

Universality in Oxygen Evolution Electrocatalysis on O

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Citation Report

#	ARTICLE	IF	CITATIONS
13	Density functional studies of functionalized graphitic materials with late transition metals for oxygen reduction reactions. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 15639.	1.3	454
14	Electrical conductivity in Li ₂ O ₂ and its role in determining capacity limitations in non-aqueous Li-O ₂ batteries. <i>Journal of Chemical Physics</i> , 2011, 135, 214704.	1.2	502
15	Optimizing Perovskites for the Water-Splitting Reaction. <i>Science</i> , 2011, 334, 1355-1356.	6.0	349
16	A Perovskite Oxide Optimized for Oxygen Evolution Catalysis from Molecular Orbital Principles. <i>Science</i> , 2011, 334, 1383-1385.	6.0	4,230
17	Trends in oxygen reduction and methanol activation on transition metal chalcogenides. <i>Electrochimica Acta</i> , 2011, 56, 9783-9788.	2.6	53
18	Tailoring the Activity for Oxygen Evolution Electrocatalysis on Rutile TiO ₂ (110) by Transition-Metal Substitution. <i>ChemCatChem</i> , 2011, 3, 1607-1611.	1.8	169
19	Tailoring the electronic structure of graphene for catalytic and nanoelectronic applications. , 2011, , .		0
20	3.3 Fuel Cells. , 2012, , 163-184.		2
21	Nanocomposite stability in Fe-, Co-, and Mn-based perovskite/spinel systems. <i>Journal of Materials Research</i> , 2012, 27, 1462-1470.	1.2	14
22	Searching for active binary rutile oxide catalyst for water splitting from first principles. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 16612.	1.3	22
23	First-principles computational electrochemistry: Achievements and challenges. <i>Electrochimica Acta</i> , 2012, 84, 3-11.	2.6	180
24	Effect of the Support on the Photocatalytic Water Oxidation Activity of Cobalt Oxide Nanoclusters. <i>ACS Catalysis</i> , 2012, 2, 2753-2760.	5.5	91
25	Advanced alkaline water electrolysis. <i>Electrochimica Acta</i> , 2012, 82, 384-391.	2.6	430
27	Design of an Active Site towards Optimal Electrocatalysis: Overlayers, Surface Alloys and Near-Surface Alloys of Cu/Pt(111). <i>Angewandte Chemie - International Edition</i> , 2012, 51, 11845-11848.	7.2	94
28	Toward solar fuels: Water splitting with sunlight and "rust". <i>Coordination Chemistry Reviews</i> , 2012, 256, 2521-2529.	9.5	209
29	Importance of Correlation in Determining Electrocatalytic Oxygen Evolution Activity on Cobalt Oxides. <i>Journal of Physical Chemistry C</i> , 2012, 116, 21077-21082.	1.5	305
30	First-Principles Structural and Electronic Characterization of Ordered SiO ₂ Nanowires. <i>Journal of Physical Chemistry C</i> , 2012, 116, 18973-18982.	1.5	22
31	Unifying the 2e ⁻ and 4e ⁻ Reduction of Oxygen on Metal Surfaces. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 2948-2951.	2.1	276

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33	Alignment of electronic energy levels at electrochemical interfaces. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 11245.	1.3	233
34	Identifying active surface phases for metal oxide electrocatalysts: a study of manganese oxide bi-functional catalysts for oxygen reduction and water oxidation catalysis. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 14010.	1.3	332
35	Electrocatalytic Oxygen Evolution Reaction (OER) on Ru, Ir, and Pt Catalysts: A Comparative Study of Nanoparticles and Bulk Materials. <i>ACS Catalysis</i> , 2012, 2, 1765-1772.	5.5	2,019
36	Preparation of Inorganic Photocatalytic Materials for Overall Water Splitting. <i>ChemCatChem</i> , 2012, 4, 1485-1497.	1.8	92
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38	Water Adsorption and Oxidation at the Co ₃ O ₄ (110) Surface. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 2808-2814.	2.1	97
39	Synthesis and evaluation of ATO as a support for Pt-IrO ₂ in a unitized regenerative fuel cell. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 13522-13528.	3.8	51
40	Influence of Oxygen Evolution during Water Oxidation on the Surface of Perovskite Oxide Catalysts. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 3264-3270.	2.1	562
41	The road from animal electricity to green energy: combining experiment and theory in electrocatalysis. <i>Energy and Environmental Science</i> , 2012, 5, 9246.	15.6	224
