

Benchmarking Hydrogen Evolving Reaction and Oxygen Evolution Reaction for Solar Water Splitting Devices

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Citation Report

#	ARTICLE	IF	CITATIONS
44	Porous Nickel-Iron Oxide as a Highly Efficient Electrocatalyst for Oxygen Evolution Reaction. <i>Advanced Science</i> , 2015, 2, 1500199.	5.6	241
45	Insight on Tafel slopes from a microkinetic analysis of aqueous electrocatalysis for energy conversion. <i>Scientific Reports</i> , 2015, 5, 13801.	1.6	2,017
46	Roughened Zn-Doped Ru-Ti Oxide Water Oxidation Electrocatalysts by Blending Active and Activated Passive Components. <i>ChemElectroChem</i> , 2015, 2, 1839-1846.	1.7	22
47	Molecular Mixed-Metal Manganese Oxido Cubanes as Precursors to Heterogeneous Oxygen Evolution Catalysts. <i>Chemistry - A European Journal</i> , 2015, 21, 13420-13430.	1.7	20
48	Solar Water Splitting by TiO ₂ /CdS/Co-Pi Nanowire Array Photoanode Enhanced with Co-Pi as Hole Transfer Relay and CdS as Light Absorber. <i>Advanced Functional Materials</i> , 2015, 25, 5706-5713.	7.8	240
49	Triggering the electrocatalytic hydrogen evolution activity of the inert two-dimensional MoS ₂ surface via single-atom metal doping. <i>Energy and Environmental Science</i> , 2015, 8, 1594-1601.	15.6	1,109
50	Oxygen-tolerant proton reduction catalysis: much O ₂ about nothing?. <i>Energy and Environmental Science</i> , 2015, 8, 2283-2295.	15.6	72
51	Catalytically Active Nanomaterials for Electrochemical Energy Generation and Storage. <i>ACS Symposium Series</i> , 2015, , 137-172.	0.5	1
52	Water oxidation catalysis upon evolution of molecular Co(III) cubanes in aqueous media. <i>Faraday Discussions</i> , 2015, 185, 121-141.	1.6	29
53	Biomass-derived high-performance tungsten-based electrocatalysts on graphene for hydrogen evolution. <i>Journal of Materials Chemistry A</i> , 2015, 3, 18572-18577.	5.2	43
54	Intramolecular Proton Transfer Boosts Water Oxidation Catalyzed by a Ru Complex. <i>Journal of the American Chemical Society</i> , 2015, 137, 10786-10795.	6.6	246
55	Particle suspension reactors and materials for solar-driven water splitting. <i>Energy and Environmental Science</i> , 2015, 8, 2825-2850.	15.6	344
56	Photochemical charge transfer observed in nanoscale hydrogen evolving photocatalysts using surface photovoltage spectroscopy. <i>Energy and Environmental Science</i> , 2015, 8, 2970-2976.	15.6	74
57	Nickel-rich layered LiNi _{1-x} M _x O ₂ (M = Mn, Fe, and Co) electrocatalysts with high oxygen evolution reaction activity. <i>Journal of Materials Chemistry A</i> , 2015, 3, 16604-16612.	5.2	44
58	Effects of electrolyte, catalyst, and membrane composition and operating conditions on the performance of solar-driven electrochemical reduction of carbon dioxide. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 18924-18936.	1.3	312
59	Noble metal-free hydrogen evolution catalysts for water splitting. <i>Chemical Society Reviews</i> , 2015, 44, 5148-5180.	18.7	4,776
60	Nanostructured Co ₂ P Electrocatalyst for the Hydrogen Evolution Reaction and Direct Comparison with Morphologically Equivalent CoP. <i>Chemistry of Materials</i> , 2015, 27, 3769-3774.	3.2	450
61	Edge overgrowth of spiral bimetallic hydroxides ultrathin-nanosheets for water oxidation. <i>Chemical Science</i> , 2015, 6, 3572-3576.	3.7	49

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62	Easily prepared, high activity Ir-Ni oxide catalysts for water oxidation. <i>Electrochemistry Communications</i> , 2015, 60, 109-112.	2.3	27
63	Pulse-Electrodeposited Ni-Fe (Oxy)hydroxide Oxygen Evolution Electrocatalysts with High Geometric and Intrinsic Activities at Large Mass Loadings. <i>ACS Catalysis</i> , 2015, 5, 6680-6689.	5.5	265
64	Efficient Electrocatalytic Water Oxidation at Neutral and High pH by Adventitious Nickel at Nanomolar Concentrations. <i>Journal of the American Chemical Society</i> , 2015, 137, 13980-13988.	6.6	84
65	Three dimensional nickel oxides/nickel structure by in situ electro-oxidation of nickel foam as robust electrocatalyst for oxygen evolution reaction. <i>Applied Surface Science</i> , 2015, 359, 172-176.	3.1	106
66	High-Performance Overall Water Splitting Electrocatalysts Derived from Cobalt-Based Metal-Organic Frameworks. <i>Chemistry of Materials</i> , 2015, 27, 7636-7642.	3.2	579
67	Recent advances in transition-metal dichalcogenide based nanomaterials for water splitting. <i>Nanoscale</i> , 2015, 7, 19764-19788.	2.8	327
68	Self-terminated electrodeposition of iridium electrocatalysts. <i>Energy and Environmental Science</i> , 2015, 8, 3557-3562.	15.6	52
69	Interfacial band-edge energetics for solar fuels production. <i>Energy and Environmental Science</i> , 2015, 8, 2851-2862.	15.6	163
70	Enhancement Effect of Noble Metals on Manganese Oxide for the Oxygen Evolution Reaction. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 4178-4183.	2.1	89
