

Advanced Electrocatalysts with Single-Metal-Atom Acti

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Dynamic Activation of Adsorbed Intermediates via Axial Traction for the Promoted Electrochemical CO ₂ Reduction. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 4192-4198.	13.8	183
2	The assembling principle and strategies of high-density atomically dispersed catalysts. <i>Chemical Engineering Journal</i> , 2021, 417, 127917.	12.7	13
3	Dynamic Activation of Adsorbed Intermediates via Axial Traction for the Promoted Electrochemical CO ₂ Reduction. <i>Angewandte Chemie</i> , 2021, 133, 4238-4244.	2.0	20
4	Approaching a high-rate and sustainable production of hydrogen peroxide: oxygen reduction on Co-N-C single-atom electrocatalysts in simulated seawater. <i>Energy and Environmental Science</i> , 2021, 14, 5444-5456.	30.8	126
5	Atomically dispersed single iron sites for promoting Pt and Pt ₃ Co fuel cell catalysts: performance and durability improvements. <i>Energy and Environmental Science</i> , 2021, 14, 4948-4960.	30.8	168
6	Recent advances in doped ruthenium oxides as high-efficiency electrocatalysts for the oxygen evolution reaction. <i>Journal of Materials Chemistry A</i> , 2021, 9, 15506-15521.	10.3	73
7	Defect induced nitrogen reduction reaction of carbon nanomaterials. <i>Sustainable Energy and Fuels</i> , 2021, 5, 3765-3790.	4.9	9
8	The role of electrode wettability in electrochemical reduction of carbon dioxide. <i>Journal of Materials Chemistry A</i> , 2021, 9, 19369-19409.	10.3	95
9	Structure Sensitivity in Single-Atom Catalysis toward CO ₂ Electroreduction. <i>ACS Energy Letters</i> , 2021, 6, 713-727.	17.4	149
10	Promoted alkaline hydrogen evolution by an N-doped Pt-Ru single atom alloy. <i>Journal of Materials Chemistry A</i> , 2021, 9, 14941-14947.	10.3	39
11	Perfecting electrocatalysts via imperfections: towards the large-scale deployment of water electrolysis technology. <i>Energy and Environmental Science</i> , 2021, 14, 1722-1770.	30.8	213
12	First-principles investigation of two-dimensional covalent-organic framework electrocatalysts for oxygen evolution/reduction and hydrogen evolution reactions. <i>Sustainable Energy and Fuels</i> , 2021, 5, 5615-5626.	4.9	13
13	Spatial Confinement of a Carbon Nanocone for an Efficient Oxygen Evolution Reaction. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 2252-2258.	4.6	4
14	Metal-Organic Frameworks Derived Functional Materials for Electrochemical Energy Storage and Conversion: A Mini Review. <i>Nano Letters</i> , 2021, 21, 1555-1565.	9.1	351
16	Sustainable catalysts for water electrolysis: Selected strategies for reduction and replacement of platinum-group metals. <i>Materials Today Sustainability</i> , 2021, 11-12, 100060.	4.1	17
17	Structural Evolution and Underlying Mechanism of Single-Atom Centers on Mo ₂ C(100) Support during Oxygen Reduction Reaction. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 17075-17084.	8.0	4
18	Dynamically Unveiling Metal-Nitrogen Coordination during Thermal Activation to Design High-Efficient Atomically Dispersed CoN ₄ Active Sites. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 9516-9526.	13.8	119
19	Dynamically Unveiling Metal-Nitrogen Coordination during Thermal Activation to Design High-Efficient Atomically Dispersed CoN ₄ Active Sites. <i>Angewandte Chemie</i> , 2021, 133, 9602-9612.	2.0	21

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20	Carbon nanotube supported bifunctional electrocatalysts containing iron-nitrogen-carbon active sites for zinc-air batteries. <i>Nano Research</i> , 2021, 14, 4541-4547.	10.4	30
21	Electrocatalytic Refinery for Sustainable Production of Fuels and Chemicals. <i>Angewandte Chemie</i> , 2021, 133, 19724-19742.	2.0	30
22	Electrocatalytic Refinery for Sustainable Production of Fuels and Chemicals. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 19572-19590.	13.8	341
23	High Performance of Single-Atom Catalyst Pd ₁ /MgO for Semi-Hydrogenation of Acetylene to Ethylene in Excess Ethylene. <i>ChemNanoMat</i> , 2021, 7, 526-529.	2.8	14
24	Toward Rational Design of Single-Atom Catalysts. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 2837-2847.	4.6	45
25	Promoting Atomically Dispersed MnN ₄ Sites <i>via</i> Sulfur Doping for Oxygen Reduction: Unveiling Intrinsic Activity and Degradation in Fuel Cells. <i>ACS Nano</i> , 2021, 15, 6886-6899.	14.6	119
26	Critical Review of Platinum Group Metal-Free Materials for Water Electrolysis: Transition from the Laboratory to the Market. <i>Johnson Matthey Technology Review</i> , 2021, 65, 207-226.	1.0	17
27	Atomic Indium Catalysts for Switching CO ₂ Electroreduction Products from Formate to CO. <i>Journal of the American Chemical Society</i> , 2021, 143, 6877-6885.	13.7	140
28	Single Atomic Iron Site Catalysts via Benign Aqueous Synthesis for Durability Improvement in Proton Exchange Membrane Fuel Cells. <i>Journal of the Electrochemical Society</i> , 2021, 168, 044501.	2.9	10
29	Solid-State Synthesis of Highly Dispersed Nitrogen-Coordinated Single Iron Atom Electrocatalysts for Proton Exchange Membrane Fuel Cells. <i>Nano Letters</i> , 2021, 21, 3633-3639.	9.1	32
30	MXenes as Superexcellent Support for Confining Single Atom: Properties, Synthesis, and Electrocatalytic Applications. <i>Small</i> , 2021, 17, e2007113.	10.0	52
31	Heteroatom-doped porous carbon-supported single-atom catalysts for electrocatalytic energy conversion. <i>Journal of Energy Chemistry</i> , 2021, 63, 54-73.	12.9	16
32	A Supported Pd ₂ Dual-Atom Site Catalyst for Efficient Electrochemical CO ₂ Reduction. <i>Angewandte Chemie</i> , 2021, 133, 13500-13505.	2.0	29
33	Polyoxometalate-Single Atom Catalysts (POM-SACs) in Energy Research and Catalysis. <i>Advanced Energy Materials</i> , 2021, 11, 2101120.	19.5	57
34	Tailoring Acidic Oxygen Reduction Selectivity on Single-Atom Catalysts via Modification of First and Second Coordination Spheres. <i>Journal of the American Chemical Society</i> , 2021, 143, 7819-7827.	13.7	463
35	A Supported Pd ₂ Dual-Atom Site Catalyst for Efficient Electrochemical CO ₂ Reduction. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 13388-13393.	13.8	201
36	Chemical Vapor Deposition for N/S-Doped Single Fe Site Catalysts for the Oxygen Reduction in Direct Methanol Fuel Cells. <i>ACS Catalysis</i> , 2021, 11, 7450-7459.	11.2	120
37	Microenvironment and Nanoreactor Engineering of Single-Site Metal Catalysts for Electrochemical CO ₂ Reduction. <i>Energy & Fuels</i> , 2021, 35, 9795-9808.	5.1	19

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38	Recent advances of single-atom electrocatalysts for hydrogen evolution reaction. <i>JPhys Materials</i> , 2021, 4, 042002.	4.2	11
39	Amplified Interfacial Effect in an Atomically Dispersed RuO _x ∩Pd 2D Inverse Nanocatalyst for High-Performance Oxygen Reduction. <i>Angewandte Chemie</i> , 2021, 133, 16229-16236.	2.0	12
40	Recent progress on single-atom catalysts for CO ₂ electroreduction. <i>Materials Today</i> , 2021, 48, 95-114.	14.2	63
41	Low-Temperature Synthesis of Single Palladium Atoms Supported on Defective Hexagonal Boron Nitride Nanosheet for Chemoselective Hydrogenation of Cinnamaldehyde. <i>ACS Nano</i> , 2021, 15, 10175-10184.	14.6	77
42	Generating Short-Chain Sulfur Suitable for Efficient Sodium-Sulfur Batteries via Atomic Copper Sites on a N,O-Codoped Carbon Composite. <i>Advanced Energy Materials</i> , 2021, 11, 2100989.	19.5	55
43	Amplified Interfacial Effect in an Atomically Dispersed RuO _x ∩Pd 2D Inverse Nanocatalyst for High-Performance Oxygen Reduction. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 16093-16100.	13.8	49
44	Engineering the atomic interface of porous ceria nanorod with single palladium atoms for hydrodehalogenation reaction. <i>Nano Research</i> , 2022, 15, 1338-1346.	10.4	15
45	Accelerating Optimizing the Design of Carbon-based Electrocatalyst via Machine Learning. <i>Electroanalysis</i> , 2022, 34, 599-607.	2.9	9
46	Photoelectrochemical Reduction of Carbon Dioxide with a Copper Graphitic Carbon Nitride Photocathode. <i>Chemistry - A European Journal</i> , 2021, 27, 13513-13517.	3.3	4
47	The Electronic Metal-Support Interaction Directing the Design of Single Atomic Site Catalysts: Achieving High Efficiency Towards Hydrogen Evolution. <i>Angewandte Chemie</i> , 2021, 133, 19233-19239.	2.0	149
48	Emerging Dual-Atomic Site Catalysts for Efficient Energy Catalysis. <i>Advanced Materials</i> , 2021, 33, e2102576.	21.0	226
49	The Electronic Metal-Support Interaction Directing the Design of Single Atomic Site Catalysts: Achieving High Efficiency Towards Hydrogen Evolution. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 19085-19091.	13.8	189
50	Recent Advances in Electrode Design for Rechargeable Zinc-Air Batteries. <i>Small Science</i> , 2021, 1, 2100044.	9.9	47
51	Advanced Atomically Dispersed Metal-Nitrogen-Carbon Catalysts Toward Cathodic Oxygen Reduction in PEM Fuel Cells. <i>Advanced Energy Materials</i> , 2021, 11, 2101222.	19.5	109
52	Design of Aligned Porous Carbon Films with Single-Atom Co-N-C Sites for High-Current-Density Hydrogen Generation. <i>Advanced Materials</i> , 2021, 33, e2103533.	21.0	76
53	Mechanistic insights into lepidocrocite conversion to hematite from variable temperature Raman microscopy. <i>JPhys Energy</i> , 2021, 3, 044002.	5.3	6
54	Recent Progress on Structurally Ordered Materials for Electrocatalysis. <i>Advanced Energy Materials</i> , 2021, 11, 2101937.	19.5	65
55	Highly Efficient CO ₂ Electroreduction to Methanol through Atomically Dispersed Sn Coupled with Defective CuO Catalysts. <i>Angewandte Chemie</i> , 2021, 133, 22150-22158.	2.0	11

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56	Highly Efficient CO ₂ Electroreduction to Methanol through Atomically Dispersed Sn Coupled with Defective CuO Catalysts. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 21979-21987.	13.8	90
57	Confinement Strategies for Precise Synthesis of Efficient Electrocatalysts from the Macroscopic to the Atomic Level. <i>Accounts of Materials Research</i> , 2021, 2, 907-919.	11.7	46
58	Ultra-low loaded Ni ²⁺ /Fe Dimer Anchored to Nitrogen/Oxygen Sites for Boosting Electroreduction of Carbon Dioxide. <i>ChemSusChem</i> , 2021, 14, 4499-4506.	6.8	9
59	Breaking the periodic arrangement of atoms for the enhanced electrochemical reduction of nitrogen and water oxidation. <i>Science China Materials</i> , 2022, 65, 147-154.	6.3	6
60	Thermally stable single atom catalysts: From concept to <i>in situ</i> study. <i>Functional Materials Letters</i> , 2021, 14, .	1.2	7
61	Single Atom-Modified Hybrid Transition Metal Carbides as Efficient Hydrogen Evolution Reaction Catalysts. <i>Advanced Functional Materials</i> , 2021, 31, 2104285.	14.9	42
62	Applications of Carbon Nanotubes in Oxygen Electrocatalytic Reactions. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 20455-20462.	8.0	16
63	Recent progress in advanced core-shell metal-based catalysts for electrochemical carbon dioxide reduction. <i>Chinese Chemical Letters</i> , 2022, 33, 2259-2269.	9.0	36
64	Ruthenium nanoparticles supported on carbon oxide nanotubes for electrocatalytic hydrogen evolution in alkaline media. <i>Chemical Physics Letters</i> , 2021, 779, 138879.	2.6	5
65	Ab Initio Study of CO ₂ Activation on Pristine and Fe-Decorated WS ₂ Nanoflakes. <i>Journal of Physical Chemistry A</i> , 2021, 125, 7769-7777.	2.5	5
66	Recent Advances and Perspectives of Nanostructured Amorphous Alloys in Electrochemical Water Electrolysis. <i>Energy & Fuels</i> , 2021, 35, 15472-15488.	5.1	30
67	Reaction on a Rink: Kondo-Enhanced Heterogeneous Single-Atom Catalysis. <i>Journal of Physical Chemistry C</i> , 0, , .	3.1	0
68	Self-Supported Nickel Single Atoms Overwhelming the Concomitant Nickel Nanoparticles Enable Efficient and Selective CO ₂ Electroreduction. <i>Advanced Materials Interfaces</i> , 2021, 8, 2101542.	3.7	10
69	Tunable Fe/N co-doped 3D porous graphene with high density Fe-N _x sites as the efficient bifunctional oxygen electrocatalyst for Zn-air batteries. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 36811-36823.	7.1	37
70	Atomically dispersed Co atoms in nitrogen-doped carbon aerogel for efficient and durable oxygen reduction reaction. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 36836-36847.	7.1	13
71	A novel 2D Co ₃ (HADQ) ₂ metal-organic framework as a highly active and stable electrocatalyst for acidic oxygen reduction. <i>Chemical Engineering Journal</i> , 2022, 430, 132642.	12.7	43
72	Anchoring Sites Engineering in Single-Atom Catalysts for Highly Efficient Electrochemical Energy Conversion Reactions. <i>Advanced Materials</i> , 2021, 33, e2102801.	21.0	64
73	Insight into Structural Evolution, Active Sites, and Stability of Heterogeneous Electrocatalysts. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	140