42	Solution-Cast Metal Oxide Thin Film Electrocatalysts for Oxygen Evolution. <i>Journal of the American Chemical Society</i> , 2012, 134, 17253-17261.	6.6	1,403
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48	Wateroxidation catalysed by manganese compounds: from complexes to “biomimetic rocks”™. <i>Dalton Transactions</i> , 2012, 41, 21-31.	1.6	177
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51	Trends in activity for the water electrolyser reactions on 3d M(Ni,Co,Fe,Mn) hydr(oxy)oxide catalysts. <i>Nature Materials</i> , 2012, 11, 550-557.	13.3	2,423
52	In Situ Electrochemical Electron Microscopy Study of Oxygen Evolution Activity of Doped Manganite Perovskites. <i>Advanced Functional Materials</i> , 2012, 22, 3378-3388.	7.8	79
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64	Active copper delafossite anode for oxygen evolution reaction. <i>Electrochemistry Communications</i> , 2013, 35, 142-145.	2.3	26
65	Oxygen Reduction Activity on Perovskite Oxide Surfaces: A Comparative First-Principles Study of LaMnO ₃ , LaFeO ₃ , and LaCrO ₃ . <i>Journal of Physical Chemistry C</i> , 2013, 117, 2106-2112.	1.5	140
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75	Mechanistic Studies of the Oxygen Evolution Reaction Mediated by a Nickel-Borate Thin Film Electrocatalyst. <i>Journal of the American Chemical Society</i> , 2013, 135, 3662-3674.	6.6	430
76	Electrochemical water splitting by gold: evidence for an oxide decomposition mechanism. <i>Chemical Science</i> , 2013, 4, 2334.	3.7	229
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78	Ordered Mesoporous Cobalt Oxide as Highly Efficient Oxygen Evolution Catalyst. <i>Journal of the American Chemical Society</i> , 2013, 135, 4516-4521.	6.6	378
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80	Highly Active, Nonprecious Metal Perovskite Electrocatalysts for Bifunctional Metal-Air Battery Electrodes. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 1254-1259.	2.1	294
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95	Some reflections on the understanding of the oxygen reduction reaction at Pt(111). <i>Beilstein Journal of Nanotechnology</i> , 2013, 4, 956-967.	1.5	65
96	Trends in the Adsorption and Dissociation of Water Clusters on Flat and Stepped Metallic Surfaces. <i>Journal of Physical Chemistry C</i> , 2014, 118, 29990-29998.	1.5	27
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146	Density-Functional-Theory Calculation Analysis of Active Sites for Four-Electron Reduction of O ₂ on Fe/N-Doped Graphene. ACS Catalysis, 2014, 4, 4170-4177.	5.5	215
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1202	Cooperativity in Bimetallic SACs: An Efficient Strategy for Designing Bifunctional Catalysts for Overall Water Splitting. <i>Journal of Physical Chemistry C</i> , 2019, 123, 30972-30980.	1.5	30
1203	The role of metastability in enhancing water-oxidation activity. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 24354-24360.	1.3	10
1204	Revealing Ni-based layered double hydroxides as high-efficiency electrocatalysts for the oxygen evolution reaction: a DFT study. <i>Journal of Materials Chemistry A</i> , 2019, 7, 23091-23097.	5.2	75
1205	Single nickel atom supported on hybridized grapheneâ€“boron nitride nanosheet as a highly active bi-functional electrocatalyst for hydrogen and oxygen evolution reactions. <i>Journal of Materials Chemistry A</i> , 2019, 7, 26261-26265.	5.2	44
1206	Hierarchical porous N-P-coupled carbons as metal-free bifunctional electro-catalysts for oxygen conversion. <i>Applied Surface Science</i> , 2019, 464, 380-387.	3.1	49
1207	Selective Partial Substitution of Bâ€“Site with Phosphorus in Perovskite Electrocatalysts for Highly Efficient Oxygen Evolution Reaction. <i>ChemNanoMat</i> , 2019, 5, 352-357.	1.5	8
1208	Simply tuned and sustainable cobalt oxide decorated titania nanotubes for photoelectrochemical water splitting. <i>Applied Surface Science</i> , 2019, 464, 68-77.	3.1	16
1209	Prediction of Stable and Active (Oxy-Hydro) Oxide Nanoislands on Noble-Metal Supports for Electrochemical Oxygen Reduction Reaction. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 2006-2013.	4.0	24
