Minhua Shao

List of Publications by Year
in descending order

182 papers	18,837 citations	14655 66 h-index	12597 132 g-index
185 all docs	185 docs citations	185 times ranked	17123 citing authors

#	Article	IF	Citations
1	Recent Advances in Electrocatalysts for Oxygen Reduction Reaction. Chemical Reviews, 2016, 116, 3594-3657.	47.7	3,233
2	Electrocatalysis on Platinum Nanoparticles: Particle Size Effect on Oxygen Reduction Reaction Activity. Nano Letters, 2011, 11, 3714-3719.	9.1	734
3	Advanced Electrocatalysts with Single-Metal-Atom Active Sites. Chemical Reviews, 2020, 120, 12217-12314.	47.7	563
4	Synthesis and Characterization of 9 nm Ptâ€“Ni Octahedra with a Record High Activity of 3.3 A/mg_{Pt} for the Oxygen Reduction Reaction. Nano Letters, 2013, 13, 3420-3425.	9.1	542
5	A Spectroscopic Study on the Nitrogen Electrochemical Reduction Reaction on Gold and Platinum Surfaces. Journal of the American Chemical Society, 2018, 140, 1496-1501.	13.7	496
6	Direct Observation on Reaction Intermediates and the Role of Bicarbonate Anions in CO₂ Electrochemical Reduction Reaction on Cu Surfaces. Journal of the American Chemical Society, 2017, 139, 15664-15667.	13.7	468
7	Carbon-Based Electrocatalysts for Hydrogen and Oxygen Evolution Reactions. ACS Catalysis, 2017, 7, 7855-7865.	11.2	406
8	Palladium-based electrocatalysts for hydrogen oxidation and oxygen reduction reactions. Journal of Power Sources, 2011, 196, 2433-2444.	7.8	389
9	Building ultraconformal protective layers on both secondary and primary particles of layered lithium transition metal oxide cathodes. Nature Energy, 2019, 4, 484-494.	39.5	345
10	Polymer-Embedded Fabrication of Co₂P Nanoparticles Encapsulated in N,P-Doped Graphene for Hydrogen Generation. Nano Letters, 2016, 16, 4691-4698.	9.1	306
11	Recent Advances in Electrocatalysts for Proton Exchange Membrane Fuel Cells and Alkaline Membrane Fuel Cells. Advanced Materials, 2021, 33, e2006292.	21.0	300
12	Recent advances in palladium-based electrocatalysts for fuel cell reactions and hydrogen evolution reaction. Nano Energy, 2016, 29, 198-219.	16.0	294
13	Origin of Enhanced Activity in Palladium Alloy Electrocatalysts for Oxygen Reduction Reactionâ€. Journal of Physical Chemistry B, 2007, 111, 6772-6775.	2.6	282
14	Understanding and improving the initial Coulombic efficiency of high-capacity anode materials for practical sodium ion batteries. Energy Storage Materials, 2019, 23, 233-251.	18.0	279
15	Structural dependence of oxygen reduction reaction on palladium nanocrystals. Chemical Communications, 2011, 47, 6566.	4.1	264
16	CO₂ Electrochemical Reduction As Probed through Infrared Spectroscopy. ACS Energy Letters, 2019, 4, 682-689.	17.4	250
17	Pt Monolayer on Porous Pdâ^'Cu Alloys as Oxygen Reduction Electrocatalysts. Journal of the American Chemical Society, 2010, 132, 9253-9255.	13.7	243
18	Structure-dependent performance of TiO2/C as anode material for Na-ion batteries. Nano Energy, 2018, 44, 217-227.	16.0	209

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19	Electrochemical surface area measurements of platinum- and palladium-based nanoparticles. Electrochemistry Communications, 2013, 31, 46-48.	4.7	193
20	Nitrogen-coordinated single iron atom catalysts derived from metal organic frameworks for oxygen reduction reaction. Nano Energy, 2019, 61, 60-68.	16.0	192