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74	Single-Atom Catalysts Enabled Reductive Upgrading of CO ₂ . ChemCatChem, 2021, 13, 4859-4877.	3.7	10
75	Effect of coordination surroundings of isolated metal sites on electrocatalytic performances. Journal of Power Sources, 2021, 506, 230143.	7.8	15
76	A Tandem Strategy for Enhancing Electrochemical CO ₂ Reduction Activity of Single-Atom Cu ₅ N ₃ Catalysts via Integration with Cu Nanoclusters. Angewandte Chemie, 2021, 133, 24224-24229.	2.0	15
77	Dual-Sites Tandem Catalysts for C-N Bond Formation via Electrocatalytic Coupling of CO ₂ and Nitrogenous Small Molecules. , 2021, 3, 1468-1476.		50
78	Solving the Trifunctional Activity Challenge of Catalysts in Unitized Regenerative Fuel Cells via 1T-MoS ₂ -Coordinated Single Pd Atoms. ACS Omega, 2021, 6, 24731-24738.	3.5	6
79	Nanoparticle-Assisted Ni-Co Binary Single-Atom Catalysts Supported on Carbon Nanotubes for Efficient Electroreduction of CO ₂ to Syngas with Controllable CO/H ₂ Ratios. ACS Applied Energy Materials, 2021, 4, 9572-9581.	5.1	19
80	A Tandem Strategy for Enhancing Electrochemical CO ₂ Reduction Activity of Single-Atom Cu ₅ N ₃ Catalysts via Integration with Cu Nanoclusters. Angewandte Chemie - International Edition, 2021, 60, 24022-24027.	13.8	127
81	Insight into Structural Evolution, Active Sites, and Stability of Heterogeneous Electrocatalysts. Angewandte Chemie, 2022, 134, .	2.0	38
82	The Role of Surface Curvature in Electrocatalysts. Chemistry - A European Journal, 2022, 28, .	3.3	9
83	Isolated Pd atom anchoring endows cobalt diselenides with regulated water-reduction kinetics for alkaline hydrogen evolution. Applied Catalysis B: Environmental, 2021, 295, 120280.	20.2	47
84	Dual-atom active sites embedded in two-dimensional C ₂ N for efficient CO ₂ electroreduction: A computational study. Journal of Energy Chemistry, 2021, 61, 507-516.	12.9	69
85	Two-dimensional pyrite supported transition metal for highly-efficient electrochemical CO ₂ reduction: A theoretical screening study. Chemical Engineering Journal, 2021, 424, 130541.	12.7	31
86	In-situ growth of CoFeS ₂ on metal-organic frameworks-derived Co-NC polyhedron enables high-performance oxygen electrocatalysis for rechargeable zinc-air batteries. Journal of Power Sources, 2021, 512, 230430.	7.8	25
87	Copper atoms inlaid in titanium zirconium oxide spherical shell confine free radicals for the robust Fenton-like treatment of complex biogas slurry. Applied Catalysis B: Environmental, 2021, 298, 120555.	20.2	8
88	One-step synthesis of single palladium atoms in WO _{2.72} with high efficiency in chemoselective hydrodeoxygenation of vanillin. Applied Catalysis B: Environmental, 2021, 298, 120535.	20.2	61
89	Electrocatalytic H ₂ O ₂ generation for disinfection. Chinese Journal of Catalysis, 2021, 42, 2149-2163.	14.0	39
90	Interfacial lithium-nitrogen bond catalyzes sulfide oxidation reactions in high-loading Li ₂ S cathode. Chemical Engineering Journal, 2022, 429, 132352.	12.7	18
91	Recent advances in integrating platinum group metal-free catalysts in proton exchange membrane fuel cells. Current Opinion in Electrochemistry, 2022, 31, 100847.	4.8	15

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92	Anchored atomic tungsten on a B ₄₀ cage: a highly active and selective single-atom catalyst for nitrogen reduction. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 2469-2474.	2.8	9
93	Platinum-complexed phosphorous-doped carbon nitride for electrocatalytic hydrogen evolution. <i>Journal of Materials Chemistry A</i> , 2022, 10, 5962-5970.	10.3	18
94	Non-carbon-supported single-atom site catalysts for electrocatalysis. <i>Energy and Environmental Science</i> , 2021, 14, 2809-2858.	30.8	198
95	Folic Acid Coordinated Cu-Co Site N-Doped Carbon Nanosheets for Oxygen Reduction Reaction. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 3949-3958.	8.0	29
96	Review on Synthesis and Catalytic Coupling Mechanism of Highly Active Electrocatalysts for Water Splitting. <i>Energy Technology</i> , 2021, 9, 2000855.	3.8	11
97	Progress in batch preparation of single-atom catalysts and application in sustainable synthesis of fine chemicals. <i>Green Chemistry</i> , 2021, 23, 8754-8794.	9.0	39
98	Noble-metal single-atoms in thermocatalysis, electrocatalysis, and photocatalysis. <i>Energy and Environmental Science</i> , 2021, 14, 2954-3009.	30.8	188
99	Single-Atom (Iron-Based) Catalysts: Synthesis and Applications. <i>Chemical Reviews</i> , 2021, 121, 13620-13697.	47.7	136
100	How can the Dual-Atom Catalyst FeCo-NC Surpass Single-Atom Catalysts Fe-NC/Co-NC in CO ₂ RR? CO Intermediate Assisted Promotion via a Synergistic Effect. <i>Energy and Environmental Materials</i> , 2023, 6, .	12.8	24
101	Descriptors for the Evaluation of Electrocatalytic Reactions: DFT Theory and Beyond. <i>Advanced Functional Materials</i> , 2022, 32, 2107651.	14.9	154
103	Zinc/graphitic carbon nitride co-mediated dual-template synthesis of densely populated Fe-N _x -embedded 2D carbon nanosheets towards oxygen reduction reactions for Zn-air batteries. <i>Journal of Materials Chemistry A</i> , 2022, 10, 5971-5980.	10.3	12
104	Single atoms supported on metal oxides for energy catalysis. <i>Journal of Materials Chemistry A</i> , 2022, 10, 5717-5742.	10.3	29
105	MOF Structure Engineering to Synthesize Co ₁ Ni ₁ C Catalyst with Richer Accessible Active Sites for Enhanced Oxygen Reduction. <i>Small</i> , 2021, 17, e2104684.	10.0	94
106	Active site engineering of single-atom carbonaceous electrocatalysts for the oxygen reduction reaction. <i>Chemical Science</i> , 2021, 12, 15802-15820.	7.4	28
107	Covalent organic frameworks promoted single metal atom catalysis: Strategies and applications. <i>Coordination Chemistry Reviews</i> , 2022, 452, 214298.	18.8	132
108	Optimizing Microenvironment of Asymmetric N,S-Coordinated Single-Atom Fe via Axial Fifth Coordination toward Efficient Oxygen Electroreduction. <i>Small</i> , 2022, 18, e2105387.	10.0	72
109	Advanced Support Materials and Interactions for Atomically Dispersed Noble-Metal Catalysts: From Support Effects to Design Strategies. <i>Advanced Energy Materials</i> , 2022, 12, 2102556.	19.5	78
110	Electrocatalytic conversion of carbon dioxide for the Paris goals. <i>Nature Catalysis</i> , 2021, 4, 915-920.	34.4	53

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111	Revealing Electrical Double-Layer Potential of Substrates by Hysteresis Ion Transport in Scanning Ion Conductance Microscopy. <i>Analytical Chemistry</i> , 2021, 93, 15821-15825.	6.5	4
112	Electronically and Geometrically Modified Single-Atom Fe Sites by Adjacent Fe Nanoparticles for Enhanced Oxygen Reduction. <i>Advanced Materials</i> , 2022, 34, e2107291.	21.0	123
113	Striding the threshold of an atom era of organic synthesis by single-atom catalysis. <i>CheM</i> , 2022, 8, 119-140.	11.7	71
114	Single-atom catalyst cathodes for lithium-oxygen batteries: a review. <i>Nano Futures</i> , 2022, 6, 012002.	2.2	4
115	Improving Pd-N-C fuel cell electrocatalysts through fluorination-driven rearrangements of local coordination environment. <i>Nature Energy</i> , 2021, 6, 1144-1153.	39.5	108
116	Single-atom catalysts for next-generation rechargeable batteries and fuel cells. <i>Energy Storage Materials</i> , 2022, 45, 301-322.	18.0	67
117	A CoePre-Constrained Metal Twins-Strategy to Prepare Efficient Dual-Metal-Atom Catalysts for Cooperative Oxygen Electrocatalysis. <i>Advanced Materials</i> , 2022, 34, e2107421.	21.0	134
118	Construction of single-atom copper sites with low coordination number for efficient CO ₂ electroreduction to CH ₄ . <i>Journal of Materials Chemistry A</i> , 2022, 10, 6187-6192.	10.3	24
119	Photocatalytic reaction mechanisms at the gas-solid interface for environmental and energy applications. <i>Catalysis Science and Technology</i> , 2021, 11, 7807-7839.	4.1	12
120	A casting combined quenching strategy to prepare PdAg single atom alloys designed using the cluster expansion combined Monte Carlo method. <i>Physical Chemistry Chemical Physics</i> , 2022, , .	2.8	2
121	Structural rule of N-coordinated single-atom catalysts for electrochemical CO ₂ reduction. <i>Journal of Materials Chemistry A</i> , 2022, 10, 3585-3594.	10.3	13
122	Highly efficient construction of hollow Co-N nanocube cage dispersion implanted with porous carbonized nanofibers for Li-O ₂ batteries. <i>Journal of Materials Chemistry A</i> , 2022, 10, 740-751.	10.3	13
123	Boosting hydrogen evolution activity of transition meta-nitrogen embedded graphene through introducing secondary transition metal. <i>Surfaces and Interfaces</i> , 2022, 29, 101714.	3.0	1
124	Atomically dispersed catalysts for small molecule electrooxidation in direct liquid fuel cells. <i>Journal of Energy Chemistry</i> , 2022, 68, 439-453.	12.9	18
125	Atomic Co-N ₄ and Co nanoparticles confined in COF@ZIF-67 derived core-shell carbon frameworks: bifunctional non-precious metal catalysts toward the ORR and HER. <i>Journal of Materials Chemistry A</i> , 2021, 10, 228-233.	10.3	61
126	Synergistically enhanced single-atomic site catalysts for clean energy conversion. <i>Journal of Materials Chemistry A</i> , 2022, 10, 5673-5698.	10.3	12
127	Atomically Dispersed Fe-Co Dual Metal Sites as Bifunctional Oxygen Electrocatalysts for Rechargeable and Flexible Zn-Air Batteries. <i>ACS Catalysis</i> , 2022, 12, 1216-1227.	11.2	232
128	Modulating the Local Coordination Environment of Single-Atom Catalysts for Enhanced Catalytic Performance in Hydrogen/Oxygen Evolution Reaction. <i>Small</i> , 2022, 18, e2105680.	10.0	56

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129	Cobalt single-atom-decorated nickel thiophosphate nanosheets for overall water splitting. <i>Journal of Materials Chemistry A</i> , 2021, 10, 296-303.	10.3	21
130	Boosting Electrocatalytic Activity of Single Atom Catalysts Supported on Nitrogen-Doped Carbon through N Coordination Environment Engineering. <i>Small</i> , 2022, 18, e2105329.	10.0	78
131	Progress in Mo/W-based electrocatalysts for nitrogen reduction to ammonia under ambient conditions. <i>Chemical Communications</i> , 2022, 58, 2096-2111.	4.1	7
132	Precisely Constructing Orbital Coupling-Modulated Dual-Atom Fe Pair Sites for Synergistic CO ₂ Electroreduction. <i>ACS Energy Letters</i> , 2022, 7, 640-649.	17.4	127
133	Impact of Nickel Content on the Structure and Electrochemical CO ₂ Reduction Performance of Nickel-Nitrogen-Carbon Catalysts Derived from Zeolitic Imidazolate Frameworks. <i>ACS Applied Energy Materials</i> , 2022, 5, 430-439.	5.1	11
134	Confining and Highly Dispersing Single Polyoxometalate Clusters in Covalent Organic Frameworks by Covalent Linkages for CO ₂ Photoreduction. <i>Journal of the American Chemical Society</i> , 2022, 144, 1861-1871.	13.7	197
135	Coordination modulation of iridium single-atom catalyst maximizing water oxidation activity. <i>Nature Communications</i> , 2022, 13, 24.	12.8	99
136	Rare earth element based single-atom catalysts: synthesis, characterization and applications in photo/electro-catalytic reactions. <i>Nanoscale Horizons</i> , 2021, 7, 31-40.	8.0	26
137	Synergistically enhanced iron and zinc bimetallic sites as an advanced ORR electrocatalyst for flow liquid rechargeable Zn-air batteries. <i>Journal of Materials Chemistry A</i> , 2022, 10, 3169-3177.	10.3	10
138	Oxygen Reduction Reaction Catalysed by Supported Nanoparticles: Advancements and Challenges. <i>ChemCatChem</i> , 2022, 14, .	3.7	10
139	Clusters Induced Electron Redistribution to Tune Oxygen Reduction Activity of Transition Metal Single-Atom for Metal-Air Batteries. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	165
140	Clusters Induced Electron Redistribution to Tune Oxygen Reduction Activity of Transition Metal Single-Atom for Metal-Air Batteries. <i>Angewandte Chemie</i> , 2022, 134, e202116068.	2.0	32
141	CuNi alloy nanoparticles embedded in N-doped carbon framework for electrocatalytic reduction of CO ₂ to CO. <i>Journal of Alloys and Compounds</i> , 2022, 904, 164042.	5.5	17
142	Cobalt single atom sites in carbon aerogels for ultrasensitive enzyme-free electrochemical detection of glucose. <i>Journal of Electroanalytical Chemistry</i> , 2022, 906, 116024.	3.8	25
143	Graphdiyne/graphene heterostructure supported NiFe layered double hydroxides for oxygen evolution reaction. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2022, 637, 128217.	4.7	11
144	Synthetic strategies of single-atoms catalysts and applications in electrocatalysis. <i>Electrochimica Acta</i> , 2022, 409, 139835.	5.2	8
145	Tuning Two-Electron Oxygen-Reduction Pathways for H ₂ O ₂ Electrosynthesis via Engineering Atomically Dispersed Single Metal Site Catalysts. <i>Advanced Materials</i> , 2022, 34, e2107954.	21.0	84
146	Optimizing the Electrocatalytic Selectivity of Carbon Dioxide Reduction Reaction by Regulating the Electronic Structure of Single-Atom M-NC Materials. <i>Advanced Functional Materials</i> , 2022, 32, .	14.9	129

