

# Advances and challenges in understanding the electrocatalytic reduction of carbon dioxide to fuels

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Citation Report

#	ARTICLE	IF	CITATIONS
1	The influence of inorganic anions on photocatalytic CO <sub>2</sub> reduction. Catalysis Science and Technology, 2020, 10, 959-966.	4.1	9
2	Mechanistic Understanding of CO <sub>2</sub> Reduction Reaction (CO <sub>2</sub> RR) Toward Multicarbon Products by Heterogeneous Copper-Based Catalysts. ACS Catalysis, 2020, 10, 1754-1768.	11.2	309
3	Electrocatalytic reduction of carbon dioxide: opportunities with heterogeneous molecular catalysts. Energy and Environmental Science, 2020, 13, 374-403.	30.8	303
4	Atomic Structure Modification for Electrochemical Nitrogen Reduction to Ammonia. Advanced Energy Materials, 2020, 10, 1903172.	19.5	110
5	Addressing the Interfacial Properties for CO Electroreduction on Cu with Cyclic Voltammetry. ACS Energy Letters, 2020, 5, 130-135.	17.4	19
6	Homogeneous and heterogeneous molecular catalysts for electrochemical reduction of carbon dioxide. RSC Advances, 2020, 10, 38013-38023.	3.6	24
7	A metal-organic framework/polymer derived catalyst containing single-atom nickel species for electrocatalysis. Chemical Science, 2020, 11, 10991-10997.	7.4	32
8	Recent advances in surface x-ray diffraction and the potential for determining structure-sensitivity relations in single-crystal electrocatalysis. Current Opinion in Electrochemistry, 2020, 23, 162-173.	4.8	18
9	Three-Dimensional Cathodes for Electrochemical Reduction of CO <sub>2</sub> : From Macro- to Nano-Engineering. Nanomaterials, 2020, 10, 1884.	4.1	23
10	Towards molecular understanding of local chemical environment effects in electro- and photocatalytic CO <sub>2</sub> reduction. Nature Catalysis, 2020, 3, 775-786.	34.4	385
11	Electrocatalytic synthesis of organic carbonates. Chemical Communications, 2020, 56, 13082-13092.	4.1	12
12	Phase-Selective Epitaxial Growth of Heterophase Nanostructures on Unconventional 2H-Pd Nanoparticles. Journal of the American Chemical Society, 2020, 142, 18971-18980.	13.7	111
13	Regulating the coordination structure of metal single atoms for efficient electrocatalytic CO <sub>2</sub> reduction. Energy and Environmental Science, 2020, 13, 4609-4624.	30.8	188
14	Beyond d Orbits: Steering the Selectivity of Electrochemical CO <sub>2</sub> Reduction via Hybridized sp Band of Sulfur-Incorporated Porous Cd Architectures with Dual Collaborative Sites. Advanced Energy Materials, 2020, 10, 2002499.	19.5	20
15	In-Situ Surface Reconstruction of InN Nanosheets for Efficient CO <sub>2</sub> Electroreduction into Formate. Nano Letters, 2020, 20, 8229-8235.	9.1	55
16	Solar-Driven Electrochemical CO <sub>2</sub> Reduction with Heterogeneous Catalysts. Advanced Energy Materials, 2021, 11, 2002652.	19.5	67
17	Elucidating the Structure of the Cu-Alkaline Electrochemical Interface with the Laser-Induced Temperature Jump Method. Journal of Physical Chemistry C, 2020, 124, 23253-23259.	3.1	24
18	Gas diffusion electrode design for electrochemical carbon dioxide reduction. Chemical Society Reviews, 2020, 49, 7488-7504.	38.1	213

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19	Recent Progress in the Development of Screening Methods to Identify Electrode Materials for the Oxygen Evolution Reaction. <i>Advanced Functional Materials</i> , 2020, 30, 2005060.	14.9	49
20	Probing CO <sub>2</sub> Reduction Pathways for Copper Catalysis Using an Ionic Liquid as a Chemical Trapping Agent. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 18095-18102.	13.8	56
21	Electrochemical Fabrication and Reactivation of Nanoporous Gold with Abundant Surface Steps for CO <sub>2</sub> Reduction. <i>ACS Catalysis</i> , 2020, 10, 8860-8869.	11.2	36
22	Conversion of CO <sub>2</sub> by non-thermal inductively-coupled plasma catalysis. <i>Chinese Journal of Chemical Physics</i> , 2020, 33, 243-251.	1.3	6
23	Recent Advances in Electrode Materials for Electrochemical CO <sub>2</sub> Reduction. <i>ACS Symposium Series</i> , 2020, , 49-91.	0.5	1
24	Nanostructured Cobalt-Based Electrocatalysts for CO <sub>2</sub> Reduction: Recent Progress, Challenges, and Perspectives. <i>Small</i> , 2020, 16, e2004158.	10.0	45
25	Enhanced multi-carbon alcohol electroproduction from CO via modulated hydrogen adsorption. <i>Nature Communications</i> , 2020, 11, 3685.	12.8	72
26	Probing CO <sub>2</sub> Reduction Pathways for Copper Catalysis Using an Ionic Liquid as a Chemical Trapping Agent. <i>Angewandte Chemie</i> , 2020, 132, 18251-18258.	2.0	6
27	Atomic alkali metal anchoring on graphdiyne as single-atom catalysts for capture and conversion of CO <sub>2</sub> to HCOOH. <i>Molecular Catalysis</i> , 2020, 494, 111142.	2.0	22
28	Highly Selective CO <sub>2</sub> Electroreduction to CO on Cu-Co Bimetallic Catalysts. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 12561-12567.	6.7	33
29	Bi-Based Metal-Organic Framework Derived Leafy Bismuth Nanosheets for Carbon Dioxide Electroreduction. <i>Advanced Energy Materials</i> , 2020, 10, 2001709.	19.5	210
30	Tuning water reduction through controlled nanoconfinement within an organic liquid matrix. <i>Nature Catalysis</i> , 2020, 3, 656-663.	34.4	91
31	Recent Advances in MOF-Derived Single Atom Catalysts for Electrochemical Applications. <i>Advanced Energy Materials</i> , 2020, 10, 2001561.	19.5	265
32	High-Rate and Efficient Ethylene Electrosynthesis Using a Catalyst/Promoter/Transport Layer. <i>ACS Energy Letters</i> , 2020, 5, 2811-2818.	17.4	106
33	Power-to-liquid via synthesis of methanol, DME or Fischer-Tropsch-fuels: a review. <i>Energy and Environmental Science</i> , 2020, 13, 3207-3252.	30.8	328
34	Advanced Electrocatalysts with Single-Metal-Atom Active Sites. <i>Chemical Reviews</i> , 2020, 120, 12217-12314.	47.7	563
35	Highly Efficient and Selective CO <sub>2</sub> Electro-Reduction to HCOOH on Sn Particle-Decorated Polymeric Carbon Nitride. <i>ChemSusChem</i> , 2020, 13, 6442-6448.	6.8	30
36	Mixed quantum-classical treatment of electron transfer at electrocatalytic interfaces: Theoretical framework and conceptual analysis. <i>Journal of Chemical Physics</i> , 2020, 153, 164707.	3.0	14