1210	First insight on Mo(II) as electrocatalytically active species for oxygen evolution reaction. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 1345-1351.	3.8	33
1211	Quantifying robustness of DFT predicted pathways and activity determining elementary steps for electrochemical reactions. <i>Journal of Chemical Physics</i> , 2019, 150, 041717.	1.2	14
1212	Evolution of Oxygenâ€“Metal Electron Transfer and Metal Electronic States During Manganese Oxide Catalyzed Water Oxidation Revealed with Inâ€“Situ Soft Xâ€“Ray Spectroscopy. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 3426-3432.	7.2	52
1213	Computational Electrochemistry of Water Oxidation on Metalâ€“Doped and Metalâ€“Supported Defective hâ€“BN. <i>ChemSusChem</i> , 2019, 12, 1995-2007.	3.6	12
1214	Alveolate porous carbon aerogels supported Co ₉ S ₈ derived from a novel hybrid hydrogel for bifunctional oxygen electrocatalysis. <i>Carbon</i> , 2019, 144, 557-566.	5.4	177
1215	Tuning the Electronic Structure of NiO via Li Doping for the Fast Oxygen Evolution Reaction. <i>Chemistry of Materials</i> , 2019, 31, 419-428.	3.2	78
1216	Bimetallic Pd/Co Embedded in Two-Dimensional Carbon-Nitride for Z-Scheme Photocatalytic Water Splitting. <i>Journal of Physical Chemistry C</i> , 2019, 123, 1846-1851.	1.5	10
1217	Assessing Correlations of Perovskite Catalytic Performance with Electronic Structure Descriptors. <i>Chemistry of Materials</i> , 2019, 31, 785-797.	3.2	106
1218	Controlled Leaching Derived Synthesis of Atomically Dispersed/Clustered Gold on Mesoporous Cobalt Oxide for Enhanced Oxygen Evolution Reaction Activity. <i>Small Methods</i> , 2019, 3, 1800293.	4.6	18

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1221	Challenges in Modeling Electrochemical Reaction Energetics with Polarizable Continuum Models. <i>ACS Catalysis</i> , 2019, 9, 920-931.	5.5	153
1222	A hydrated amorphous iron oxide nanoparticle as active water oxidation catalyst. <i>Chinese Journal of Catalysis</i> , 2019, 40, 38-42.	6.9	14
1223	A Supramolecular Coordinationâ€‘Polymerâ€‘Derived Electrocatalyst for the Oxygen Evolution Reaction. <i>Chemistry - A European Journal</i> , 2019, 25, 4036-4039.	1.7	30
1224	Kinetics-Based Computational Catalyst Design Strategy for the Oxygen Evolution Reaction on Transition-Metal Oxide Surfaces. <i>Journal of Physical Chemistry C</i> , 2019, 123, 8287-8303.	1.5	6
1225	Recent advances in transition metalâ€‘based catalysts with heterointerfaces for energy conversion and storage. <i>Materials Today Chemistry</i> , 2019, 11, 16-28.	1.7	72
1226	MoS ₂ /NiS Yolkâ€‘Shell Microsphereâ€‘Based Electrodes for Overall Water Splitting and Asymmetric Supercapacitor. <i>Small</i> , 2019, 15, e1803639.	5.2	229
1227	Nobleâ€‘Metalâ€‘Free Electrocatalysts for Oxygen Evolution. <i>Small</i> , 2019, 15, e1804201.	5.2	388
1228	Ni(II)-Dimeric Complex-Derived Nitrogen-Doped Graphitized Carbon-Encapsulated Nickel Nanoparticles: Efficient Trifunctional Electrocatalyst for Oxygen Reduction Reaction, Oxygen Evolution Reaction, and Hydrogen Evolution Reaction. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 2187-2199.	3.2	52
1229	Grapheneâ€‘carbon nanotube hybrid catalyst layer architecture for reversible oxygen electrodes in rechargeable metalâ€‘air batteries. <i>Journal of Applied Electrochemistry</i> , 2019, 49, 281-290.	1.5	7
1230	Partially Dissociated Water Dimers at the Waterâ€‘Hematite Interface. <i>ACS Energy Letters</i> , 2019, 4, 390-396.	8.8	32
1231	Tracking Structural Selfâ€‘Reconstruction and Identifying True Active Sites toward Cobalt Oxide Precatalyst of Oxygen Evolution Reaction. <i>Advanced Materials</i> , 2019, 31, e1805127.	11.1	211
1232	Transitionâ€‘Metal Single Atoms Anchored on Graphdiyne as Highâ€‘Efficiency Electrocatalysts for Water Splitting and Oxygen Reduction. <i>Small Methods</i> , 2019, 3, 1800419.	4.6	192
1233	Surface modification of CuO nanoflake with Co ₃ O ₄ nanowire for oxygen evolution reaction and electrocatalytic reduction of CO ₂ in water to syngas. <i>Electrochimica Acta</i> , 2019, 299, 281-288.	2.6	26
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1235	Oneâ€‘Step Synthesis of NiMnâ€‘Layered Double Hydroxide Nanosheets Efficient for Water Oxidation. <i>Small Methods</i> , 2019, 3, 1800344.	4.6	67