#	ARTICLE	IF	CITATIONS
147	Emerging Electrochemical Techniques for Probing Site Behavior in Single-Atom Electrocatalysts. <i>Accounts of Chemical Research</i> , 2022, 55, 759-769.	15.6	58
148	Insights into the role of dual reaction sites for single Ni atom Fenton-like catalyst towards degradation of various organic contaminants. <i>Journal of Hazardous Materials</i> , 2022, 430, 128463.	12.4	32
149	Atomically Dispersed Iron with Densely Exposed Active Sites as Bifunctional Oxygen Catalysts for Zn-Air Flow Batteries. <i>Small</i> , 2022, 18, e2105892.	10.0	26
150	Atomic bridging modulation of Ir-N, S co-doped MXene for accelerating hydrogen evolution. <i>Journal of Materials Chemistry A</i> , 2022, 10, 9878-9885.	10.3	31
151	Increasing oxygen vacancies in CeO ₂ nanocrystals by Ni doping and reduced graphene oxide decoration towards electrocatalytic hydrogen evolution. <i>CrystEngComm</i> , 2022, 24, 3369-3379.	2.6	9
152	Electrochemically Active Bacteria-Derived Phosphorus-Doped Carbon Catalyst with Iron-Nitrogen Sites Boosting CO ₂ Electroreduction Reaction Kinetics. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
153	Dual-metal atom incorporated N-doped graphenes as oxygen evolution reaction electrocatalysts: high activities achieved by site synergies. <i>Journal of Materials Chemistry A</i> , 2022, 10, 8309-8323.	10.3	18
154	Conversion of biomass-derived feedstocks into value-added chemicals over single-atom catalysts. <i>Green Chemistry</i> , 2022, 24, 2267-2286.	9.0	45
155	Computational Screening of Single Transition Metal Atom Embedded in Nitrogen Doped Graphene for CH ₄ Detection. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
156	Preparation of Ni-loaded oxygen-enriched vacancy TiO ₂ hierarchical micro-nanospheres and the study of their photocatalytic hydrogen evolution performance. <i>New Journal of Chemistry</i> , 2022, 46, 7118-7127.	2.8	6
157	Single metal atoms catalysts—Promising candidates for next generation energy storage and conversion devices. <i>EcoMat</i> , 2022, 4, .	11.9	28
158	A General Strategy for Engineering Single-Metal Sites on 3D Porous N, P Co-Doped Ti ₃ C ₂ X MXene. <i>ACS Nano</i> , 2022, 16, 4116-4125.	14.6	63
159	Regulating Electronic Structure of Single-Atom Catalysts toward Efficient Bifunctional Oxygen Electrocatalysis. <i>Small Methods</i> , 2022, 6, e2101511.	8.6	14
160	Recent Progress on Fe-Based Single/Dual-Atom Catalysts for Zn-Air Batteries. <i>Small</i> , 2022, 18, e2106635.	10.0	47
161	Constructing Synergistic Zn ₄ and Fe ₄ O Dual-Sites from the COF@MOF Derived Hollow Carbon for Oxygen Reduction Reaction. <i>Small Structures</i> , 2022, 3, .	12.0	46
162	Nitrogen-Doped Carbon Flowers with Fe and Ni Dual Metal Centers for Effective Electroreduction of Oxygen. <i>Inorganics</i> , 2022, 10, 36.	2.7	2
163	General Synthetic Strategy to Ordered Mesoporous Carbon Catalysts with Single-Atom Metal Sites for Electrochemical CO ₂ Reduction. <i>Small</i> , 2022, 18, e2107799.	10.0	13
164	Extrasmall Ligand-Free Pt Nanoparticles as Dual-Function Catalysts for Methanol-Assisted Water Splitting Systems. <i>ACS Applied Nano Materials</i> , 2022, 5, 4222-4229.	5.0	7

#	ARTICLE	IF	CITATIONS
165	Emerging Ultrahigh-Density Single-Atom Catalysts for Versatile Heterogeneous Catalysis Applications: Redefinition, Recent Progress, and Challenges. <i>Small Structures</i> , 2022, 3, .	12.0	41
166	Corrosion Chemistry of Electrocatalysts. <i>Advanced Materials</i> , 2022, 34, e2200840.	21.0	43
167	Innovative strategies to effectively increase the active-site density of M-N-C materials for electrochemical application. <i>Current Opinion in Electrochemistry</i> , 2022, 34, 100994.	4.8	1
168	Boosting Oxygen Reduction for High-Efficiency H ₂ O ₂ Electrosynthesis on Oxygen-Coordinated Co ₂ Ni ₂ C Catalysts. <i>Small</i> , 2022, 18, e2200730.	10.0	25
169	Revealing the Origin of Nitrogen Electroreduction Activity of Molybdenum Disulfide Supported Iron Atoms. <i>Journal of Physical Chemistry C</i> , 2022, 126, 5180-5188.	3.1	22
170	Engineering the Morphology and Microenvironment of a Graphene-Supported Co ₂ Ni ₂ C Single-Atom Electrocatalyst for Enhanced Hydrogen Evolution. <i>Small</i> , 2022, 18, e2201139.	10.0	36
171	Highly Loaded Independent Pt ⁰ Atoms on Graphdiyne for pH-General Methanol Oxidation Reaction. <i>Advanced Science</i> , 2022, 9, e2104991.	11.2	26
172	Assistance of rearrangement of active sites in Fe/N/C catalyst for harvesting ultra-high power density PEMFCs. <i>Applied Catalysis B: Environmental</i> , 2022, 312, 121365.	20.2	14
173	Precise constructed atomically dispersed Fe/Ni sites on porous nitrogen-doped carbon for oxygen reduction. <i>Journal of Colloid and Interface Science</i> , 2022, 616, 433-439.	9.4	24
174	Computational screening of single transition metal atom embedded in nitrogen doped graphene for CH ₄ detection. <i>Materials Today Communications</i> , 2022, 31, 103383.	1.9	0
175	Transition metal-based single-atom catalysts (TM-SACs); rising materials for electrochemical CO ₂ reduction. <i>Journal of Energy Chemistry</i> , 2022, 70, 444-471.	12.9	44
176	Atomically dispersed metal sites in COF-based nanomaterials for electrochemical energy conversion. <i>Green Energy and Environment</i> , 2023, 8, 360-382.	8.7	15
177	Iridium Single-Atomic Site Catalysts with Superior Oxygen Reduction Reaction Activity for Sensitive Monitoring of Organophosphorus Pesticides. <i>Analytical Chemistry</i> , 2022, 94, 1390-1396.	6.5	28
178	Rational Construction of Atomically Dispersed Mn-N _x Embedded in Mesoporous N-Doped Amorphous Carbon for Efficient Oxygen Reduction Reaction in Zn-Air Batteries. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 224-233.	6.7	19
179	Hydrogen-Catalyzed Acid Transformation for the Hydration of Alkenes and Epoxy Alkanes over Co ^{II} N Frustrated Lewis Pair Surfaces. <i>Journal of the American Chemical Society</i> , 2021, 143, 21294-21301.	13.7	33
180	Fiber Materials for Electrocatalysis Applications. <i>Advanced Fiber Materials</i> , 2022, 4, 720-735.	16.1	48
181	Vacancy-mediated transition metals as efficient electrocatalysts for water splitting. <i>Nanoscale</i> , 2022, 14, 7181-7188.	5.6	8
182	Asymmetrical C-C Coupling for Electroreduction of CO on Bimetallic Cu ^{II} -Pd Catalysts. <i>ACS Catalysis</i> , 2022, 12, 5275-5283.	11.2	35

#	ARTICLE	IF	CITATIONS
183	Ultrafast synthetic strategies under extreme heating conditions toward single-atom catalysts. <i>International Journal of Extreme Manufacturing</i> , 2022, 4, 032003.	12.7	13
184	Electrocatalytic generation of reactive species and implications in microbial inactivation. <i>Chinese Journal of Catalysis</i> , 2022, 43, 1399-1416.	14.0	8
185	Conducting polymers-derived fascinating electrocatalysts for advanced hydrogen and oxygen electrocatalysis. <i>Coordination Chemistry Reviews</i> , 2022, 464, 214555.	18.8	32
186	Atomically Dispersed Dual-Metal Site Catalysts for Enhanced CO ₂ Reduction: Mechanistic Insight into Active Site Structures. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	83
187	Designing 3d metal oxides: selecting optimal density functionals for strongly correlated materials. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 14119-14139.	2.8	4
188	Single Atom Supported on MoS ₂ as Efficient Electrocatalysts for the CO ₂ Reduction Reaction: A Dft Study. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
189	Atomic manganese coordinated to nitrogen and sulfur for oxygen evolution. <i>Nano Research</i> , 2022, 15, 6019-6025.	10.4	53
190	Coexistence of Fe Nanoclusters Boosting Fe Single Atoms to Generate Singlet Oxygen for Efficient Aerobic Oxidation of Primary Amines to Imines. <i>ACS Catalysis</i> , 2022, 12, 5595-5604.	11.2	58
191	Recent advances in the rational design of single-atom catalysts for electrochemical CO ₂ reduction. <i>Nano Research</i> , 2022, 15, 9747-9763.	10.4	19
192	Resolving the Size-Dependent Transition between CO ₂ Reduction Reaction and H ₂ Evolution Reaction Selectivity in Sub-5 nm Silver Nanoparticle Electrocatalysts. <i>ACS Catalysis</i> , 2022, 12, 5921-5929.	11.2	27
193	Atomically Dispersed Dual-Metal Site Catalysts for Enhanced CO ₂ Reduction: Mechanistic Insight into Active Site Structures. <i>Angewandte Chemie</i> , 2022, 134, .	2.0	6
194	Core-Shell Structured Fe-N-C Catalysts with Enriched Iron Sites in Surface Layers for Proton-Exchange Membrane Fuel Cells. <i>ACS Catalysis</i> , 2022, 12, 6409-6417.	11.2	19
195	Rapid preparation of carbon-supported ruthenium nanoparticles by magnetic induction heating for efficient hydrogen evolution reaction in both acidic and alkaline media. <i>SusMat</i> , 2022, 2, 335-346.	14.9	21
196	Carbon Catalysts for Electrochemical CO ₂ Reduction toward Multicarbon Products. <i>Advanced Energy Materials</i> , 2022, 12, .	19.5	50
197	Thermal derived bismuth nanoparticles on nitrogen-doped carbon aerogel enable selective electrochemical production of formate from CO ₂ . <i>Journal of CO₂ Utilization</i> , 2022, 61, 102031.	6.8	6
198	Metal atom-doped Co ₃ O ₄ nanosheets for Li-O ₂ battery catalyst: Study on the difference of catalytic activity. <i>Chemical Engineering Journal</i> , 2022, 445, 136852.	12.7	25
199	Polyethyleneimine-reinforced Sn/Cu foam dendritic self-supporting catalytic cathode for CO ₂ reduction to HCOOH. <i>Chemosphere</i> , 2022, 301, 134704.	8.2	8
200	Unraveling the electronegativity-dominated intermediate adsorption on high-entropy alloy electrocatalysts. <i>Nature Communications</i> , 2022, 13, 2662.	12.8	196

#	ARTICLE	IF	CITATIONS
201	Isolating Single and Few Atoms for Enhanced Catalysis. <i>Advanced Materials</i> , 2022, 34, e2201796.	21.0	84
202	In Situ Anchoring Massive Isolated Pt Atoms at Cationic Vacancies of $\text{Ni}_x\text{Fe}_{1-x}(\text{OH})_2$ to Regulate the Electronic Structure for Overall Water Splitting. <i>Advanced Functional Materials</i> , 2022, 32, .	14.9	63
203	Pd single-atom catalysts derived from strong metal-support interaction for selective hydrogenation of acetylene. <i>Nano Research</i> , 2022, 15, 10037-10043.	10.4	28
204	DFT study of the therapeutic potential of borospherene and metalborospherenes as a new drug-delivery system for the 5-fluorouracil anticancer drug. <i>Journal of Molecular Liquids</i> , 2022, 360, 119457.	4.9	8
205	Single atom-based catalysts for electrochemical CO ₂ reduction. <i>Chinese Journal of Catalysis</i> , 2022, 43, 1547-1597.	14.0	37
206	A single-atom library for guided monometallic and concentration-complex multimetallic designs. <i>Nature Materials</i> , 2022, 21, 681-688.	27.5	145
207	Tailoring Atomically Dispersed Co-N ₄ Sites with Edge Enrichment Boost Excellent Oxygen Reduction Performance. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
208	Highly efficient CeO ₂ -supported noble-metal catalysts: From single atoms to nanoclusters. <i>Chem Catalysis</i> , 2022, 2, 1594-1623.	6.1	39
209	Breaking the Scaling Relationship Limit: From Single-Atom to Dual-Atom Catalysts. <i>Accounts of Materials Research</i> , 2022, 3, 584-596.	11.7	73
210	Atomically dispersed dual-metal-site PGM-free electrocatalysts for oxygen reduction reaction: Opportunities and challenges. <i>SusMat</i> , 2022, 2, 569-590.	14.9	36
211	Fe-based catalysts for nitrogen reduction toward ammonia electrosynthesis under ambient conditions. <i>SusMat</i> , 2022, 2, 214-242.	14.9	35
212	Atomically dispersed Pt and Fe sites and Pt-Fe nanoparticles for durable proton exchange membrane fuel cells. <i>Nature Catalysis</i> , 2022, 5, 503-512.	34.4	155
213	Emerging low-nuclearity supported metal catalysts with atomic level precision for efficient heterogeneous catalysis. <i>Nano Research</i> , 2022, 15, 7806-7839.	10.4	201
214	Single-Atom Catalysts for Hydrogen Generation: Rational Design, Recent Advances, and Perspectives. <i>Advanced Energy Materials</i> , 2022, 12, .	19.5	42
215	High-content atomically distributed W(_v , _{vi}) on FeCo layered double hydroxide with high oxygen evolution reaction activity. <i>Chemical Communications</i> , 2022, 58, 7678-7681.	4.1	5
216	Single-atom site catalysts based on high specific surface area supports. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 17417-17438.	2.8	11
217	Computational Insight into Metallated Graphynes as Single Atom Electrocatalysts for Nitrogen Fixation. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 27861-27872.	8.0	22
218	Using Coordination Chemistry Concepts to Unravel Electronic Properties of SACs in Bidimensional Materials. <i>Journal of Physical Chemistry C</i> , 2022, 126, 9615-9622.	3.1	5