21	Electrochemical Nitrogen Reduction Reaction on Ruthenium. ACS Energy Letters, 2019, 4, 1336-1341.	17.4	187
22	The role of ruthenium in improving the kinetics of hydrogen oxidation and evolution reactions of platinum. Nature Catalysis, 2021, 4, 711-718.	34.4	182
23	Synthesis and Characterization of Pd@Ptâ€“Ni Coreâ€“Shell Octahedra with High Activity toward Oxygen Reduction. ACS Nano, 2014, 8, 10363-10371.	14.6	165
24	Electrocatalysis on Shape-Controlled Palladium Nanocrystals: Oxygen Reduction Reaction and Formic Acid Oxidation. Journal of Physical Chemistry C, 2013, 117, 4172-4180.	3.1	162
25	Co₃O₄â€“CeO₂/C as a Highly Active Electrocatalyst for Oxygen Reduction Reaction in Alâ€“Air Batteries. ACS Applied Materials & Interfaces, 2016, 8, 34422-34430.	8.0	159
26	Active Sites on Heterogeneous Single-Iron-Atom Electrocatalysts in CO₂ Reduction Reaction. ACS Energy Letters, 2019, 4, 1778-1783.	17.4	158
27	1T MoS2 nanosheets with extraordinary sodium storage properties via thermal-driven ion intercalation assisted exfoliation of bulky MoS2. Nano Energy, 2019, 61, 361-369.	16.0	157
28	Superfine MnO₂ Nanowires with Rich Defects Toward Boosted Zinc Ion Storage Performance. ACS Applied Materials & Interfaces, 2020, 12, 34949-34958.	8.0	156
29	Atomically dispersed Pt and Fe sites and Ptâ€“Fe nanoparticles for durable proton exchange membrane fuel cells. Nature Catalysis, 2022, 5, 503-512.	34.4	155
30	Secondary-Atom-Assisted Synthesis of Single Iron Atoms Anchored on N-Doped Carbon Nanowires for Oxygen Reduction Reaction. ACS Catalysis, 2019, 9, 5929-5934.	11.2	149
31	Ptâ€“Ni Octahedra as Electrocatalysts for the Ethanol Electro-Oxidation Reaction. ACS Catalysis, 2017, 7, 5134-5141.	11.2	148
32	Reaction intermediate-mediated electrocatalyst synthesis favors specified facet and defect exposure for efficient nitrateâ€“ammonia conversion. Energy and Environmental Science, 2021, 14, 4989-4997.	30.8	145
33	Electrocatalytic Reduction of Nitrate to Ammonia on Low-Cost Ultrathin CoO_x Nanosheets. ACS Catalysis, 2021, 11, 15135-15140.	11.2	144
34	A Spectroscopic Study of Electrochemical Nitrogen and Nitrate Reduction on Rhodium Surfaces. Angewandte Chemie - International Edition, 2020, 59, 10479-10483.	13.8	135
35	Tuning Structural and Compositional Effects in Pdâ€“Au Nanowires for Highly Selective and Active CO₂ Electrochemical Reduction Reaction. Advanced Energy Materials, 2018, 8, 1802238.	19.5	132
36	pH-Dependent Hydrogen and Water Binding Energies on Platinum Surfaces as Directly Probed through Surface-Enhanced Infrared Absorption Spectroscopy. Journal of the American Chemical Society, 2020, 142, 8748-8754.	13.7	130

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37	Approaching a high-rate and sustainable production of hydrogen peroxide: oxygen reduction on Coâ€“Nâ€“C single-atom electrocatalysts in simulated seawater. Energy and Environmental Science, 2021, 14, 5444-5456.	30.8	126
38	Iron-Doped Cauliflower-Like Rutile TiO₂ with Superior Sodium Storage Properties. ACS Applied Materials & Interfaces, 2017, 9, 6093-6103.	8.0	125
39	Controlling the Surface Oxidation of Cu Nanowires Improves Their Catalytic Selectivity and Stability toward C₂₊ Products in CO₂ Reduction. Angewandte Chemie - International Edition, 2021, 60, 1909-1915.	13.8	122