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1261	Systematic computational investigation of an Ni ₃ Fe catalyst for the OER. <i>Catalysis Today</i> , 2020, 345, 220-226.	2.2	9
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1266	Computational screening of transition metal-doped phthalocyanine monolayers for oxygen evolution and reduction. <i>Nanoscale Advances</i> , 2020, 2, 710-716.	2.2	30
1267	Ruthenium-Doped Cobalt-Chromium Layered Double Hydroxides for Enhancing Oxygen Evolution through Regulating Charge Transfer. <i>Small</i> , 2020, 16, e1905328.	5.2	80
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1269	Charge-compensated co-doping of graphdiyne with boron and nitrogen to form metal-free electrocatalysts for the oxygen reduction reaction. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 1493-1501.	1.3	32
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1274	Electronic modulation of cobalt phosphide nanosheet arrays via copper doping for highly efficient neutral-pH overall water splitting. <i>Applied Catalysis B: Environmental</i> , 2020, 265, 118555.	10.8	172
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1277	Suitability of Different Sr ₂ TaO ₃ N Surface Orientations for Photocatalytic Water Oxidation. <i>Chemistry of Materials</i> , 2020, 32, 75-84.	3.2	9
1278	Boosted Oxygen Evolution Reactivity by Igniting Double Exchange Interaction in Spinel Oxides. <i>Journal of the American Chemical Society</i> , 2020, 142, 50-54.	6.6	199
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1280	Pyrite-type cobalt phosphosulphide bifunctional catalyst for aqueous and gel-based rechargeable zinc-air batteries. <i>Journal of Power Sources</i> , 2020, 450, 227661.	4.0	23
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1331	Two-dimensional Noble Metal Nanomaterials for Electrocatalysis. <i>Chemical Research in Chinese Universities</i> , 2020, 36, 597-610.	1.3	11
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1581	Recent progress of precious-metal-free electrocatalysts for efficient water oxidation in acidic media. <i>Journal of Energy Chemistry</i> , 2020, 51, 113-133.	7.1	66
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1595	Recent Advances in 1D Electrospun Nanocatalysts for Electrochemical Water Splitting. <i>Small Structures</i> , 2021, 2, 2000048.	6.9	157
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1924	Main Descriptors To Correlate Structures with the Performances of Electrocatalysts. Angewandte Chemie - International Edition, 2022, 61, .	7.2	25

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1927	A general review on the thiospinels and their energy applications. <i>Materials Today Energy</i> , 2021, 21, 100822.	2.5	9
1928	Self-Supported Electrocatalysts for Practical Water Electrolysis. <i>Advanced Energy Materials</i> , 2021, 11, 2102074.	10.2	161
1929	Strain effect on oxygen evolution reaction of the SrTiO ₃ (0 0 1) surface. <i>Applied Physics Letters</i> , 2021, 119, .	1.5	4
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1934	Water-Assisted Chemical Route Towards the Oxygen Evolution Reaction at the Hydrated (110) Ruthenium Oxide Surface: Heterogeneous Catalysis via DFT-MD and Metadynamics Simulations. <i>Chemistry - A European Journal</i> , 2021, 27, 17024-17037.	1.7	4
1935	Activation of Transition Metal (Fe, Co and Ni)-Oxide Nanoclusters by Nitrogen Defects in Carbon Nanotube for Selective CO ₂ Reduction Reaction. <i>Energy and Environmental Materials</i> , 2023, 6, .	7.3	16
1936	Restructuring highly electron-deficient metal-metal oxides for boosting stability in acidic oxygen evolution reaction. <i>Nature Communications</i> , 2021, 12, 5676.	5.8	92
1937	Bimetallic Cu [~] Co [~] Se Nanotube Arrays Assembled on 3D Framework: an Efficient Bifunctional Electrocatalyst for Overall Water Splitting. <i>ChemSusChem</i> , 2021, 14, 5065-5074.	3.6	13
1938	NiCo-Based Electrocatalysts for the Alkaline Oxygen Evolution Reaction: A Review. <i>ACS Catalysis</i> , 2021, 11, 12485-12509.	5.5	204
1939	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
1940	Graphdiyne in-situ thermal reduction enabled ultra-small quasi-core/shell Ru-RuO ₂ heterostructures for efficient acidic water oxidation. <i>2D Materials</i> , 2021, 8, 044011.	2.0	8
