021 ,	9
599	From Co-MOF to CoNi-MOF to Ni-MOF: A Facile Synthesis of 1D Micro-/Nanomaterials. 2021 , 60, 13168-13176	4
598	Discharge-Induced Enhancement of the Oxygen Evolution Reaction. 2021 , 133, 20195-20201	1
597	Discharge-Induced Enhancement of the Oxygen Evolution Reaction. 2021 , 60, 20042-20048	6

596	Controllable amorphization engineering on bimetallic metal-organic frameworks for ultrafast oxygen evolution reaction. 2021 , 418, 129330	13
595	Metamorphosis of Heterostructured Surface-Mounted Metal-Organic Frameworks Yielding Record Oxygen Evolution Mass Activities. 2021 , 33, e2103218	11
594	Structure-property correlations for analysis of heterogeneous electrocatalysts. 2021 , 2, 031306	1
593	Self-Nanocavity-Confined Halogen Anions Boosting the High Selectivity of the Two-Electron Oxygen Reduction Pathway over Ni-Based MOFs. 2021 , 12, 8706-8712	4
592	S-doped nickel-iron hydroxides synthesized by room-temperature electrochemical activation for efficient oxygen evolution. 2021 , 292, 120150	26
591	Dual-Ligand Zn-Based Metal-Organic Framework as Reversible and Stable Anode Material for Next Generation Lithium-Ion Batteries. 2100212	2
590	Enlightening the journey of metal-organic framework (derived) catalysts during the oxygen evolution reaction in alkaline media via operando X-ray absorption spectroscopy. 2021 , 100845	1
589	Enhancing the activity of metal-organic nanosheets for oxygen evolution reaction by substituent effects. 2022 , 608, 306-312	2
588	Activation of urchin-like Ni-doped W ₁₈ O ₄₉ /NF by electrochemical tuning for efficient water splitting. 2021 , 63, 642-642	0
587	UiO66-membranized SAPO-34 Pt catalyst for enhanced carbon dioxide conversion efficiency. 2021 , 21, 100781	5
586	Water-stable Al-TCPP MOF nanosheets with hierarchical porous structure for removal of chlorantraniliprole in water. 2021 , 324, 111272	3
585	In Situ Electrochemical Activation of Fe/Co-Based 8-Hydroxyquinoline Nanostructures on Copper Foam for Oxygen Evolution. 2021 , 4, 9409-9417	2
584	In situ self-reconstruction inducing amorphous species: A key to electrocatalysis. 2021 , 4, 2850-2873	17
583	NiCo-Based Electrocatalysts for the Alkaline Oxygen Evolution Reaction: A Review. 12485-12509	39
582	Insight into Structural Evolution, Active Site and Stability of Heterogeneous Electrocatalysts. 2021 ,	19
581	MXene-Copper/Cobalt Hybrids via Lewis Acidic Molten Salts Etching for High Performance Symmetric Supercapacitors. 2021 , 60, 25318-25322	70
580	Mono-coordinated metallocene ligands endow metal-organic frameworks with highly efficient oxygen evolution and urea electrolysis. 2021 , 430, 132733	6
579	Porous metal-organic framework (MOF)-based and MOF-derived electrocatalytic materials for energy conversion. 2021 , 21, 100816	10

578	Utilizing tannic acid and polypyrrole to induce reconstruction to optimize the activity of MOF-derived electrocatalyst for water oxidation in seawater. 2021 , 430, 132632	4
577	Strategies to improve electrochemical performances of pristine metal-organic frameworks-based electrodes for lithium/sodium-ion batteries.	9
576	Co ₃ O ₄ @carbon with high Co ²⁺ /Co ³⁺ ratios derived from ZIF-67 supported on N-doped carbon nanospheres as stable bifunctional oxygen catalysts. 2021 , 21, 100737	7
575	High-valent bimetal Ni ₃ S ₂ /Co ₃ S ₄ induced by Cu doping for bifunctional electrocatalytic water splitting. 2021 , 293, 120225	56
574	Origin of hetero-nuclear Au-Co dual atoms for efficient acidic oxygen reduction. 2021 , 301, 120782	11
573	Cu-Co bimetal oxide hierarchical nanostructures as high-performance electrocatalyst for oxygen evolution reaction. 2021 , 21, 100703	4
572	Ligand Functionalized Iron-Based Metal-Organic Frameworks for Efficient Electrocatalytic Oxygen Evolution.	1
571	Vertical-crystalline Fe-doped Ni oxyhydroxides for highly active and stable oxygen evolution reaction. 2021 ,	4
570	MXene-Copper/Cobalt Hybrids via Lewis Acidic Molten Salts Etching for High Performance Symmetric Supercapacitors. 2021 , 133, 25522	26
569	Facile synthesis of polymetallic Li-MOFs and their synergistic mechanism of lithium storage. 2021 , 525, 120473	9
568	Electronic and catalytic engineering in two-dimensional vdW metal-organic frameworks through alloying. 2021 , 8, 031411	0
567	In Situ Construction of Flexible V ²⁺ /Ni Redox Centers over Ni-Based MOF Nanosheet Arrays for Electrochemical Water Oxidation.. 2021 , 5, e2100573	5
566	Site-directed reduction engineering within bimetal-organic frameworks for efficient size-selective catalysis. 2021 , 4, 2919-2935	7
565	Insight into Structural Evolution, Active Site and Stability of Heterogeneous Electrocatalysts.	6
564	Comprehensive and High-throughput Electrolysis of Water and Urea by 3-5 nm Nickel and Copper Coordination Polymers. 2021 , 16, 3444-3452	3
563	Advanced Trifunctional Electrocatalysis with Cu-, N-, S-Doped Defect-Rich Porous Carbon for Rechargeable Zn-Air Batteries and Self-Driven Water Splitting.	3
562	RuO ₂ clusters derived from bulk SrRuO ₃ : Robust catalyst for oxygen evolution reaction in acid. 1	5
561	High performance of homo-metallic tetracyanonickelate based coordination polymer towards water oxidation electrocatalysis. 2021 , 526, 120510	2

560	MOF-derived NiCoZnP nanoclusters anchored on hierarchical N-doped carbon nanosheets array as bifunctional electrocatalysts for overall water splitting. 2021 , 422, 130533	16
559	Metal-organic framework assembly derived hierarchically ordered porous carbon for oxygen reduction in both alkaline and acidic media. 2021 , 430, 132762	2
558	Bimetallic CoZn-MOFs easily derived from CoZn-LDHs, as a suitable platform in fabrication of a non-enzymatic electrochemical sensor for detecting glucose in human fluids. 2021 , 344, 130254	10
557	Chiral metal-organic frameworks based on asymmetric synthetic strategies and applications. 2021 , 445, 214083	9
556	Ultrathin 2D catalysts with N-coordinated single Co atom outside Co cluster for highly efficient Zn-air battery. 2021 , 421, 129719	6
555	Cobalt vanadium layered double Hydroxide/FeOOH heterostructure catalyst with strong electron interactions for stable oxygen evolution performance. 2021 , 27, 100780	5
554	Exploitation of 2D Cu-MOF nanosheets as a unique electroactive material for ultrasensitive Cu(II) ion estimation in various real samples. 2021 , 1181, 338924	2
553	Iron-doped metal-organic framework with enhanced oxygen evolution reaction activity for overall water splitting. 2021 , 46, 34565-34573	1
552	Fe-incorporated cobalt-based metal-organic framework ultrathin nanosheets for electrocatalytic oxygen evolution. 2021 , 422, 130055	3
551	Molten salt assisted fabrication of Fe@FeSA-N-C oxygen electrocatalyst for high performance Zn-air battery. 2021 , 61, 612-621	4
550	In situ interfacial optimization of CoOOH/W18O49/NF heterojunction for boosted water-splitting performance. 2021 , 564, 150414	1
549	Fluorination-assisted preparation of self-supporting single-atom Fe-N-doped single-wall carbon nanotube film as bifunctional oxygen electrode for rechargeable Zn-Air batteries. 2021 , 294, 120239	21
548	Facile synthesis of porous Co _x Fe _{1-x} F ₂ microcubes derived from metal-organic frameworks for ultra-stable electrochemical oxygen evolution reaction. 2021 , 566, 150696	1
547	Modulating electronic structure of metal-organic framework derived catalysts for electrochemical water oxidation. 2021 , 447, 214144	10
546	Creating and tailoring ultrathin two-dimensional uranyl-organic framework nanosheets for boosting photocatalytic oxidation reactions. 2021 , 297, 120485	3
545	ZIF-derived two-dimensional Co@Carbon hybrid: Toward highly efficient trifunctional electrocatalysts. 2021 , 423, 130313	4
544	Multi-stability modulating of alkaline-earth metal doped LaCoO ₃ for rechargeable Zn-air batteries. 2021 , 42, 470-476	4
543	Microwave-assisted rapid synthesis and activation of ultrathin trimetal-organic framework nanosheets for efficient electrocatalytic oxygen evolution. 2021 , 603, 148-156	7

542	Multifunctional electrocatalysts of nickel boride nanoparticles for superior hydrogen oxidation and water splitting. 2021 , 22, 100846	12
541	Facile coordination driven synthesis of metal-organic gels toward efficiently electrocatalytic overall water splitting. 2021 , 299, 120641	8
540	In situ semi-sacrificial template-assisted growth of ultrathin metal-organic framework nanosheets for electrocatalytic oxygen evolution. 2021 , 426, 131348	2
539	Constructing accelerated charge transfer channels along V-Co-Fe via introduction of V into CoFe-layered double hydroxides for overall water splitting. 2021 , 298, 120587	7
538	Multiple effects driven by AC magnetic field for enhanced electrocatalytic oxygen evolution in alkaline electrolyte. 2021 , 426, 130785	7
537	Efficient preparation of Ni-M (M = Fe, Co, Mo) bimetallic oxides layer on Ni nanorod arrays for electrocatalytic oxygen evolution. 2021 , 25, 101185	3
536	All-in-one bipolar electrode: A new concept for compact and efficient water electrolyzers. 2021 , 90, 106551	3
535	Tuning the reversible chemisorption of hydroxyl ions to promote the electrocatalysis on ultrathin metal-organic framework nanosheets. 2022 , 65, 71-77	3
534	Nanostructured hexaazatrinaphthalene based polymers for advanced energy conversion and storage. 2022 , 427, 130995	4
533	Hetero-structural mass transfer channel boosts electrocatalytic oxygen reactions of metallic catalyst. 2022 , 428, 131140	5
532	Nitridation-induced metal-organic framework nanosheet for enhanced water oxidation electrocatalysis. 2022 , 64, 531-537	3
531	Electronic structure modulation with ultrafine Fe ₃ O ₄ nanoparticles on 2D Ni-based metal-organic framework layers for enhanced oxygen evolution reaction. 2022 , 65, 78-88	9
530	ZIF-8@GMP-Tb nanocomplex for ratiometric fluorescent detection of alkaline phosphatase activity. 2022 , 264, 120230	4
529	Fe and Co dual-doped Ni ₃ S ₄ nanosheet with enriched high-valence Ni sites for efficient oxygen evolution reaction. 2022 , 427, 130742	17
528	Surface states regulation of sulfide-based photoanode for photoelectrochemical water splitting. 2022 , 300, 120717	3
527	Metal-organic frameworks as catalytic selectivity regulators for organic transformations. 2021 , 50, 5366-5396	32
526	Preparation of Two-Dimensional Metal-Organic Framework Membranes and Their Applications in Separation. 2021 , 79, 869	4
525	Tuning and understanding the electronic effect of Co-Mo sites in bifunctional electrocatalysts for ultralong-lasting rechargeable zinc-air batteries.	1