40	Interfacial Constructing Flexible V₂O₅@Polypyrrole Coreâ€“Shell Nanowire Membrane with Superior Supercapacitive Performance. ACS Applied Materials & Interfaces, 2018, 10, 18816-18823.	8.0	117
41	Structure dependent electrochemical performance of Li-rich layered oxides in lithium-ion batteries. Nano Energy, 2017, 35, 370-378.	16.0	116
42	2D Singleâ€Atom Catalyst with Optimized Iron Sites Produced by Thermal Melting of Metalâ€“Organic Frameworks for Oxygen Reduction Reaction. Small Methods, 2020, 4, 1900827.	8.6	113
43	The Role of Ru in Improving the Activity of Pd toward Hydrogen Evolution and Oxidation Reactions in Alkaline Solutions. ACS Catalysis, 2019, 9, 9614-9621.	11.2	112
44	Structurally Engineered Hyperbranched NiCoP Arrays with Superior Electrocatalytic Activities toward Highly Efficient Overall Water Splitting. ACS Applied Materials & Interfaces, 2018, 10, 41237-41245.	8.0	110
45	Dualâ€Phasic Carbon with Co Single Atoms and Nanoparticles as a Bifunctional Oxygen Electrocatalyst for Rechargeable Znâ€“Air Batteries. Advanced Functional Materials, 2021, 31, 2103360.	14.9	107
46	A Spectroscopic Study of Electrochemical Nitrogen and Nitrate Reduction on Rhodium Surfaces. Angewandte Chemie, 2020, 132, 10565-10569.	2.0	104
47	Stabilizing Single-Atom Iron Electrocatalysts for Oxygen Reduction via Ceria Confining and Trapping. ACS Catalysis, 2020, 10, 2452-2458.	11.2	103
48	Elaborate construction of N/S-co-doped carbon nanobowls for ultrahigh-power supercapacitors. Journal of Materials Chemistry A, 2018, 6, 17653-17661.	10.3	102
49	Recent Advances in Catalyst Structure and Composition Engineering Strategies for Regulating CO₂ Electrochemical Reduction. Advanced Materials, 2021, 33, e2005484.	21.0	100
50	Carbon nanotube encapsulated in nitrogen and phosphorus co-doped carbon as a bifunctional electrocatalyst for oxygen reduction and evolution reactions. Carbon, 2018, 139, 156-163.	10.3	97
51	Thermal Treatment of PtNiCo Electrocatalysts: Effects of Nanoscale Strain and Structure on the Activity and Stability for the Oxygen Reduction Reaction. Journal of Physical Chemistry C, 2010, 114, 17580-17590.	3.1	95
52	Electrocatalytic Activities of Oxygen Reduction Reaction on Pd/C and Pdâ€“B/C Catalysts. Journal of Physical Chemistry C, 2017, 121, 3416-3423.	3.1	91
53	Ammonia electro-oxidation reaction: Recent development in mechanistic understanding and electrocatalyst design. Current Opinion in Electrochemistry, 2018, 9, 151-157.	4.8	89
54	Highly Dispersive Cerium Atoms on Carbon Nanowires as Oxygen Reduction Reaction Electrocatalysts for Znâ€“Air Batteries. Nano Letters, 2021, 21, 4508-4515.	9.1	89

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55	Boosting Electrocatalytic Ammonia Production through Mimicking â€œÏ€ Back-Donationâ€• CheM, 2020, 6, 2690-2702.	11.7	88
56	Preparation of Au@Pd Coreâ€“Shell Nanorods with fcc-2H-fcc Heterophase for Highly Efficient Electrocatalytic Alcohol Oxidation. Journal of the American Chemical Society, 2022, 144, 547-555.	13.7	88
57	Defect-rich TiO2-Î´ nanocrystals confined in a mooncake-shaped porous carbon matrix as an advanced Na ion battery anode. Journal of Power Sources, 2017, 354, 179-188.	7.8	87
58	Hierarchical NiCo₂O₄ Micro- and Nanostructures with Tunable Morphologies as Anode Materials for Lithium- and Sodium-Ion Batteries. ACS Applied Materials & Interfaces, 2017, 9, 16194-16201.	8.0	85