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37	Recent progress on nanostructured bimetallic electrocatalysts for water splitting and electroreduction of carbon dioxide. Journal of Semiconductors, 2020, 41, 091705.	3.7	13
38	Scalable, Durable, and Recyclable Metal-Free Catalysts for Highly Efficient Conversion of CO <sub>2</sub> to Cyclic Carbonates. Angewandte Chemie - International Edition, 2020, 59, 23291-23298.	13.8	99
39	Pore-Edge Tailoring of Single-Atom Iron-Nitrogen Sites on Graphene for Enhanced CO <sub>2</sub> Reduction. ACS Catalysis, 2020, 10, 10803-10811.	11.2	140
40	Scalable, Durable, and Recyclable Metal-Free Catalysts for Highly Efficient Conversion of CO <sub>2</sub> to Cyclic Carbonates. Angewandte Chemie, 2020, 132, 23491-23498.	2.0	26
41	Active and Selective Ensembles in Oxide-Derived Copper Catalysts for CO <sub>2</sub> Reduction. ACS Energy Letters, 2020, 5, 3176-3184.	17.4	71
42	Revealing Mechanistic Processes in Gas-Diffusion Electrodes During CO <sub>2</sub> Reduction via Impedance Spectroscopy. ACS Sustainable Chemistry and Engineering, 2020, 8, 13759-13768.	6.7	25
43	Transition metal-based catalysts for the electrochemical CO <sub>2</sub> reduction: from atoms and molecules to nanostructured materials. Chemical Society Reviews, 2020, 49, 6884-6946.	38.1	305
44	Activity and selectivity of CO <sub>2</sub> photoreduction on catalytic materials. Dalton Transactions, 2020, 49, 12918-12928.	3.3	13
45	Visible-light-driven CO <sub>2</sub> reduction on dye-sensitized NiO photocathodes decorated with palladium nanoparticles. RSC Advances, 2020, 10, 31680-31690.	3.6	4
46	Linking gas diffusion electrode composition to CO <sub>2</sub> reduction in a flow cell. Journal of Materials Chemistry A, 2020, 8, 19493-19501.	10.3	54
47	Computational screening of homo and hetero transition metal dimer catalysts for reduction of CO <sub>2</sub> to C <sub>2</sub> products with high activity and low limiting potential. Journal of Materials Chemistry A, 2020, 8, 21241-21254.	10.3	51
48	Nitrogen, Sulfur Co-Doped Hierarchically Porous Carbon as a Metal-Free Electrocatalyst for Oxygen Reduction and Carbon Dioxide Reduction Reaction. ACS Applied Materials & Interfaces, 2020, 12, 44578-44587.	8.0	69
49	Elucidating the Structure of Ethanol-Producing Active Sites at Oxide-Derived Cu Electrocatalysts. ACS Catalysis, 2020, 10, 10488-10494.	11.2	35
50	Gel Electrocatalysts: An Emerging Material Platform for Electrochemical Energy Conversion. Advanced Materials, 2020, 32, e2003191.	21.0	78
51	Composition regulation and defects introduction via amorphous CuEu alloy shell for efficient CO <sub>2</sub> electroreduction toward methane. Journal of CO <sub>2</sub> Utilization, 2020, 41, 101285.	6.8	12
52	Pocket the difference. Nature Energy, 2020, 5, 943-944.	39.5	2
53	Transforming carbon dioxide into jet fuel using an organic combustion-synthesized Fe-Mn-K catalyst. Nature Communications, 2020, 11, 6395.	12.8	161
54	Intermediate Binding Control Using Metal-Organic Frameworks Enhances Electrochemical CO <sub>2</sub> Reduction. Journal of the American Chemical Society, 2020, 142, 21513-21521.	13.7	133

#	ARTICLE	IF	CITATIONS
55	A coating from nature. Science Advances, 2020, 6, .	10.3	35
56	Moâ€Bi Bimetallic Chalcogenide Nanoparticles Supported on CNTs for the Efficient Electrochemical Reduction of CO <sub>2</sub> to Methanol. Coatings, 2020, 10, 1142.	2.6	5
57	Research for reducing minimum miscible pressure of crude oil and carbon dioxide and miscible flooding experiment by injecting citric acid isopentyl ester. Arabian Journal of Chemistry, 2020, 13, 9207-9215.	4.9	5
58	High rate CO <sub>2</sub> valorization to organics via CO mediated silica nanoparticle enhanced fermentation. Applied Energy, 2020, 279, 115725.	10.1	7
59	Selective CO <sub>2</sub> electrocatalysis at the pseudocapacitive nanoparticle/ordered-ligand interlayer. Nature Energy, 2020, 5, 1032-1042.	39.5	99
60	Double exchange interaction promoted high-valence metal sites for neutral oxygen evolution reaction. Chemical Communications, 2020, 56, 15004-15007.	4.1	9
61	Ionic Liquids-Promoted Electrocatalytic Reduction of Carbon Dioxide. Industrial & Engineering Chemistry Research, 2020, 59, 20235-20252.	3.7	30
62	Ligand-Mode Directed Selectivity in Cuâ€Ag Coreâ€Shell Based Gas Diffusion Electrodes for CO <sub>2</sub> Electroreduction. ACS Catalysis, 2020, 10, 13468-13478.	11.2	24
63	Operando Spectroscopic Investigation of a Boron-Doped CuO Catalyst and Its Role in Selective Electrochemical Câ€C Coupling. ACS Applied Energy Materials, 2020, 3, 11343-11349.	5.1	28
64	Towards a Critical Evaluation of Electrocatalyst Stability for CO <sub>2</sub> Electroreduction. ChemElectroChem, 2020, 7, 4713-4717.	3.4	7
65	Laser-Microstructured Copper Reveals Selectivity Patterns in the Electrocatalytic Reduction of CO <sub>2</sub> . Chem, 2020, 6, 1707-1722.	11.7	39
66	Single-atom-Ni-decorated, nitrogen-doped carbon layers for efficient electrocatalytic CO <sub>2</sub> reduction reaction. Electrochemistry Communications, 2020, 116, 106758.	4.7	31
67	Insights into Liquid Product Formation during Carbon Dioxide Reduction on Copper and Oxide-Derived Copper from Quantitative Real-Time Measurements. ACS Catalysis, 2020, 10, 6735-6740.	11.2	36
68	Designing CO <sub>2</sub> reduction electrode materials by morphology and interface engineering. Energy and Environmental Science, 2020, 13, 2275-2309.	30.8	251
69	Simultaneous power generation and CO <sub>2</sub> valorization by aqueous Alâ€CO <sub>2</sub> batteries using nanostructured Bi <sub>2</sub> S <sub>3</sub> as the cathode electrocatalyst. Journal of Materials Chemistry A, 2020, 8, 12385-12390.	10.3	27
70	Machine-Learning-Enabled Exploration of Morphology Influence on Wire-Array Electrodes for Electrochemical Nitrogen Fixation. Journal of Physical Chemistry Letters, 2020, 11, 4625-4630.	4.6	23
71	A Semiempirical Method to Detect and Correct DFT-Based Gas-Phase Errors and Its Application in Electrocatalysis. ACS Catalysis, 2020, 10, 6900-6907.	11.2	71
72	Thermodynamically driven self-formation of copper-embedded nitrogen-doped carbon nanofiber catalysts for a cascade electroreduction of carbon dioxide to ethylene. Journal of Materials Chemistry A, 2020, 8, 11632-11641.	10.3	42