524	2D bimetallic Ni/Fe MOF nanosheet composites as a peroxidase-like nanozyme for colorimetric assay of multiple targets. 2021 , 13, 2066-2074	4
523	Nano-spinel cobalt decorated sulphur doped graphene: an efficient and durable electrocatalyst for oxygen evolution reaction and non-enzymatic sensing of H ₂ O ₂ . 2021 , 45, 15544-15554	0
522	Tip-Enhanced Electric Field: A New Mechanism Promoting Mass Transfer in Oxygen Evolution Reactions. 2021 , 33, e2007377	58
521	Well-Aligned Ni-Heteroatom (N, S) MOF Arrays Enhanced Electrocatalytic Oxygen Evolution Reaction. 2021 , 60, 1305-1309	5
520	Facile synthesis of 3D Ni@C nanocomposites derived from two kinds of petal-like Ni-based MOFs towards lightweight and efficient microwave absorbers. 2021 , 13, 3119-3135	34
519	Metal organic framework (MOF)-based micro/nanoscaled materials for heavy metal ions removal: The cutting-edge study on designs, synthesis, and applications. 2021 , 427, 213554	79
518	Transition metal-based bimetallic MOFs and MOF-derived catalysts for electrochemical oxygen evolution reaction. 2021 , 14, 1897-1927	105
517	Graphdiyne based catalysts for energy applications.	5
516	Co-Zn-MOFs Derived N-Doped Carbon Nanotubes with Crystalline Co Nanoparticles Embedded as Effective Oxygen Electrocatalysts. 2021 , 11,	7
515	MOF-derived M-OOH with rich oxygen defects by in situ electro-oxidation reconstitution for a highly efficient oxygen evolution reaction. 2021 , 9, 11415-11426	12
514	Targeted synthesis of covalently linked Ni-MOFs nanosheets/graphene for oxygen evolution reaction by computational screening of anchoring primers. 2021 , 79, 105418	8
513	Facile one-pot solvothermal preparation of two-dimensional Ni-based metal-organic framework microsheets as a high-performance supercapacitor material.. 2021 , 11, 8362-8366	0
512	Carbon support tuned electrocatalytic activity of a single-site metal-organic framework toward the oxygen reduction reaction. 2021 , 12, 7908-7917	6
511	Emerging dynamic structure of electrocatalysts unveiled by in situ X-ray diffraction/absorption spectroscopy. 2021 , 14, 1928-1958	59
510	Two-Dimensional Metal-Organic Framework Nanosheet Supported Noble Metal Nanocrystals for High-Efficiency Water Oxidation. 2021 , 8, 2002034	7
509	Selective nitrogen reduction to ammonia on iron porphyrin-based single-site metal-organic frameworks. 2021 , 9, 4673-4678	10
508	Hierarchical MoO ₄ ²⁻ Intercalating FeCo(OH) ₂ Nanosheet Assemblies: Green Synthesis and Ultrafast Reconstruction for Boosting Electrochemical Oxygen Evolution. 2021 , 35, 2775-2784	4
507	Recent progress in pristine MOF-based catalysts for electrochemical hydrogen evolution, oxygen evolution and oxygen reduction. 2021 , 50, 5732-5753	14

506	A Ni-MOF nanosheet array for efficient oxygen evolution electrocatalysis in alkaline media.	46
505	Unconventional Nickel Nitride Enriched with Nitrogen Vacancies as a High-Efficiency Electrocatalyst for Hydrogen Evolution. 2018 , 5, 1800406	97
504	Inverted Design for High-Performance Supercapacitor Via Co(OH) ₂ -Derived Highly Oriented MOF Electrodes. 2018 , 8, 1702294	152
503	2D Metal Organic Framework Nanosheet: A Universal Platform Promoting Highly Efficient Visible-Light-Induced Hydrogen Production. 2019 , 9, 1803402	144
502	Three-Dimensional Hierarchical Architectures Derived from Surface-Mounted Metal-Organic Framework Membranes for Enhanced Electrocatalysis. 2017 , 129, 13969-13973	31
501	Hierarchically Structured Two-Dimensional Bimetallic CoNi-Hexaaminobenzene Coordination Polymers Derived from Co(OH) ₂ for Enhanced Oxygen Evolution Catalysis. 2020 , 16, e1907043	20
500	Common Pitfalls of Reporting Electrocatalysts for Water Splitting. 2020 , 36, 360-365	7
499	2D MOF with electrochemical exfoliated graphene for nonenzymatic glucose sensing: Central metal sites and oxidation potentials. 2020 , 1122, 9-19	30
498	Selectively etched graphene encapsulated CoFe catalyst for zinc-air battery application. 2020 , 17, 100438	6
497	Controllable design of nanoworm-like nickel sulfides for efficient electrochemical water splitting in alkaline media. 2020 , 18, 100573	10
496	Dynamic Structure Evolution of Composition Segregated Iridium-Nickel Rhombic Dodecahedra toward Efficient Oxygen Evolution Electrocatalysis. 2018 , 12, 7371-7379	53
495	Metal-Organic Frameworks Integrate Cu Photosensitizers and Secondary Building Unit-Supported Fe Catalysts for Photocatalytic Hydrogen Evolution. 2020 , 142, 10302-10307	47
494	Chapter 7: Metal-Organic Frameworks (MOFs) as Potential Hybrid Ferroelectric Materials. 2019 , 197-244	2
493	Iron-doped NiCo-MOF hollow nanospheres for enhanced electrocatalytic oxygen evolution. 2020 , 12, 14004-14010	15
492	Recent advancement in the electrocatalytic synthesis of ammonia. 2020 , 12, 8065-8094	19
491	Novel 2D/2D BiOBr/UMOFNs direct Z-scheme photocatalyst for efficient phenol degradation. 2021 , 32, 045711	4
490	Competitive formation between 2D and 3D metal-organic frameworks: insights into the selective formation and lamination of a 2D MOF. 2019 , 6, 681-687	7
489	Review 2D Layered Metal Organic Framework Nanosheets as an Emerging Platform for Electrochemical Sensing. 2020 , 167, 136502	11

488	Molecular Scaffold Growth of Two-Dimensional, Strong Interlayer-Bonding-Layered Materials. 117-127	7
487	Designing core-shell metal-organic framework hybrids: toward high-efficiency electrochemical potassium storage.	1
486	Emerging two-dimensional nanomaterials for electrochemical nitrogen reduction. 2021 , 50, 12744-12787	10
485	A 2D/2D NiCo-MOF/TiC heterostructure for the simultaneous detection of acetaminophen, dopamine and uric acid by differential pulse voltammetry. 2021 , 50, 16593-16600	1
484	MOFs-derived porous carbon/NiFeP hierarchical flower-like nanoarchitectures for efficient overall water splitting. 2022 , 55, 055502	
483	Efficient Ultrasonic synthesis of Ni-Based Metal Organic Framework (Ni-MOF) for High Performance Battery-type Supercapacitor Electrodes.	4
482	Nafion-threaded MOF lamina membrane with efficient and stable transfer channels towards highly enhanced proton conduction. 1	0
481	Tailored dodecahedral polyoxometalates nanoframes with in situ encapsulated Co, N, C for oxygen evolution reaction. 2021 , 133116	3
480	PtNi Supported on ZIF-Derived Porous Carbon as a High-Efficiency Acidic Hydrogen Evolution Catalyst.	1
479	Recent Progress of Metal Organic Frameworks-Based Electrocatalysts for Hydrogen Evolution, Oxygen Evolution, and Oxygen Reduction Reaction.	1
478	Surface-Coordinated Metal-Organic Framework Thin Films (SURMOFs): From Fabrication to Energy Applications. 2021 , 3, 100065	2
477	Amorphous FeNiNbPC nanoporous structure for efficient and stable electrochemical oxygen evolution. 2021 , 608, 1973-1982	3
476	Metal-Organic Frameworks: Why Make Them Small?. 2100126	5
475	Synergetic Cobalt-Copper-Based Bimetal-Organic Framework Nanoboxes toward Efficient Electrochemical Oxygen Evolution. 2021 , 133, 26601	0
474	Ni(OH) ₂ microspheres in situ self-grown on ultra-thin layered g-C ₃ N ₄ as a heterojunction electrocatalyst for oxygen evolution reaction. 2021 , 400, 139473	2
473	Engineering the abundant heterointerfaces of integrated bimetallic sulfide-coupled 2D MOF-derived mesoporous CoS ₂ nanoarray hybrids for electrocatalytic water splitting. 2021 , 17, 100146	18
472	FeSe ₂ /CoSe ₂ Heterostructure with an Adjusting Electronic Structure for the Oxygen Evolution Reaction.	1
471	Efficient Alkaline Water Oxidation with a Regenerable Nickel Pseudo-Complex. 2021 , 13, 48661-48668	1

470	Synergetic Cobalt-Copper-Based Bimetal-Organic Framework Nanoboxes toward Efficient Electrochemical Oxygen Evolution. 2021 , 60, 26397-26402	17
469	Few-Layered Metal-Organic Framework Nanosheets as Catalysts for the Synthesis of 2,3-Dihydroquinazolinone and Propargylamines.	0
468	Boosted Electrocatalytic Hydrogen Production by Methylene Blue and Urea and Synergistic Electrooxidation Degradation. 2021 , 22, 100880	1
467	Janus Metal-Organic Frameworks/Wood Aerogel Composites for Boosting Catalytic Performance by Le Châtelier's Principle. 2021 , 13, 51039-51047	2
466	Molecular Cleavage of Metal-Organic Frameworks and Application to Energy Storage and Conversion. 2021 , e2104341	17
465	Chapter 1:MOF-derived Materials for Extremely Efficient Electrocatalysis. 2019 , 1-38	0
464	Structural Reconstruction of Ce-MOF with Active Sites for Efficient Electrocatalytic N ₂ Reduction.	2
463	Covalent Organic Framework (COF)-Based Hybrids for Electrocatalysis: Recent Advances and Perspectives.. 2021 , 5, e2100945	5
462	Poly (triazine imide) Ligand Based 2D Metal Coordination Polymers: Design, Synthesis and Application in Electrocatalytic Water Oxidation. 2021 , 139463	3
461	Cu-N ₄ single atoms derived from metal-organic frameworks with trapped nitrogen-rich molecules and their use as efficient electrocatalysts for oxygen reduction reaction. 2021 , 431, 133242	3
460	A Tandem Electrocatalysis of Sulfur Reduction by Bimetal 2D MOFs. 2102819	9
459	2 D -Materials-Based Heterostructures for EC Energy Conversion. 2022 , 53-128	
458	Bimetallic metal-organic frameworks and MOF-derived composites: Recent progress on electro- and photoelectrocatalytic applications. 2022 , 451, 214264	30
457	Earth-abundant electrocatalysts for sustainable energy conversion. 2022 , 131-168	
456	Sacrificial templating synthesis of metal-organic framework hybrid nanosheets as efficient pre-electrocatalyst for oxygen evolution reaction in alkaline. 2022 , 632, 127745	1
455	CNT boosted two-dimensional flaky metal-organic nanosheets for superior lithium and potassium storage. 2022 , 430, 133023	2
454	Core-shell trimetallic NiFeV disulfides and amorphous high-valance NiFe hydroxide nanosheets enhancing oxygen evolution reaction. 2022 , 430, 133047	5
453	Efficient and selective electrochemical reduction of nitrate to N ₂ by relay catalytic effects of Fe-Ni bimetallic sites on MOF-derived structure. 2022 , 301, 120829	9