59	Insights into KMnO4 etched N-rich carbon nanotubes as advanced electrocatalysts for Zn-air batteries. Applied Catalysis B: Environmental, 2020, 264, 118537.	20.2	81
60	Enhanced Oxygen Reduction Activity of Platinum Monolayer on Gold Nanoparticles. Journal of Physical Chemistry Letters, 2011, 2, 67-72.	4.6	80
61	Kinetically Controlled Synthesis of Pdâ€“Cu Janus Nanocrystals with Enriched Surface Structures and Enhanced Catalytic Activities toward CO₂ Reduction. Journal of the American Chemical Society, 2021, 143, 149-162.	13.7	77
62	Role of Inorganic Surface Layer on Solid Electrolyte Interphase Evolution at Li-Metal Anodes. ACS Applied Materials & Interfaces, 2019, 11, 31467-31476.	8.0	75
63	N-doped rutile TiO 2 /C with significantly enhanced Na storage capacity for Na-ion batteries. Electrochimica Acta, 2017, 236, 43-52.	5.2	74
64	Controlling the Size and Composition of Nanosized Ptâ€“Ni Octahedra to Optimize Their Catalytic Activities toward the Oxygen Reduction Reaction. ChemSusChem, 2014, 7, 1476-1483.	6.8	72
65	Boosting the activity of Fe-Nx moieties in Fe-N-C electrocatalysts via phosphorus doping for oxygen reduction reaction. Science China Materials, 2020, 63, 965-971.	6.3	71
66	Fe/N co-doped carbon materials with controllable structure as highly efficient electrocatalysts for oxygen reduction reaction in Al-air batteries. Energy Storage Materials, 2017, 8, 49-58.	18.0	70
67	The Role of Transition Metal and Nitrogen in Metalâ€“Nâ€“C Composites for Hydrogen Evolution Reaction at Universal pHs. Journal of Physical Chemistry C, 2016, 120, 29047-29053.	3.1	69
68	Insight into the synergistic effect between nickel and tungsten carbide for catalyzing urea electrooxidation in alkaline electrolyte. Applied Catalysis B: Environmental, 2018, 232, 365-370.	20.2	68
69	1â€T-phase molybdenum sulfide nanodots enable efficient electrocatalytic nitrogen fixation under ambient conditions. Applied Catalysis B: Environmental, 2020, 272, 118984.	20.2	68
70	Electrochemical Synthesis of Ammonia from Nitrogen Under Mild Conditions: Current Status and Challenges. Electrochemical Energy Reviews, 2020, 3, 239-270.	25.5	67
71	Boron and nitrogen co-doped porous carbon nanofibers as metal-free electrocatalysts for highly efficient ammonia electrosynthesis. Journal of Materials Chemistry A, 2019, 7, 26272-26278.	10.3	66
72	Revealing the Twoâ€Dimensional Surface Diffusion Mechanism for Zinc Dendrite Formation on Zinc Anode. Small, 2022, 18, e2104148.	10.0	66

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73	Manipulating the oxygen reduction activity of platinum shells with shape-controlled palladium nanocrystal cores. Chemical Communications, 2013, 49, 9030.	4.1	62
74	The role of transition metals in the catalytic activity of Pt alloys: quantification of strain and ligand effects. Chemical Communications, 2014, 50, 2173.	4.1	58
75	Surface engineering in improving activity of Pt nanocubes for ammonia electrooxidation reaction. Applied Catalysis B: Environmental, 2020, 269, 118821.	20.2	58
76	Structural Evolution of Sub-10 nm Octahedral Platinumâ€“Nickel Bimetallic Nanocrystals. Nano Letters, 2017, 17, 3926-3931.	9.1	57
77	Hydrogen Oxidation Reaction on Pt in Acidic Media:â€‰ Adsorption Isotherm and Activation Free Energies. Journal of Physical Chemistry C, 2007, 111, 12425-12433.	3.1	56