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73	Mesoporous PdAg Nanospheres for Stable Electrochemical CO <sub>2</sub> Reduction to Formate. <i>Advanced Materials</i> , 2020, 32, e2000992.	21.0	153
74	3D Nanostructures for the Next Generation of High-Performance Nanodevices for Electrochemical Energy Conversion and Storage. <i>Advanced Energy Materials</i> , 2020, 10, 2001460.	19.5	106
75	Metal-free sites with multidimensional structure modifications for selective electrochemical CO <sub>2</sub> reduction. <i>Nano Today</i> , 2020, 33, 100891.	11.9	23
76	Sustainable Electrochemical Production of Tartaric Acid. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 10454-10460.	6.7	9
77	Supercritical CO <sub>2</sub> -constructed intralayer [Bi <sub>2</sub> O <sub>2</sub> ] <sup>2+</sup> structural distortion for enhanced CO <sub>2</sub> electroreduction. <i>Journal of Materials Chemistry A</i> , 2020, 8, 13320-13327.	10.3	29
78	The synergetic role of rice straw in enhancing the process of Cr(VI) photoreduction by oxalic acid. <i>Environmental Pollution</i> , 2020, 265, 115013.	7.5	16
79	Chloroplast-like porous bismuth-based core-shell structure for high energy efficiency CO <sub>2</sub> electroreduction. <i>Science Bulletin</i> , 2020, 65, 1635-1642.	9.0	52
80	Conformal Shell Amorphization of Nanoporous Ag-Bi for Efficient Formate Generation. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 31319-31326.	8.0	15
81	Atypical Oxygen-Bearing Copper Boosts Ethylene Selectivity toward Electrocatalytic CO <sub>2</sub> Reduction. <i>Journal of the American Chemical Society</i> , 2020, 142, 11417-11427.	13.7	250
82	Rational Design of Nanocatalysts with Nonmetal Species Modification for Electrochemical CO <sub>2</sub> Reduction. <i>Advanced Energy Materials</i> , 2020, 10, 2000588.	19.5	53
83	In situ encapsulated and well dispersed Co <sub>3</sub> O <sub>4</sub> nanoparticles as efficient and stable electrocatalysts for high-performance CO <sub>2</sub> reduction. <i>Journal of Materials Chemistry A</i> , 2020, 8, 15675-15680.	10.3	24
84	Rich Bismuth-Oxygen Bonds in Bismuth Derivatives from Bi <sub>2</sub> S <sub>3</sub> Pre-Catalysts Promote the Electrochemical Reduction of CO <sub>2</sub> . <i>ChemElectroChem</i> , 2020, 7, 2864-2868.	3.4	12
85	Ethylene Selectivity in Electrocatalytic CO <sub>2</sub> Reduction on Cu Nanomaterials: A Crystal Phase-Dependent Study. <i>Journal of the American Chemical Society</i> , 2020, 142, 12760-12766.	13.7	183
86	Boosting chemical and fuel production. <i>Nature Catalysis</i> , 2020, 3, 474-475.	34.4	3
87	Imidazolium-Functionalized Cationic Covalent Triazine Frameworks Stabilized Copper Nanoparticles for Enhanced CO <sub>2</sub> Electroreduction. <i>ChemCatChem</i> , 2020, 12, 3530-3536.	3.7	31
88	Organic-Inorganic Hybrid Nanomaterials for Electrocatalytic CO <sub>2</sub> Reduction. <i>Small</i> , 2020, 16, e2001847.	10.0	79
89	Tuning adsorption strength of CO <sub>2</sub> and its intermediates on tin oxide-based electrocatalyst for efficient CO <sub>2</sub> reduction towards carbonaceous products. <i>Applied Catalysis B: Environmental</i> , 2020, 277, 119252.	20.2	50
90	The importance of pH in controlling the selectivity of the electrochemical CO <sub>2</sub> reduction. <i>Current Opinion in Green and Sustainable Chemistry</i> , 2020, 26, 100371.	5.9	53