71	Photo-assisted water splitting with bipolar membrane induced pH gradients for practical solar fuel devices. <i>Journal of Materials Chemistry A</i> , 2015, 3, 19556-19562.	5.2	104
72	What Makes the Photocatalytic CO ₂ Reduction on N-Doped Ta ₂ O ₅ Efficient: Insights from Nonadiabatic Molecular Dynamics. <i>Journal of the American Chemical Society</i> , 2015, 137, 11517-11525.	6.6	105
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74	3d-4f {Co ^{II} Co ₃ Ln(OR) ₄ } Cubanes as Bio-Inspired Water Oxidation Catalysts. <i>Journal of the American Chemical Society</i> , 2015, 137, 11076-11084.	6.6	134
75	Oxygen Evolution Catalyzed by Nickel-Iron Oxide Nanocrystals with a Nonequilibrium Phase. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 19755-19763.	4.0	49
76	High-Index Faceted Ni ₃ S ₂ Nanosheet Arrays as Highly Active and Ultrastable Electrocatalysts for Water Splitting. <i>Journal of the American Chemical Society</i> , 2015, 137, 14023-14026.	6.6	1,622
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78	Surfactant-mediated electrodeposition of a water-oxidizing manganese oxide. <i>Dalton Transactions</i> , 2015, 44, 16873-16881.	1.6	5
79	Designing an improved transition metal phosphide catalyst for hydrogen evolution using experimental and theoretical trends. <i>Energy and Environmental Science</i> , 2015, 8, 3022-3029.	15.6	851

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81	Electrooxidation of Alcohols with Electrode-Supported Transfer Hydrogenation Catalysts. <i>ACS Catalysis</i> , 2015, 5, 7343-7349.	5.5	10
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85	Advanced Evaluation of the Long-Term Stability of Oxygen Evolution Electrocatalysts. <i>Analytical Chemistry</i> , 2016, 88, 7597-7602.	3.2	38
86	Highly Efficient and Stable Solar Water Splitting at (Na)WO ₃ Photoanodes in Acidic Electrolyte Assisted by Non-Noble Metal Oxygen Evolution Catalyst. <i>Advanced Energy Materials</i> , 2016, 6, 1600526.	10.2	58
87	Modeling and practical realization of thin film silicon-based integrated solar water splitting devices. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2016, 213, 1738-1746.	0.8	24
88	Direct Growth of MoS ₂ Microspheres on Ni Foam as a Hybrid Nanocomposite Efficient for Oxygen Evolution Reaction. <i>Small</i> , 2016, 12, 2975-2981.	5.2	114
89	Hierarchical NiCo ₂ S ₄ Nanowire Arrays Supported on Ni Foam: An Efficient and Durable Bifunctional Electrocatalyst for Oxygen and Hydrogen Evolution Reactions. <i>Advanced Functional Materials</i> , 2016, 26, 4661-4672.	7.8	1,204
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94	Hierarchical NiMo-based 3D electrocatalysts for highly-efficient hydrogen evolution in alkaline conditions. <i>Nano Energy</i> , 2016, 27, 247-254.	8.2	196
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99	A Mononuclear Co ^{II} Coordination Complex Locked in a Confined Space and Acting as an Electrochemical Water Oxidation Catalyst: A "Ship in a Bottle" Approach. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 2425-2430.	7.2	107
100	Chalcogenide and Phosphide Solid-State Electrocatalysts for Hydrogen Generation. <i>ChemPlusChem</i> , 2016, 81, 1045-1055.	1.3	74
101	A Mononuclear Co ^{II} Coordination Complex Locked in a Confined Space and Acting as an Electrochemical Water Oxidation Catalyst: A "Ship in a Bottle" Approach. <i>Angewandte Chemie</i> , 2016, 128, 2471-2476.		28
102	Mercury Underpotential Deposition to Determine Iridium and Iridium Oxide Electrochemical Surface Areas. <i>Journal of the Electrochemical Society</i> , 2016, 163, F3051-F3056.	1.3	63
103	MOF-Derived Noble Metal Free Catalysts for Electrochemical Water Splitting. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 35390-35397.	4.0	151
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106	Developing a scalable artificial photosynthesis technology through nanomaterials by design. <i>Nature Nanotechnology</i> , 2016, 11, 1010-1019.	15.6	162
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112	A comparative techno-economic analysis of renewable hydrogen production using solar energy. <i>Energy and Environmental Science</i> , 2016, 9, 2354-2371.	15.6	688
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117	In situ morphological transformation and investigation of electrocatalytic properties of cobalt oxide nanostructures toward oxygen evolution. <i>CrystEngComm</i> , 2016, 18, 6008-6012.	1.3	21
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119	A Place in the Sun for Artificial Photosynthesis?. <i>ACS Energy Letters</i> , 2016, 1, 121-135.	8.8	163
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122	Bifunctional Iron-Only Electrodes for Efficient Water Splitting with Enhanced Stability through In Situ Electrochemical Regeneration. <i>Advanced Energy Materials</i> , 2016, 6, 1502095.	10.2	136