78	A Pt-free catalyst for oxygen reduction reaction based on Feâ€“N multiwalled carbon nanotube composites. Electrochimica Acta, 2013, 107, 126-132.	5.2	56
79	Towards Effective Utilization of Nitrogen-Containing Active Sites: Nitrogen-doped Carbon Layers Wrapped CNTs Electrocatalysts for Superior Oxygen Reduction. Electrochimica Acta, 2016, 187, 153-160.	5.2	56
80	Composition-dependent CO₂ electrochemical reduction activity and selectivity on Auâ€“Pd coreâ€“shell nanoparticles. Journal of Materials Chemistry A, 2019, 7, 16954-16961.	10.3	56
81	Carbon nanotube-linked hollow carbon nanospheres doped with iron and nitrogen as single-atom catalysts for the oxygen reduction reaction in acidic solutions. Journal of Materials Chemistry A, 2019, 7, 14478-14482.	10.3	56
82	Mn₃O₄ Quantum Dots Supported on Nitrogen-Doped Partially Exfoliated Multiwall Carbon Nanotubes as Oxygen Reduction Electrocatalysts for High-Performance Znâ€“Air Batteries. ACS Applied Materials & Interfaces, 2018, 10, 23900-23909.	8.0	55
83	Nanoconfined Construction of MoS₂@C/MoS₂ Coreâ€“Sheath Nanowires for Superior Rate and Durable Li-Ion Energy Storage. ACS Sustainable Chemistry and Engineering, 2019, 7, 5346-5354.	6.7	55
84	Structural and Electrocatalytic Properties of PtIrCo/C Catalysts for Oxygen Reduction Reaction. ACS Catalysis, 2011, 1, 562-572.	11.2	54
85	Direct synthesis of L10-FePt nanoparticles from single-source bimetallic complex and their electrocatalytic applications in oxygen reduction and hydrogen evolution reactions. Nano Research, 2019, 12, 2954-2959.	10.4	54
86	Probing the in-Plane Near-Field Enhancement Limit in a Plasmonic Particle-on-Film Nanocavity with Surface-Enhanced Raman Spectroscopy of Graphene. ACS Nano, 2019, 13, 7644-7654.	14.6	54
87	Enabling efficient electrocatalytic conversion of N2 to NH3 by Ti3C2 MXene loaded with semi-metallic 1Tâ€²-MoS2 nanosheets. Applied Catalysis B: Environmental, 2022, 310, 121277.	20.2	54
88	Palladiumâ€“Platinum Coreâ€“Shell Electrocatalysts for Oxygen Reduction Reaction Prepared with the Assistance of Citric Acid. ACS Catalysis, 2016, 6, 3428-3432.	11.2	52
89	An Ionâ€Imprinting Derived Strategy to Synthesize Singleâ€Atom Iron Electrocatalysts for Oxygen Reduction. Small, 2021, 17, e2004454.	10.0	52
90	Investigation of cubic Pt alloys for ammonia oxidation reaction. Nano Research, 2020, 13, 1920-1927.	10.4	50

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91	Design of Ternary Nanoalloy Catalysts: Effect of Nanoscale Alloying and Structural Perfection on Electrocatalytic Enhancement. Chemistry of Materials, 2012, 24, 4283-4293.	6.7	47
92	Co₃O₄ Nanoparticles Anchored on Nitrogen-Doped Partially Exfoliated Multiwall Carbon Nanotubes as an Enhanced Oxygen Electrocatalyst for the Rechargeable and Flexible Solid-State Znâ€“Air Battery. ACS Applied Energy Materials, 2019, 2, 4428-4438.	5.1	47
93	Identification of active sites in nitrogen and sulfur co-doped carbon-based oxygen reduction catalysts. Carbon, 2019, 147, 303-311.	10.3	44
94	Maximizing the Catalytic Performance of Pd@Au_xPd_{1â^'x} Nanocubes in H₂O₂ Production by Reducing Shell Thickness to Increase Compositional Stability. Angewandte Chemie - International Edition, 2021, 60, 19643-19647.	13.8	44
95	Recent advances in non-precious group metal-based catalysts for water electrolysis and beyond. Journal of Materials Chemistry A, 2021, 10, 50-88.	10.3	44