- 452 Fabrication of Ni@MOF-derived composite material for efficient electrocatalytic OER. **2021**, 15, 637-648 2
- 451 Highly Efficient Electrocatalytic Water Splitting. **2020**, 1-33
- 450 Metal-Organic Frameworks for Electrocatalysis. **2020**, 29-66
- 449 Self-templated formation of twin-like metal-organic framework nanobricks as pre-catalysts for efficient water oxidation. 1 2
- 448 Metal organic frameworks for electrochemical sensor applications: A review. **2022**, 204, 112320 12
- 447 Construction of Ni(CN) /NiSe Heterostructures by Stepwise Topochemical Pathways for Efficient Electrocatalytic Oxygen Evolution. **2021**, e2104405 15
- 446 Experimental and Theoretical Insights into the Borohydride-Based Reduction-Induced Metal Interdiffusion in Fe-Oxide@NiCoO for Enhanced Oxygen Evolution. **2021**, 13, 53725-53735 10
- 445 One-dimensional metal-organic frameworks for electrochemical applications. **2021**, 298, 102562 8
- 444 One-pot synthesis of pompon-like bimetallic organic framework for enhanced oxygen evolution electrocatalysis. **2022**, 520, 230812 0
- 443 Emerging MXene@Metal-Organic Framework Hybrids: Design Strategies toward Versatile Applications. **2021**, 10
- 442 Regulating Electron Redistribution of Intermetallic Iridium Oxide by Incorporating Ru for Efficient Acidic Water Oxidation. 2102883 9
- 441 Sequence control of metals in MOF by coordination number precoding for electrocatalytic oxygen evolution. **2021**, 5
- 440 Morphology and interfacial charge regulation strategies constructing 3D flower-like Co@CoP₂ heterostructure electrocatalyst for efficient overall water splitting. **2021**, 133684 3
- 439 Defect engineering in nanozymes. **2021**, 12
- 438 Reinvestigating oxygen adsorption on Ag(111) by using strongly constrained and appropriately normed semi-local density functional with the revised Vydrov van Voorhis van der Waals force correction.. **2021**, 155, 234704 2
- 437 Ultraweak chemiluminescence enhanced on the surface of lanthanide metal-organic framework nanosheets synthesized by ultrasonic wave. **2021**, 579, 151860 0
- 436 Recent Progress in Prussian Blue/Prussian Blue Analogue-Derived Metallic Compounds. 5
- 435 Self-supported 2D Fe-doped Ni-MOF nanosheets as highly efficient and stable electrocatalysts for benzylamine oxidation. **2021**, 578, 152065 2

434	Unveiling the boosting of metal organic cage leaching substance on the electrocatalytic oxygen evolution reaction. 2021 , 610, 1035-1035	1
433	Structures and electronic properties of functional molecules on metal substrates: From single molecule to self-assemblies. e1591	0
432	In situ activation of Br-confined Ni-based metal-organic framework hollow prisms toward efficient electrochemical oxygen evolution. 2021 , 7, eabk0919	17
431	Ultrathin Metal-Organic Framework Nanosheets as Nano-Floating-Gate for High Performance Transistor Memory Device. 2110784	3
430	Heterostructural CoFe ₂ O ₄ /CoO nanoparticles-embedded carbon nanotubes network for boosted overall water-splitting performance. 2022 , 404, 139745	4
429	Metal-organic frameworks based hybrid nanocomposites as state-of-the-art analytical tools for electrochemical sensing applications. 2021 , 199, 113867	16
428	2D Co-UMOFNs filled PEBA composite membranes for pervaporation of phenol solution. 2022 , 285, 120414	1
427	Catalytic effect of NiO/C derived from Ni-UMOFNs on the hydrogen storage performance of magnesium hydride. 2022 , 899, 163314	4
426	Construction of interconnected NiCo layered double hydroxides/metal-organic frameworks hybrid nanosheets for high-performance supercapacitor. 2022 , 48, 103961	7
425	Highly-stable cobalt metal organic framework with sheet-like structure for ultra-efficient water oxidation at high current density.. 2021 , 611, 599-608	11
424	Synthesis of CdSe Nanowires and CuInSe ₂ Nanosheets for Hydrogen Evolution.	0
423	Meniscus-Guided 3D Microprinting of Pure Metal-Organic Frameworks with High Gas-Uptake Performance.. 2022 ,	2
422	Ultrathin nanosheet-assembled nickel-based metal-organic framework microflowers for supercapacitor applications.. 2021 ,	6
421	Random Occupation of Multi-Metal Sites in Transition Metal-Organic Frameworks for Boosting Water Oxidation.. 2022 ,	2
420	Hydrogen-assisted synthesis of Ni-ZIF-derived nickel nanoparticle chains coated with nitrogen-doped graphitic carbon layers as efficient electrocatalysts for non-enzymatic glucose detection.. 2022 , 189, 80	0
419	Self-Assembly of Ir-Based Nanosheets with Ordered Interlayer Space for Enhanced Electrocatalytic Water Oxidation.. 2022 ,	9
418	A Cu(II) Metal Organic Framework with a Tetranuclear Core: Structure, Magnetism, and Supercapacitor Activity. 2022 , 22, 1172-1181	1
417	Mn ₁₃ -Cluster-Based Nanowire Arrays Deposited on Ni Foam for the Oxygen Evolution Reaction. 2022 , 5, 326-330	

416	Electrocatalytic Oxygen Evolution Reaction. 2022 , 35-85	
415	Recent advances in nanostructured nonoxide materials—Borides, borates, chalcogenides, phosphides, phosphates, nitrides, carbides, alloys, and metal-organic frameworks. 2022 , 329-368	1
414	Uniform cobalt grafted on vanadium nitride as a high efficient oxygen evolution reaction catalyst. 2022 , 47, 4386-4393	1
413	S incorporated RuO ₂ -based nanorings for active and stable water oxidation in acid. 1	0
412	Regulating electron transfer over asymmetric low-spin Co(II) for highly selective electrocatalysis. 2022 ,	8
411	Emerging nanomaterial incorporated membranes for gas separation and pervaporation towards energetic-efficient applications. 2022 , 2, 100015	4
410	In situ/operando analysis of surface reconstruction of transition metal-based oxygen evolution electrocatalysts. 2022 , 3, 100729	3
409	Novel NiFe-LDH@Ni-MOF/NF heterostructured electrocatalysts for efficient oxygen evolution. 2022 , 10, 88-96	2
408	A review of recent progress in modified metal-organic frameworks as photocatalysts. 2022 , 33, 4737	1
407	Fabrication of Two-Dimensional Metal-Organic Framework Nanosheets through Crystal Dissolution-Growth Kinetics.. 2022 ,	3
406	CeO decorated bimetallic phosphide nanowire arrays for enhanced oxygen evolution reaction electrocatalysis interface engineering.. 2022 ,	5
405	Emerging 2D Materials for Electrocatalytic Applications: Synthesis, Multifaceted Nanostructures, and Catalytic Center Design.. 2022 , e2105831	8
404	Tailoring manganese oxide nanoplates enhances oxygen evolution catalysis in acid. 2022 , 405, 265-272	1
403	Avoiding Pyrolysis and Calcination: Advances in the Benign Routes Leading to MOF-Derived Electrocatalysts.	1
402	In Situ Investigation on Life-Time Dynamic Structure—Performance Correlation Toward Electrocatalyst Service Behavior in Water Splitting. 2111777	4
401	Metal-organic frameworks with mixed-anion secondary building units as efficient photocatalysts for hydrogen generation. 2022 , 407, 10-18	0
400	Spin-State Manipulation of Two-Dimensional Metal-Organic Framework with Enhanced Metal-Oxygen Covalency for Lithium-Oxygen Batteries.. 2021 ,	10
399	Spin-State Manipulation of Two-Dimensional Metal-Organic Framework with Enhanced Metal-Oxygen Covalency for Lithium-Oxygen Batteries. 2022 , 134,	1

398	Green Reduction of Cobalt Ferrocyanide with Excellent Electrocatalytic Activity toward the Oxygen Evolution Reaction. 2022 , 36, 1654-1664	6
397	MOFs in photoelectrochemical water splitting: New horizons and challenges. 2022 , 47, 5192-5210	4
396	Functional group scission-induced lattice strain in chiral macromolecular metal-organic framework arrays for electrocatalytic overall water splitting. 2022 , 307, 121151	3
395	Multi-electron-channel integration to accelerate photogenerated carrier reaction kinetics for efficient sulfadiazine degradation. 2022 , 633, 118513	
394	Localized Electrosynthesis and Subsequent Electrochemical Mapping of Catalytically Active Metal-Organic Frameworks. 2112517	1
393	Trimetallic CoNiFe-layered double hydroxides: Electronic coupling effect and oxygen vacancy for boosting water splitting. 2022 , 524, 231068	0
392	Design and fabrication of novel flexible sensor based on 2D Ni-MOF nanosheets as a preliminary step toward wearable sensor for onsite Ni (II) ions detection in biological and environmental samples.. 2022 , 1197, 339518	2
391	Toward efficient cobalt-based oxygen evolution reaction: heteropolyatomic anion-inductive effect. 2022 , 24, 100922	
390	Hierarchical Ni ₃ S ₂ @2D Co MOF nanosheets as efficient hetero-electrocatalyst for hydrogen evolution reaction in alkaline solution. 2022 , 229, 107174	2
389	Metal-organic frameworks-derived Ni ₂ P@C Nanocomposite as a high-performance catalyst for hydrazine electrooxidation. 2022 , 902, 163746	1
388	Heterostructured Ferroelectric BaTiO ₃ @MOF-Fe/Co Electrocatalysts for Efficient Oxygen Evolution Reaction.	0
387	????????????Ni-MOF?????????????. 2022 ,	
386	An in-situ cation exchange approach to stabilize Zn-MOF: Understanding the role of nickel ions for photoelectrochemical performance. 2022 ,	0
385	Alkali-Induced In Situ Formation of Amorphous NiFe(OH) from a Linear [M(COO)]-Based MOF Template for Overall Electrochemical Water Splitting.. 2022 ,	2
384	Boron-Tethering and Regulative Electronic States Around Iridium Species for Hydrogen Evolution. 2113191	5
383	Finite phosphorene derived partial reduction of metal organic framework nanofoams for enhanced lithium storage capability. 2022 , 525, 231025	
382	Modulating metal-organic frameworks for catalyzing acidic oxygen evolution for proton exchange membrane water electrolysis. 2021 , 1, 460-481	12
381	Valence oscillation and dynamic active sites in monolayer NiCo hydroxides for water oxidation. 2021 , 4, 1050-1058	46