123	CdSe-sensitized branched CdS hierarchical nanostructures for efficient photoelectrochemical solar hydrogen generation. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 11460-11466.	1.3	16
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#	ARTICLE	IF	CITATIONS
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166	Transition-Metal (Co, Ni, and Fe)-Based Electrocatalysts for the Water Oxidation Reaction. <i>Advanced Materials</i> , 2016, 28, 9266-9291.	11.1	1,392
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1038	FeNi nanoparticles embedded porous nitrogen-doped nanocarbon as efficient electrocatalyst for oxygen evolution reaction. <i>Electrochimica Acta</i> , 2019, 321, 134720.	2.6	25
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1040	Coupled cobalt-doped molybdenum carbide@N-doped carbon nanosheets/nanotubes supported on nickel foam as a binder-free electrode for overall water splitting. <i>Chinese Journal of Catalysis</i> , 2019, 40, 1352-1359.	6.9	40
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1045	Cu-Based Nanosheet Arrays for Water-Splitting. <i>ACS Applied Nano Materials</i> , 2019, 2, 6000-6009.	2.4	20
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1052	Raney Nickel 2.0: Development of a high-performance bifunctional electrocatalyst. <i>Electrochimica Acta</i> , 2019, 322, 134687.	2.6	26
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1093	Constructing Earth-abundant 3D Nanoarrays for Efficient Overall Water Splitting – A Review. <i>ChemCatChem</i> , 2019, 11, 1550-1575.	1.8	108
1094	One-dimensional CoS_2 – MoS_2 nano-flakes decorated MoO_2 sub-micro-wires for synergistically enhanced hydrogen evolution. <i>Nanoscale</i> , 2019, 11, 3500-3505.	2.8	31
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1097	Vertical nanosheet array of 1T phase MoS_2 for efficient and stable hydrogen evolution. <i>Applied Catalysis B: Environmental</i> , 2019, 246, 296-302.	10.8	122
1098	Pulse-electrodeposited nickel phosphide for high-performance proton exchange membrane water electrolysis. <i>Journal of Alloys and Compounds</i> , 2019, 785, 296-304.	2.8	40
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1110	Boosting electrochemical water splitting <i>via</i> ternary NiMoCo hybrid nanowire arrays. <i>Journal of Materials Chemistry A</i> , 2019, 7, 2156-2164.	5.2	163
1111	Highly efficient hydrogen evolution of platinum <i>via</i> tuning the interfacial dissolved-gas concentration. <i>Chemical Communications</i> , 2019, 55, 1378-1381.	2.2	23
1112	Catalysis of hydrogen evolution reaction by Ni ₁₂ P ₅ single crystalline nanoplates and spherical nanoparticles. <i>CrystEngComm</i> , 2019, 21, 228-235.	1.3	14
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1123	A Fully Reversible Water Electrolyzer Cell Made Up from FeCoNi (Oxy)hydroxide Atomic Layers. <i>Advanced Energy Materials</i> , 2019, 9, 1901312.	10.2	106
1124	Facile Synthesis of Monodispersed Ni(OH) ₂ Microspheres Assembled by Ultrathin Nanosheets and Its Performance for Oxygen Evolution Reduction. <i>Frontiers in Materials</i> , 2019, 6, .	1.2	30
1125	Tremella-like Ni ₃ S ₂ /MnS with ultrathin nanosheets and abundant oxygen vacancies directly used for high speed overall water splitting. <i>Applied Catalysis B: Environmental</i> , 2019, 257, 117899.	10.8	157
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1128	Phosphorous doped cobalt-iron sulfide/carbon nanotube as active and robust electrocatalysts for water splitting. <i>Electrochimica Acta</i> , 2019, 318, 892-900.	2.6	43
1129	Electrochemical characterization of manganese oxides as a water oxidation catalyst in proton exchange membrane electrolyzers. <i>Royal Society Open Science</i> , 2019, 6, 190122.	1.1	23
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1132	Amorphous Ni/C nanocomposites from tandem plasma reaction for hydrogen evolution. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 18115-18122.	3.8	4
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1134	3D CVD graphene oxide-coated Ni foam as carbo- and electro-catalyst towards hydrogen evolution reaction in acidic solution: In situ electrochemical gas chromatography. <i>Carbon</i> , 2019, 151, 109-119.	5.4	28
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1137	Stabilization of reactive Co ₄ O ₄ cubane oxygen-evolution catalysts within porous frameworks. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 11630-11639.	3.3	41
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1147	Electrodeposited mesh-type dimensionally stable anode for oxygen evolution reaction in acidic and alkaline media. <i>Chemical Engineering Science</i> , 2019, 206, 424-431.	1.9	12
1148	Free-standing S, N co-doped graphene/Ni foam as highly efficient and stable electrocatalyst for oxygen evolution reaction. <i>Electrochimica Acta</i> , 2019, 317, 408-415.	2.6	19