96	Theoretical Screening of Transition Metalâ€“N₄-Doped Graphene for Electroreduction of Nitrate. ACS Catalysis, 2022, 12, 5407-5415.	11.2	43
97	Theoretically probing the possible degradation mechanisms of an FeNC catalyst during the oxygen reduction reaction. Chemical Science, 2021, 12, 12476-12484.	7.4	42
98	Solution-Phase Synthesis of PdH_{0.706} Nanocubes with Enhanced Stability and Activity toward Formic Acid Oxidation. Journal of the American Chemical Society, 2022, 144, 2556-2568.	13.7	42
99	Tungsten carbide modified high surface area carbon as fuel cell catalyst support. Journal of Power Sources, 2011, 196, 7426-7434.	7.8	41
100	Chromium Oxynitride Electrocatalysts for Electrochemical Synthesis of Ammonia Under Ambient Conditions. Small Methods, 2019, 3, 1800324.	8.6	41
101	Flexible reduced graphene oxide/prussian blue films for hybrid supercapacitors. Chemical Engineering Journal, 2020, 397, 125521.	12.7	41
102	Hydrazine Detection during Ammonia Electro-oxidation Using an Aggregation-Induced Emission Dye. Journal of the American Chemical Society, 2021, 143, 2433-2440.	13.7	41
103	First-principles mechanistic study on nitrate reduction reactions on copper surfaces: Effects of crystal facets and pH. Journal of Catalysis, 2021, 400, 62-70.	6.2	40
104	Room-temperature multiple ligands-tailored SnO2 quantum dots endow in situ dual-interface binding for upscaling efficient perovskite photovoltaics with high VOC. Light: Science and Applications, 2021, 10, 239.	16.6	40
105	Electrolytes Polymerizationâ€Induced Cathodeâ€Electrolyteâ€Interphase for High Voltage Lithiumâ€Ion Batteries. Advanced Energy Materials, 2021, 11, 2101956.	19.5	39
106	Hollow Porous Hierarchical-Structured 0.5Li₂MnO₃·0.5LiMn_{0.4}Co_{0.3}Ni_{0.3}O₂ as a High-Performance Cathode Material for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2016, 8, 25654-25659.	8.0	38
107	Nitrogen-doped graphene fiber webs for multi-battery energy storage. Nanoscale, 2019, 11, 6334-6342.	5.6	38
108	Grain Boundaries Engineering of Hollow Copper Nanoparticles Enables Highly Efficient Ammonia Electrosynthesis from Nitrate. CCS Chemistry, 2022, 4, 2053-2064.	7.8	38

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109	Hierarchical 3D porous carbon with facilely accessible Feâ€“N₄ single-atom sites for Znâ€“air batteries. Journal of Materials Chemistry A, 2022, 10, 5925-5929.	10.3	37
110	Mechanisms of Enhanced Electrocatalytic Activity for Oxygen Reduction Reaction on High-Index Platinum n(111)â€“(111) Surfaces. Journal of Physical Chemistry Letters, 2015, 6, 3346-3351.	4.6	36
111	Organic frameworks confined Cu single atoms and nanoclusters for tandem electrocatalytic CO₂ reduction to methane. SmartMat, 2022, 3, 183-193.	10.7	35
112	Bismuth Ferrite as an Electrocatalyst for the Electrochemical Nitrate Reduction. Nano Letters, 2022, 22, 5600-5606.	9.1	35
113	Surface structure and composition effects on electrochemical reduction of carbon dioxide. Journal of Solid State Electrochemistry, 2016, 20, 861-873.	2.5	34
114	Research progress of metal organic frameworks and their derivatives for adsorption of anions in water: A review. Environmental Research, 2022, 204, 112381.	7.5	33
115	Synergistic Enhancement of Electrocatalytic Nitrogen Reduction over Few-Layer MoSe₂-Decorated Ti₃C₂T_x MXene. ACS Catalysis, 2022, 12, 6385-6393.	11.2	33