- 380 Homologous NiCoP@NiFeP Heterojunction Array Achieving High-Current Hydrogen Evolution for Alkaline Anion Exchange Membrane Electrolyzers.
- 379 Ag Doped Co/Ni Bimetallic Organic Framework for Determination of Luteolin.
- 378 Bioinspired NiFe²⁺ Gallate metal-organic frameworks for highly efficient oxygen evolution electrocatalysis. **2022**, 10, 7013-7019 0
- 377 Thermodynamically favored stable hydrogen storage reversibility of NaBH₄ inside of bimetallic nanoporous carbon nanosheets. **2022**, 10, 7122-7129 1
- 376 Morphology and Composition Dependence of Multicomponent Cu-Based Nanoreactor for Tandem Electrocatalysis Co₂ Reduction.
- 375 An efficient factor for fast screening of high-performance two-dimensional metal-organic frameworks towards catalyzing the oxygen evolution reaction.. **2022**, 13, 4397-4405 2
- 374 Nickel²⁺ as a model for bifunctional OER/UOR electrocatalysts: pyrolysis temperature²⁺ electrochemical activity interconnection. 2
- 373 Two-dimensional heterostructures built from ultrathin CeO nanosheet surface-coordinated and confined metal-organic frameworks with enhanced stability and catalytic performance.. **2022**, 13, 3035-3044 6
- 372 Homologous NiCoP@NiFeP Heterojunction Array Achieving High-Current Hydrogen Evolution for Alkaline Anion Exchange Membrane Electrolyzers. 1
- 371 Heteroepitaxially Grown Two-Dimensional Metal-Organic Framework and Its Derivative for Electrocatalytic Oxygen Reduction Reaction. 2
- 370 Introduction. **2022**, 1-31
- 369 Mixed Metal FeNi MIL-88B Metal-Organic Frameworks Decorated on Reduced Graphene Oxide as a Robust and Highly Efficient Electrocatalyst for Alkaline Water Oxidation.. **2022**, 2
- 368 A perspective on high-entropy two-dimensional materials. **2022**, 2, 65-75 0
- 367 Linker-Compensated Metal-Organic Framework with Electron Delocalized Metal Sites for Bifunctional Oxygen Electrocatalysis.. **2022**, 10
- 366 Boosting the Electrocatalytic Activity of Nickel-Iron Layered Double Hydroxide for the Oxygen Evolution Reaction by Terephthalic Acid. **2022**, 12, 258 0
- 365 Tunable metal hydroxide-organic frameworks for catalysing oxygen evolution.. **2022**, 10
- 364 Controllable In Situ Transformation of Layered Double Hydroxides into Ultrathin Metal-Organic Framework Nanosheet Arrays for Energy Storage.. **2022**, 61, 3832-3842 3
- 363 Trilayer Metal-Organic Frameworks as Multifunctional Electrocatalysts for Energy Conversion and Storage Applications.. **2022**, 12

362	Ultra-thin Two-Dimensional Trimetallic Metal-Organic Framework for Photocatalytic Reduction of CO ₂ . 2022 , 12, 3238-3248	3
361	Ni(II)-Based Coordination Polymer with Pi-Conjugated Organic Linker as Catalyst for Oxygen Evolution Reaction Activity. 2022 , 36, 2722-2730	0
360	Kinetics-Favorable Ultrathin NiCo-MOF Nanosheets with Boosted Pseudocapacitive Charge Storage for Quasi-Solid-State Hybrid Supercapacitors.. 2022 , 61, 3866-3874	2
359	How Cation Substitutions Affect the Oxygen Reduction Reaction on La _{2-x} Sr _x Ni _{1-y} Fe _y O ₄ .	
358	Engineering the Electronic Structures of Metal-Organic Framework Nanosheets via Synergistic Doping of Metal Ions and Counteranions for Efficient Water Oxidation.. 2022 ,	1
357	Carboxylated carbon quantum dot-induced binary metal-organic framework nanosheet synthesis to boost the electrocatalytic performance. 2022 ,	12
356	Anodized Steel: The Most Promising Bifunctional Electrocatalyst for Alkaline Water Electrolysis in Industry. 2202068	6
355	Dual In-situ Laser Techniques Underpin the Role of Cations in Impacting Electrocatalysts.. 2022 ,	5
354	Linker-Modulated Peroxide Electrosynthesis Using Metal-Organic Nanosheets**.	1
353	Non-noble metal-based amorphous high-entropy oxides as efficient and reliable electrocatalysts for oxygen evolution reaction. 1	10
352	WS ₂ @Co ₉ S ₈ @N/C core-shell as multifunctional electrocatalysts for dye-sensitized solar cell, oxygen reduction reaction and oxygen evolution reaction. 2022 , 57, 6293-6307	2
351	Further Insight into the Conversion of a Ni-Fe Metal-Organic Framework during Water-Oxidation Reaction.. 2022 ,	0
350	Thermal expansion-quench of nickel metal-organic framework into nanosheets for efficient visible light CO ₂ reduction. 2022 ,	
349	Advances in micro-supercapacitors (MSCs) with high energy density and fast charge-discharge capabilities for flexible bioelectronic devices—A review.	1
348	Recent advances in solid-liquid gas three-phase interfaces in electrocatalysis for energy conversion and storage.	2
347	Hollow Co layered double hydroxide decorated Ag nanoparticles for oxygen evolution reaction.	1
346	Rational Construction of a Ni/CoMoO Heterostructure with Strong Ni-O-Co Bonds for Improving Multifunctional Nanozyme Activity.. 2022 ,	5
345	From Hydrogen Bond to van der Waals Force: Molecular Scalpel Strategy to Exfoliate a Two-Dimensional Metal-Organic Nanosheet.. 2022 ,	

344	2D π -conjugated metal-organic frameworks for CO ₂ electroreduction. 2022 , 3, 54-67	3
343	Current Progress and Scalable Approach toward the Synthesis of 2D Metal-Organic Frameworks. 2102560	1
342	Hydrogen production from water splitting of real-time industry effluent using novel photocatalyst. 2022 , 33, 103488	2
341	Dual In-situ Laser Techniques Underpin the Role of Cations in Impacting Electrocatalysts.	
340	Photochemical Freeze Synthesis of Ultrafine Platinum Nanocatalysts. 1	0
339	Boosting the electrochemical energy storage and conversion performance by structural distortion in metal-organic frameworks. 2022 , 136269	0
338	Ultrathin Ni-Co nanosheets with disparate-CO ₂ -affinity nanodomains in membranes to improve gas separation. 2022 , 121024	0
337	Regulating the transformation behavior of nickel iron metal-organic frameworks through a dual-ligand strategy for enhanced oxygen evolution reaction performance. 2022 , 153252	3
336	Enhancement of Anodically Treated Stainless Steel by NiFeP-Catalyst Electrodeposition as Bifunctional Electrodes for Water Electrolysis. 2022 , 169, 044501	2
335	Efficient and rapid synthesis of ultrathin Nickel-Metal Organic Framework nanosheets for the sensitive determination of glucose. 2022 , 107462	0
334	In Situ Fabrication of NiS ₂ -Decorated Graphitic Carbon Nitride/Metal-Organic Framework Nanostructures for Photocatalytic H ₂ Evolution.	0
333	Two-dimensional assembly made up of ZIF-8 particles for the high-efficient capture of the iodine and dyes. 2022 , 430, 128501	0
332	Turning coordination environment of 2D nickel-based metal-organic frameworks by π -conjugated molecule for enhancing glucose electrochemical sensor performance. 2022 , 24, 100885	3
331	Enhancing activity and stability of Co-MOF-74 for oxygen evolution reaction by wrapping polydopamine. 2022 , 416, 140293	0
330	Flow-homogeneous electrochemical sensing system based on 2D metal-organic framework nanozyme for successive microRNA assay.. 2022 , 206, 114120	5
329	Synergistic Adsorption-Electrocatalysis of 2D/2D heterostructure toward high performance Li-S batteries. 2022 , 439, 135535	8
328	Thermal treatment for promoting interfacial interaction in Co-BDC/TiCT hybrid nanosheets for hybrid supercapacitors.. 2022 , 617, 633-640	1
327	Tailoring the crystal forms of the Ni-MOF catalysts for enhanced photocatalytic CO ₂ -to-CO performance. 2022 , 309, 121232	9

326	Ag doped Co/Ni bimetallic organic framework for determination of luteolin. 2022 , 179, 107461	2
325	Rational design of porous Ni-Co-Fe ternary metal phosphides nanobricks as bifunctional electrocatalysts for efficient overall water splitting. 2022 , 310, 121353	6
324	Tuning Phase Structure of Nickel-Ruthenium Alloys via MOFs In Situ Hydrolysis toward Enhanced Hydrogen Evolution Performance in Alkaline.. 2021 , e2101188	0
323	Electric-Field Assisted Hydrolysis-Oxidation of MOFs: Hierarchical Ternary (Oxy)hydroxide Micro-Flowers for Efficient Electrocatalytic Oxygen Evolution. 2021 , e2104863	3
322	Advances and challenges in the development of nanosheet membranes. 2020 ,	0
321	Bimetallic two-dimensional materials for electrocatalytic oxygen evolution. 2021 ,	1
320	References. 2021 , 317-358	
319	Designing Self-Supported Electrocatalysts for Electrochemical Water Splitting: Surface/Interface Engineering toward Enhanced Electrocatalytic Performance. 2021 ,	8
318	One step synthesis of Co-Ni bimetallic organic frameworks as a highly active and durable electrocatalyst for efficient water oxidation. 2022 , 129041	0
317	Co-MOF Nanosheets Etched by FeCl ₂ Solution for Enhanced Electrocatalytic Oxygen Evolution. 2022 , 36, 4524-4531	0
316	Defective Fe Metal-organic Frameworks Enhance Metabolic Profiling for High-accuracy Diagnosis of Human Cancers.. 2022 , e2201422	5
315	A hybrid catalyst for efficient electrochemical N ₂ fixation formed by decorating amorphous MoS ₃ nanosheets with MIL-101(Fe) nanodots. 2022 , 65, 885	1
314	Low-Dimensional Metal-Organic Frameworks with High Activity and Selectivity toward Electrocatalytic Chlorine Evolution Reactions.	2
313	Ultrathin two-dimensional bimetal NiCo-based MOF nanosheets as ultralight interlayer in lithium-sulfur batteries. 2022 ,	
312	Utilization of Low-Concentration CO with Molecular Catalysts Assisted by CO-Capturing Ability of Catalysts, Additives, or Reaction Media.. 2022 ,	4
311	Table_1.docx. 2020 ,	
310	Data_Sheet_1.PDF. 2020 ,	
309	Data_Sheet_1.PDF. 2019 ,	

308 Data_Sheet_1.pdf. **2020,**

307 Data_Sheet_1.DOCX. **2020,**

306 Data_Sheet_1.docx. **2019,**

305 Freestanding Metal-Organic Frameworks and Their Derivatives: An Emerging Platform for Electrochemical Energy Storage and Conversion.. **2022,** 10

304 Multiscale structural regulation of Metal-organic framework nanofilm arrays for efficient oxygen evolution reaction. 1

303 Enhancing Activity and Stability of Co-Mof-74 for Oxygen Evolution Reaction by Wrapping Polydopamine.

302 Single Transition Metal Atom Anchored in C3b a Efficient and Selective Electrocatalyst for Nitrogen Reduction Reaction.

301 Recent development in MOFs for oxygen evolution reactions. **2022,** 135-163

300 Catalysts for hydrogen and oxygen evolution reactions (HER/OER) in cells. **2022,** 457-470 0

299 H2o2 Activation by Two-Dimensional Metal-Organic Frameworks with Different Metal Nodes for Micropollutants Degradation: Metal Dependence of Boosting Reactive Oxygen Species Generation.