#	ARTICLE	IF	CITATIONS
219	Charge state modulation on boron site by carbon and nitrogen localized bonding microenvironment for two-electron electrocatalytic H ₂ O ₂ production. Chinese Chemical Letters, 2023, 34, 107596.	9.0	3
220	Solid-State Reaction Synthesis of Nanoscale Materials: Strategies and Applications. Chemical Reviews, 2022, 122, 12748-12863.	47.7	35
221	Asymmetric N, O-Coordinated Single Atomic Co Sites for Stable Lithium Metal Anodes. Energy and Environmental Materials, 2023, 6, .	12.8	11
222	Co ₇ Fe ₃ Nanoparticles Confined in N-Doped Carbon Nanocubes for Highly Efficient, Rechargeable Zinc-Air Batteries. ACS Sustainable Chemistry and Engineering, 2022, 10, 8694-8703.	6.7	13
223	Emerging Graphene Derivatives and Analogues for Efficient Energy Electrocatalysis. Advanced Functional Materials, 2022, 32, .	14.9	22
224	Multi-scale self-templating synthesis strategy of lignin-derived hierarchical porous carbons toward high-performance zinc ion hybrid supercapacitors. Journal of Energy Storage, 2022, 53, 105095.	8.1	21
225	A doping-adsorption-pyrolysis strategy for constructing atomically dispersed cobalt sites anchored on a N-doped carbon framework as an efficient bifunctional electrocatalyst for hydrogen evolution and oxygen reduction. RSC Advances, 2022, 12, 20578-20582.	3.6	4
226	Recent advances in CO ₂ capture and reduction. Nanoscale, 2022, 14, 11869-11891.	5.6	30
227	Emerging ruthenium single-atom catalysts for the electrocatalytic hydrogen evolution reaction. Journal of Materials Chemistry A, 2022, 10, 15370-15389.	10.3	19
228	Rare-Earth Single-Atom Catalysts: A New Frontier in Photo/Electrocatalysis. Small Methods, 2022, 6, .	8.6	63
229	Single-atom catalysis for carbon neutrality. , 2022, 4, 1021-1079.		96
230	Iridium-Iron Diatomic Active Sites for Efficient Bifunctional Oxygen Electrocatalysis. ACS Catalysis, 2022, 12, 9397-9409.	11.2	47
231	Aniline-Mediated Imination and Reduction of a Cage-Opened C ₆₀ Derivative. Asian Journal of Organic Chemistry, 0, , .	2.7	3
232	Synthetic strategy for metallophthalocyanine covalent organic frameworks for electrochemical water oxidation. Materials Today Chemistry, 2022, 26, 101032.	3.5	7
233	Cobalt Quaterpyridine Complexes for Highly Efficient Heterogeneous CO ₂ Reduction in Aqueous Media. Advanced Energy Materials, 2022, 12, .	19.5	11
234	Oxygen-coordinated low-nucleus cluster catalysts for enhanced electrocatalytic water oxidation. , 2023, 5, .		12
235	Single atom supported on MoS ₂ as efficient electrocatalysts for the CO ₂ reduction reaction: A DFT study. Applied Surface Science, 2022, 602, 154211.	6.1	21
236	Macro/Micro-Environment Regulating Carbon-Supported Single-Atom Catalysts for Hydrogen/Oxygen Conversion Reactions. Small, 2022, 18, .	10.0	37

#	ARTICLE	IF	CITATIONS
237	Layered Double Hydroxide-Modified Electrodes for Gaseous Acetaldehyde Degradation at the Solid-Gas Interphase. <i>Journal of the Electrochemical Society</i> , 2022, 169, 073514.	2.9	0
238	Modulation of Ligand Fields in a Single-Atom Site by the Molten Salt Strategy for Enhanced Oxygen Bifunctional Activity for Zinc-Air Batteries. <i>ACS Nano</i> , 2022, 16, 11944-11956.	14.6	45
239	Thermal Migration Promotes the Formation of Manganese and Nitrogen Doped Polyhedral Surface for Boosted Oxygen Reduction Electrocatalysis. <i>Inorganic Chemistry</i> , 2022, 61, 13165-13173.	4.0	0
240	Synergetic Pt Atoms and Nanoparticles Anchored in Standing Carbon-Derived from Covalent Organic Frameworks for Catalyzing ORR. <i>Advanced Materials Interfaces</i> , 0, , 2201263.	3.7	4
241	Scalable Synthesis of Pt Nanoflowers on Solution-Processed MoS ₂ Thin Film for Efficient Hydrogen Evolution Reaction. <i>Small Science</i> , 2022, 2, .	9.9	3
242	Machine Learning: A New Paradigm in Computational Electrocatalysis. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 7920-7930.	4.6	42
243	Understanding electrocatalysis at nanoscale electrodes and single atoms with operando vibrational spectroscopy. <i>Current Opinion in Green and Sustainable Chemistry</i> , 2022, 38, 100682.	5.9	2
244	A general synthesis of single atom catalysts with controllable atomic and mesoporous structures. , 2022, 1, 658-667.		62
246	Cu catalysts detour hydrogen evolution reaction. <i>Matter</i> , 2022, 5, 2537-2540.	10.0	3
247	Single-atom catalysts for thermochemical gas-phase reactions. <i>Molecular Catalysis</i> , 2022, 529, 112535.	2.0	1
248	Rational Catalyst Design for Higher Propene Partial Electro-oxidation Activity by Alloying Pd with Au. <i>Journal of Physical Chemistry C</i> , 2022, 126, 14487-14499.	3.1	7
249	Modulating Bond Interactions and Interface Microenvironments between Polysulfide and Catalysts toward Advanced Metal-Sulfur Batteries. <i>Advanced Functional Materials</i> , 2022, 32, .	14.9	22
250	Electrochemical reduction of CO ₂ to CO on bimetallic CoCu-N-C catalyst. <i>Journal of Cleaner Production</i> , 2022, 371, 133569.	9.3	4
251	Coordinating single-atom catalysts on two-dimensional nanomaterials: A paradigm towards bolstered photocatalytic energy conversion. <i>Coordination Chemistry Reviews</i> , 2022, 471, 214743.	18.8	25
252	Highly efficient peroxymonosulfate activation of single-atom Fe catalysts via integration with Fe ultrafine atomic clusters for the degradation of organic contaminants. <i>Separation and Purification Technology</i> , 2022, 300, 121910.	7.9	13
253	Atomically dispersed Ru ₃ site catalysts for electrochemical sensing of small molecules. <i>Biosensors and Bioelectronics</i> , 2022, 216, 114609.	10.1	10
254	A systematic review on recent advances of metal-organic frameworks-based nanomaterials for electrochemical energy storage and conversion. <i>Coordination Chemistry Reviews</i> , 2022, 471, 214741.	18.8	24
255	CoN ₂ O ₂ sites in carbon nanosheets by template-pyrolysis of COFs for CO ₂ RR. <i>Chemical Engineering Journal</i> , 2022, 450, 138427.	12.7	14

#	ARTICLE	IF	CITATIONS
256	Catalytic elimination of chlorinated organic pollutants by emerging single-atom catalysts. <i>Chemical Engineering Journal</i> , 2022, 450, 138467.	12.7	7
257	Hierarchical macro-mesoporous electrocatalysts with dual-active sites of Ru single atoms and monodispersed Ru-Mo nanoclusters for efficient hydrogen evolution. <i>Materials Today Chemistry</i> , 2022, 26, 101046.	3.5	0
258	Ru decorated Co nanoparticles supported by N-doped carbon sheet implements Pt-like hydrogen evolution performance in wide pH range. <i>Chemical Engineering Journal</i> , 2022, 450, 138254.	12.7	9
259	Molten salt-induction of geometrically deformed ruthenium single atom catalysts with high performance for aerobic oxidation of alcohols. <i>Chemical Engineering Journal</i> , 2023, 451, 138660.	12.7	10
260	Sustainable Synthesis of Dual Single-Atom Catalyst of Pd ₄ /Cu ₄ for Partial Oxidation of Ethylene Glycol. <i>Advanced Functional Materials</i> , 2022, 32, .	14.9	15
261	Protein-mediated synthesis of iron single atom electrocatalyst with highly accessible active sites for enhanced pH-universal oxygen reduction. <i>Applied Catalysis B: Environmental</i> , 2023, 320, 121987.	20.2	22
262	Non-precious transition metal single-atom catalysts for the oxygen reduction reaction: progress and prospects. <i>Nanoscale</i> , 2022, 14, 14322-14340.	5.6	29
263	Achieving efficient oxygen reduction on ultra-low metal-loaded electrocatalysts by constructing well-dispersed bimetallic sites and interconnected porous channels. <i>Journal of Materials Chemistry A</i> , 2022, 10, 17217-17224.	10.3	7
264	Characterization. <i>Springer Series in Materials Science</i> , 2022, , 53-82.	0.6	0
265	Catalytic Effect of Carbon-Based Nanomaterials in Electrochemical Catalysis. <i>Springer Series in Materials Science</i> , 2022, , 83-101.	0.6	0
266	Heterogeneous N-coordinated single-atom photocatalysts and electrocatalysts. <i>Chinese Journal of Catalysis</i> , 2022, 43, 2453-2483.	14.0	33
267	Rational Design of Single Tungsten/Cobalt Atom Oxide Anchored on the TiO ₂ -RGO: A Highly Efficient Electrocatalyst for Water Splitting and Photocatalyst for Decomposition of Pharmaceutical Pollutants. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
268	Atomically distributed asymmetrical five-coordinated Co-N ₅ moieties on N-rich doped C enabling enhanced redox kinetics for advanced Li-S batteries. <i>Journal of Materials Chemistry A</i> , 2022, 10, 22114-22124.	10.3	11
269	Super-stable SnO ₂ /MoS ₂ enhanced the electrocatalytic hydrogen evolution in acidic environments. <i>RSC Advances</i> , 2022, 12, 23503-23512.	3.6	2
270	Efficient direct lignin fuel cells enabled by hierarchical nickel-iron phosphide nanosheets as an anode catalyst. <i>Sustainable Energy and Fuels</i> , 2022, 6, 4866-4872.	4.9	2
271	Carbon-Based Nanomaterials for Metal-Air Batteries. <i>Springer Series in Materials Science</i> , 2022, , 249-270.	0.6	0
272	Impacts of ruthenium valence state on the electrocatalytic activity of ruthenium ion-complexed graphitic carbon nitride/reduced graphene oxide nanosheets towards hydrogen evolution reaction. <i>Journal of Colloid and Interface Science</i> , 2023, 629, 591-597.	9.4	6
273	Efficient Electrocatalytic Oxidation of Glycerol via Promoted OH* Generation over Single-Atom-Bismuth-Doped Spinel Co ₃ O ₄ . <i>ACS Catalysis</i> , 2022, 12, 12432-12443.	11.2	63

#	ARTICLE	IF	CITATIONS
274	Recent progress in electrochemical reduction of carbon monoxide toward multi-carbon products. <i>Materials Today</i> , 2022, 59, 182-199.	14.2	22
275	The Progress and Outlook of Metal Single-Atom-Site Catalysis. <i>Journal of the American Chemical Society</i> , 2022, 144, 18155-18174.	13.7	151
276	Metal- ¹³ Nitrogen- ¹³ Carbon Single-Atom Aerogels as Self-Supporting Electrodes for Dechlorination of 1,2-Dichloroethane. <i>Advanced Functional Materials</i> , 2022, 32, .	14.9	12
277	Advanced TEM Characterization for Single-atom Catalysts: from Ex-situ Towards In-situ. <i>Chemical Research in Chinese Universities</i> , 2022, 38, 1172-1184.	2.6	11
278	Advanced Strategies for Stabilizing Single-Atom Catalysts for Energy Storage and Conversion. <i>Electrochemical Energy Reviews</i> , 2022, 5, .	25.5	43
279	Recent advances and challenges of electrochemical ammonia synthesis. <i>Chem Catalysis</i> , 2022, 2, 2590-2613.	6.1	39
280	Synergistic Effect of Co ₉ S ₈ and FeS ₂ Inlaid on N-Doped Carbon Nanofibers toward a Bifunctional Catalyst for Zn-Air Batteries. <i>Langmuir</i> , 2022, 38, 11753-11763.	3.5	6
281	Evaluation of Novel Fuel Cell Catalysts with Ultra-Low Noble Metal Contents towards Electrochemical Catalysis. <i>ECS Journal of Solid State Science and Technology</i> , 2022, 11, 091009.	1.8	1
282	A Machine Learning Model To Predict CO ₂ Reduction Reactivity and Products Transferred from Metal-Zeolites. <i>ACS Catalysis</i> , 2022, 12, 12336-12348.	11.2	18
283	Electro-assisted Molecular Assembly Endowing the Atomic-Scaled Catalytic Active Site Detection. <i>Chemistry - A European Journal</i> , 0, , .	3.3	0
284	Recent advance in MXenes: New horizons in electrocatalysis and environmental remediation technologies. <i>Progress in Solid State Chemistry</i> , 2022, 68, 100370.	7.2	9
285	Doping Effect on Mesoporous Carbon-Supported Single-Site Bifunctional Catalyst for Zinc-Air Batteries. <i>ACS Nano</i> , 2022, 16, 15994-16002.	14.6	61
286	Double synergetic FeCo-nanoparticles and single atoms embedded in N-doped carbon nanotube arrays as efficient bifunctional catalyst for high-performance zinc-air batteries. <i>Materials Today Energy</i> , 2022, 29, 101138.	4.7	6
287	Single-Atom Sn on Tensile-Strained ZnO Nanosheets for Highly Efficient Conversion of CO ₂ into Formate. <i>Advanced Energy Materials</i> , 2022, 12, .	19.5	30
288	Rational design of single tungsten/cobalt atom oxide anchored on the TiO ₂ -rGO: A highly efficient electrocatalyst for water splitting and photocatalyst for decomposition of pharmaceutical pollutant. <i>Separation and Purification Technology</i> , 2022, 303, 122298.	7.9	9
289	Boron-Doped Platinum-Group Metals in Electrocatalysis: A Perspective. <i>ACS Catalysis</i> , 2022, 12, 12750-12764.	11.2	31
290	Ru-MoS ₂ @PPy hollow nanowire as an ultra-stable catalyst for alkaline hydrogen evolution reaction. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 37850-37859.	7.1	3
291	Mixture screening strategy of efficient transition metal heteronuclear dual-atom electrocatalysts toward nitrogen fixation. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 26776-26784.	2.8	6