116	Coreâ€“shell catalysts consisting of nanoporous cores for oxygen reduction reaction. Physical Chemistry Chemical Physics, 2013, 15, 15078.	2.8	32
117	Solid-State Synthesis of Highly Dispersed Nitrogen-Coordinated Single Iron Atom Electrocatalysts for Proton Exchange Membrane Fuel Cells. Nano Letters, 2021, 21, 3633-3639.	9.1	32
118	One-dimensional screw-like MoS2 with oxygen partially replacing sulfur as an electrocatalyst for the N2 reduction reaction. Chemical Engineering Journal, 2022, 433, 134504.	12.7	32
119	Enhanced catalysis of radical-to-polysulfide interconversion via increased sulfur vacancies in lithiumâ€“sulfur batteries. Chemical Science, 2022, 13, 6224-6232.	7.4	32
120	Palladium modified gold nanoparticles as electrocatalysts for ethanol electrooxidation. Journal of Power Sources, 2016, 321, 264-269.	7.8	31
121	Metal-organic-framework-derived hollow polyhedrons of prussian blue analogues for high power grid-scale energy storage. Electrochimica Acta, 2019, 321, 134671.	5.2	31
122	Impact of Heat Treatment on the Electrochemical Properties of Carbon-Supported Octahedral Ptâ€“Ni Nanoparticles. ACS Catalysis, 2019, 9, 11189-11198.	11.2	31
123	Zeolitic Imidazolate Framework Cores Decorated with Pd Nanoparticles and Coated Further with Metalâ€“Organic Framework Shells (ZIF-8@Pd@MOF-74) as Nanocatalysts for Chemoselective Hydrogenation Reactions. ACS Applied Nano Materials, 2020, 3, 7242-7251.	5.0	31
124	Constructing Active Sites from Atomicâ€Scale Geometrical Engineering in Spinel Oxide Solid Solutions for Efficient and Robust Oxygen Evolution Reaction Electrocatalysts. Advanced Science, 2021, 8, e2101653.	11.2	31
125	Two Dimensional WS₂/C Nanosheets as a Polysulfides Immobilizer for High Performance Lithium-Sulfur Batteries. Journal of the Electrochemical Society, 2019, 166, A5386-A5395.	2.9	29
126	Dispersive Single-Atom Metals Anchored on Functionalized Nanocarbons for Electrochemical Reactions. Topics in Current Chemistry, 2019, 377, 4.	5.8	29

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127	Oxygen Vacancy Engineering in Titanium Dioxide for Sodium Storage. Chemistry - an Asian Journal, 2021, 16, 3-19.	3.3	27
128	Poly-active centric Co3O4-CeO2/Co-N-C composites as superior oxygen reduction catalysts for Zn-air batteries. Science China Materials, 2021, 64, 73-84.	6.3	27
129	Fe-N-C Electrocatalysts for Oxygen Reduction Reaction Synthesized by Using Aniline Salt and Fe 3+ /H 2 O 2 Catalytic System. Electrochimica Acta, 2014, 146, 809-818.	5.2	26
130	Co Nanoparticles Encapsulated in Porous N-Doped Carbon Nanofibers as an Efficient Electrocatalyst for Hydrogen Evolution Reaction. Journal of the Electrochemical Society, 2018, 165, J3271-J3275.	2.9	26
131	Impacts of Perchloric Acid, Nafion, and Alkali Metal Ions on Oxygen Reduction Reaction Kinetics in Acidic and Alkaline Solutions. Journal of Physical Chemistry C, 2016, 120, 27452-27461.	3.1	25
132	Tungsten Carbide and Cobalt Modified Nickel Nanoparticles Supported on Multiwall Carbon Nanotubes as Highly Efficient Electrocatalysts for Urea Oxidation in Alkaline Electrolyte. ACS Applied Materials & Interfaces, 2018, 10, 41338-41343.	8.0	25
133	Applications of biomass-based materials to remove fluoride from wastewater: A review. Chemosphere, 2022, 301, 134679.	8.2	25