1149	One-step electrodeposition of cerium-doped nickel hydroxide nanosheets for effective oxygen generation. <i>RSC Advances</i> , 2019, 9, 17891-17896.	1.7	20
1150	Laser-Assisted Doping and Architecture Engineering of Fe ₃ O ₄ Nanoparticles for Highly Enhanced Oxygen Evolution Reaction. <i>ChemSusChem</i> , 2019, 12, 3562-3570.	3.6	19
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1152	Negative Charging of Transition-Metal Phosphides via Strong Electronic Coupling for Destabilization of Alkaline Water. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 11796-11800.	7.2	155
1153	Layer-by-Layer Coating of Cobalt-Based Ink for Large-Scale Fabrication of OER Electrocatalyst. <i>Energy Technology</i> , 2019, 7, 1900603.	1.8	6
1154	Electrosynthesis of high-entropy metallic glass nanoparticles for designer, multi-functional electrocatalysis. <i>Nature Communications</i> , 2019, 10, 2650.	5.8	286
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1156	Spark-plasma-sintered porous electrodes for efficient oxygen evolution in alkaline water electrolysis. <i>Electrochimica Acta</i> , 2019, 317, 128-138.	2.6	9
1157	Rationally engineered active sites for efficient and durable hydrogen generation. <i>Nature Communications</i> , 2019, 10, 2281.	5.8	59
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1160	Prospects and Challenges for Solar Fertilizers. <i>Joule</i> , 2019, 3, 1578-1605.	11.7	153
1161	A Simple Synthetic Strategy toward Defect-Rich Porous Monolayer NiFe Layered Double Hydroxide Nanosheets for Efficient Electrocatalytic Water Oxidation. <i>Advanced Energy Materials</i> , 2019, 9, 1900881.	10.2	363
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1309	Cu-Ni-CoSex quaternary porous nanocubes as enhanced Pt-free electrocatalysts for highly efficient dye-sensitized solar cells and hydrogen evolution in alkaline medium. <i>Chemical Engineering Journal</i> , 2019, 357, 11-20.	6.6	47
1310	Facile synthesis of jagged Au/Ir nanochains with superior electrocatalytic activity for oxygen evolution reaction. <i>Applied Surface Science</i> , 2019, 463, 58-65.	3.1	10
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1312	3-D CdS@NiCo layered double hydroxide core-shell photoelectrocatalyst used for efficient overall water splitting. <i>Applied Catalysis B: Environmental</i> , 2019, 241, 28-40.	10.8	70
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1314	Imidazole for Pyridine Substitution Leads to Enhanced Activity Under Milder Conditions in Cobalt Water Oxidation Electrocatalysis. <i>Inorganic Chemistry</i> , 2019, 58, 1391-1397.	1.9	26
1315	Electrochemical Water Oxidation in Acidic Solution Using Titanium Diboride (TiB ₂) Catalyst. <i>ChemCatChem</i> , 2019, 11, 3877-3881.	1.8	24
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1322	Virus-templated Pt-Ni(OH) ₂ nanonetworks for enhanced electrocatalytic reduction of water. <i>Nano Energy</i> , 2019, 58, 167-174.	8.2	46
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1335	Monitoring oxygen-vacancy ratio in NiFe-based electrocatalysts during oxygen evolution reaction in alkaline electrolyte. <i>Journal of Industrial and Engineering Chemistry</i> , 2019, 72, 273-280.	2.9	17
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1367	Ruthenium coordinated with triphenylphosphine-hyper-crosslinked polymer: An efficient catalyst for hydrogen evolution reaction and hydrolysis of ammonia borane. <i>Applied Surface Science</i> , 2019, 466, 193-201.	3.1	48
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1404	An Engineered Superhydrophilic/Superaerophobic Electrocatalyst Composed of the Supported CoMoS ₂ Chalcogel for Overall Water Splitting. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 1659-1665.	7.2	268
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1427	Rational strain engineering in delafossite oxides for highly efficient hydrogen evolution catalysis in acidic media. <i>Nature Catalysis</i> , 2020, 3, 55-63.	16.1	124
1428	Doping-Assisted Phase Changing Effect on MoS ₂ Towards Hydrogen Evolution Reaction in Acidic and Alkaline pH. <i>ChemElectroChem</i> , 2020, 7, 336-346.	1.7	34
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1432	Combined Experimental and Theoretical Assessment of WX _y (X = C, N, S, P) for Hydrogen Evolution Reaction. <i>ACS Applied Energy Materials</i> , 2020, 3, 1082-1088.	2.5	32
1433	Controlled Synthesis of Hollow Bimetallic Prussian Blue Analog for Conversion into Efficient Oxygen Evolution Electrocatalyst. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 1319-1328.	3.2	39
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1441	Improved photocatalytic HER activity of $\sqrt{3}$ -Sb monolayer with doping and strain engineering. <i>Applied Surface Science</i> , 2020, 507, 145194.	3.1	17