1941	Steering the selectivity in CO ₂ reduction on highly active Ru/TiO ₂ catalysts: Support particle size effects. <i>Journal of Catalysis</i> , 2021, 401, 160-173.	3.1	25
1942	C ₉ N ₄ as excellent dual electrocatalyst: A first principles study*. <i>Chinese Physics B</i> , 2021, 30, 096802.	0.7	0

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1944	Main Descriptors To Correlate Structures with the Performances of Electrocatalysts. Angewandte Chemie, 2022, 134, .	1.6	5
1945	Atomic Cation Vacancy Engineering of NiFe Layered Double Hydroxides for Improved Activity and Stability towards the Oxygen Evolution Reaction. Angewandte Chemie - International Edition, 2021, 60, 24612-24619.	7.2	259
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1950	Non-precious electrocatalysts for oxygen evolution reaction in anion exchange membrane water electrolysis: A mini review. Electrochemistry Communications, 2021, 131, 107118.	2.3	46
1951	CO ₂ activation at Au(110)–water interfaces: An <i>ab initio</i> molecular dynamics study. Journal of Chemical Physics, 2021, 155, 134703.	1.2	13
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1955	Nano-engineering of Ru-based hierarchical porous nanoreactors for highly efficient pH-universal overall water splitting. Applied Catalysis B: Environmental, 2021, 294, 120230.	10.8	49
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1959	Transition-metal alloy electrocatalysts with active sites modulated by metal-carbide heterophases for efficient oxygen evolution. Nano Energy, 2021, 88, 106216.	8.2	38
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1962	Lattice strain and atomic replacement of CoO ₆ octahedra in layered sodium cobalt oxide for boosted water oxidation electrocatalysis. <i>Applied Catalysis B: Environmental</i> , 2021, 297, 120477.	10.8	30
1963	Cobalt tetrakisphosphate as an efficient bifunctional electrocatalyst for hybrid sodium-air batteries. <i>Nano Energy</i> , 2021, 89, 106485.	8.2	11
1964	Tuning electronic structure of CoNi LDHs via surface Fe doping for achieving effective oxygen evolution reaction. <i>Applied Surface Science</i> , 2021, 565, 150506.	3.1	35
1965	Recent progress on transition metal oxides as advanced materials for energy conversion and storage. <i>Energy Storage Materials</i> , 2021, 42, 317-369.	9.5	113
1966	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
1967	Addressing electrocatalytic activity and stability of LnBaCo ₂ O ₅₊ perovskites for hydrogen evolution reaction by structural and electronic features. <i>Applied Catalysis B: Environmental</i> , 2021, 297, 120403.	10.8	30
1968	Transition metal single-atom anchored g-CN monolayer for constructing high-activity multifunctional electrocatalyst. <i>Applied Surface Science</i> , 2021, 565, 150547.	3.1	28
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1972	V ₂ C MXene synergistically coupling FeNi LDH nanosheets for boosting oxygen evolution reaction. <i>Applied Catalysis B: Environmental</i> , 2021, 297, 120474.	10.8	106
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1974	Eutectic molten salt assisted synthesis of highly defective and flexible ruthenium oxide for efficient overall water splitting. <i>Chemical Engineering Journal</i> , 2021, 425, 131707.	6.6	11
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1976	Inter-doped ruthenium-nickel oxide heterostructure nanosheets with dual active centers for electrochemical-/solar-driven overall water splitting. <i>Applied Catalysis B: Environmental</i> , 2021, 298, 120611.	10.8	55
1977	Defect enriched hierarchical iron promoted Bi ₂ MoO ₆ hollow spheres as efficient electrocatalyst for water oxidation. <i>Chemical Engineering Journal</i> , 2021, 426, 131884.	6.6	16
1978	Review of electrochemical oxidation desulfurization for fuels and minerals. <i>Fuel</i> , 2021, 305, 121562.	3.4	30

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1980	Tuning electrochemical transformation process of zeolitic imidazolate framework for efficient water oxidation activity. <i>Journal of Energy Chemistry</i> , 2022, 65, 505-513.	7.1	23
1981	Nitridation-induced metal-organic framework nanosheet for enhanced water oxidation electrocatalysis. <i>Journal of Energy Chemistry</i> , 2022, 64, 531-537.	7.1	23