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91	Influence of the Chemical Compositions of Bismuth Oxyiodides on the Electroreduction of Carbon Dioxide to Formate. ChemPlusChem, 2020, 85, 672-678.	2.8	11
92	Protecting Copper Oxidation State via Intermediate Confinement for Selective CO <sub>2</sub> Electroreduction to C <sub>2+</sub> Fuels. Journal of the American Chemical Society, 2020, 142, 6400-6408.	13.7	396
93	Covalent Triazine Framework Confined Copper Catalysts for Selective Electrochemical CO <sub>2</sub> Reduction: Operando Diagnosis of Active Sites. ACS Catalysis, 2020, 10, 4534-4542.	11.2	112
94	Optical Excitation of a Nanoparticle Cu/p-NiO Photocathode Improves Reaction Selectivity for CO <sub>2</sub> Reduction in Aqueous Electrolytes. Nano Letters, 2020, 20, 2348-2358.	9.1	82
95	Investigation of CO <sub>2</sub> Electrolysis on Tin Foil by Electrochemical Impedance Spectroscopy. ACS Sustainable Chemistry and Engineering, 2020, 8, 5192-5199.	6.7	27
96	Trends in C=O and N=O bond scission on rutile oxides described using oxygen vacancy formation energies. Chemical Science, 2020, 11, 4119-4124.	7.4	16
97	Electrocatalytic CO <sub>2</sub> Reduction by Cobalt Bis(pyridylmonoimine) Complexes: Effect of Ligand Flexibility on Catalytic Activity. ACS Catalysis, 2020, 10, 4942-4959.	11.2	24
98	Defect Engineering in Carbon-Based Electrocatalysts: Insight into Intrinsic Carbon Defects. Advanced Functional Materials, 2020, 30, 2001097.	14.9	319
99	Engineering pristine 2D metal-organic framework nanosheets for electrocatalysis. Journal of Materials Chemistry A, 2020, 8, 8143-8170.	10.3	180
100	Metal-Organic Framework-Derived Carbon Nanorods Encapsulating Bismuth Oxides for Rapid and Selective CO <sub>2</sub> Electroreduction to Formate. Angewandte Chemie - International Edition, 2020, 59, 10807-10813.	13.8	251
101	Potential Link between Cu Surface and Selective CO <sub>2</sub> Electroreduction: Perspective on Future Electrocatalyst Designs. Advanced Materials, 2020, 32, e1908398.	21.0	182
102	Production of C <sub>2</sub> /C <sub>3</sub> Oxygenates from Planar Copper Nitride-Derived Mesoporous Copper via Electrochemical Reduction of CO <sub>2</sub> . Chemistry of Materials, 2020, 32, 3304-3311.	6.7	64
103	Fundamentals of Gas Diffusion Electrodes and Electrolysers for Carbon Dioxide Utilisation: Challenges and Opportunities. Catalysts, 2020, 10, 713.	3.5	72
104	Heterogeneous Single-Atom Catalysts for Electrochemical CO <sub>2</sub> Reduction Reaction. Advanced Materials, 2020, 32, e2001848.	21.0	366
105	Metal Phthalocyanine-Derived Single-Atom Catalysts for Selective CO <sub>2</sub> Electroreduction under High Current Densities. ACS Applied Materials & Interfaces, 2020, 12, 33795-33802.	8.0	35
106	Perspective on theoretical methods and modeling relating to electro-catalysis processes. Chemical Communications, 2020, 56, 9937-9949.	4.1	52
107	A highly efficient diatomic nickel electrocatalyst for CO <sub>2</sub> reduction. Chemical Communications, 2020, 56, 8798-8801.	4.1	34
108	Rational design of hierarchical carbon hybrid microassemblies via reductive-catalytic chemical vapor deposition. Carbon, 2020, 167, 422-430.	10.3	6



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109	Polarization-Induced Local pH Swing Promotes Pd-Catalyzed CO <sub>2</sub> Hydrogenation. <i>Journal of the American Chemical Society</i> , 2020, 142, 13384-13390.	13.7	22
110	An overview of Cu-based heterogeneous electrocatalysts for CO <sub>2</sub> reduction. <i>Journal of Materials Chemistry A</i> , 2020, 8, 4700-4734.	10.3	150
111	Nanoscale Infrared Spectroscopy and Imaging of Catalytic Reactions in Cu <sub>2</sub> O Crystals. <i>ACS Photonics</i> , 2020, 7, 576-580.	6.6	11
112	Competition between CO <sub>2</sub> Reduction and Hydrogen Evolution on a Gold Electrode under Well-Defined Mass Transport Conditions. <i>Journal of the American Chemical Society</i> , 2020, 142, 4154-4161.	13.7	315
113	Efficient electron transmission in covalent organic framework nanosheets for highly active electrocatalytic carbon dioxide reduction. <i>Nature Communications</i> , 2020, 11, 497.	12.8	280
114	Current progress in electrocatalytic carbon dioxide reduction to fuels on heterogeneous catalysts. <i>Journal of Materials Chemistry A</i> , 2020, 8, 3541-3562.	10.3	204
115	Graphdiyne-Supported Single Iron Atom: A Promising Electrocatalyst for Carbon Dioxide Electroreduction into Methane and Ethanol. <i>Journal of Physical Chemistry C</i> , 2020, 124, 3722-3730.	3.1	75
116	Single-Atom Iron-Nitrogen Catalytic Site with Graphitic Nitrogen for Efficient Electroreduction of CO <sub>2</sub> . <i>ChemistrySelect</i> , 2020, 5, 1282-1287.	1.5	15
117	Metal-Nitrogen-Carbon Electrocatalysts for CO <sub>2</sub> Reduction towards Syngas Generation. <i>ChemSusChem</i> , 2020, 13, 1688-1698.	6.8	36
118	Electrochemical reconstruction of ZnO for selective reduction of CO <sub>2</sub> to CO. <i>Applied Catalysis B: Environmental</i> , 2020, 273, 119060.	20.2	115
119	Metal-Organic Framework-Derived Carbon Nanorods Encapsulating Bismuth Oxides for Rapid and Selective CO <sub>2</sub> Electroreduction to Formate. <i>Angewandte Chemie</i> , 2020, 132, 10899-10905.	2.0	56
120	Selective C-C Coupling by Spatially Confined Dimeric Metal Centers. <i>IScience</i> , 2020, 23, 101051.	4.1	37
121	Modulating Local CO <sub>2</sub> Concentration as a General Strategy for Enhancing C-C Coupling in CO <sub>2</sub> Electroreduction. <i>Joule</i> , 2020, 4, 1104-1120.	24.0	237
122	Photocathode engineering for efficient photoelectrochemical CO <sub>2</sub> reduction. <i>Materials Today Nano</i> , 2020, 10, 100077.	4.6	52
123	Structure-Sensitive Electrocatalytic Reduction of CO <sub>2</sub> to Methanol over Carbon-Supported Intermetallic PtZn Nano-Alloys. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 19402-19414.	8.0	78
124	Electrochemically deposited Sn catalysts with dense tips on a gas diffusion electrode for electrochemical CO <sub>2</sub> reduction. <i>Journal of Materials Chemistry A</i> , 2020, 8, 9032-9038.	10.3	41
125	Lead Sulfide Nanocubes for Solar Energy Storage. <i>Energy Technology</i> , 2020, 8, 2000301.	3.8	5
126	A Cu <sub>2</sub> B <sub>2</sub> monolayer with planar hypercoordinate motifs: an efficient catalyst for CO electroreduction to ethanol. <i>Journal of Materials Chemistry A</i> , 2020, 8, 9607-9615.	10.3	32