#	ARTICLE	IF	CITATIONS
292	Recent Developments of Atomically Dispersed Metal Electrocatalysts for Oxygen Reduction Reaction. Chinese Journal of Chemistry, 2023, 41, 581-598.	4.9	6
293	Fe-N-C Boosts the Stability of Supported Platinum Nanoparticles for Fuel Cells. Journal of the American Chemical Society, 2022, 144, 20372-20384.	13.7	50
294	Two-dimensional mineral hydrogel-derived single atoms-anchored heterostructures for ultrastable hydrogen evolution. Nature Communications, 2022, 13, .	12.8	25
295	Construction of Catalytic Covalent Organic Frameworks with Redox-Active Sites for the Oxygen Reduction and the Oxygen Evolution Reaction. Angewandte Chemie, 2022, 134, .	2.0	7
296	Construction of Catalytic Covalent Organic Frameworks with Redox-Active Sites for the Oxygen Reduction and the Oxygen Evolution Reaction. Angewandte Chemie - International Edition, 2022, 61, .	13.8	53
297	Emerging dual-atomic-site catalysts for electrocatalytic CO ₂ reduction. Science China Materials, 2022, 65, 3302-3323.	6.3	31
298	Advanced electrochemical energy storage and conversion on graphdiyne interface. , 2022, 1, e9120036.		24
299	Co-doped carbon nitride nanosheets supported on SMFs for peroxymonosulfate activation to degrade tetracycline. Chemical Engineering Research and Design, 2022, 168, 487-498.	5.6	3
300	Single-atom Co-N ₅ catalytic sites on carbon nanotubes as peroxymonosulfate activator for sulfamerazine degradation via enhanced electron transfer pathway. Separation and Purification Technology, 2023, 304, 122398.	7.9	15
301	Water splitting performance of metal and non-metal-doped transition metal oxide electrocatalysts. Coordination Chemistry Reviews, 2023, 474, 214864.	18.8	90
302	Influence of uncoordinated N content on Ni N C electrocatalyst for CO ₂ reduction: Combining first principle with machine learning. Fuel, 2023, 333, 126563.	6.4	3
303	Single-Atom Low-Valent Alkaline-Earth-Metal Catalysts for Electrochemical Nitrogen Reduction with an Acceptance-Backdonation Mechanism. ACS Applied Materials & Interfaces, 2022, 14, 52079-52086.	8.0	8
304	Electrochemical CO ₂ reduction: From catalysts to reactive thermodynamics and kinetics. Carbon Capture Science & Technology, 2023, 6, 100081.	10.4	8
305	Metal-Organic Framework-Derived Atomically Dispersed Co-N-C Electrocatalyst for Efficient Oxygen Reduction Reaction. Catalysts, 2022, 12, 1462.	3.5	4
306	Co,N-doped carbon sheets prepared by a facile method as high-efficiency oxygen reduction catalysts. RSC Advances, 2022, 12, 33981-33987.	3.6	2
307	A nanoelectrode-based study of water splitting electrocatalysts. Materials Horizons, 2023, 10, 52-64.	12.2	4
308	Metal-organic framework-derived single atom catalysts for electrocatalytic reduction of carbon dioxide to C ₁ products. Energy Advances, 2023, 2, 252-267.	3.3	1
309	Electrically conductive Pt-MOFs for acidic oxygen reduction: Optimized performance via altering conjugated ligands. Chemical Engineering Journal, 2023, 455, 140799.	12.7	5

#	ARTICLE	IF	CITATIONS
310	Configuration regulation of active sites by accurate doping inducing self-adapting defect for enhanced photocatalytic applications: A review. <i>Coordination Chemistry Reviews</i> , 2023, 478, 214970.	18.8	28
311	Atomically dispersed cerium sites in carbon-doped boron nitride for photodriven CO ₂ reduction: Local polarization and mechanism insight. <i>Applied Catalysis B: Environmental</i> , 2023, 324, 122235.	20.2	9
312	A versatile single-copper-atom electrocatalyst for biomass valorization. <i>Applied Catalysis B: Environmental</i> , 2023, 324, 122218.	20.2	11
313	Strategies for enhancing the catalytic activity and electronic conductivity of MOFs-based electrocatalysts. <i>Coordination Chemistry Reviews</i> , 2023, 478, 214969.	18.8	35
314	Dopant-vacancy activated tetragonal transition metal selenide for hydrogen evolution electrocatalysis. <i>Chinese Chemical Letters</i> , 2023, 34, 108046.	9.0	5
315	Metal-enhanced strategies for photocatalytic and photoelectrochemical CO ₂ reduction. <i>Chemical Engineering Journal</i> , 2023, 457, 141179.	12.7	8
316	A highly hydrothermal stable copper-based catalyst for catalytic wet air oxidation of m-cresol in coal chemical wastewater. <i>Chinese Journal of Chemical Engineering</i> , 2023, 57, 338-348.	3.5	7
317	Ru-Substituted MnO ₂ for Accelerated Water Oxidation: The Feedback of Strain-Induced and Polymorph-Dependent Structural Changes to the Catalytic Activity and Mechanism. <i>ACS Catalysis</i> , 2023, 13, 256-266.	11.2	15
318	Heteroatom Coordination Regulates Iron Single-Atom Catalyst with Superior Oxygen Reduction Reaction Performance for Aqueous Zn-Air Battery. <i>Small</i> , 2023, 19, .	10.0	24
319	Oxygen-Bridged Indium-Nickel Atomic Pair as Dual-Metal Active Sites Enabling Synergistic Electrocatalytic CO ₂ Reduction. <i>Angewandte Chemie - International Edition</i> , 2023, 62, .	13.8	31
320	Application and Progress of Confinement Synthesis Strategy in Electrochemical Energy Storage. <i>Transactions of Tianjin University</i> , 2023, 29, 151-187.	6.4	4
321	Harvesting the Gas Molecules by Bioinspired Design of 1D/2D Hybrids Toward Sensitive Acetone Detecting. <i>Small Structures</i> , 2023, 4, .	12.0	3
322	One-Step Approach for Constructing High-Density Single-Atom Catalysts toward Overall Water Splitting at Industrial Current Densities. <i>Angewandte Chemie - International Edition</i> , 2023, 62, .	13.8	30
323	One-Step Approach for Constructing High-Density Single-Atom Catalysts toward Overall Water Splitting at Industrial Current Densities. <i>Angewandte Chemie</i> , 2023, 135, .	2.0	3
324	Axial Phosphate Coordination in Co Single Atoms Boosts Electrochemical Oxygen Evolution. <i>Advanced Science</i> , 2023, 10, .	11.2	13
325	Oxygen-Bridged Indium-Nickel Atomic Pair as Dual-Metal Active Sites Enabling Synergistic Electrocatalytic CO ₂ Reduction. <i>Angewandte Chemie</i> , 2023, 135, .	2.0	6
326	Recent Progress in Computational Design of Single-Atom/Cluster Catalysts for Electrochemical and Solar-Driven N ₂ Fixation. <i>ACS Catalysis</i> , 2022, 12, 15541-15575.	11.2	27
327	Synergy of Ultrathin CoO _x Overlayer and Nickel Single Atoms on Hematite Nanorods for Efficient Photo-Electrochemical Water Splitting. <i>Small</i> , 2023, 19, .	10.0	16

#	ARTICLE	IF	CITATIONS
328	Altering Ligand Microenvironment of Atomically Dispersed CrN ₄ by Axial Ligand Sulfur for Enhanced Oxygen Reduction Reaction in Alkaline and Acidic Medium. <i>Small</i> , 2023, 19, .	10.0	6
329	Machine Learning Assisted Understanding and Discovery of CO ₂ Reduction Reaction Electrocatalyst. <i>Journal of Physical Chemistry C</i> , 2023, 127, 882-893.	3.1	12
330	Surface modification strategy for constructing Fe-N _x species and Fe ₂ /Fe ₃ C nanoparticles co-anchored N, F co-doped carbon nanotubes for efficient oxygen reduction. <i>Journal of Alloys and Compounds</i> , 2023, 941, 168922.	5.5	8
331	On the Road from Single-Atom Materials to Highly Sensitive Electrochemical Sensing and Biosensing. <i>Analytical Chemistry</i> , 2023, 95, 433-443.	6.5	19
332	Efficient Electrochemical Reduction of CO ₂ on g-C ₃ N ₄ Monolayer-Supported Metal Trimer Catalysts: A DFT Study. <i>Chemistry - an Asian Journal</i> , 2023, 18, .	3.3	3
333	Computational Study on the Catalytic Performance of Single-Atom Catalysts Anchored on g-CN for Electrochemical Oxidation of Formic Acid. <i>Catalysts</i> , 2023, 13, 187.	3.5	1
334	Coordination Polymer Electrocatalysts Enable Efficient CO ₂ to Acetate Conversion. <i>Advanced Materials</i> , 2023, 35, .	21.0	18
335	A general approach to 3D-printed single-atom catalysts. , 2023, 2, 129-139.		39
336	Cobalt-phthalocyanine-modified two-dimensional cobalt hydroxide complexes for highly selective electrocatalytic reduction of CO ₂ to CO. <i>Journal of Materials Chemistry A</i> , 2023, 11, 1123-1128.	10.3	6
337	The Screening of Homo- and Hetero-Dual Atoms Anchored Graphdiyne for Boosting Electrochemical CO ₂ Reduction. <i>Advanced Materials Interfaces</i> , 2023, 10, .	3.7	3
338	Construction of single tungsten/copper atom oxide supported on the surface of TiO ₂ for the higher activity of electrocatalytic water splitting and photodegradation of organic pollutant. <i>Chemosphere</i> , 2023, 314, 137694.	8.2	4
339	Dual metal atom catalysts: Advantages in electrocatalytic reactions. <i>Journal of Energy Chemistry</i> , 2023, 79, 515-534.	12.9	22
340	FeCoN Co-doped Hollow Carbon Nanocage Grafted with Carbon Nanotubes as an Electrocatalyst for Enhanced Oxygen Reduction Reaction. <i>ACS Applied Energy Materials</i> , 2023, 6, 2010-2021.	5.1	6
341	Mass Production of Sulfur-Tuned Single-Atom Catalysts for Zn-Air Batteries. <i>Advanced Materials</i> , 0, , 2209948.	21.0	23
342	Aluminum-doped cadmium sulfide homojunction photoelectrode with optimal film quality and water-splitting performance. <i>Catalysis Science and Technology</i> , 0, , .	4.1	0
343	Electronic States Regulation Induced by the Synergistic Effect of Cu Clusters and Cu ₁ N ₃ Sites Boosting Electrocatalytic Performance. <i>Advanced Functional Materials</i> , 2023, 33, .	14.9	23
344	N-doped carbon nanowire array confined cobalt phosphides as efficient bifunctional electrocatalysts for water splitting. <i>Inorganic Chemistry Frontiers</i> , 2023, 10, 2145-2153.	6.0	8
345	Recent progress in the development of single-atom electrocatalysts for highly efficient hydrogen evolution reactions. <i>Materials Chemistry Frontiers</i> , 2023, 7, 3209-3231.	5.9	8