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1984	Progress in the development of heteroatom-doped nickel phosphates for electrocatalytic water splitting. <i>Journal of Colloid and Interface Science</i> , 2022, 607, 1091-1102.	5.0	76
1985	Optimization strategies on the advanced engineering of Co-based nanomaterials for electrochemical oxygen evolution. <i>Journal of Alloys and Compounds</i> , 2022, 890, 161929.	2.8	12
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1987	One stone two birds: Vanadium doping as dual roles in self-reduced Pt clusters and accelerated water splitting. <i>Journal of Energy Chemistry</i> , 2022, 66, 493-501.	7.1	35
1988	Co/Co ₃ O ₄ nanoparticles embedded into thin O-doped graphitic layer as bifunctional oxygen electrocatalysts for Zn-air batteries. <i>Chemical Engineering Journal</i> , 2022, 427, 130931.	6.6	25
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1991	Activity and Stability of Oxides During Oxygen Evolution Reaction: From Mechanistic Controversies Toward Relevant Electrocatalytic Descriptors. <i>Frontiers in Energy Research</i> , 2021, 8, .	1.2	45
1992	Oxygen vacancy enriched NiMoO ₄ nanorods via microwave heating: a promising highly stable electrocatalyst for total water splitting. <i>Journal of Materials Chemistry A</i> , 2021, 9, 11691-11704.	5.2	65
1993	Controllable synthesis of single-layer graphene over cobalt nanoparticles and insight into active sites for efficient oxygen evolution. <i>Journal of Materials Chemistry A</i> , 2021, 9, 12060-12073.	5.2	9
1994	Bifunctional electrocatalysts for oxygen reduction and oxygen evolution: a theoretical study on 2D metallic WO ₂ -supported single atom (Fe, Co, or Ni) catalysts. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 13687-13695.	1.3	11
1995	Electrocatalysis using nanomaterials. <i>Frontiers of Nanoscience</i> , 2021, 18, 343-420.	0.3	2
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1999	Gd-induced electronic structure engineering of a NiFe-layered double hydroxide for efficient oxygen evolution. <i>Journal of Materials Chemistry A</i> , 2021, 9, 2999-3006.	5.2	133
2000	Rational catalyst design for oxygen evolution under acidic conditions: strategies toward enhanced electrocatalytic performance. <i>Journal of Materials Chemistry A</i> , 2021, 9, 5890-5914.	5.2	65
2001	Climbing with support: scaling the volcano relationship through support-electrocatalyst interactions in electrodeposited RuO ₂ for the oxygen evolution reaction. <i>Catalysis Science and Technology</i> , 2021, 11, 4342-4352.	2.1	3
2002	Transition metal-based bimetallic MOFs and MOF-derived catalysts for electrochemical oxygen evolution reaction. <i>Energy and Environmental Science</i> , 2021, 14, 1897-1927.	15.6	415
2003	Potential SiX (X = N, P, As, Sb, Bi) homo-bilayers for visible-light photocatalyst applications. <i>Catalysis Science and Technology</i> , 2021, 11, 4996-5013.	2.1	18
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2006	Designing an efficient bifunctional electrocatalyst heterostructure. <i>Chemical Communications</i> , 2021, 57, 9426-9429.	2.2	8
2007	Electrocatalytic CO ₂ Reduction Activity Over Transition Metal Anchored on Nitrogen-Doped Carbon: A Density Functional Theory Investigation. <i>Catalysis Letters</i> , 2021, 151, 2547-2559.	1.4	3
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2011	Perspective on High-Rate Alkaline Water Splitting. , 2021, 3, 224-234.		136
2012	Active Phase on SrCo _{1-x} Fe _x O _{3-δ} (0 ≤ x ≤ 0.5) Perovskite for Water Oxidation: Reconstructed Surface versus Remaining Bulk. <i>Jacs Au</i> , 2021, 1, 108-115.	3.6	47
2013	Adsorption energy as a promising single-parameter descriptor for single atom catalysis in the oxygen evolution reaction. <i>Journal of Materials Chemistry A</i> , 2021, 9, 6442-6450.	5.2	18
2015	Edge Sites with Unsaturated Coordination on Core-Shell Mn ₃ O ₄ @Mn _x Co _{3-x} O ₄ Nanostructures for Electrocatalytic Water Oxidation. <i>Advanced Materials</i> , 2017, 29, 1701820.		115

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2017	First-Principles Computational Screening of Dopants to Improve the Deacon Process over RuO ₂ . <i>ChemCatChem</i> , 2018, 10, 465-469.	1.8	11