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127	Toward Engineering of Solution Microenvironments for the CO <sub>2</sub> Reduction Reaction: Unraveling pH and Voltage Effects from a Combined Density-Functional–Continuum Theory. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 4113-4118.	4.6	49
128	Surface charging activated mechanism change: A computational study of O, CO, and CO <sub>2</sub> interactions on Ag electrodes. <i>Journal of Energy Chemistry</i> , 2020, 50, 307-313.	12.9	8
129	Fabrication and Applications of 3D Nanoarchitectures for Advanced Electrocatalysts and Sensors. <i>Advanced Materials</i> , 2020, 32, e1907500.	21.0	17
130	Nanostructures for Electrocatalytic CO <sub>2</sub> Reduction. <i>Chemistry - A European Journal</i> , 2020, 26, 14024-14035.	3.3	26
131	Unveiling in situ evolved In/In <sub>2</sub> O <sub>3</sub> heterostructure as the active phase of In <sub>2</sub> O <sub>3</sub> toward efficient electroreduction of CO <sub>2</sub> to formate. <i>Science Bulletin</i> , 2020, 65, 1547-1554.	9.0	105
132	Tuning the Product Selectivity of the Cu Hollow Fiber Gas Diffusion Electrode for Efficient CO <sub>2</sub> Reduction to Formate by Controlled Surface Sn Electrodeposition. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 21670-21681.	8.0	69
133	Boron-doped CuO nanobundles for electroreduction of carbon dioxide to ethylene. <i>Green Chemistry</i> , 2020, 22, 2750-2754.	9.0	39
134	Controllable CO adsorption determines ethylene and methane productions from CO <sub>2</sub> electroreduction. <i>Science Bulletin</i> , 2021, 66, 62-68.	9.0	45
135	Construction of cobalt-copper bimetallic oxide heterogeneous nanotubes for high-efficient and low-overpotential electrochemical CO <sub>2</sub> reduction. <i>Journal of Energy Chemistry</i> , 2021, 54, 1-6.	12.9	26
136	Photocatalytic, electrocatalytic and photoelectrocatalytic conversion of carbon dioxide: a review. <i>Environmental Chemistry Letters</i> , 2021, 19, 941-967.	16.2	68
137	Noble-Metal Nanocrystals with Controlled Shapes for Catalytic and Electrocatalytic Applications. <i>Chemical Reviews</i> , 2021, 121, 649-735.	47.7	388
138	Real-time Monitoring Reveals Dissolution/Redeposition Mechanism in Copper Nanocatalysts during the Initial Stages of the CO <sub>2</sub> Reduction Reaction. <i>Angewandte Chemie</i> , 2021, 133, 1367-1374.	2.0	25
139	Breaking the Linear Scaling Relationship by Compositional and Structural Crafting of Ternary Cu–Au/Ag Nanoframes for Electrocatalytic Ethylene Production. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 2508-2518.	13.8	92
140	Recent Advances in Electrochemical CO <sub>2</sub> Reduction on Indium-Based Catalysts. <i>ChemCatChem</i> , 2021, 13, 514-531.	3.7	50
141	Copper sulfide derived nanoparticles supported on carbon for the electrochemical reduction of carbon dioxide. <i>Catalysis Today</i> , 2021, 377, 157-165.	4.4	16
142	Breaking the Linear Scaling Relationship by Compositional and Structural Crafting of Ternary Cu–Au/Ag Nanoframes for Electrocatalytic Ethylene Production. <i>Angewandte Chemie</i> , 2021, 133, 2538-2548.	2.0	15
143	Potential-Dependent Morphology of Copper Catalysts During CO <sub>2</sub> Electroreduction Revealed by In-situ Atomic Force Microscopy. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 2561-2568.	13.8	121
144	Real-time Monitoring Reveals Dissolution/Redeposition Mechanism in Copper Nanocatalysts during the Initial Stages of the CO <sub>2</sub> Reduction Reaction. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 1347-1354.	13.8	108

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145	Electrocatalytic CO <sub>2</sub> reduction to C <sub>2</sub> + products on Cu and Cu <sub>x</sub> Zn <sub>y</sub> electrodes: Effects of chemical composition and surface morphology. Journal of Electroanalytical Chemistry, 2021, 880, 114750.	3.8	43
146	Product-Specific Active Site Motifs of Cu for Electrochemical CO <sub>2</sub> Reduction. Chem, 2021, 7, 406-420.	11.7	72
147	Conjugated nickel phthalocyanine polymer selectively catalyzes CO <sub>2</sub> -to-CO conversion in a wide operating potential window. Applied Catalysis B: Environmental, 2021, 284, 119739.	20.2	45
148	First principles studies of mononuclear and dinuclear Pacman complexes for electrocatalytic reduction of CO <sub>2</sub> . Catalysis Science and Technology, 2021, 11, 637-645.	4.1	3
149	Reactor design for electrochemical CO <sub>2</sub> conversion toward large-scale applications. Current Opinion in Green and Sustainable Chemistry, 2021, 27, 100419.	5.9	28
150	Theoretical computation of the electrocatalytic performance of CO <sub>2</sub> reduction and hydrogen evolution reactions on graphdiyne monolayer supported precise number of copper atoms. International Journal of Hydrogen Energy, 2021, 46, 5378-5389.	7.1	41
151	Alloyed Palladium-Silver Nanowires Enabling Ultraprecise Carbon Dioxide Reduction to Formate. Advanced Materials, 2021, 33, e2005821.	21.0	73
152	Silver Single-Atom Catalyst for Efficient Electrochemical CO <sub>2</sub> Reduction Synthesized from Thermal Transformation and Surface Reconstruction. Angewandte Chemie - International Edition, 2021, 60, 6170-6176.	13.8	236
153	The lab-to-fab journey of copper-based electrocatalysts for multi-carbon production: Advances, challenges, and opportunities. Nano Today, 2021, 36, 101028.	11.9	25
154	Developing micro-kinetic model for electrocatalytic reduction of carbon dioxide on copper electrode. Journal of Catalysis, 2021, 393, 11-19.	6.2	16
155	Recent advances of electrically conductive metal-organic frameworks in electrochemical applications. Materials Today Nano, 2021, 13, 100105.	4.6	32
156	The role of atomic carbon in directing electrochemical CO <sub>2</sub> reduction to multicarbon products. Energy and Environmental Science, 2021, 14, 473-482.	30.8	62
157	Recent Advances in Strategies for Improving the Performance of CO <sub>2</sub> Reduction Reaction on Single Atom Catalysts. Small Science, 2021, 1, 2000028.	9.9	57
158	Operando spectroscopy of nanoscopic metal/covalent organic framework electrocatalysts. Nanoscale, 2021, 13, 1507-1514.	5.6	20
159	How symmetry factors cause potential- and facet-dependent pathway shifts during CO <sub>2</sub> reduction to CH <sub>4</sub> on Cu electrodes. Applied Catalysis B: Environmental, 2021, 285, 119776.	20.2	28
160	Recent advances in innovative strategies for the CO <sub>2</sub> electroreduction reaction. Energy and Environmental Science, 2021, 14, 765-780.	30.8	188
161	Opportunities of Aqueous Manganese-Based Batteries with Deposition and Stripping Chemistry. Advanced Energy Materials, 2021, 11, 2002904.	19.5	107
162	Nanoporous structured Sn-MWCNT/Cu electrodes fabricated by electrodeposition-chemical dezincification for catalytic CO <sub>2</sub> reduction. International Journal of Energy Research, 2021, 45, 6273-6284.	4.5	2