298 Precursor-converted Formation of Bimetal-Organic Framework Nanosheets for Efficient Oxygen Evolution Reaction.

297 Ultrathin Metal-Organic Framework Hybrid Nanosheets Enabled Active Oxygen Evolution Electrocatalysis in Alkaline Media.

296 Two-dimensional transition metal-based electrocatalyst and their application in water splitting. **2022,** 38, 535-555 2

295 Cu cluster embedded porous nanofibers for high-performance CO2 electroreduction. **2022,** 2

294 Observation of oxygen evolution over a {Ni12}-cluster-based metal-organic framework. 1

293 Redox-Active Covalent Organic Frameworks with Nickel-Bis(dithiolene) Units as Guiding Layers for High-Performance Lithium Metal Batteries.. **2022,** 7

292 Design and Synthesis of Lead(II)-Based Electrocatalysts for Oxygen Evolution Reaction.. **2022,** 0

291 Ultrathin Two-Dimensional Bimetal-Organic Framework Nanosheets as High-Performance Electrocatalysts for Benzyl Alcohol Oxidation.. **2022,** 2

290	Salt-Templated Nanoarchitectonics of CoSe-NC Nanosheets as an Efficient Bifunctional Oxygen Electrocatalyst for Water Splitting.. 2022 , 23,	0
289	Flower-Like MOF-74 Nanocomposites Directed by Selenylation Towards High-Efficient Oxygen Evolution. 2022 ,	0
288	AC magnetic field enhancement oxygen evolution reaction of bimetallic metal-organic framework. 2022 ,	
287	Ultrathin two-dimensional nickel-organic framework nanosheets for efficient electrocatalytic urea oxidation. 2022 , 101024	2
286	Dynamic active sites in NiFe oxyhydroxide upon Au nanoparticles decoration for highly efficient electrochemical water oxidation. 2022 , 98, 107328	1
285	Hierarchical nanocomposites of nickel/iron-layered double hydroxide ultrathin nanosheets strong-coupled with nanocarbon networks for enhanced oxygen evolution reaction. 2022 , 420, 140455	0
284	Morphology and composition dependence of multicomponent Cu-based nanoreactor for tandem electrocatalysis CO ₂ reduction. 2022 , 314, 121498	2
283	Engineering FeN ₄ active sites onto nitrogen-rich carbon with tubular channels for enhanced oxygen reduction reaction performance. 2022 , 313, 121464	5
282	Controlling the D-band for improved oxygen evolution performance in Ni modulated ultrafine Co nanoparticles embedded in Nitrogen-doped carbon microspheres.. 2022 , 623, 44-53	0
281	Constructing hierarchical structure electrocatalyst for efficient hydrogen evolution and selective oxidation of benzylamine. 2022 , 912, 165259	1
280	CoP nanorods anchored on Ni ₂ P-NiCoP nanosheets with abundant heterogeneous interfaces boosting the electrocatalytic oxidation of 5-hydroxymethyl-furfural.	1
279	Ultrasensitive electrochemical determination of bisphenol A in food samples based on a strategy for activity enhancement of enzyme: layer-by-layer self-assembly of tyrosinase between two-dimensional porphyrin metal-organic framework nanofilms. 2022 , 137001	2
278	CO ₂ -Assisted synthesis of a crystalline/amorphous NiFe-MOF heterostructure for high-efficiency electrocatalytic water oxidation.	2
277	Organic ultrathin nanostructure arrays: materials, methods and applications.	
276	Heterogeneous Ni-MOF/V ₂ C ₆ S ₆ MXene hierarchically-porous nanorods for robust and high energy density hybrid supercapacitors.	3
275	Conductive MOFs coating on hematite photoanode for activity boost via surface state regulation. 2022 , 121526	2
274	Strain-promoted conductive metal-benzenhexathiolate frameworks for overall water splitting. 2022 ,	0
273	Exploring the structural, phononic, electronic, magnetic, optical, and thermoelectric properties of Pb-free vanadium-based double perovskites using the first-principles approach for optoelectronic and thermoelectric applications. 2022 , 240, 27-37	1

272	Conductive Co-triazole metal-organic framework exploited as oxygen evolution electrocatalyst.	0
271	Recent advances in metal-organic frameworks-derived carbon-based electrocatalysts for the oxygen reduction reaction. 2022 ,	2
270	Breaking the Scaling Relationship Limit: From Single-Atom to Dual-Atom Catalysts.	13
269	Sulfurization-Functionalized 2D Metal-Organic Frameworks for High-Performance Urea Fuel Cell. 2022 , 121586	3
268	Bimetallic Cu/Fe MOF-Based Nanosheet Film via Binder-Free Drop-Casting Route: A Highly Efficient Urea-Electrolysis Catalyst. 2022 , 12, 1916	1
267	Highly active Ni/Co-metal organic framework bifunctional electrocatalyst for water splitting reaction. 2022 ,	2
266	Rational design of mixed-matrix metal-organic framework membranes for molecular separations. 2022 , 376, 1080-1087	18
265	Configuration-Dependent Bimetallic Metal-Organic Frameworks Nanorods for Efficient Electrocatalytic Water Oxidation.	
264	Azobenzene modified metal-organic framework: For solar energy storage. 2022 , 52, 104971	0
263	Synergic Effect of Fe-Doping and Ni ₃ S ₂ /Mns Heterointerface to Boost Efficient Oxygen Evolution Reaction.	
262	Vacancy Engineering of Two-dimensional W ₂ N ₃ Nanosheets for Efficient CO ₂ Hydrogenation.	
261	MOF nanosheet-derived carbon-layer-coated CoP/g-C ₃ N ₄ photocatalysts with enhance charge transfer for efficient photocatalytic H ₂ generation.	0
260	Confined Interface Transformation of Metal Organic Frameworks for Highly Efficient Oxygen Evolution Reaction.	3
259	Freestanding 2D NiFe Metal-Organic Framework Nanosheets: Facilitating Proton Transfer via Organic Ligands for Efficient Oxygen Evolution Reaction. 2201076	6
258	Low-Potential-Driven Electrocatalytic Reduction of CO ₂ to Hydrocarbons by Cobalt-Based Metal-Organic Nanosheets. 2022 ,	
257	Synergetic Dual-Ion Centers Boosting Metal Organic Framework Alloy Catalysts toward Efficient Two Electron Oxygen Reduction. 2202248	2
256	Electrocatalytic hydrogenation of nitrogenous heterocyclics using Co-based nanoparticles-embedded N-doped carbon derived from ZIF-67. 2022 , 165940	0
255	Non-Calcined Layer-Pillared Mn _{0.5} Zn _{0.5} Bimetallic-Organic Framework as a Promising Electrocatalyst for Oxygen Evolution Reaction.	3

254	NiCo-BDC derived Co ³⁺ enriched NiCo _x O _y /NF nanosheets for oxygen evolution reaction. 2022 ,	0
253	2D MOF with Compact Catalytic Sites for the One-pot Synthesis of 2,5-Dimethylfuran from Saccharides via Tandem Catalysis.	3
252	Methods for Synthesizing Polymer Nanocomposites and Their Applications. 2022 , 447-490	
251	A recent review on synthetic strategies of nickel base metal organic frameworks and its derivatives for electrocatalytic and energy storage applications. 2022 , 28, 3079-3099	0
250	2D MOF with Compact Catalytic Sites for the One-pot Synthesis of 2,5-Dimethylfuran from Saccharides via Tandem Catalysis.	1
249	Metal-Organic Frameworks-Derived Nickel-Iron Oxyhydroxide with Highly Active Edge Sites for Electrochemical Oxygen Evolution.	2
248	Transition Metal Non-Oxides as Electrocatalysts: Advantages and Challenges. 2202033	4
247	Electrostatic Secondary-Sphere Interactions That Facilitate Rapid and Selective Electrocatalytic CO ₂ Reduction in a Fe-Porphyrin-Based Metal-Organic Framework.	3
246	Molybdenum-Doped Nickel Disulfide (NiS ₂ :Mo) Microspheres as an Active Anode Material for High-Performance Durable Lithium-Ion Batteries.	0
245	Surface Design Strategy of Catalysts for Water Electrolysis. 2202336	9
244	Electrostatic Secondary-Sphere Interactions That Facilitate Rapid and Selective Electrocatalytic CO ₂ Reduction in a Fe-Porphyrin-Based Metal-Organic Framework.	1
243	2D metal-organic frameworks and their derivatives for the oxygen evolution reaction. 2022 , 919, 165823	2
242	Synergistic Interface-Pillared Fe-Mof on 2d Ti ₃ C ₂ tx Mxene Electrode Coupling Toward High Energy Density.	
241	Room Temperature Preparation of Two-Dimensional Black Phosphorus@Metal Organic Framework Heterojunctions and Their Efficient Overall Water-Splitting Electrocatalytic Reactions. 2022 , 14, 31502-31509	3
240	Rational design and synthesis of two-dimensional conjugated metal-organic polymers for electrocatalysis applications. 2022 , 8, 1822-1854	7
239	Carboxyferrocene modulated Ni/Co bimetallic metal-organic framework for highly efficient electrocatalysis of urea oxidation reaction. 2022 , 140877	0
238	Robust Th-MOF-Supported Semirigid Single-Metal-Site Catalyst for an Efficient Acidic Oxygen Evolution Reaction. 9101-9113	1
237	Electrochemical oxygen evolution reaction of controllable self-assembled CuCo ₂ O ₄ .	0

236	Construction of Pd nanoparticles/two-dimensional Co-MOF nanosheets heterojunction for enhanced electrocatalytic hydrodechlorination. 2022 , 121730	1
235	Emerging Synthesis Strategies of 2D MOFs for Electrical Devices and Integrated Circuits. 2201642	2
234	Plastic Waste Valorization by Leveraging Multidisciplinary Catalytic Technologies. 9307-9324	4
233	Construction of Ferrocene-based bimetallic CoFe-FcDA nanosheets for efficient oxygen evolution reaction. 2022 , 528, 112502	1
232	Rapid determination of pesticide residues in fruit and vegetable using Au@AgNPs decorated 2D Ni-MOF nanosheets as efficient surface-enhanced Raman scattering substrate. 2022 , 369, 132360	1
231	Flexible nickel cobalt metal-organic frameworks/reduced graphene oxide hybrid film for high-performance supercapacitors. 2022 , 54, 105270	1
230	Formation of conductive MOF@Metal oxide micro-nano composites via facile self-assembly for high-performance supercapacitors. 2022 , 26, 101024	1
229	Nanosheet-Engineered NH ₂ -MIL-125 with Highly Active Facets for Enhanced Solar CO ₂ Reduction. 9486-9493	4
228	Advances and challenges in two-dimensional materials for oxygen evolution.	2
227	Candidate for Catalyst during Water-Oxidation Reaction in the Presence of Manganese Compounds, from Nanosized Particles to Impurities: Sleep with One Eye Open.	0
226	Synergistic effect of Co/Ni bimetallic metal-organic nanostructures for enhanced electrochemical energy storage. 2022 ,	3
225	Heterogenization of Molecular Electrocatalytic Active Sites Through Reticular Chemistry. 2203791	0
224	Construction of Co/Fe co-embedded in benzene tricarboxylic acid with modulated coordination environment for accelerated oxygen evolution reaction. 2022 , 651, 129766	2
223	Synergistic Incorporating RuO ₂ and NiFeOOH Layers onto Ni ₃ S ₂ Nanoflakes with Modulated Electron Structure for Efficient Water Splitting. 2200483	0
222	Revealing the Structural Transformation between the Activity and Stability of 2D and 3D Co-Mo Metal-Organic Frameworks for a Highly Active Oxygen Evolution Reaction.	0
221	Active Sites In Situ Implanted Hybrid Zeolitic Imidazolate Frameworks for a Water Oxidation Catalyst.	
220	Dynamics of Both Active Phase and Catalysis Pathway for Spinel Water-Oxidation Catalysts. 2207116	4
219	Morphological Anisotropy in Metal-Organic Framework Micro-/Nanostructures.	2