#	ARTICLE	IF	CITATIONS
346	A Heterogeneous Single Atom Cobalt Catalyst for Highly Efficient Acceptorless Dehydrogenative Coupling Reactions. <i>Small</i> , 2023, 19, .	10.0	12
347	Cu dopant triggered Fe-N-C catalysts toward high efficiency electroreduction of CO ₂ to CO. <i>Journal of CO₂ Utilization</i> , 2023, 70, 102420.	6.8	4
348	Electrocatalyst Microenvironment Engineering for Enhanced Product Selectivity in Carbon Dioxide and Nitrogen Reduction Reactions. <i>ACS Catalysis</i> , 2023, 13, 5375-5396.	11.2	17
349	MXene-based single atom catalysts for efficient CO ₂ RR towards CO: A novel strategy for high-throughput catalyst design and screening. <i>Chemical Engineering Journal</i> , 2023, 461, 141936.	12.7	9
350	Syntheses and applications of single-atom catalysts for electrochemical energy conversion reactions. <i>Chinese Journal of Catalysis</i> , 2023, 47, 32-66.	14.0	9
351	S and N coordinated single-atom catalysts for electrochemical CO ₂ reduction with superior activity and selectivity. <i>Applied Surface Science</i> , 2023, 619, 156747.	6.1	8
352	Fe-Co dual atomic doublets on N, P codoped carbon as active sites in the framework of heterostructured hollow fibers towards high-performance flexible Zn-Air battery. <i>Energy Storage Materials</i> , 2023, 59, 102772.	18.0	7
353	Gram-scale synthesis and unraveling the activity origin of atomically dispersed Co-N ₄ O sites toward superior electrocatalytic oxygen reduction. <i>Applied Catalysis B: Environmental</i> , 2023, 328, 122489.	20.2	9
354	Solvent-mediated oxidative polymerization to atomically dispersed iron sites for oxygen reduction. <i>Applied Catalysis B: Environmental</i> , 2023, 331, 122675.	20.2	5
355	Single-Atom Iridium-Based Catalysts: Synthesis Strategies and Electro(Photo)-Catalytic Applications for Renewable Energy Conversion and Storage. <i>Coordination Chemistry Reviews</i> , 2023, 486, 215143.	18.8	8
356	Evaluating the stability of Ir single atom and Ru atomic cluster oxygen evolution reaction electrocatalysts. <i>Electrochimica Acta</i> , 2023, 444, 141982.	5.2	12
357	Atomically precise electrocatalysts for oxygen reduction reaction. <i>CheM</i> , 2023, 9, 280-342.	11.7	36
358	Generalized Encapsulations of ZIF-Based Fe-N-C Catalysts with Controllable Nitrogen-Doped Carbon for Significantly Improved Stability Toward Oxygen Reduction Reaction. <i>Small</i> , 2023, 19, .	10.0	4
359	Atomically dispersed iridium catalysts on silicon photoanode for efficient photoelectrochemical water splitting. <i>Nature Communications</i> , 2023, 14, .	12.8	32
360	Influence of the addition of nanoparticles on the oxygen reduction reaction characteristics of FeNC catalysts and the impact on the stability. <i>Journal of Power Sources</i> , 2023, 561, 232713.	7.8	1
361	Boosting Oxygen Electrocatalytic Activity of Fe-N-C Catalysts by Phosphorus Incorporation. <i>Journal of the American Chemical Society</i> , 2023, 145, 3647-3655.	13.7	93
362	Data-Driven Discovery of Graphene-Based Dual-Atom Catalysts for Hydrogen Evolution Reaction with Graph Neural Network and DFT Calculations. <i>ACS Applied Materials & Interfaces</i> , 2023, 15, 12936-12945.	8.0	12
363	Dual-Atom Catalysts for Electrochemical Energy Technologies. <i>Energy Technology</i> , 2023, 11, .	3.8	1

#	ARTICLE	IF	CITATIONS
364	Noble Metal-Based Heterogeneous Catalysts for Electrochemical Hydrogen Evolution Reaction. Applied Sciences (Switzerland), 2023, 13, 2177.	2.5	3
365	Tuning Local Coordination Environments of Manganese Single-Atom Nanozymes with Multi-Enzyme Properties for Selective Colorimetric Biosensing. Angewandte Chemie - International Edition, 2023, 62, .	13.8	20
366	Tuning Local Coordination Environments of Manganese Single-Atom Nanozymes with Multi-Enzyme Properties for Selective Colorimetric Biosensing. Angewandte Chemie, 2023, 135, .	2.0	4
367	Operando Stability of Single-Atom Electrocatalysts. Angewandte Chemie, 2023, 135, .	2.0	4
368	Operando Stability of Single-Atom Electrocatalysts. Angewandte Chemie - International Edition, 2023, 62, .	13.8	9
369	Atomic coordination structural dynamic evolution of single-atom Mo catalyst for promoting H ₂ activation in slurry phase hydrocracking. Science Bulletin, 2023, 68, 503-515.	9.0	13
370	Direct Oxygen-Oxygen Cleavage through Optimizing Interatomic Distances in Dual Single-Atom Electrocatalysts for Efficient Oxygen Reduction Reaction. Angewandte Chemie - International Edition, 2023, 62, .	13.8	36
371	Direct Oxygen-Oxygen Cleavage through Optimizing Interatomic Distances in Dual Single-Atom Electrocatalysts for Efficient Oxygen Reduction Reaction. Angewandte Chemie, 2023, 135, .	2.0	1
372	Recent advances in the regulation of the coordination structures and environment of single-atom catalysts for carbon dioxide reduction reaction. Journal of Materials Chemistry A, 2023, 11, 7949-7986.	10.3	6
373	Pyridyl-containing graphdiyne stabilizes sub-2 nm ultrasmall copper nanoclusters for the electrochemical reduction of CO ₂ . Inorganic Chemistry Frontiers, 2023, 10, 2189-2196.	6.0	3
374	Inorganic non-carbon supported Pt catalysts and synergetic effects for oxygen reduction reaction. Energy and Environmental Science, 2023, 16, 1838-1869.	30.8	27
375	Metal functionalization of two-dimensional nanomaterials for electrochemical carbon dioxide reduction. Nanoscale, 2023, 15, 6456-6475.	5.6	7
376	Trends and Prospects of Bulk and Single-Atom Catalysts for the Oxygen Evolution Reaction. Advanced Energy Materials, 2023, 13, .	19.5	25
377	Dendritic NiS ₂ @Co-N-C nanoarchitectures as bifunctional electrocatalysts for long-life Zn-air batteries. Inorganic Chemistry Frontiers, 2023, 10, 2370-2379.	6.0	5
378	Precise electronic structure modulation on MXene-based single atom catalysts for high-performance electrocatalytic CO ₂ reduction reaction: A first-principle study. Journal of Colloid and Interface Science, 2023, 642, 273-282.	9.4	9
379	æ°cé”®è†³ç„è£...æœ%œœ²æ;†æž¶æœ–™âœ“ç”µâCE–â†èf1/2æ°â~â„â’CEè1/2-æÇâ,çš„ç”ç©¶è¿â±•. Chinese Science Bulletin, 2023, .		
380	One-dimensional metal-organic frameworks: Synthesis, structure and application in electrocatalysis. , 2023, 1, 100010.		2
381	Recent advances in the theoretical studies on the electrocatalytic CO ₂ reduction based on single and double atoms. Frontiers in Chemistry, 0, 11, .	3.6	2

#	ARTICLE	IF	CITATIONS
382	Atomic Nickel on Graphitic Carbon Nitride as a Visible Light-Driven Hydrogen Production Photocatalyst Studied by X-ray Spectromicroscopy. <i>ACS Sustainable Chemistry and Engineering</i> , 2023, 11, 5390-5399.	6.7	8
383	Longitudinally Grafting of Graphene with Iron Phthalocyanine-based Porous Organic Polymer to Boost Oxygen Electroreduction. <i>Angewandte Chemie - International Edition</i> , 2023, 62, .	13.8	17
384	Longitudinally Grafting of Graphene with Iron Phthalocyanine-based Porous Organic Polymer to Boost Oxygen Electroreduction. <i>Angewandte Chemie</i> , 0, , .	2.0	0
385	Regulating the steric effect at the zero-dimensional interface. , 2023, 53, 0301.		0
386	Recent advances in regulating the local environment of M-N ₄ structure for tailored chemical reactions. <i>Nano Research</i> , 2023, 16, 8596-8613.	10.4	2
387	Hierarchical Porous Pt/ZrO ₂ Nanoframework for Efficient Oxygen Reduction Reaction. <i>ACS Catalysis</i> , 2023, 13, 5397-5405.	11.2	12
388	Metal Oxide-Supported Metal Catalysts for Electrocatalytic Oxygen Reduction Reaction: Characterization Methods, Modulation Strategies, and Recent Progress. <i>Small Methods</i> , 2023, 7, .	8.6	6
389	Atom-Precise Low-Nuclearity Cluster Catalysis: Opportunities and Challenges. <i>ACS Catalysis</i> , 2023, 13, 5609-5634.	11.2	15
390	Single-atom cobalt-incorporating carbon nitride for photocatalytic solar hydrogen conversion: An X-ray spectromicroscopy study. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2023, 264, 147319.	1.7	1
391	High-Density Single-Atomic Mn-N-C Site in Hierarchical Porous Biochar for Superoxide Radical-Dominated Ozonation. <i>Chemistry of Materials</i> , 2023, 35, 3640-3651.	6.7	5
392	Review of Carbon Support Coordination Environments for Single Metal Atom Electrocatalysts (SACS). <i>Advanced Materials</i> , 2024, 36, .	21.0	13
393	Edge atomic Fe sites decorated porous graphitic carbon as an efficient bifunctional oxygen catalyst for Zinc-air batteries. <i>Journal of Energy Chemistry</i> , 2023, 83, 602-611.	12.9	9
394	Multicomponent Metal Oxide- and Metal Hydroxide-Based Electrocatalysts for Alkaline Water Splitting. <i>Materials</i> , 2023, 16, 3280.	2.9	9
395	Two-Dimensional Covalent Framework Derived Nonprecious Transition Metal Single-Atomic-Site Electrocatalyst toward High-Efficiency Oxygen Reduction. <i>Nano Letters</i> , 2023, 23, 3803-3809.	9.1	4
396	Fe-N-C nanostick derived from 1D Fe-ZIFs for electrocatalytic oxygen reduction. , 2023, 42, 100097.		5
397	Constructed surface-enriched atomically dispersed Co-N ₄ active sites via stepwise pyrolysis strategy for oxygen reduction. <i>Molecular Catalysis</i> , 2023, 544, 113175.	2.0	0
398	Recent advances of transition-metal metaphosphates for efficient electrocatalytic water splitting. , 2023, 5, .		5
399	Distance produces beauty? regulating the distance of Fe atomic pairs to enhance electrocatalytic CO ₂ reduction. <i>Materials Chemistry Frontiers</i> , 2023, 7, 3146-3155.	5.9	2

#	ARTICLE	IF	CITATIONS
400	Plasmon driven super-high HER activity of electronic structure and lattice strain engineered single atomic layer Pd@Au nanorods. <i>Chemical Engineering Journal</i> , 2023, 467, 143387.	12.7	2
401	Metalloborosphenes as a potential promising high drug-loading capacity for anticancer 5-fluorouracil drug: A DFT mechanistic approach. <i>Computational and Theoretical Chemistry</i> , 2023, 1221, 114046.	2.5	1
402	Metal Alloysâ€”Structured Electrocatalysts: Metalâ€”Metal Interactions, Coordination Microenvironments, and Structural Propertyâ€”Reactivity Relationships. <i>Advanced Materials</i> , 2023, 35, .	21.0	23
403	Coupling Single-Ni-Atom with Niâ€”Co Alloy Nanoparticle for Synergistically Enhanced Oxygen Reduction Reaction. <i>Inorganic Chemistry</i> , 2023, 62, 8200-8209.	4.0	2
404	One-dimensional MOFs-based and their-derived fascinating electrocatalysts for water electrolysis. <i>Separation and Purification Technology</i> , 2023, 320, 124184.	7.9	5
405	Unravelling the adsorption and electroreduction performance of CO ₂ and N ₂ over defective and B, P, Si-doped C ₃ Ns: a DFT study. <i>Physical Chemistry Chemical Physics</i> , 2023, 25, 16952-16961.	2.8	1
406	State-of-the-art single-atom catalysts in electrocatalysis: From fundamentals to applications. <i>Nano Energy</i> , 2023, 113, 108570.	16.0	10
407	Surface activation of platinum group metal clusters for efficient and durable oxygen reduction in proton exchange membrane fuel cells. <i>Applied Physics Reviews</i> , 2023, 10, .	11.3	4
408	High-efficiency oxygen electrocatalyst for Zn-air batteries on CoMn alloy encapsulated in N-doped carbon architectures. <i>APL Materials</i> , 2023, 11, .	5.1	1
409	Boosting oxygen reduction of single-atomic iron sites by charge redistribution. <i>Applied Catalysis B: Environmental</i> , 2023, 337, 122961.	20.2	4
410	Molecular dynamics for electrocatalysis: Mechanism explanation and performance prediction. , 2023, 2, 100028.		6
411	Porous Organic Polymersâ€”Based Single-Atom Catalysts for Sustainable Energyâ€”Related Electrocatalysis. <i>Advanced Energy Materials</i> , 2023, 13, .	19.5	17
412	Axial Dual Atomic Sites Confined by Layer Stacking for Electroreduction of CO ₂ to Tunable Syngas. <i>Journal of the American Chemical Society</i> , 2023, 145, 13462-13468.	18.7	14
413	Theoretical screening of graphyneâ€”supported transition metal single-atom catalyst for N ₂ reduction reaction. <i>Physical Chemistry Chemical Physics</i> , 0, , .	2.8	0
414	Non-noble metal single atom-based catalysts for electrochemical reduction of CO ₂ : Synthesis approaches and performance evaluation. , 2023, 2, 100018.		16
415	Rational Design of Heterogeneous Dual-Atom Catalysts for CO ₂ Electroreduction Reactions. <i>ACS Applied Energy Materials</i> , 2023, 6, 6851-6882.	5.1	6
416	Electrocatalysts for the oxygen evolution reaction: mechanism, innovative strategies, and beyond. <i>Materials Chemistry Frontiers</i> , 2023, 7, 4833-4864.	5.9	9
417	Research progress in graphene based single atom catalysts in recent years. <i>Fuel Processing Technology</i> , 2023, 250, 107879.	7.2	4