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1563	Efficient electrocatalyst of Fe_2O_3 nanorings for oxygen evolution reaction in acidic conditions. <i>RSC Advances</i> , 2020, 10, 29077-29081.	1.7	6
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1728	Optimization of carbon-supported Ir-Ru alloys for polymer electrolyte fuel cell anodes under cell reversal. <i>Journal of Industrial and Engineering Chemistry</i> , 2020, 85, 87-93.	2.9	21
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1737	Basicity and Electrolyte Composition Dependent Stability of Ni-Fe-S and Ni-Mo Electrodes during Water Splitting. <i>ChemPhysChem</i> , 2020, 21, 518-524.	1.0	5
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#	ARTICLE	IF	CITATIONS
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#	ARTICLE	IF	CITATIONS
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1866	Facile synthesis of bimetallic-based CoMoO ₄ /MoO ₂ /CoP oxidized/phosphide nanorod arrays electroplated with FeOOH for efficient overall seawater splitting. CrystEngComm, 2021, 23, 6778-6791.	1.3	4

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1869	A morphology controlled surface sulfurized CoMn ₂ O ₄ microspike electrocatalyst for water splitting with excellent OER rate for binder-free electrocatalytic oxygen evolution. <i>Journal of Materials Chemistry A</i> , 2021, 9, 12255-12264.	5.2	58
1870	Concisely Synthesized FeNiWO _x Film as a Highly Efficient and Robust Catalyst for Electrochemical Water Oxidation. <i>ACS Applied Energy Materials</i> , 2021, 4, 1410-1420.	2.5	23
1871	Highly robust, novel aluminum counter cation-based monophosphate tungsten bronze electro-catalysts for oxygen evolution in acidic solution. <i>RSC Advances</i> , 2021, 11, 10681-10687.	1.7	4
1872	Critical review: hydrothermal synthesis of 1T-MoS ₂ – an important route to a promising material. <i>Journal of Materials Chemistry A</i> , 2021, 9, 9451-9461.	5.2	37
1873	Cerium oxide modified iridium nanorods for highly efficient electrochemical water splitting. <i>Chemical Communications</i> , 2021, 57, 8798-8801.	2.2	6
1874	Chemical and electrochemical water oxidation mediated by bis(pyrazol-1-ylmethyl)pyridine-ligated Cu(<i>scp</i>) complexes. <i>Sustainable Energy and Fuels</i> , 2021, 5, 2771-2780.	2.5	8
1875	Nickel-iron layered double hydroxides for an improved Ni/Fe hybrid battery-electrolyser. <i>Materials Advances</i> , 2021, 2, 5076-5088.	2.6	6
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1877	Custom plating of nanoscale semiconductor/catalyst junctions for photoelectrochemical water splitting. <i>Nanoscale</i> , 2021, 13, 1997-2004.	2.8	7
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1881	Ultrathin Silicon Oxide Overlayers Enable Selective Oxygen Evolution from Acidic and Unbuffered pH-Neutral Seawater. <i>ACS Catalysis</i> , 2021, 11, 1316-1330.	5.5	54
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1883	Tetragonal tungsten bronze type Sn(<i>scp</i>)-based quaternary oxides: a new class of visible-light-absorbing semiconductors for photoelectrochemical water oxidation. <i>Journal of Materials Chemistry A</i> , 2021, 9, 21085-21093.	5.2	5
1884	Activation Strategy of MoS ₂ as HER Electrocatalyst through Doping-Induced Lattice Strain, Band Gap Engineering, and Active Crystal Plane Design. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 765-780.	4.0	86
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1887	Low-crystallinity mesoporous NiGaFe hydroxide nanosheets on macroporous Ni foam for high-efficiency oxygen evolution electrocatalysis. <i>Journal of Materials Chemistry A</i> , 2021, 9, 6223-6231.	5.2	24
1888	Controllable atomic defect engineering in layered Ni _x Fe _{1-x} (OH) ₂ nanosheets for electrochemical overall water splitting. <i>Journal of Materials Chemistry A</i> , 2021, 9, 14432-14443.	5.2	84
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1893	First-Principles Evaluation of One-Dimensional Metal-Organic Frameworks for Electrocatalytic C-H Activation of Natural Gas. <i>Chemistry - an Asian Journal</i> , 2021, 16, 292-295.	1.7	5
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1900	Decoupled electrochemical water-splitting systems: a review and perspective. <i>Energy and Environmental Science</i> , 2021, 14, 4740-4759.	15.6	172
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1902	Layered double hydroxide derived bimetallic nickel-iron selenide as an active electrocatalyst for nitrogen fixation under ambient conditions. <i>Inorganic Chemistry Frontiers</i> , 2021, 8, 1762-1770.	3.0	41
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1921	Nanostructural Co-MoS ₂ /NiCoS supported on reduced Graphene oxide as a high activity electrocatalyst for hydrogen evolution in alkaline media. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 8567-8577.	3.8	11