218	A 2D metal-organic framework with dual-acidic sites for the valorization of saccharides to 5-hydroxymethylfurfural.	
217	Deciphering the Structure Activity Relationship of Nickel Containing Materials towards Electrocatalytic Oxidation of Urea.	0
216	Atomically dispersed Co-Cu alloy reconstructed from metal-organic framework to promote electrochemical CO ₂ methanation.	0
215	Recent advances in organic electrosynthesis using heterogeneous catalysts modified electrodes. 2022,	1
214	Synergic effect of Fe-doping and Ni ₃ S ₂ /MnS heterointerface to boost efficient oxygen evolution reaction. 2022, 141088	1
213	Atomically Thin, Ionic Covalent Organic Nanosheets for Stable, High-Performance Carbon Dioxide Electroreduction. 2110496	2
212	Rationally Reconstructed Metal-organic Frameworks as Robust Oxygen Evolution Electrocatalysts.	
211	Holey graphene oxide-templated construction of nano nickel-based metal-organic framework for highly efficient asymmetric supercapacitor.	
210	A Synthesis Strategy of Double-Atom Catalysts on a Carbon Surface. 2022, 126, 13520-13526	2
209	Modulation of Optical Band Gap of 2-Amino Terephthalic Acid Cu-MOFs Doped with Ag ₂ O and rGO. 1173, 35-45	0
208	Cerium-Doped Nickel Phosphide Nanosheet Arrays as Highly Efficient Electrocatalysts for the Hydrogen Evolution Reaction in Acidic and Alkaline Conditions.	
207	Metal-Organic Frameworks (MOFs) Derived Materials Used in Zn-Air Battery. 2022, 15, 5837	1
206	Enhancement of Band Gap Energy and Crystallinity of Cu-MOFs due to Doping of Nano Metal Oxide. 1173, 13-22	0
205	Construction of Ultrathin S-scheme Heterojunctions of Single Ni Atom-immobilized Ti-MOF and BiVO ₄ for CO ₂ Photoconversion nearly 100% to CO by Pure Water. 2205303	4
204	Morphological Anisotropy in Metal-Organic Framework Micro-/Nanostructures.	
203	Surface Functionalization of Carbon Cloth with Conductive Ni/Fe-MOFs for Highly Efficient Oxygen Evolution. 2022, 102294	1
202	H ₂ O ₂ activation by two-dimensional metal-organic frameworks with different metal nodes for micropollutants degradation: Metal dependence of boosting reactive oxygen species generation. 2022, 440, 129757	2
201	Additive manufacturing 3D customizable low-cost superwetting polyacrylate-based hierarchically micro-nanoporous lattice anode for energy-saving large-current-density water splitting application. 2022, 245, 110189	0

200	Structural transformation of metal-organic framework with constructed tetravalent nickel sites for efficient water oxidation. 2022 , 74, 404-411	0
199	Recent advances in the electrochemical applications of Ni-based metal organic frameworks (Ni-MOFs) and their derivatives. 2022 , 307, 135729	3
198	Synergistic interface-pillared Fe-MOF on 2D Ti ₃ C ₂ TX MXene electrode coupling toward high energy density. 2022 , 602, 154386	0
197	Ultrathin trimetallic metal-organic framework nanosheets for accelerating bacteria-infected wound healing. 2022 , 628, 731-744	1
196	An electron-hole separation mechanism caused by the pseudo-gap formed at the interfacial Co-N bond between cobalt porphyrin metal organic framework and boron-doped g-C ₃ N ₄ for boosting photocatalytic H ₂ production. 2022 , 628, 477-487	2
195	Recent advancements in the synthesis and electrocatalytic activity of two-dimensional metal-organic framework with bimetallic nodes for energy-related applications. 2022 , 472, 214782	2
194	A novel efficient dual-functional electrocatalyst for overall water splitting based on Ni _{0.85} Se/RGO/CNTs nanocomposite synthesized via different nickel precursors. 2022 ,	0
193	Metal-Organic Framework-Based Nanomaterials for Electrocatalytic Oxygen Evolution. 2200773	8
192	Ultrathin metal-organic framework hybrid nanosheets enabled active oxygen evolution electrocatalysis in alkaline media. 2022 , 922, 116765	0
191	Layered metal-organic frameworks and metal-organic nanosheets as functional materials. 2022 , 472, 214787	0
190	Two-dimensional metal-organic frameworks: From synthesis to biomedical, environmental, and energy conversion applications. 2022 , 473, 214817	1
189	Ultrathin two-dimensional nanosheet metal-organic frameworks with high-density ligand active sites for advanced lithium-ion capacitors. 2022 , 103, 107797	2
188	Ultrathin metal organic framework nanosheets with rich defects for enhanced fluoride removal. 2023 , 451, 138989	1
187	Mechanistic insight into the charge carrier separation and molecular oxygen activation of manganese doping BiOBr hollow microspheres. 2023 , 629, 355-367	1
186	Two new Ni/Co-MOFs as electrocatalysts for the oxygen evolution reaction in alkaline electrolytes.	0
185	Un-capped metal-organic framework (MOF) dispersions driven by O ₂ plasma towards superior oxygen evolution electrocatalysis.	0
184	Metal-organic framework and its composites for electrocatalytic energy conversion application. 2022 , 37-74	0
183	Cu ₃ (BTC) ₂ nanoflakes synthesized in an ionic liquid/water binary solvent and their catalytic properties. 2022 , 18, 6009-6014	0

182	Advances in metal-organic framework-based membranes. 2022 , 51, 8300-8350	10
181	Research Progress on Anode Pt-Based Catalysts for Direct Methanol Fuel Cells. 2022 , 12, 192-209	0
180	Ultrathin MOF nanosheet-based resistive sensors for highly sensitive detection of methanol.	0
179	Two-dimensional FeCo ₂ O ₄ nanosheets with oxygen vacancies enable boosted oxygen evolution. 2022 , 46, 17073-17079	0
178	Metal-organic frameworks and their derivatives for metal-ion (Li, Na, K and Zn) hybrid capacitors.	1
177	2D Materials for Overall Water Splitting. 2022 , 1-26	0
176	Bimetallic electronic effects of Mn-doped Ni-MOFs shuttle-like nanosheets remarkably enhance supercapacitive performance.	0
175	Modulating coordination structures and metal environments of MOFs-Engineered electrocatalysts for water electrolysis. 2023 , 452, 139475	1
174	Skeleton-coated CoCu-Based bimetal hollow nanoprisms as High-Performance electrocatalysts for oxygen evolution reaction. 2023 , 629, 763-772	0
173	Reversible Hydrogen Storage Performance of 2LiBH ₄ -MgH ₂ Enabled by Dual Metal Borides. 2022 , 5, 10501-10508	0
172	Metal-Organic Framework Integrating Ionic Framework and Bimetallic Coupling Effect for Highly Efficient Oxygen Evolution Reaction. 2203712	0
171	Current Progress in 2D Metal-Organic Frameworks for Electrocatalysis. 2200109	11
170	Recent Advances in Non-Precious Metal-Nitrogen-Carbon Single-Site Catalysts for CO ₂ Electroreduction Reaction to CO. 2022 , 5,	2
169	Ligand-Assisted Controllable Growth of Self-Supporting Ultrathin Two-Dimensional Metal-Organic Framework Nanosheet Electrodes for an Efficient Oxygen Evolution Reaction. 2022 , 61, 14899-14907	1
168	High-Efficiency Electrogenerated Chemiluminescence of Novel Zr-Based Metal-Organic Frameworks Through Organic Linkers Regulation.	0
167	Non-Noble Metal Ion-Based Metal-Organic Framework Electrocatalyst for Electrochemical Hydrogen Generation. 2022 , 101-120	0
166	Spatial Well-defined Bimetallic 2D Polymers with Single Layer Thickness for Electrocatalytic Oxygen Evolution Reaction.	2
165	Tuning the electronic structure of a metal-organic framework for an efficient oxygen evolution reaction by introducing minor atomically dispersed ruthenium.	1

164	Hierarchical Bimetallic Iron-Cobalt Phosphides Nano-Island Nanostructures for Improved Oxygen Evolution Reaction. 2022 , 116806	1
163	Enhanced oxygen evolution over dual corner-shared cobalt tetrahedra. 2022 , 13,	4
162	Spatial Well-defined Bimetallic 2D Polymers with Single Layer Thickness for Electrocatalytic Oxygen Evolution Reaction.	0
161	Co- and Ni-Based Electroactive Metal-Organic Frameworks for Stable Lithium Storage: Electrochemical and Charge-Storage Behavior in Response to Different Metal Centers. 2022 , 22, 5872-5882	0
160	Waste PET Plastic-Derived CoNi-Based Metal-Organic Framework as an Anode for Lithium-Ion Batteries. 2022 , 7, 35180-35190	1
159	Engineering MOF-based nanocatalysts for boosting electrocatalytic water splitting. 2022 ,	0
158	Surface Oxalate Coordination: Facilitating Basic OER Activity by Regulating the Electronic Structure of Fe ₃ Ni ₃ S ₂ .	0
157	NiMn-based Metal-Organic Framework with Optimized eg Orbital Occupancy as Efficient Bifunctional Electrocatalyst for Lithium-Oxygen Batteries. 2022 , 139524	0
156	Ultrathin Cage-based Covalent Organic Framework Nanosheets as Precursor for Pyrolysis-Free Oxygen Evolution Reaction Electrocatalyst.	1
155	Nanostructural engineering of metal-organic frameworks: Construction strategies and catalytic applications. 2022 , 5, 3260-3310	3
154	A unique nanocomposite with FeCo nanoalloy anchored on S, N co-doped carbonaceous matrix for high bifunctional oxygen reduction reaction/oxygen evolution reaction electrocatalytic property in Zn-air battery. 2022 ,	0
153	Identifying and Interpreting Geometric Configuration-Dependent Activity of Spinel Catalysts for Water Reduction.	0
152	MOF lamellar membrane-derived LLTO solid state electrolyte for high lithium ion conduction. 2022 , 663, 121041	0
151	Electronic Modulation of Metal-Organic Frameworks by Interfacial Bridging for Efficient pH-Universal Hydrogen Evolution. 2210322	2
150	Constructing hierarchical nanosheet-on-microwire FeCo LDH@Co ₃ O ₄ arrays for high-rate water oxidation.	0
149	On the Mechanism of Heterogeneous Water Oxidation Catalysis: A Theoretical Perspective. 2022 , 10, 182	0
148	Deciphering Ligand Controlled Structural Evolution of Prussian Blue Analogues and Their Electrochemical Activation during Alkaline Water Oxidation.	0
147	Solvent Effect on the Fabrication of POMs-Based MOFs Microspheres: Dual-Function in Electrocatalytic Hydrogen Evolution and Catalytic Reduction of Cr ⁶⁺ .	0