#	ARTICLE	IF	CITATIONS
418	Waste to wealth: direct utilization of spent materials for electrocatalysis and energy storage. <i>Green Chemistry</i> , 2023, 25, 3816-3846.	9.0	5
419	SACs on Non-Carbon Substrates: Can They Outperform for Water Splitting?. <i>Advanced Functional Materials</i> , 2023, 33, .	14.9	5
420	Theoretical Screening of Highly Efficient Single-Atom Catalysts Based on Covalent Triazine Frameworks for Oxygen Reduction. <i>Langmuir</i> , 2023, 39, 6905-6913.	3.5	5
421	One-dimensional carbon based nanoreactor fabrication by electrospinning for sustainable catalysis. <i>Exploration</i> , 2023, 3, .	11.0	2
422	Overview of emerging catalytic materials for electrochemical green ammonia synthesis and process. , 2023, 5, .		3
423	Highly accessible atomically dispersed Fe _{Nx} sites coupled with Fe ₃ C@C core-shell nanoparticles boost the oxygen catalysis for ultra-stable rechargeable Zn-air batteries. <i>Applied Catalysis B: Environmental</i> , 2023, 335, 122887.	20.2	13
424	Optimizing the Electronic Structure of Atomically Dispersed Ru Sites with CoP for Highly Efficient Hydrogen Evolution in both Alkaline and Acidic Media. <i>Small</i> , 2023, 19, .	10.0	7
425	Single-atom catalysis for carbon dioxide dissociation using greigite-supported M1/Fe ₃ S ₄ (111) (M=Sc, Ti, Tj) <i>ETOG</i> 1 0.784314 rgB 1 0.2	8.2	1
426	How synthetic methods of single-atom electrocatalysts affect the catalytic performance of carbon dioxide reduction. <i>Current Opinion in Chemical Engineering</i> , 2023, 41, 100922.	7.8	1
427	Axial Oxygen Ligands Regulating Electronic and Geometric Structure of Zn-N-C Sites to Boost Oxygen Reduction Reaction. <i>Advanced Science</i> , 2023, 10, .	11.2	18
428	Single-atomic site catalysts for electrochemical nitrogen fixation. <i>Materials Research Letters</i> , 2023, 11, 697-712.	8.7	0
429	Electrochemical Reduction of CO ₂ via Single-Atom Catalysts Supported on In ₂ Se ₃ . <i>Journal of Physical Chemistry Letters</i> , 2023, 14, 6110-6118.	4.6	0
430	Ni Single Atoms Embedded in Graphene Nanoribbon Sieves for High-Performance CO ₂ Reduction to CO. <i>Small</i> , 2023, 19, .	10.0	1
431	Unveiling Interfacial Effects for Efficient and Stable Hydrogen Evolution Reaction on Ruthenium Nanoparticles-Embedded Pentlandite Composites. <i>Small</i> , 2023, 19, .	10.0	1
432	Charging the cigarette butt: heteroatomic porous carbon nanosheets with edge-induced topological defects for enhanced oxygen evolution performance. <i>Frontiers of Chemical Science and Engineering</i> , 2023, 17, 1755-1764.	4.4	2
433	Spatially and temporally understanding dynamic solid-electrolyte interfaces in carbon dioxide electroreduction. <i>Chemical Society Reviews</i> , 2023, 52, 5013-5050.	38.1	21
434	Engineering the electronic structures of hetero-diatomic iron-manganese sites by d-d orbital hybridization for boosting oxygen reduction. <i>Applied Catalysis B: Environmental</i> , 2023, 338, 123090.	20.2	10
435	Electronic communication between transition metal nanoparticle and single atom: Endohedral metallofullerenes single-atom catalysts for oxygen reduction reaction catalysis. <i>Computational and Theoretical Chemistry</i> , 2023, 1227, 114242.	2.5	0

#	ARTICLE	IF	CITATIONS
436	Effect of the Axial Halogen Ligand on the Oxygen Reduction Reaction Performance of Transition Metal–Nitrogen–Carbon Catalysts. <i>Journal of Physical Chemistry C</i> , 2023, 127, 14107-14116.	3.1	1
437	Metal–Organic Frameworks for Electrocatalytic CO ₂ Reduction into Formic Acid. <i>Catalysts</i> , 2023, 13, 1109.	3.5	0
438	Metalation of functionalized benzoquinoline-linked COFs for electrocatalytic oxygen reduction and lithium-sulfur batteries. <i>Journal of Colloid and Interface Science</i> , 2023, 650, 1466-1475.	9.4	4
439	It's time for an update—A perspective on fuel cell electrodes. <i>Canadian Journal of Chemical Engineering</i> , 0, , .	1.7	1
440	Synergy of dual-atom catalysts deviated from the scaling relationship for oxygen evolution reaction. <i>Nature Communications</i> , 2023, 14, .	12.8	19
441	Designing active and stable Ir-based catalysts for the acidic oxygen evolution reaction. , 2023, 1, 299-311.		2
442	CO electroreduction on single-atom copper. <i>Science Advances</i> , 2023, 9, .	10.3	8
443	Highly Porous Polypyrrole (PPy) Hydrogel Support for the Design of a Co–N–C Electrocatalyst for Oxygen Reduction Reaction. <i>ACS Applied Materials & Interfaces</i> , 2023, 15, 37571-37579.	8.0	3
444	Optimizing strong metal–support interaction on cobalt phosphide-supported Ru single atom catalyst for highly-efficient hydrogen evolution reaction. <i>Materials Chemistry Frontiers</i> , 0, , .	5.9	0
445	Regulating nonmetallic species beyond the first coordination shell of single-atom catalysts for high-performance electrocatalysis. <i>Energy and Environmental Science</i> , 2023, 16, 3679-3710.	30.8	8
446	Construction of Catalytic Fe ₂ N ₅ P Sites in Covalent Organic Framework-Derived Carbon for Catalyzing the Oxygen Reduction Reaction. <i>ACS Catalysis</i> , 2023, 13, 11127-11135.	11.2	6
447	Electron coupling effect-triggered monatomic copper laccase-mimicking nanozyme for the degradation and detection of guaiacol produced by <i>Alicyclobacillus acidoterrestris</i> . <i>Biosensors and Bioelectronics</i> , 2023, 238, 115606.	10.1	4
448	Potential Effects on the Catalytic Mechanisms of OER and ORR. <i>Journal of Physical Chemistry C</i> , 2023, 127, 16346-16356.	3.1	5
450	Coordination engineering of atomically dispersed zirconium on graphene for the oxygen reduction reaction. <i>Physical Chemistry Chemical Physics</i> , 2023, 25, 25299-25308.	2.8	3
451	Single Atom Environmental Catalysis: Influence of Supports and Coordination Environments. <i>Advanced Functional Materials</i> , 2023, 33, .	14.9	8
452	Covalent Triazine Frameworks with Unidirectional Electron Transfer for Enhanced Photocatalytic Oxidation Reactions. <i>ACS Catalysis</i> , 2023, 13, 12041-12047.	11.2	11
453	Chlorine–Coordinated Unsaturated Ni–N ₂ Sites for Efficient Electrochemical Carbon Dioxide Reduction. <i>Small</i> , 2023, 19, .	10.0	0
454	Ternary Heteroatomic Doping Induced Microenvironment Engineering of Low Fe–N ₄ -Loaded Carbon Nanofibers for Bifunctional Oxygen Electrocatalysis. <i>Small</i> , 2024, 20, .	10.0	1

#	ARTICLE	IF	CITATIONS
455	Tuning dual-atom mediator toward high-rate bidirectional polysulfide conversion in Li-S batteries. <i>Journal of Energy Chemistry</i> , 2023, 87, 462-472.	12.9	4
456	Advancements in computational approaches for rapid metal site discovery in carbon-based materials for electrocatalysis. <i>Energy Advances</i> , 2023, 2, 1781-1799.	3.3	1
457	d- and p-Block single-atom catalysts supported by BN nanocages toward electrochemical reactions of N_2 and O_2 . <i>Physical Chemistry Chemical Physics</i> , 2023, 25, 25761-25771.	2.8	0
458	Advances and Regulation Strategies of the Active Moiety in Dual-Atom Site Catalysts for Efficient Electrocatalysis. <i>Advanced Energy Materials</i> , 2023, 13, .	19.5	3
459	Making chemicals from the air: the new frontier for hybrid electrosyntheses in artificial tree-like devices. <i>Green Chemistry</i> , 0, , .	9.0	0
460	Hydrogen society: from present to future. <i>Energy and Environmental Science</i> , 2023, 16, 4926-4943.	30.8	22
461	Atomically Dispersed Pt on CdS Nanosheets for Photocatalytic Evolution of H_2 and 1,1-Diethoxyethane from Ethanol. <i>ACS Applied Nano Materials</i> , 2023, 6, 17161-17170.	5.0	1
462	Single-atom catalysts for the electrochemical reduction of carbon dioxide into hydrocarbons and oxygenates. , 0, , .		0
463	Dual Single-Atomic Co-Mn Sites in Metal-Organic-Framework-Derived N-Doped Nanoporous Carbon for Electrochemical Oxygen Reduction. <i>ACS Nano</i> , 2023, 17, 19155-19167.	14.6	4
464	Single Ru atoms confined into MOF/C ₃ N ₄ for dual improved photocatalytic carbon dioxide reduction and nitrogen fixation. <i>Chemical Engineering Journal</i> , 2023, 473, 145256.	12.7	11
465	Recent progress of M-N-C single atom electrocatalysts for carbon dioxide reduction reaction. , 2023, 1, 100045.		1
466	A Universal Electrochemical Synthetic Strategy for the Direct Assembly of Single-Atom Catalysts. <i>Advanced Science</i> , 2023, 10, .	11.2	1
467	Copper Single-Atom Catalysts—A Rising Star for Energy Conversion and Environmental Purification: Synthesis, Modification, and Advanced Applications. <i>Small</i> , 2024, 20, .	10.0	0
468	M-C materials as heterogeneous catalysts for organic transformations. <i>Coordination Chemistry Reviews</i> , 2023, 497, 215412.	18.8	1
469	Exploring spin states by hybrid functional methods to define correct trends in electrocatalytic activity of SACs embedded in N-doped graphene. <i>Materials Today Chemistry</i> , 2023, 33, 101728.	3.5	1
470	Atomically precise metal nanoclusters as catalysts for electrocatalytic CO_2 reduction. <i>Green Chemistry</i> , 2024, 26, 122-163.	9.0	2
471	Defective SiC nanotube based single-atom catalysts for electrocatalytic nitrogen fixation with curvature effect. <i>Molecular Catalysis</i> , 2023, 549, 113519.	2.0	0
472	Synthesis of High Entropy and Entropy-Stabilized Metal Sulfides and Their Evaluation as Hydrogen Evolution Electrocatalysts. <i>Chemistry of Materials</i> , 2023, 35, 7904-7914.	6.7	0

#	ARTICLE	IF	CITATIONS
473	Enhanced oxygen reduction activity and stability of double-layer nitrogen-doped carbon catalyst with abundant Fe-Co dual-atom sites. <i>Nano Energy</i> , 2023, 117, 108854.	16.0	6
474	Atomically Dispersed Mg-N-C Material Supported Highly Crystalline Pt ₃ Mg Nanoalloys for Efficient Oxygen Reduction Reaction. <i>Journal of Physical Chemistry Letters</i> , 2023, 14, 8296-8305.	4.6	0
475	Surface curvature effect on single-atom sites for the oxygen reduction reaction: A model of mesoporous MOF-derived carbon. <i>Chemical Engineering Journal</i> , 2023, 477, 146841.	12.7	2
476	Recent progress in high-loading single-atom catalysts and their applications. , 2023, 1, 486-500.		2
477	2023 Roadmap on molecular modelling of electrochemical energy materials. <i>JPhys Energy</i> , 2023, 5, 041501.	5.3	3
478	Introducing highly polarizable cation in M-N-C type catalysts to boost their oxygen reduction reaction performance. <i>Applied Catalysis B: Environmental</i> , 2024, 341, 123251.	20.2	1
479	Insight into coupled Ni-Co dual-metal atom catalysts for efficient synergistic electrochemical CO ₂ reduction. <i>Journal of Energy Chemistry</i> , 2023, 87, 509-517.	12.9	6
480	Resource utilization of carbon dioxide and nitrate to produce value-added organonitrogen compounds through an electrochemical approach. <i>Applied Catalysis B: Environmental</i> , 2024, 341, 123292.	20.2	2
481	Quantitative Description of Metal Center Organization and Interactions in Single-Atom Catalysts. <i>Advanced Materials</i> , 0, , .	21.0	2
482	Highly accessible dual-metal atomic pairs for enhancing oxygen redox reaction in zinc-air batteries. <i>Nano Energy</i> , 2023, 118, 108952.	16.0	0
483	Sulfur vacancy-rich Co ₉ S ₈ @MoS ₂ core-shell heterostructures anchored on carbon nanofibers for electrochemical overall water splitting. <i>Electrochimica Acta</i> , 2023, 470, 143292.	5.2	0
484	Cu single-atom catalyst-based flexible hydrogen peroxide electrochemical sensor with oxygen resistance for monitoring ROS bursts. <i>Analyst</i> , The, 2023, 148, 5667-5672.	3.5	1
485	Low-Potential Iodide Oxidation Enables Dual-Atom CoFe-N-C Catalysts for Ultra-Stable and High-Energy-Efficiency Zn-Air Batteries. <i>Small</i> , 2024, 20, .	10.0	2
486	Persulfate activation at cathodic Fe ₄ single-atom sites in a sustainable FeNC electrocatalyst for fast degradation of antibiotics in water at near-neutral pH. <i>Materials Today Sustainability</i> , 2023, 24, 100581.	4.1	0
487	Modulating Fe spin state in FeNC catalysts by adjacent Fe atomic clusters to facilitate oxygen reduction reaction in proton exchange membrane fuel cell. <i>Applied Catalysis B: Environmental</i> , 2024, 342, 123407.	20.2	4
488	Recent progress on atomic-scale modulation of single-atom-based catalysts for electrocatalytic CO ₂ reduction. <i>Chemical Engineering Journal</i> , 2023, 477, 146610.	12.7	1
489	Ruthenium-cobalt bimetallic nanoparticles supported on oxidized carbon nanotubes as HER catalyst under alkaline conditions. <i>Chemical Physics Letters</i> , 2023, 833, 140906.	2.6	0
490	MOF-Derived Fe-N-C Electrocatalyst via a Dual Ligand Strategy for Efficient Oxygen Reduction in Acidic Media. <i>Sustainable Energy and Fuels</i> , 0, , .	4.9	0