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1930	Unveiling the Excellent Electrocatalytic Activity of Grain-Boundary Enriched Anisotropic Pure Gold Nanostructures toward Hydrogen Evolution Reaction: A Combined Approach of Experiment and Theory. <i>ACS Applied Energy Materials</i> , 2021, 4, 3017-3032.	2.5	9
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1939	Theoretical Insights into the Limitation of Photocatalytic Overall Water Splitting Performance of VIA Group Elements Doped Polymeric Carbon Nitride: A Density Functional Theory Calculation Predicting Solar-to-Hydrogen Efficiency. <i>Solar Rrl</i> , 2021, 5, 2000630.	3.1	13
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1952	Importance of the oxyl character on the IrO ₂ surface dependent catalytic activity for the oxygen evolution reaction. <i>Journal of Catalysis</i> , 2021, 396, 192-201.	3.1	18
1953	Electrodeposited nanostructured flakes of cobalt, manganese and nickel-based sulfide (CoMnNiS) for electrocatalytic alkaline oxygen evolution reaction (OER). <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 12292-12307.	1.1	16
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1955	Superoxide Oxidation by a Thiolate-Ligated Iron Complex and Anion Inhibition. <i>Inorganic Chemistry</i> , 2021, 60, 7250-7261.	1.9	4
1956	One-Pot Synthesis of B/P-Codoped Co-Mo Dual-Nanowafer Electrocatalysts for Overall Water Splitting. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 20024-20033.	4.0	52
1957	3D Porous Ru-Doped NiCo-MOF Hollow Nanospheres for Boosting Oxygen Evolution Reaction Electrocatalysis. <i>Inorganic Chemistry</i> , 2021, 60, 5882-5889.	1.9	59
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1970	Fundamentals, On-Going Advances and Challenges of Electrochemical Carbon Dioxide Reduction. <i>Electrochemical Energy Reviews</i> , 2022, 5, 82-111.	13.1	17
1971	<i>In-Situ</i> Generated High-Valent Iron Single-Atom Catalyst for Efficient Oxygen Evolution. <i>Nano Letters</i> , 2021, 21, 4795-4801.	4.5	47
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1977	Progress and Perspectives in Photo- and Electrochemical Oxidation of Biomass for Sustainable Chemicals and Hydrogen Production. <i>Advanced Energy Materials</i> , 2021, 11, 2101180.	10.2	200
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1999	Impact of interfacial CoOOH on OER catalytic activities and electrochemical behaviors of bimetallic CoxNi-LDH nanosheet catalysts. <i>Electrochimica Acta</i> , 2021, 381, 138276.	2.6	53
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2006	Improved electrocatalytic water oxidation with cobalt hydroxide nano-flakes supported on copper-modified nickel foam. <i>Electrochimica Acta</i> , 2021, 383, 138368.	2.6	4
2007	Metal hydride mediated water splitting: Electrical energy saving and decoupled H ₂ /O ₂ generation. <i>Materials Today</i> , 2021, 47, 16-24.	8.3	13
2008	Layered Oxides SrLaFe _{1-x} Co _x O ₄ (x=0-1) as Bifunctional Electrocatalysts for Water Splitting. <i>ChemCatChem</i> , 2021, 13, 3510-3516.	1.8	18
2009	Principles of Water Electrolysis and Recent Progress in Cobalt-, Nickel-, and Iron-Based Oxides for the Oxygen Evolution Reaction. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	18
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2011	Experimental Verification of Ir 5d Orbital States and Atomic Structures in Highly Active Amorphous Iridium Oxide Catalysts. <i>ACS Catalysis</i> , 2021, 11, 10084-10094.	5.5	4
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2018	Electronic interaction boosted electrocatalysis of iridium nanoparticles on nitrogen-doped graphene for efficient overall water splitting in acidic and alkaline media. Chemical Engineering Journal, 2021, 415, 129034.	6.6	42
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2043	From NiMoO ₄ to $\hat{3}$ -NiOOH: Detecting the Active Catalyst Phase by Time Resolved <i>in Situ</i> and <i>Operando</i> Raman Spectroscopy. <i>ACS Nano</i> , 2021, 15, 13504-13515.	7.3	93
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2046	Low-crystalline transition metal oxide/hydroxide on MWCNT by Fenton-reaction-inspired green synthesis for lithium ion battery and OER electrocatalysis. <i>Electrochimica Acta</i> , 2021, 387, 138559.	2.6	19
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2068	Design of tin polyphosphate for hydrogen evolution reaction and supercapacitor applications. <i>Journal of the Korean Ceramic Society</i> , 2021, 58, 688-699.	1.1	9
2069	Modulation of electronic structure and oxygen vacancies of perovskites SrCoO _{3-δ} by sulfur doping enables highly active and stable oxygen evolution reaction. <i>Electrochimica Acta</i> , 2021, 390, 138872.	2.6	16

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2071	Commercial anion exchange membrane water electrolyzer stack through non-precious metal electrocatalysts. <i>Applied Catalysis B: Environmental</i> , 2021, 292, 120170.	10.8	59