146	Advances in nonprecious metal catalysts for efficient water oxidation in alkaline media.	0
145	Bimetal Organic Framework@Ti ₃ C ₂ T _x MXene with Metalloporphyrin Electrocatalyst for Lithium-Sulfur Batteries. 2210702	2
144	In Situ Anodic Oxidation Tuning of NiFeV Diselenide to the Core-Shell Heterojunction for Boosting Oxygen Evolution. 2022 , 61, 16805-16813	1
143	Self-Reconstructed Metal-Organic Framework Heterojunction for Switchable Oxygen Evolution Reaction.	0
142	Self-Reconstructed Metal-Organic Framework Heterojunction for Switchable Oxygen Evolution Reaction.	3
141	Tailoring cation vacancies in Co, Ni phosphides for efficient overall water splitting. 2022 ,	0
140	Promoting the Oxygen Evolution Reaction via Morphological Manipulation of a Lamellar Nanorod-Assembled Ni(II)-Pyrazolate Superstructure. 2022 , 14, 47775-47787	0
139	Boosting Adsorption and Catalysis of Polysulfides by Multifunctional Separator for Lithium-Sulfur Batteries. 4190-4197	0
138	Activated Ni-Doped Enhanced Electron Transfer for Boosting Oxygen Evolution Reaction Activity of LaNi _{1-x} Ir _x O ₃ . 2204723	0
137	Decorating Phosphorus-Doped g-C ₃ N ₄ with Zinc Porphyrin Metal-Organic Framework via an Electrostatic Self-Assembly Process: An Efficient Strategy to Boost Photocatalytic Hydrogen Evolution Performance. 2200714	0
136	Deciphering Ligand Controlled Structural Evolution of Prussian Blue Analogues and Their Electrochemical Activation during Alkaline Water Oxidation.	0
135	Hydrogen Bubble-Assisted One-Step Electrodeposition of Cu, Ni, and P toward Electrocatalytic Water Oxidation. 2022 , 5, 12602-12613	0
134	Accelerated water activation and stabilized metal-organic framework via constructing triangular active-regions for ampere-level current density hydrogen production. 2022 , 13,	1
133	Exceptional catalytic activity of oxygen evolution reaction via two-dimensional graphene multilayer confined metal-organic frameworks. 2022 , 13,	1
132	Average metal ion electronegativity as a general descriptor for screening Ni-based double hydroxides with high electrocatalytic water oxidation activity. 2022 , 925, 116901	0
131	Using coupled Ni and Zn oxides based on ZIF8 as efficient electrocatalyst for OER. 2022 , 435, 141362	0
130	Electrostatically directed assembly of two-dimensional ultrathin Co ₂ Ni-MOF/Ti ₃ C ₂ T _x nanosheets for electrocatalytic oxygen evolution. 2023 , 630, 363-371	1
129	Bimetal-organic framework-derived nanorod-like Fe _x Ni _{1-x} @C, P composites for electrochemical hydrogen evolution. 2023 , 931, 167511	0

128	Interfacial electronic regulation on NiCo ₂ O ₄ nanowires@NiFe-LDH nanosheets heterostructure for efficient oxygen evolution. 2023 , 931, 167465	0
127	Hierarchical S-scheme titanium dioxide@cobalt-nickel based metal-organic framework nanotube photocatalyst for selective carbon dioxide photoreduction to methane. 2023 , 630, 11-22	0
126	Laminar composite solid electrolyte with succinonitrile-penetrating metal-organic framework (MOF) for stable anode interface in solid-state lithium metal battery. 2023 , 554, 232349	0
125	Mn-induced strengthening hybridization effect of Co-D bond for stable oxygen evolution in acidic media. 2023 , 333, 126361	1
124	Quantitative decorating Ni-sites for water-oxidation with the synergy of electronegative sites and high-density spin state. 2023 , 323, 122167	0
123	A systematic approach for selecting suitable morphologies for supercapacitor applications through morphological stability map – A case of Ni-MOF. 2022 ,	1
122	Amorphous Bimetallic Metal-Organic Frameworks with an Optimized D-Band Center Enable Accelerating Oxygen Evolution Reaction.	1
121	Rationally Reconstructed Metal-organic Frameworks as Robust Oxygen Evolution Electrocatalysts. 2208904	3
120	Reversible Switching Cu(II)/Cu(I) Single Sites Catalyze High-rate and Selective CO ₂ Photoreduction.	0
119	Reversible Switching Cu(II)/Cu(I) Single Sites Catalyze High-rate and Selective CO ₂ Photoreduction.	0
118	A novel ion-solvating polymer electrolyte based on imidazole-containing polymers for alkaline water electrolysis. 2022 , 121186	2
117	Bifunctional oxygen electrocatalysts for rechargeable zinc-air battery based on MXene and beyond. 2023 , 18,	0
116	Multifunctional catalytic activity of Cu ₃ N (001) surface: A first-principles study. 2022 ,	0
115	Zeolitic imidazolate framework-derived cobalt-based catalysts for water splitting. 2022 , 26, 101210	0
114	Unveiling Chemically Robust Bimetallic Squarate-Based Metal-Organic Frameworks for Electrocatalytic Oxygen Evolution Reaction. 2202964	0
113	Direct Visualization of Atomic Structure in Multivariate MOFs for Guiding Electrocatalysts Design.	0
112	A Template Editing Strategy to Create Interlayer-Confined Active Species for Efficient and Durable Oxygen Evolution Reaction. 2203420	1
111	Self-Supporting Metal-Organic Framework-Based Nanoarrays for Electrocatalysis.	2

110	Direct Visualization of Atomic Structure in Multivariate MOFs for Guiding Electrocatalysts Design.	0
109	Metal organic frameworks derived functional materials for energy and environment related sustainable applications. 2022 , 137330	0
108	NiSe ₂ Nanoparticles Supported on Halloysite Sheets as an Efficient Electrocatalyst toward Alkaline Oxygen Evolution Reaction.	1
107	Laser irradiation synthesized carbon encapsulating ultrafine transition metal nanoparticles for highly efficient oxygen evolution. 2022 , 117007	0
106	Kinetic Regulation Strategies of Transition-Metal-Based Electrocatalysts in Water Splitting Reaction. 2022 , 12, 371-383	0
105	Thiacalixarene-based {Co/Fe} ₁₆ coordination clusters: bimetallic synergistic effect for an enhanced oxygen evolution reaction.	0
104	Multivalent ruthenium immobilized by self-supported NiFe-organic frameworks for efficient electrocatalytic overall water splitting.	0
103	Design of high-mass loading metal-organic framework-based electrode materials with excellent redox activity for long-lasting electrochemical energy storage applications. 2023 , 455, 140905	0
102	Three-dimensional porphyrin-based covalent organic frameworks with stp topology for an efficient electrocatalytic oxygen evolution reaction.	3
101	The role of various components in Ru-NiCo alloys in boosting the performance of overall water splitting. 2023 , 633, 189-198	0
100	Application of ZIF nanosheets for construction of epoxy composite coatings with enhanced corrosion protection performance. 2023 , 175, 107335	0
99	One-step rapid synthesis of Ni _{0.5} Co _{0.5} -CPO-27 nanorod array with oxygen vacancies based on DBD microplasma: As an effective non-enzymatic glucose sensor for beverage and human serum. 2023 , 407, 135144	0
98	Trace Mn-doped on highly dispersed Fe/Mn-SNC ultrathin carbon nanosheets for efficient oxygen reduction reaction. 2023 , 613, 156087	0
97	Strategies for enhancing the catalytic activity and electronic conductivity of MOFs-based electrocatalysts. 2023 , 478, 214969	1
96	2D Nanomaterial Supported Single-Metal Atoms for Heterogeneous Photo/Electrocatalysis. 2210837	0
95	Regulating the Electronic Structure of Fe ³⁺ -Doped BiOCl _{1-x} Solid Solution by an Amidoxime-Functionalized Fibrous Support for Efficient Photocatalysis.	0
94	A bottom-up method to construct Ru-doped FeP nanosheets on foam iron with ultra-high activity for hydrogen evolution reaction. 2022 ,	0
93	Minireview: Ni ₂ Be and Ni ₂ Co Metal-Organic Frameworks for Electrocatalytic Water-Splitting Reactions. 2200263	0

92	Manipulating the Spin State of Fe Sites via Fe ²⁺ -D ₃ Si Bridge Bonds for Enhanced Polysulfide Redox Kinetics in the Li ⁺ Battery. 2022 , 61, 19780-19789	0
91	High-Throughput Computational Screening of Metal-Organic Frameworks as High-Performance Electrocatalysts for CO ₂ RR. 2022 , 12, 15271-15281	1
90	Molecular dissolution behaviors on porous membrane surface using hierarchical metal-organic framework lamellar membrane.	0
89	Morphology-controlled synthesis of metal-organic frameworks derived hollow nanostructures for supercapacitor application. 2022 , 56, 106188	0
88	Metal-organic frameworks as electrocatalysts.	0
87	Metal-organic frameworks as electrocatalysts.	3
86	Selectively Enhanced Electrocatalytic Oxygen Evolution within Nanoscopic Channels Fitting a Specific Reaction Intermediate for Seawater Splitting. 2206918	0
85	Molecule-Enhanced Electrocatalysis of Sustainable Oxygen Evolution Using Organoselenium Functionalized Metal-Organic Nanosheets.	0
84	Morphology evolution of zeolite MFI nanosheet fragments during secondary growths. 2022 , 112424	0
83	Novel cobalt-based MOF facilitating reclaiming byproduct in wet magnesia desulfurization with ultrahigh dispersity and catalytic activity. 2022 , 127021	0
82	Synthesis of NiRu-metal organic framework nanosheets: as active catalyst for the fabrication of rapid and simple electrochemical sensor for the determination of sudan I in presence of bisphenol A.	0
81	Electrochemical Investigation of the OER Activity for Nickel Phosphite-Based Compositions and Its Morphology-Dependent Fluorescence Properties. 2022 , 12, 1803	1
80	Application of HTS in Green Hydrogen and Fuel Cells. 2023 , 13-54	0
79	Hierarchical heterostructure of NiFe ₂ O ₄ nanoflakes grown on the tip of NiCo ₂ O ₄ nanoneedles with enhanced interfacial polarization effect to achieve highly efficient electrocatalytic oxygen evolution. 2022 , 141169	0
78	Charge-transfer-regulated bimetal ferrocene-based organic frameworks for promoting electrocatalytic oxygen evolution.	0
77	Revealing the Formation Mechanism and Optimizing the Synthesis Conditions of Layered Double Hydroxides for the Oxygen Evolution Reaction.	0
76	Regulating Spin States in Oxygen Electrocatalysis.	0
75	Ultrathin metal-organic layers/carbon nitride nanosheet composites as 2D/2D heterojunctions for efficient CO ₂ photoreduction.	0