#	ARTICLE	IF	CITATIONS
163	Comparative life cycle assessment of electrochemical upgrading of CO <sub>2</sub> to fuels and feedstocks. Green Chemistry, 2021, 23, 867-880.	9.0	65
164	Boosting CO <sub>2</sub> -to-CO conversion on a robust single-atom copper decorated carbon catalyst by enhancing intermediate binding strength. Journal of Materials Chemistry A, 2021, 9, 1705-1712.	10.3	49
165	Suppression of Hydrogen Evolution in Acidic Electrolytes by Electrochemical CO <sub>2</sub> Reduction. Journal of the American Chemical Society, 2021, 143, 279-285.	13.7	158
166	Silver Single-Atom Catalyst for Efficient Electrochemical CO <sub>2</sub> Reduction Synthesized from Thermal Transformation and Surface Reconstruction. Angewandte Chemie, 2021, 133, 6235-6241.	2.0	22
167	Efficient Electrocatalytic CO <sub>2</sub> Reduction to C <sub>2</sub> + Alcohols at Defect-Site-Rich Cu Surface. Joule, 2021, 5, 429-440.	24.0	194
168	Theoretical investigation of CO <sub>2</sub> electroreduction on N (B)-doped graphdiyne monolayer supported single copper atom. Applied Surface Science, 2021, 538, 148145.	6.1	34
169	Photocatalytic and electrocatalytic transformations of C <sub>1</sub> molecules involving C-C coupling. Energy and Environmental Science, 2021, 14, 37-89.	30.8	110
170	Recent Progress of Sn-Based Derivative Catalysts for Electrochemical Reduction of CO <sub>2</sub> . Energy Technology, 2021, 9, .	3.8	42
171	Potentialabhängige Morphologie von Kupferkatalysatoren während der Elektroreduktion von CO <sub>2</sub> , ermittelt durch In-situ-Rasterkraftmikroskopie. Angewandte Chemie, 2021, 133, 2591-2599.	2.0	8
172	Recent progress in structural modulation of metal nanomaterials for electrocatalytic CO <sub>2</sub> reduction. Rare Metals, 2021, 40, 1412-1430.	7.1	61
173	Reticular materials for electrochemical reduction of CO <sub>2</sub> . Coordination Chemistry Reviews, 2021, 427, 213564.	18.8	29
174	How does mass transfer influence electrochemical carbon dioxide reduction reaction? A case study of Ni molecular catalyst supported on carbon. Chemical Communications, 2021, 57, 1384-1387.	4.1	18
175	Highly efficient CO <sub>2</sub> electrolysis within a wide operation window using octahedral tin oxide single crystals. Journal of Materials Chemistry A, 2021, 9, 7848-7856.	10.3	42
176	A well-defined dual Mn-site based metal-organic framework to promote CO <sub>2</sub> reduction/evolution in Li-CO <sub>2</sub> batteries. Chemical Communications, 2021, 57, 8937-8940.	4.1	26
177	Electrochemical reduction of CO <sub>2</sub> towards multi-carbon products <i>via</i> a two-step process. Reaction Chemistry and Engineering, 2021, 6, 612-628.	3.7	28
178	Vacancy-induced high activity of MoS <sub>2</sub> monolayers for CO electroreduction: a computational study. Sustainable Energy and Fuels, 2021, 5, 4932-4943.	4.9	4
179	Multi-Scale Design of Metal-Organic Framework-Derived Materials for Energy Electrocatalysis. Advanced Energy Materials, 2022, 12, 2003410.	19.5	81
180	A proton-responsive ligand becomes a dimetal linker for multisubstrate assembly <i>via</i> nitrate deoxygenation. Chemical Communications, 2021, 57, 2780-2783.	4.1	10

#	ARTICLE	IF	CITATIONS
181	CO <sub>2</sub> valorisation towards alcohols by Cu-based electrocatalysts: challenges and perspectives. Green Chemistry, 2021, 23, 1896-1920.	9.0	32
182	Do Cu Substrates Participate in Bi Electrocatalytic CO <sub>2</sub> Reduction?. ChemNanoMat, 2021, 7, 128-133.	2.8	6
183	Bifunctional single-molecular heterojunction enables completely selective CO <sub>2</sub> -to-CO conversion integrated with oxidative 3D nano-polymerization. Energy and Environmental Science, 2021, 14, 1544-1552.	30.8	95
184	Promoting CO <sub>2</sub> electroreduction on CuO nanowires with a hydrophobic Nafion overlayer. Nanoscale, 2021, 13, 3588-3593.	5.6	23
185	Sn Quantum Dots for Electrocatalytic Reduction of CO <sub>2</sub> to HCOOH. Wuji Cailiao Xuebao/Journal of Inorganic Materials, 2021, , 177.	1.3	1
186	Imidazolium-modification enhances photocatalytic CO <sub>2</sub> reduction on ZnSe quantum dots. Chemical Science, 2021, 12, 9078-9087.	7.4	31
187	Efficient electrochemical reduction of CO <sub>2</sub> promoted by the electrospun Cu <sub>1.96</sub> S/Cu tandem catalyst. Nanoscale, 2021, 13, 16986-16994.	5.6	8
188	Gas diffusion electrodes (GDEs) for electrochemical reduction of carbon dioxide, carbon monoxide, and dinitrogen to value-added products: a review. Energy and Environmental Science, 2021, 14, 1959-2008.	30.8	243
189	Research for reducing the Minimum Miscible Pressure of crude oil and carbon dioxide by injecting citric acid isobutyl ester. Oil and Gas Science and Technology, 2021, 76, 30.	1.4	7
190	pH and Anion Effects on Cu–Phosphate Interfaces for CO Electroreduction. ACS Catalysis, 2021, 11, 1128-1135.	11.2	22
191	Electrochemical reduction of CO <sub>2</sub> using shape-controlled nanoparticles. , 2021, , 155-181.		0
192	Hydrophobic Copper Interfaces Boost Electroreduction of Carbon Dioxide to Ethylene in Water. ACS Catalysis, 2021, 11, 958-966.	11.2	120
193	Ce-doped Bi based catalysts for highly efficient electroreduction of CO <sub>2</sub> to formate. Journal of Materials Chemistry C, 0, , .	5.5	11
194	Enhancing selectivity through decrypting the uncoordinated zirconium sites in MOF electrocatalysts. Chemical Communications, 2021, 57, 5191-5194.	4.1	14
195	Proton-Coupled Electron Transfer Guidelines, Fair and Square. Journal of the American Chemical Society, 2021, 143, 560-576.	13.7	265
196	Graphdiyne anchored ultrafine Ag nanoparticles for highly efficient and solvent-free catalysis of CO <sub>2</sub> cycloaddition. Materials Chemistry Frontiers, 2021, 5, 6052-6060.	5.9	12
197	Structure Sensitivity in Single-Atom Catalysis toward CO <sub>2</sub> Electroreduction. ACS Energy Letters, 2021, 6, 713-727.	17.4	149
198	Planar defect-driven electrocatalysis of CO <sub>2</sub> -to-C <sub>2</sub> H <sub>4</sub> conversion. Journal of Materials Chemistry A, 2021, 9, 19932-19939.	10.3	15