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2081	Metal-substituted zirconium diboride (Zr _{1-x} TMB ₂ ; TM=Ni, Co, and Fe) as low-cost and high-performance bifunctional electrocatalyst for water splitting. <i>Electrochimica Acta</i> , 2021, 389, 138789.	2.6	22
2082	Ligand Functionalized Iron-Based Metal-Organic Frameworks for Efficient Electrocatalytic Oxygen Evolution. <i>ChemCatChem</i> , 2021, 13, 4976-4984.	1.8	10
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2084	Development of Various Photovoltaic-Driven Water Electrolysis Technologies for Green Solar Hydrogen Generation. <i>Solar Rrl</i> , 2022, 6, 2100479.	3.1	21
2085	C ₉ N ₄ as excellent dual electrocatalyst: A first principles study*. <i>Chinese Physics B</i> , 2021, 30, 096802.	0.7	0
2086	Multicomponent nonprecious hydrogen evolution catalysts for high performance and durable proton exchange membrane water electrolyzer. <i>Journal of Power Sources</i> , 2021, 506, 230200.	4.0	17
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2091	Realization of interstitial boron ordering and optimal near-surface electronic structure in Pd-B alloy electrocatalysts. <i>Chemical Engineering Journal</i> , 2021, 419, 129568.	6.6	23
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2094	The Role of Surface Curvature in Electrocatalysts. <i>Chemistry - A European Journal</i> , 2022, 28, .	1.7	9
2095	Phosphorized CoNi ₂ S ₄ Yolkâ€Shell Spheres for Highly Efficient Hydrogen Production via Water and Urea Electrolysis. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 22885-22891.	7.2	191
2096	Selectively Se-doped Co ₃ O ₄ @CeO ₂ nanoparticle-dotted nanoneedle arrays for high-efficiency overall water splitting. <i>Applied Surface Science</i> , 2021, 562, 150227.	3.1	89
2097	Porous N, P co-doped carbon-coated ultrafine Co ₂ P nanoparticles derived from DNA: An electrocatalyst for highly efficient hydrogen evolution reaction. <i>Electrochimica Acta</i> , 2021, 393, 139051.	2.6	17
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2101	Type-II vdW heterojunction SeGa ₂ Te/SeIn ₂ Se as a high-efficiency visible-light-driven water-splitting photocatalyst. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2021, 413, 127594.	0.9	9
2102	Enhanced electrocatalysis of NiMnIn Heusler alloy films for hydrogen evolution reaction by magnetic field. <i>Journal of Alloys and Compounds</i> , 2021, 877, 160271.	2.8	23
2103	The Roles of Composition and Mesostucture of Cobaltâ€Based Spinel Catalysts in Oxygen Evolution Reactions. <i>Chemistry - A European Journal</i> , 2021, 27, 17038-17048.	1.7	13
2104	Electrooxidation-enabled electroactive high-valence ferritic species in NiFe layered double hydroxide arrays as efficient oxygen evolution catalysts. <i>Journal of Colloid and Interface Science</i> , 2021, 599, 168-177.	5.0	14
2105	Iron-doped metal-organic framework with enhanced oxygen evolution reaction activity for overall water splitting. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 34565-34573.	3.8	9

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2107	Hollow and substrate-supported Prussian blue, its analogs, and their derivatives for green water splitting. <i>Chinese Journal of Catalysis</i> , 2021, 42, 1843-1864.	6.9	19
2108	Self-template synthesis of hollow Fe-doped CoP prisms with enhanced oxygen evolution reaction activity. <i>Journal of Energy Chemistry</i> , 2021, 62, 415-422.	7.1	60
2109	Cobalt nanorods decorated titanium oxide arrays as efficient and stable electrocatalyst for oxygen evolution reaction. <i>Electrochimica Acta</i> , 2021, 396, 139213.	2.6	9
2110	Porous MoWN/MoWC@N C Nano-octahedrons synthesized via confined carburization and vapor deposition in MOFs as efficient trifunctional electrocatalysts for oxygen reversible catalysis and hydrogen production in the same electrolyte. <i>Journal of Colloid and Interface Science</i> , 2021, 601, 626-639.	5.0	10
2111	Dual-defective Co ₃ O ₄ nanoarrays enrich target intermediates and promise high-efficient overall water splitting. <i>Chemical Engineering Journal</i> , 2021, 424, 130328.	6.6	52
2112	Coupled Sn/Mo ₂ C nanoparticles wrapped in carbon nanofibers by electrospinning as high-performance electrocatalyst for hydrogen evolution reaction. <i>Applied Surface Science</i> , 2021, 566, 150754.	3.1	22
2113	Severe plastic deformed Pd-based metallic glass for superior hydrogen evolution in both acidic and alkaline media. <i>Scripta Materialia</i> , 2021, 204, 114145.	2.6	14
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2115	Large-scale synthesis of low-cost bimetallic polyphthalocyanine for highly stable water oxidation. <i>Applied Catalysis B: Environmental</i> , 2021, 299, 120637.	10.8	39