2018	Recent Advances in Non-Precious Metal-Based Electrodes for Alkaline Water Electrolysis. <i>ChemNanoMat</i> , 2020, 6, 336-355.	1.5	92
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2020	Cathode Electrochemistry in Nonaqueous Lithium Air Batteries. , 2014, , 59-120.		14
2021	Perovskite Materials in Electrocatalysis. <i>Materials Horizons</i> , 2020, , 209-250.	0.3	4
2022	Single-phase Ru ¹⁺ Mn Co O ₂ nanoparticles as highly effective oxygen reduction electrocatalysts in alkaline media with enhanced stability and fuel-tolerance. <i>Applied Catalysis B: Environmental</i> , 2020, 277, 119149.	10.8	13
2023	Na ⁺ -induced in situ reconstitution of metal phosphate enabling efficient electrochemical water oxidation in neutral and alkaline media. <i>Chemical Engineering Journal</i> , 2020, 398, 125537.	6.6	17
2024	Catalyst Engineering for Electrochemical Energy Conversion from Water to Water: Water Electrolysis and the Hydrogen Fuel Cell. <i>Engineering</i> , 2020, 6, 653-679.	3.2	75
2025	Lanthanide-regulated oxygen evolution activity of face-sharing IrO ₆ dimers in 6H-perovskite electrocatalysts. <i>Chinese Journal of Catalysis</i> , 2020, 41, 1692-1697.	6.9	18
2026	The possible implications of magnetic field effect on understanding the reactant of water splitting. <i>Chinese Journal of Catalysis</i> , 2022, 43, 148-157.	6.9	31
2027	Reviving Inert Oxides for Electrochemical Water Splitting by Subsurface Engineering. <i>Chemistry of Materials</i> , 2020, 32, 5569-5578.	3.2	11
2028	<i>Operando</i> XAS Study of the Surface Oxidation State on a Monolayer IrO _x on RuO _x and Ru Oxide Based Nanoparticles for Oxygen Evolution in Acidic Media. <i>Journal of Physical Chemistry B</i> , 2018, 122, 878-887.	1.2	59
2029	Lithium Peroxide Growth in Li-O ₂ Batteries via Chemical Disproportionation and Electrochemical Mechanisms: A Potential-Dependent Ab Initio Study with Implicit Solvation. <i>Journal of Physical Chemistry C</i> , 2021, 125, 436-445.	1.5	8
2030	Stress-Induced Electronic Structure Modulation of Manganese-Incorporated Ni ₂ P Leading to Enhanced Activity for Water Splitting. <i>ACS Applied Energy Materials</i> , 2020, 3, 1271-1278.	2.5	24
2031	Heteroatom Modification of Nanoporous Nickel Surfaces for Electrocatalytic Water Splitting. <i>ACS Applied Nano Materials</i> , 2020, 3, 11298-11306.	2.4	11
2032	Data-Driven Descriptor Engineering and Refined Scaling Relations for Predicting Transition Metal Oxide Reactivity. <i>ACS Catalysis</i> , 2021, 11, 734-742.	5.5	52
2033	Charge-transfer-energy-dependent oxygen evolution reaction mechanisms for perovskite oxides. <i>Energy and Environmental Science</i> , 2017, 10, 2190-2200.	15.6	401

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2035	Why does NiOOH cocatalyst increase the oxygen evolution activity of γ -Fe ₂ O ₃ ? <i>Journal of Chemical Physics</i> , 2019, 150, 041729.	1.2	19
2036	Generalized scaling relationships on transition metals: Influence of adsorbate-coadsorbate interactions. <i>Physical Review Materials</i> , 2018, 2, .	0.9	8
2037	Predicting the Catalytic Activity of Surface Oxidation Reactions by Ionization Energies. <i>CCS Chemistry</i> , 2020, 2, 262-270.	4.6	14
2038	Recent Progress in First Principle Calculation and High-Throughput Screening of Electrocatalysts: A Review. <i>Journal of Korean Institute of Metals and Materials</i> , 2019, 57, 1-9.	0.4	7
2039	Investigation of LiO ₂ Adsorption on LaB _{1-x} B _{2x} O ₃ (001) for Li-Air Battery Applications: A Density Functional Theory Study. <i>Journal of the Korean Ceramic Society</i> , 2016, 53, 306-311.	1.1	2
2040	Water Oxidation Mechanism for 3d Transition Metal Oxide Catalysts under Neutral Condition. <i>Journal of the Korean Ceramic Society</i> , 2017, 54, 1-8.	1.1	24
2041	Applications of Scanning Electrochemical Microscopy (SECM) Coupled to Atomic Force Microscopy with Sub-Micrometer Spatial Resolution to the Development and Discovery of Electrocatalysts. <i>Journal of Electrochemical Science and Technology</i> , 2016, 7, 316-326.	0.9	3
2042	Stabilizing oxygen intermediates on redox-flexible active sites in multimetallic Ni-Fe-Al-Co layered double hydroxide anodes for excellent alkaline and seawater electrolysis. <i>Journal of Materials Chemistry A</i> , 2021, 9, 27332-27346.	5.2	33