134	Heterostructuring 2D TiO2 nanosheets in situ grown on Ti3C2T MXene to improve the electrocatalytic nitrogen reduction. Chinese Journal of Catalysis, 2022, 43, 1937-1944.	14.0	25
135	An organic bifunctional redox active material for symmetric aqueous redox flow battery. Nano Energy, 2021, 89, 106422.	16.0	24
136	Fe3C Nanorods Encapsulated in N-Doped Carbon Nanotubes as Active Electrocatalysts for Hydrogen Evolution Reaction. Electrocatalysis, 2018, 9, 264-270.	3.0	24
137	Electrochemical nitrogen reduction: an intriguing but challenging quest. Trends in Chemistry, 2022, 4, 142-156.	8.5	24
138	Impacts of anions on the oxygen reduction reaction kinetics on platinum and palladium surfaces in alkaline solutions. Physical Chemistry Chemical Physics, 2017, 19, 7631-7641.	2.8	23
139	Synthesis and Characterization of Palladiumâ€“Platinum Coreâ€“Shell Electrocatalysts for Oxygen Reduction. Electrocatalysis, 2012, 3, 298-303.	3.0	22
140	Enhanced Oxygen Reduction Activity of Platinum Monolayer with a Gold Interlayer on Palladium. Journal of Physical Chemistry C, 2014, 118, 18505-18509.	3.1	22
141	Novel AuPd nanostructures for hydrogenation of 1,3-butadiene. Journal of Materials Chemistry A, 2015, 3, 4846-4854.	10.3	21
142	Defect Engineering of Molybdenum-Based Materials for Electrocatalysis. Catalysts, 2020, 10, 1301.	3.5	21
143	Durable hybrid electrocatalysts for proton exchange membrane fuel cells. Nano Energy, 2020, 77, 105192.	16.0	21
144	Oxidation Resistance of Bare and Pt-Coated Electrically Conducting Diamond Powder as Assessed by Thermogravimetric Analysis. Journal of the Electrochemical Society, 2010, 157, A19.	2.9	20

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145	Electrocatalysis in Fuel Cells. Catalysts, 2015, 5, 2115-2121.	3.5	20
146	Heterogeneous Bimetallic Organic Coordination Polymer-Derived Co/Fe@NC Bifunctional Catalysts for Rechargeable Liâ€“O₂ Batteries. ACS Applied Materials & Interfaces, 2022, 14, 5459-5467.	8.0	19
147	Fuel Cell Performance of Palladium-Platinum Core-Shell Electrocatalysts Synthesized in Gram-Scale Batches. Journal of the Electrochemical Society, 2016, 163, F708-F713.	2.9	18
148	First-Principles Study on the Initial Oxidative Decompositions of Ethylene Carbonate on Layered Cathode Surfaces of Lithium-Ion Batteries. Journal of Physical Chemistry C, 2019, 123, 14449-14458.	3.1	18
149	Effects of Solid Electrolyte Interphase Components on the Reduction of LiFSI over Lithium Metal. ChemPhysChem, 2020, 21, 1310-1317.	2.1	17
150	The Role of Citric Acid in Perfecting Platinum Monolayer on Palladium Nanoparticles during the Surface Limited Redox Replacement Reaction. Journal of the Electrochemical Society, 2016, 163, D3040-D3046.	2.9	16
151	Origin of the High Capacity Manganese-Based Oxyfluoride Electrodes for Rechargeable Batteries. Chemistry of Materials, 2018, 30, 5362-5372.	6.7	16
152	Electrifying the nitrogen cycle: An electrochemical endeavor. Current Opinion in Electrochemistry, 2021, 30, 100790.	4.8	16
153	Semiâ€metal <scp>1T</scp>â€² phase <scp>MoS₂</scp> nanosheets for promoted electrocatalytic nitrogen reduction. EcoMat, 2021, 3, e12122.	11.9	15
154	Pyromellitic diimide based bipolar molecule for total organic symmetric redox flow battery. Nano Energy, 2022, 94, 106963.	16.0	15
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