2116	Three-dimensional petal-like graphene Co _{3.0} Cu _{1.0} metal organic framework for oxygen evolution reaction. <i>Journal of Alloys and Compounds</i> , 2021, 884, 161144.	2.8	15
2117	Hybrid heterojunction of molybdenum disulfide/single cobalt atoms anchored nitrogen, sulfur-doped carbon nanotube /cobalt disulfide with multiple active sites for highly efficient hydrogen evolution. <i>Applied Catalysis B: Environmental</i> , 2021, 298, 120630.	10.8	52
2118	Nanostructured NaFeS ₂ as a cost-effective and robust electrocatalyst for hydrogen and oxygen evolution with reduced overpotentials. <i>Chemical Engineering Journal</i> , 2021, 426, 131315.	6.6	20
2119	Self-optimizing iron phosphorus oxide for stable hydrogen evolution at high current. <i>Applied Catalysis B: Environmental</i> , 2021, 298, 120559.	10.8	14
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2121	High-valence Ni and Fe sites on sulfated NiFe-LDH nanosheets to enhance O-O coupling for water oxidation. <i>Chemical Engineering Journal</i> , 2021, 426, 130873.	6.6	70
2122	Hydrazine hydrate-assisted adjustment of sulfur-rich MoS ₂ as hydrogen evolution electrocatalyst. <i>Journal of Alloys and Compounds</i> , 2021, 885, 160990.	2.8	16
2123	Efficient preparation of Ni-M (M=Fe, Co, Mo) bimetallic oxides layer on Ni nanorod arrays for electrocatalytic oxygen evolution. <i>Applied Materials Today</i> , 2021, 25, 101185.	2.3	10

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2125	High valence state of Ni and Mo synergism in NiS ₂ -MoS ₂ hetero-nanorods catalyst with layered surface structure for urea electrocatalysis. <i>Journal of Energy Chemistry</i> , 2022, 66, 483-492.	7.1	158
2126	Understanding the activity and stability of flame-made Co ₃ O ₄ spinels: A route towards the scalable production of highly performing OER electrocatalysts. <i>Chemical Engineering Journal</i> , 2022, 429, 132180.	6.6	56
2127	Recent advances in non-metal doped titania for solar-driven photocatalytic/photoelectrochemical water-splitting. <i>Journal of Energy Chemistry</i> , 2022, 66, 529-559.	7.1	70
2128	Advanced hydrogen evolution electrocatalysis enabled by ruthenium phosphide with tailored hydrogen binding strength via interfacial electronic interaction. <i>Chemical Engineering Journal</i> , 2022, 429, 132557.	6.6	26
2129	Mixed-ligand-devised anionic MOF with divergent open Co(II)-nodes as chemo-resistant, bi-functional material for electrochemical water oxidation and mild-condition tandem CO ₂ fixation. <i>Chemical Engineering Journal</i> , 2022, 429, 132301.	6.6	51
2130	Sustainable nitrogen fixation over Ru single atoms decorated Cu ₂ O using electrons produced from photoelectrocatalytic organics degradation. <i>Chemical Engineering Journal</i> , 2022, 428, 130373.	6.6	9
2131	Electronic wastes: A near inexhaustible and an unimaginably wealthy resource for water splitting electrocatalysts. <i>Journal of Hazardous Materials</i> , 2022, 421, 126687.	6.5	18
2132	One-pot hydrothermal approach towards 2D/2D heterostructure based on 1T MoS ₂ chemically bonding with GO for extremely high electrocatalytic performance. <i>Chemical Engineering Journal</i> , 2022, 428, 132072.	6.6	22
2133	Boron substitution enhanced activity of B _x Ga _{1-x} As/GaAs photocatalyst for water splitting. <i>Applied Catalysis B: Environmental</i> , 2022, 300, 120690.	10.8	4
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2135	Dealloyed RuNiO _x as a robust electrocatalyst for the oxygen evolution reaction in acidic media. <i>Dalton Transactions</i> , 2021, 50, 5124-5127.	1.6	6
2136	In situ formation of highly exposed NiPS ₃ nanosheets on nickel foam as an efficient 3D electrocatalyst for overall water splitting. <i>Sustainable Energy and Fuels</i> , 2021, 5, 2537-2544.	2.5	8
2137	Surface morphology controls water dissociation on hydrated IrO ₂ nanoparticles. <i>Nanoscale</i> , 2021, 13, 14480-14489.	2.8	8
2138	A self-supported FeNi layered double hydroxide anode with high activity and long-term stability for efficient oxygen evolution reaction. <i>Sustainable Energy and Fuels</i> , 2021, 5, 3205-3212.	2.5	3
2139	Tuning and understanding the electronic effect of Co-Mo-O sites in bifunctional electrocatalysts for ultralong-lasting rechargeable zinc-air batteries. <i>Journal of Materials Chemistry A</i> , 2021, 9, 21716-21722.	5.2	16
2140	Oxygen evolution catalysts under proton exchange membrane conditions in a conventional three electrode cell vs. electrolyser device: a comparison study and a 3D-printed electrolyser for academic labs. <i>Journal of Materials Chemistry A</i> , 2021, 9, 9113-9123.	5.2	24
2141	Boosting OER performance of IrO ₂ in acid via urchin-like hierarchical-structure design. <i>Dalton Transactions</i> , 2021, 50, 6083-6087.	1.6	18

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#	ARTICLE	IF	CITATIONS
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