#	ARTICLE	IF	CITATIONS
491	Single-atom sites combined with metal nano-aggregates for efficient electrocatalysis. <i>Energy and Environmental Science</i> , 2023, 16, 5663-5687.	30.8	1
492	Understanding the role of central metal and coordination environment of single atom catalysts embedded in graphene flakes on CO ₂ RR performance. <i>Journal of Materials Science</i> , 2023, 58, 15714-15726.	3.7	1
493	Modulating the coordination environment of active site structure for enhanced electrochemical nitrogen reduction: The mechanistic insight and an effective descriptor. <i>Applied Surface Science</i> , 2024, 644, 158799.	6.1	5
494	Targeted Spin-State Regulation to Boost Oxygen Reduction Reaction. <i>Journal of Physical Chemistry Letters</i> , 2023, 14, 9872-9882.	4.6	0
495	Single-Atom Heterogeneous Catalysts: Human- and AI-Driven Platform for Augmented Designs, Analytics and Reality-Enabled Manufacturing. <i>Angewandte Chemie</i> , 2024, 136, .	2.0	0
496	Single-Atom Heterogeneous Catalysts: Human- and AI-Driven Platform for Augmented Designs, Analytics and Reality-Enabled Manufacturing. <i>Angewandte Chemie - International Edition</i> , 2024, 63, .	13.8	0
497	An emerging direction for nanozyme design: from single-atom to dual-atomic-site catalysts. <i>Nanoscale</i> , 2023, 15, 18173-18183.	5.6	2
498	Progress of ultrafine noble metal nanocatalysts regulated by confining engineering for water electrolysis. <i>Journal of Electroanalytical Chemistry</i> , 2023, 950, 117900.	3.8	0
499	Facile synthesis of single-nickel-atomic dispersed mesoporous carbon nanosheets with controllable nitrogen doping for efficient electrochemical CO ₂ reduction. <i>ChemistrySelect</i> , 2023, 8, .	1.5	0
500	Integrating Host Design and Tailored Electronic Effects of Yolk-Shell Zn ^{II} Mn Diatomic Sites for Efficient CO ₂ Electroreduction. <i>Angewandte Chemie - International Edition</i> , 2024, 63, .	13.8	6
501	Catalytic reactivity descriptors of metal-nitrogen-doped carbon catalysts for electrocatalysis. , 2023, 1, 154-185.		2
502	Iron Atom-Cluster Strategy Synthesis of Hierarchically Porous Fe-N-C Catalysts for Proton Exchange Membrane Fuel Cells. <i>Transactions of Tianjin University</i> , 2023, 29, 453-461.	6.4	0
503	Graphene-edge-supported iron dual-atom for oxygen reduction electrocatalysts. <i>Physical Chemistry Chemical Physics</i> , 2023, 25, 32637-32647.	2.8	0
504	Mechanistic understanding on effect of doping nitrogen with graphene supported single-atom Ir toward HER and OER: A computational consideration. <i>Chemical Physics Letters</i> , 2024, 834, 140971.	2.6	1
505	Strategies for the regulation of specific active sites in metal-nitrogen-carbon. <i>Nano Energy</i> , 2024, 120, 109149.	16.0	0
506	Cobalt macrocyclic complex-catalyzed selective electroreduction of CO ₂ to CO. <i>Green Chemistry</i> , 2023, 25, 10366-10371.	9.0	0
507	Recent progress in the development of advanced support materials for electrocatalysis. <i>Frontiers in Chemistry</i> , 0, 11, .	3.6	0
508	Core-alloyed shell structured Fe@FeCo di-atomic nanoclusters loaded in carbon aerogels as efficient bi-functional catalysts towards ORR and HER. <i>Chemical Engineering Journal</i> , 2023, 478, 147375.	12.7	0

#	ARTICLE	IF	CITATIONS
509	Single-Atom Platinum Anchored on Submonolayer MoS ₂ for Efficient Hydrogen Evolution. <i>Journal of Physical Chemistry C</i> , 2023, 127, 22629-22634.	3.1	0
510	Green fabrication of ultrafine N-Mo _x /CoP hybrids for boosting electrocatalytic water reduction. <i>Nanotechnology</i> , 2024, 35, 065704.	2.6	0
511	Design of Single-Atom Catalysts for Electrocatalytic Nitrogen Fixation. <i>ChemSusChem</i> , 2024, 17, .	6.8	2
512	Integrating Host Design and Tailored Electronic Effects of Yolk-Shell Zn-Mn Diatomic Sites for Efficient CO ₂ Electroreduction. <i>Angewandte Chemie</i> , 2024, 136, .	2.0	1
513	In situ Formation of Intermetallic PtZn Alloy Nanoparticles Embedded in Mesoporous Carbon Boosting the Oxygen Reduction Reaction. <i>ACS Applied Nano Materials</i> , 0, , .	5.0	0
514	Elucidating the structure-stability relationship of Cu single-atom catalysts using operando surface-enhanced infrared absorption spectroscopy. <i>Nature Communications</i> , 2023, 14, .	12.8	1
515	Biochar-Based Single-Atom Catalyst with Fe-N ₃ O-C Configuration for Efficient Degradation of Organic Dyes by Peroxymonosulfate Activation. <i>ACS Applied Materials & Interfaces</i> , 0, , .	8.0	0
516	Noble Metal Porphyrin Complexes. Intermediates of Catalytic Processes (A Review). <i>Russian Journal of Inorganic Chemistry</i> , 2023, 68, 1537-1561.	1.3	0
517	Synthesis and energy applications of copper-based single-atom electrocatalysts. <i>Coordination Chemistry Reviews</i> , 2024, 502, 215602.	18.8	0
518	A review on the photochemical synthesis of atomically dispersed catalysts. <i>Materials Chemistry Frontiers</i> , 2024, 8, 1334-1348.	5.9	0
519	Engineering Interfacial Pt-Ti Site at Atomic Step Defect for Efficient Hydrogen Evolution Catalysis. <i>Small</i> , 0, , .	10.0	0
520	Carbon-Encapsulated Co Nanoparticle and Hollow Carbon Sphere Composites as High-Performance Catalysts for Oxygen Reduction Reaction. <i>Journal of Physical Chemistry C</i> , 0, , .	3.1	0
521	Ruthenium,nitrogen-codoped carbon aerogels for real-time electrochemical monitoring of cellular hydrogen peroxide release. <i>Journal of Electroanalytical Chemistry</i> , 2024, 952, 117997.	3.8	0
522	Nanocluster Surface Microenvironment Modulates Electrocatalytic CO ₂ Reduction. <i>Advanced Materials</i> , 0, , .	21.0	0
523	Enhancing Zn ²⁺ Storage Performance by Constructing the Interfaces Between VO ₂ and Co-Ni-C Layers. <i>Small</i> , 0, , .	10.0	1
524	Catalysts and electrolyzers for electrochemical CO ₂ reduction reaction: from laboratory to industrial application. <i>Chemical Communications</i> , 0, , .	4.1	0
525	Dynamic Al-O Interactions Enable Uniform Al Deposition toward High Energy-Density and Practical Al Metal Batteries. <i>ACS Energy Letters</i> , 0, , 253-261.	17.4	0
526	Low-temperature fabrication of potassium single-atom solid base catalysts with high activity in transesterification. <i>Chemical Engineering Journal</i> , 2024, 481, 148398.	12.7	0

#	ARTICLE	IF	CITATIONS
527	Single-Atom Nanozymes for Catalytic Therapy: Recent Advances and Challenges. <i>Advanced Functional Materials</i> , 2024, 34, .	14.9	0
528	Strategies Toward High Selectivity, Activity, and Stability of Single-Atom Catalysts. <i>Small</i> , 0, , .	10.0	0
529	Recent advances and perspective on transition metal heterogeneous catalysts for efficient electrochemical water splitting. , 2024, 3, 4-31.		0
530	A general and facile calcination method to synthesize single-site catalysts for highly efficient electrochemical CO ₂ reduction. <i>Nano Research</i> , 2024, 17, 3895-3901.	10.4	0
531	Bridging Together Theoretical and Experimental Perspectives in Single-Atom Alloys for Electrochemical Ammonia Production. <i>Small</i> , 2024, 20, .	10.0	0
532	The Synergistic Effect between Metal and Sulfur Vacancy to Boost CO ₂ Reduction Efficiency: A Study on Descriptor Transferability and Activity Prediction. <i>Jacs Au</i> , 2024, 4, 125-138.	7.9	0
533	Unsaturated cobalt-nitrogen atomic sites in necklace-like hairy fibers towards highly efficient oxygen electrocatalysis for flexible Zn-Air battery. <i>Energy Storage Materials</i> , 2024, 65, 103184.	18.0	0
534	Nanostructured single-atom catalysts derived from natural building blocks. , 2024, 2, 475-506.		0
535	High hydrogen evolution activities of dual-metal atoms incorporated N-doped graphenes achieved by coordination regulation. , 0, 4, .		0
536	Electronic structure regulation of the Fe-based single-atom catalysts for oxygen electrocatalysis. <i>Nano Energy</i> , 2024, 121, 109268.	16.0	0
537	The electronic structure of the active center of Co ₃ Se ₄ electrocatalyst was adjusted by Te doping for efficient oxygen evolution. <i>Journal of Colloid and Interface Science</i> , 2024, 659, 767-775.	9.4	0
538	First-principle calculations study of oxygen reduction electrocatalyst: Single transition metal supported on a brand-new graphitic carbon nitride (g-C ₇ N ₃) substrate. <i>Molecular Catalysis</i> , 2024, 554, 113844.	2.0	0
539	Supramolecular Macrocycle Regulated Single-Atom MoS ₂ @Co Catalysts for Enhanced Oxygen Evolution Reaction. <i>Energy and Environmental Materials</i> , 0, , .	12.8	0
540	Theoretical Insights on the Charge State and Bifunctional OER/ORR Electrocatalyst Activity in 4d-Transition-Metal-Doped g-C ₃ N ₄ Monolayers. <i>ACS Applied Materials & Interfaces</i> , 2024, 16, 5779-5791.	8.0	0
541	Designing Surface and Interface Structures of Copper-Based Catalysts for Enhanced Electrochemical Reduction of CO ₂ to Alcohols. <i>Materials</i> , 2024, 17, 600.	2.9	0
542	Monometallic Ultrasmall Nanocatalysts via Different Valence Atomic Interfaces Boost Hydrogen Evolution Catalysis. <i>Inorganic Chemistry</i> , 2024, 63, 3137-3144.	4.0	0
543	Preparing iron oxide clusters surface modified Co ₃ O ₄ nanoboxes by chemical vapor deposition as an efficient electrocatalyst for oxygen evolution reaction. <i>Energy Storage Materials</i> , 2024, 66, 103236.	18.0	0
544	Pulse Electrolysis Turns on CO ₂ Methanation through N-Confused Cupric Porphyrin. <i>Angewandte Chemie - International Edition</i> , 2024, 63, .	13.8	0

#	ARTICLE	IF	CITATIONS
545	Pulse Electrolysis Turns on CO ₂ Methanation through N-Confused Cupric Porphyrin. <i>Angewandte Chemie</i> , 2024, 136, .	2.0	0
546	Transition metal doped into defective boron nitride nanotubes for CO ₂ RR: Regulation of catalytic activity and mechanism by curvature effect. <i>Separation and Purification Technology</i> , 2024, 338, 126552.	7.9	1
547	Axial coordinated iron-nitrogen-carbon as efficient electrocatalysts for hydrogen evolution and oxygen redox reactions. <i>Chinese Chemical Letters</i> , 2024, , 109588.	9.0	0
548	Mechanical insight into direct singlet oxygen generation pathway: The significance of Co-O-X bond formation anchored by cobalt single atoms on mesoporous oxides. <i>Chemical Engineering Journal</i> , 2024, 484, 149364.	12.7	0
549	Anchoring FeRu Bimetallic Nanoparticles on N-Doped Graphene Nanosheets for Efficient Overall Water Splitting. <i>Energy & Fuels</i> , 2024, 38, 3303-3311.	5.1	0
550	Asymmetric O ₂ -Ru-N ₂ Active Sites via Coordination Engineering for Tuning Hydrogen Evolution across the Full pH Value. <i>Chemistry of Materials</i> , 2024, 36, 1831-1840.	6.7	0
551	Pt,P-codoped carbon nitride nanoenzymes for fluorescence and colorimetric dual-mode detection of cholesterol. <i>Analytica Chimica Acta</i> , 2024, 1297, 342351.	5.4	0
552	Fully dispersed cobalt diatomic site with significantly improved Fenton-like catalysis performance for organic pollutant degradation. <i>Journal of Colloid and Interface Science</i> , 2024, 662, 1005-1015.	9.4	0
553	Maximizing Surface Single-Ni Sites on Hollow Carbon Sphere for Efficient CO ₂ Electroreduction. <i>ACS Sustainable Chemistry and Engineering</i> , 2024, 12, 3034-3043.	6.7	1
554	Oxygen-Vacancy-Induced Built-In Electric Field across MoCo Dual-Atomic Site Catalyst for Promoting Hydrogen Spillover in Hydrocracking and Hydrodesulfurization. <i>ACS Catalysis</i> , 2024, 14, 3208-3217.	11.2	0
555	Recent Progress of Electrochemical Nitrate Reduction to Ammonia on Copper-Based Catalysts: From Nanoparticles to Single Atoms. <i>Advanced Energy and Sustainability Research</i> , 0, , .	5.8	0
556	Advanced dual-atom catalysts for rechargeable zinc-air batteries. , 2024, 3, 100076.		0
557	Leveraging Dual-Atom Catalysts for Electrocatalysis Revitalization: Exploring the Structure-Performance Correlation. <i>Advanced Energy Materials</i> , 0, , .	19.5	0
558	Graphene-Based Electrocatalysts. <i>Engineering Materials</i> , 2024, , 179-197.	0.6	0
559	Single- and double-atom catalyst anchored on graphene-like C ₂ N for ORR and OER: mechanistic insight and catalyst screening. <i>Carbon Letters</i> , 0, , .	5.9	0
561	Using the fermi level as a predictive indicator of the electrocatalytic activities displayed by single-atom catalysts in sulfur cathode reactions. <i>Chemical Engineering Journal</i> , 2024, 486, 150241.	12.7	0
562	Pyridine-Modulated Adsorption Equilibrium of Highly Dispersed Atomic W ₂ P Clusters toward Advanced Potassium-Ion Hybrid Capacitors. <i>Advanced Energy Materials</i> , 0, , .	19.5	0
563	Latest progresses of Ru-based catalysts for alkaline hydrogen oxidation reaction: From mechanism to application. <i>Applied Catalysis A: General</i> , 2024, 676, 119684.	4.3	0