#	ARTICLE	IF	CITATIONS
199	Lattice oxygen redox chemistry in solid-state electrocatalysts for water oxidation. <i>Energy and Environmental Science</i> , 2021, 14, 4647-4671.	30.8	190
200	Electrochemical oxidation of biomass derived 5-hydroxymethylfurfural (HMF): pathway, mechanism, catalysts and coupling reactions. <i>Green Chemistry</i> , 2021, 23, 4228-4254.	9.0	191
201	Understanding trends in the activity and selectivity of bi-atom catalysts for the electrochemical reduction of carbon dioxide. <i>Journal of Materials Chemistry A</i> , 2021, 9, 8761-8771.	10.3	35
202	Reconstructing two-dimensional defects in CuO nanowires for efficient CO <sub>2</sub> electroreduction to ethylene. <i>Chemical Communications</i> , 2021, 57, 8276-8279.	4.1	20
203	Design of pre-catalysts for heterogeneous CO <sub>2</sub> electrochemical reduction. <i>Journal of Materials Chemistry A</i> , 2021, 9, 19508-19533.	10.3	24
204	The nature of active sites for carbon dioxide electroreduction over oxide-derived copper catalysts. <i>Nature Communications</i> , 2021, 12, 395.	12.8	170
205	Porphyrin-based frameworks for oxygen electrocatalysis and catalytic reduction of carbon dioxide. <i>Chemical Society Reviews</i> , 2021, 50, 2540-2581.	38.1	249
207	Carbon-Based Materials for Electrochemical Reduction of CO <sub>2</sub> to C <sub>2+</sub> Oxygenates: Recent Progress and Remaining Challenges. <i>ACS Catalysis</i> , 2021, 11, 2076-2097.	11.2	116
208	Morphology and mechanism of highly selective Cu(II) oxide nanosheet catalysts for carbon dioxide electroreduction. <i>Nature Communications</i> , 2021, 12, 794.	12.8	168
209	Selectively Converting Carbon Dioxide to Syngas over Intermetallic AuCu Catalysts. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 2609-2615.	6.7	22
210	Interface engineering of MoS <sub>2</sub> /Cu heterostructures toward highly selective electrochemical reduction of carbon dioxide into acetate. <i>Applied Catalysis B: Environmental</i> , 2021, 281, 119426.	20.2	82
211	Sn nanoparticles deposited onto a gas diffusion layer via impregnation-electroreduction for enhanced CO <sub>2</sub> electroreduction to formate. <i>Electrochimica Acta</i> , 2021, 369, 137662.	5.2	15
212	Recent progress and perspective of electrochemical CO <sub>2</sub> reduction towards C <sub>2</sub> -C <sub>5</sub> products over non-precious metal heterogeneous electrocatalysts. <i>Nano Research</i> , 2021, 14, 3188-3207.	10.4	57
213	Atomically Dispersed Indium Sites for Selective CO <sub>2</sub> Electroreduction to Formic Acid. <i>ACS Nano</i> , 2021, 15, 5671-5678.	14.6	121
214	Enhancing CO <sub>2</sub> plasma conversion using metal grid catalysts. <i>Journal of Applied Physics</i> , 2021, 129, .	2.5	14
215	In situ and operando electron microscopy in heterogeneous catalysis—insights into multi-scale chemical dynamics. <i>Journal of Physics Condensed Matter</i> , 2021, 33, 153001.	1.8	22
217	Metal-Organic Framework-Derived Bismuth Nanosheets for Electrochemical and Solar-Driven Electrochemical CO <sub>2</sub> Reduction to Formate. <i>ChemElectroChem</i> , 2021, 8, 880-886.	3.4	15
218	Thermodynamic and Kinetic Competition between C-H and O-H Bond Formation Pathways during Electrochemical Reduction of CO on Copper Electrodes. <i>ACS Catalysis</i> , 2021, 11, 2422-2434.	11.2	20