2043	Progress in theoretical and experimental investigation on seawater electrolysis: opportunities and challenges. <i>Sustainable Energy and Fuels</i> , 2021, 5, 5915-5945.	2.5	37
2044	Intermetallic compounds M ₂ Pt (M = Al, Ga, In, Sn) in the oxygen evolution reaction. <i>Sustainable Energy and Fuels</i> , 2021, 5, 5762-5772.	2.5	7
2045	Design principles of noble metal-free electrocatalysts for hydrogen production in alkaline media: combining theory and experiment. <i>Nanoscale Advances</i> , 2021, 3, 6797-6826.	2.2	23
2046	Direct evidence of cobalt oxyhydroxide formation on a La _{0.2} Sr _{0.8} Co ₃ perovskite water splitting catalyst. <i>Journal of Materials Chemistry A</i> , 2022, 10, 2434-2444.	5.2	12
2047	Flexibility Enhances Reactivity: Redox Isomerism and Jahn-Teller Effects in a Bioinspired Mn ₄ O ₄ Cubane Water Oxidation Catalyst. <i>ACS Catalysis</i> , 2021, 11, 13320-13329.	5.5	12
2048	Research Progress of Oxygen Evolution Reaction Catalysts for Electrochemical Water Splitting. <i>ChemSusChem</i> , 2021, 14, 5359-5383.	3.6	70
2049	Ultrafine CoPt ₃ nanoparticles encapsulated in nitrogen-doped carbon nanospheres for efficient water electrolysis. <i>Electrochemical Science Advances</i> , 2022, 2, e2100082.	1.2	0
2050	Photocatalytic Z-scheme Overall Water Splitting: Recent Advances in Theory and Experiments. <i>Advanced Materials</i> , 2021, 33, e2105195.	11.1	123
2051	Emerging Electrocatalysts for Water Oxidation under Near-Neutral CO ₂ Reduction Conditions. <i>Advanced Materials</i> , 2022, 34, e2105852.	11.1	34

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2054	Recent advances in Ni-Fe (Oxy)hydroxide electrocatalysts for the oxygen evolution reaction in alkaline electrolyte targeting industrial applications. <i>Nano Select</i> , 2022, 3, 766-791.	1.9	16
2055	Cobalt-Based Electrocatalysts as Air Cathodes in Rechargeable Zn-Air Batteries: Advances and Challenges. <i>Small Structures</i> , 2021, 2, 2100144.	6.9	40
2056	Efficient Alkaline Water Oxidation with a Regenerable Nickel Pseudo-Complex. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 48661-48668.	4.0	6
2057	Atomistic Insights into Cl ⁻ -Triggered Highly Selective Ethylene Electrochemical Oxidation to Epoxide on RuO ₂ : Unexpected Role of the In Situ Generated Intermediate to Achieve Active Site Isolation. <i>ACS Catalysis</i> , 2021, 11, 13660-13669.	5.5	5
2058	Scalable Synthesis of Sm ₂ O ₃ /Fe ₂ O ₃ Hierarchical Oxygen Vacancy-Based Gyroid-Inspired Morphology: With Enhanced Electrocatalytic Activity for Oxygen Evolution Performance. <i>Energy & Fuels</i> , 2021, 35, 17820-17832.	2.5	32
2059	Revealing the Dynamics and Roles of Iron Incorporation in Nickel Hydroxide Water Oxidation Catalysts. <i>Journal of the American Chemical Society</i> , 2021, 143, 18519-18526.	6.6	96
2060	Se-induced underpotential deposition of amorphous CoSe ₂ ultrathin nanosheet arrays as high-efficiency oxygen evolution electrocatalysts for zinc-air batteries. <i>Materials Today Energy</i> , 2021, 22, 100882.	2.5	14
2061	Toward Multicomponent Single-Atom Catalysis for Efficient Electrochemical Energy Conversion. <i>ACS Materials Au</i> , 2022, 2, 1-20.	2.6	20
2062	Interface engineering of NiO/RuO ₂ heterojunction nano-sheets for robust overall water splitting at large current density. <i>Chemical Engineering Journal</i> , 2022, 430, 133117.	6.6	57
2064	Ultrahigh-Current-Density and Long-Term-Durability Electrocatalysts for Water Splitting. <i>Small</i> , 2022, 18, e2104513.	5.2	49
2065	Sulfur-anchoring synthesis of platinum intermetallic nanoparticle catalysts for fuel cells. <i>Science</i> , 2021, 374, 459-464.	6.0	343
2066	Synergistic Role of Eg Filling and Anion-Cation Hybridization in Enhancing the Oxygen Evolution Reaction Activity in Nickelates. <i>ACS Applied Energy Materials</i> , 0, , .	2.5	7
2067	Recent progress on bimetallic NiCo and CoFe based electrocatalysts for alkaline oxygen evolution reaction: A review. <i>Journal of Energy Chemistry</i> , 2022, 67, 101-137.	7.1	109
2068	Interpolation between W Dopant and Co Vacancy in CoOOH for Enhanced Oxygen Evolution Catalysis. <i>Advanced Materials</i> , 2022, 34, e2104667.	11.1	45
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