- 74 Micro/nano metal-organic frameworks meet energy chemistry: a review of materials synthesis and applications. **2023**, 100092 ○
- 73 Bimetal-Organic Frameworks for High Efficiency Catalytic Reduction. 473-479 ○
- 72 Fabrication of nanosheet-assembled hollow copper-nickel phosphide spheres embedded in reduced graphene oxide texture for hybrid supercapacitors. ○
- 71 Regulating Spin States in Oxygen Electrocatalysis. ○
- 70 Controllable Synthetic Strategy of the Coordinatively Unsaturated Metal Sites on Ni-BTC for Highly Efficient Oxygen Evolution. **2023**, ○
- 69 Facet-Dependent Photocatalytic Behavior of Fe-soc-MOF for Carbon Dioxide Reduction. **2023**, 15, 3348-3356 ○
- 68 Revealing the Formation Mechanism and Optimizing the Synthesis Conditions of Layered Double Hydroxides for the Oxygen Evolution Reaction. ○
- 67 Shape control of bimetallic MOF/Graphene composites for efficient oxygen evolution reaction. **2023**, 930, 117144 ○
- 66 Cobalt single atom anchored on N-doped carbon nanoboxes as typical single-atom catalysts (SACs) for boosting the overall water splitting. **2023**, 458, 141435 ○
- 65 In situ vertically growth of 2D NiCo-BTC nanosheet arrays for binder-free flexible wearable energy storage devices. **2023**, 60, 106578 ○
- 64 Recent progress in metal-organic frameworks (MOFs) for electrocatalysis. ○
- 63 Composite Electrolyte for All-Solid-State Lithium Battery. **2023**, 253-302 ○
- 62 Dynamic Reconstructed RuO₂/NiFeOOH with Coherent Interface for Efficient Seawater Oxidation. 2206768 ○
- 61 Decoration of IR Clusters Accelerates the Generation of Active Species for High-Efficient Overall Water Splitting. ○
- 60 2D Metal-Organic Frameworks as Competent Electrocatalysts for Water Splitting. 2207342 1
- 59 Metal-organic layers: Preparation and applications. ○
- 58 Accelerating Electrochemical Water Oxidation Activity by Tailoring Morphology and Electronic Structure of Nickel Organic Framework Nanoarrays with a Fe Etching Effect. **2023**, 62, 2065-2072 ○
- 57 Assembly and electrocatalytic CO₂ reduction of two-dimensional bimetallic porphyrin-based conjugated cobalt metal-organic framework. **2023**, 443, 141896 ○

- 56 Facile construction of CoNi-MOF nanosheet arrays and exploration of the active sites for oxygen evolution reaction with ultralow overpotential. **2023**, 943, 169091 ○
- 55 Revealing the activity origin of ultrathin nickel metal-organic framework nanosheet catalysts for selective electrochemical nitrate reduction to ammonia: Experimental and density functional theory investigations. **2023**, 638, 26-38 ○
- 54 A 3D flower-like Co/Ni bimetallic organic framework as an excellent material for electrochemical determination of quercetin. ○
- 53 Morphology control synthesis of [Mo₃S₁₃]²⁻/Co-MOF-74 composite catalysts and their application in the oxygen evolution reaction. ○
- 52 Electrochemical structural reconstruction: A shortcut to efficient electrooxidation. **2023**, 3, 100529 ○
- 51 Rational design and synthesis of advanced metal-organic frameworks for electrocatalytic water splitting. **2023**, 66, 943-965 ○
- 50 Ir-doped Co-BDC MOF as efficient bifunctional catalyst for overall electrochemical water splitting. ○
- 49 Defect-enriched Hollow Porous Carbon Nanocages Enable Highly Efficient Chlorine Evolution Reaction. ○
- 48 Coordination environment dependent stability of Cu-based MOFs towards selective adsorption desulfurization. **2023**, 464, 142670 ○
- 47 Design of ultra-thin nanosheet bimetallic NiCo MOF with binary ligand via solvent-assisted ligand exchange (SALE) reaction for high performance supercapacitors. **2023**, 451, 142291 ○
- 46 Pairing bimetallic metal-organic framework and phosphate derivative for alkaline overall water splitting. **2023**, 947, 169498 ○
- 45 Thickness-dependent γ -NiOOH transformation of Ni-MOFs in oxygen evolution reaction. **2023**, 623, 156991 ○
- 44 Phosphorus-Doped directly interconnected networks of amorphous Metal-Organic framework nanowires for efficient methanol oxidation. **2023**, 641, 675-684 ○
- 43 Regulating the Synergistic Effect in Bimetallic Two-Dimensional Polymer Oxygen Evolution Reaction Catalysts by Adjusting the Coupling Strength Between Metal Centers. **2023**, 62, 1 ○
- 42 Construction of Bimetallic Co/Fe-Incorporated PTA/FDA Nanoclusters for Boosting Electrocatalytic Oxygen Evolution. **2023**, 2023, 1-15 ○
- 41 Regulating the Synergistic Effect in Bimetallic Two-Dimensional Polymer Oxygen Evolution Reaction Catalysts by Adjusting the Coupling Strength Between Metal Centers. **2023**, 135, 1 ○
- 40 NiO/g-C₃N₄/PANI/Ni-metal-organic framework composite for high-energy supercapacitor electrodes. **2023**, 28, 101385 ○
- 39 Enhancing Water Oxidation of Ru Single Atoms via Oxygen-Coordination Bonding with NiFe Layered Double Hydroxide. **2023**, 13, 2771-2779 ○

- 38 Noble Metal-Based Heterogeneous Catalysts for Electrochemical Hydrogen Evolution Reaction. **2023**, 13, 2177 ○
- 37 Ce-Modified Flowerlike NiFe-MOF Nanostructure Based on Ion Competitive Coordination for Enhancing the Oxygen Evolution Reaction. **2023**, 62, 3238-3247 ○
- 36 Insights into the electronic structure coupling effect of dual-metal atomic electrocatalytic platform for efficient clean energy conversion. **2023**, 461, 141911 ○
- 35 Recent Progress in Interface Engineering of Nanostructures for Photoelectrochemical Energy Harvesting Applications. 2208274 ○
- 34 Cobalt Pyrophosphate Nanosheets Effectively Boost Photoelectrochemical Water Splitting Efficiency of BiVO₄ Photoanodes. ○
- 33 Recent Advances and New Challenges: Two-Dimensional Metal-Organic Framework and Their Composites/Derivatives for Electrochemical Energy Conversion and Storage. **2023**, 2023, 1-47 ○
- 32 Metal organic frameworks: Mastery in electroactivity for hydrogen and oxygen evolution reactions. **2023**, ○
- 31 Anchoring Fe(OH)₃ nanoparticles on Ni-MOF nanosheets for efficient electrocatalytic oxygen evolution. **2023**, 42, 1453-1459 ○
- 30 Fabricated local surface plasmon resonance Cu₂O/Ni-MOF hierarchical heterostructure photocatalysts for enhanced photoreduction of CO₂. **2023**, 11, 109504 ○
- 29 Non-covalent ligand-oxide interaction promotes oxygen evolution. **2023**, 14, ○
- 28 Metal-Organic framework-based electrocatalysts for acidic oxygen evolution reaction. **2023**, 5, 324-335 ○
- 27 Exploring the oxygen evolution electrocatalysis of an amine-based cobalt metal-organic framework. ○
- 26 Ferric hydroxide/NiCo-MOF composite materials as efficient electrocatalysts for the oxygen evolution reaction. **2023**, 29, 1285-1300 ○
- 25 Layered Double Hydroxide-Derived Two-Dimensional Bimetallic Metal-Organic Framework Nanozymes for Microorganism Identification. **2023**, 6, 4610-4618 ○
- 24 Graphene Oxide-Mediated Synthesis of Ultrathin Co-MOL for CO₂ Photoreduction. **2023**, 62, 4476-4484 ○
- 23 Facile Synthesis of a Nickel-Based Dopamine MOF/Multiwalled Carbon Nanotubes Nanocomposite as an Efficient Electrocatalyst for the Oxygen Evolution Reaction. **2023**, 37, 5388-5398 ○
- 22 Molecular Engineering of Metal-Organic Frameworks as Efficient Electrochemical Catalysts for Water Oxidation. ○
- 21 Bodipy-Based Metal-Organic Frameworks Transformed in Solid States from 1D Chains to 2D Layer Structures as Efficient Visible Light Heterogeneous Photocatalysts for Forging C-S and C-N Bonds. **2023**, 145, 6123-6134 ○

- 20 A Nanosized Manganese-Based Chalcogenide Composite for Enhanced Electrocatalytic OER. ○
- 19 Supporting Trimetallic Metal-Organic Frameworks on S/N-Doped Carbon Macroporous Fibers for Highly Efficient Electrocatalytic Oxygen Evolution. ○
- 18 Hierarchical Structure Carbon-Coated CoNi Nanocatalysts Derived from Flower-Like Bimetal MOFs: Enhancing the Hydrogen Storage Performance of MgH₂ under Mild Conditions. **2023**, 11, 4825-4837 ○
- 17 Interfacial Engineering of Bimetallic Ni/Co-MOFs with H-Substituted Graphdiyne for Ammonia Electrosynthesis from Nitrate. **2023**, 17, 6687-6697 ○
- 16 Oxygen Evolution/Reduction Reaction Catalysts: From In Situ Monitoring and Reaction Mechanisms to Rational Design. ○
- 15 Metal-organic frameworks: Synthetic methods for industrial production. ○
- 14 An electrochemical and colorimetric dual-mode aptasensor for Staphylococcus aureus based on a multifunctional MOF and magnetic separation technique. **2023**, 190, 108681 ○
- 13 Perovskite oxide composites for bifunctional oxygen electrocatalytic activity and zinc-air battery application- a mini-review. **2023**, 58, 362-380 ○
- 12 Recent progress of two-dimensional metal-organic-frameworks: From synthesis to electrocatalytic oxygen evolution. ○
- 11 Performance of amine-modified CdS-D@ZIF-8 nanocomposites for enhanced photocatalytic H₂ evolution. **2023**, ○
- 10 Metallic and Dimensional Optimization of Metal-Organic Frameworks for High-Performance Lithium-Sulfur Batteries. ○
- 9 Ultrathin fan-like multimetallic oxide as a superior oxygen evolution electrocatalyst in alkaline water and seawater. **2023**, ○
- 8 Electrochemical determination of tert-butylhydroquinone by ZIF-67@TiO₂ derived hierarchical TiO₂/Co/NCNTs. ○
- 7 Integration of Metal-Organic Frameworks and Metals: Synergy for Electrocatalysis. ○
- 6 Highly Efficient Spatial Three-Level CoP@ZIF-8/pNF Based on Modified Porous NF as Dual Functional Electrocatalyst for Water Splitting. **2023**, 13, 1386 ○
- 5 2D coordination unsaturated Ni-MOFs hierarchical nanosheets with internal electric fields for high-performance hybrid supercapacitors. **2023**, 117464 ○
- 4 Assembling Amorphous Metal-Organic Frameworks onto Heteroatom-Doped Carbon Spheres for Remarkable Bifunctional Oxygen Electrocatalysis. ○
- 3 A Mixed Protonic-Electronic Conductor Base on the Host-Guest Architecture of 2D Metal-Organic Layers and Inorganic Layers. ○

- 2 Monolithic Nickel Cata Featured with High-Density Crystalline Steps for Stable Hydrogen Evolution at Large Current Density. ○
- 1 Synergistic dual atomic sites with localized electronic modulation enable high-performance lithium-oxygen batteries. **2023**, 466, 143351 ○