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219	Inversely Tuning the CO <sub>2</sub> Electroreduction and Hydrogen Evolution Activity on Metal Oxide via Heteroatom Doping. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 7602-7606.	13.8	81
220	Engineering transition metal-based nanomaterials for high-performance electrocatalysis. <i>Materials Reports Energy</i> , 2021, 1, 100006.	3.2	14
221	Inversely Tuning the CO <sub>2</sub> Electroreduction and Hydrogen Evolution Activity on Metal Oxide via Heteroatom Doping. <i>Angewandte Chemie</i> , 2021, 133, 7680-7684.	2.0	15
222	Integrating CO <sub>2</sub> Capture with Electrochemical Conversion Using Amine-Based Capture Solvents as Electrolytes. <i>Industrial &amp; Engineering Chemistry Research</i> , 2021, 60, 4269-4278.	3.7	37
223	Bâ€Cuâ€Zn Gas Diffusion Electrodes for CO <sub>2</sub> Electroreduction to C <sub>2</sub> +â€Products at High Current Densities. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 9135-9141.	13.8	78
224	Tin Alloying Enhances Catalytic Selectivity of Copper Surface: A Mechanistic Study Based on First-Principles Calculations. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 3031-3037.	4.6	4
225	A dual-cathode study on Ag-Cu sequential CO <sub>2</sub> electroreduction towards hydrocarbons. <i>Journal of CO<sub>2</sub> Utilization</i> , 2021, 45, 101444.	6.8	10
226	Stability of Quaternary A kyl Ammonium Cations during the Hydrogen Evolution Reduction: A Differential Electrochemical Mass Spectrometry Study. <i>Journal of Physical Chemistry C</i> , 2021, 125, 5715-5722.	3.1	4
227	Enhancing a Molecular Electrocatalystâ€™s Activity for CO <sub>2</sub> Reduction by Simultaneously Modulating Three Substituent Effects. <i>Journal of the American Chemical Society</i> , 2021, 143, 3764-3778.	13.7	54
228	Boosting CO <sub>2</sub> Capture and Its Photochemical Conversion on Bismuth Surface. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2021, 218, 2000671.	1.8	4
229	Vacancy-defects turn off conjugated Ĩ€ bond shield activated catalytic molecular adsorption process. <i>Applied Surface Science</i> , 2021, 543, 148790.	6.1	4
230	Optimization Strategies for Selective CO <sub>2</sub> Electroreduction to Fuels. <i>Transactions of Tianjin University</i> , 2021, 27, 180-200.	6.4	50
231	Electrocatalytic Refinery for Sustainable Production of Fuels and Chemicals. <i>Angewandte Chemie</i> , 2021, 133, 19724-19742.	2.0	30
232	Electrocatalytic Refinery for Sustainable Production of Fuels and Chemicals. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 19572-19590.	13.8	341
233	The Effect of Water on the Quantification of Volatile Species by Differential Electrochemical Mass Spectrometry. <i>Analytical Chemistry</i> , 2021, 93, 5547-5555.	6.5	3
234	Bâ€Cuâ€Znâ€Gasdiffusionselektroden f¼r die elektrokatalytische CO <sub>2</sub> â€Reduktion zu C <sub>2</sub> + â€Produkten bei hohen Stromdichten. <i>Angewandte Chemie</i> , 2021, 133, 9217-9224.	2.0	4
235	Double sulfur vacancies by lithium tuning enhance CO <sub>2</sub> electroreduction to n-propanol. <i>Nature Communications</i> , 2021, 12, 1580.	12.8	162
236	Enhanced Cuprophilic Interactions in Crystalline Catalysts Facilitate the Highly Selective Electroreduction of CO <sub>2</sub> to CH <sub>4</sub> . <i>Journal of the American Chemical Society</i> , 2021, 143, 3808-3816.	13.7	187



#	ARTICLE	IF	CITATIONS
237	Derived CuSn Alloys from Heterointerfaces in Bimetallic Oxides Promote the CO <sub>2</sub> Electroreduction to Formate. ChemElectroChem, 2021, 8, 1150-1155.	3.4	11
238	Surface modification of metal materials for high-performance electrocatalytic carbon dioxide reduction. Matter, 2021, 4, 888-926.	10.0	74
239	An Investigation of Active Sites for electrochemical CO <sub>2</sub> Reduction Reactions: From In Situ Characterization to Rational Design. Advanced Science, 2021, 8, 2003579.	11.2	101
240	Achieving high current density for electrocatalytic reduction of CO <sub>2</sub> to formate on bismuth-based catalysts. Cell Reports Physical Science, 2021, 2, 100353.	5.6	46
241	Nanocapillarity and Nanoconfinement Effects of Pipet-like Bismuth@Carbon Nanotubes for Highly Efficient Electrocatalytic CO <sub>2</sub> Reduction. Nano Letters, 2021, 21, 2650-2657.	9.1	95
242	Electrocatalytic Membranes for Tunable Syngas Production and High-Efficiency Delivery to Biocompatible Electrolytes. ACS Sustainable Chemistry and Engineering, 2021, 9, 6012-6022.	6.7	6
243	Linking the Dynamic Chemical State of Catalysts with the Product Profile of Electrocatalytic CO <sub>2</sub> Reduction. Angewandte Chemie, 2021, 133, 17394-17407.	2.0	42
244	Core-Shell ZnO@Cu <sub>2</sub> O as Catalyst to Enhance the Electrochemical Reduction of Carbon Dioxide to C <sub>2</sub> Products. Catalysts, 2021, 11, 535.	3.5	13
245	Electrochemical CO <sub>2</sub> reduction at room temperature: Status and perspectives. Journal of Energy Storage, 2021, 36, 102373.	8.1	23
246	Elucidating the Facet-Dependent Selectivity for CO <sub>2</sub> Electroreduction to Ethanol of Cu@Ag Tandem Catalysts. ACS Catalysis, 2021, 11, 4456-4463.	11.2	130
247	Catalytic Hybrid Electrocatalytic/Biocatalytic Cascades for Carbon Dioxide Reduction and Valorization. ACS Catalysis, 2021, 11, 5172-5188.	11.2	31
248	Nanoarray Structures for Artificial Photosynthesis. Small, 2021, 17, e2006530.	10.0	32
249	Coupling effects of Zn single atom and high curvature supports for improved performance of CO <sub>2</sub> reduction. Science Bulletin, 2021, 66, 1649-1649.	9.0	36
250	Bi@Sn Oxides for Highly Selective CO <sub>2</sub> Electroreduction to Formate in a Wide Potential Window. ChemSusChem, 2021, 14, 2247-2254.	6.8	34
251	Sn Atoms on Cu Nanoparticles for Suppressing Competitive H <sub>2</sub> Evolution in CO <sub>2</sub> Electrolysis. ACS Applied Nano Materials, 2021, 4, 4994-5003.	5.0	16
252	Promotion of electrochemical CO <sub>2</sub> reduction to ethylene on phosphorus-doped copper nanocrystals with stable Cu <sup>+</sup> sites. Applied Surface Science, 2021, 544, 148965.	6.1	27
253	Cu <sub>2</sub> O-Ag Tandem Catalysts for Selective Electrochemical Reduction of CO <sub>2</sub> to C <sub>2</sub> Products. Molecules, 2021, 26, 2175.	3.8	19
254	Electrolyzer and Catalysts Design from Carbon Dioxide to Carbon Monoxide Electrochemical Reduction. Electrochemical Energy Reviews, 2021, 4, 680-717.	25.5	26



#	ARTICLE	IF	CITATIONS
255	Noble metal-based high-entropy alloys as advanced electrocatalysts for energy conversion. <i>Rare Metals</i> , 2021, 40, 2354-2368.	7.1	47
256	Designing Copper-Based Catalysts for Efficient Carbon Dioxide Electroreduction. <i>Advanced Materials</i> , 2021, 33, e2005798.	21.0	145
257	Electrolyte Effects on the Faradaic Efficiency of CO <sub>2</sub> Reduction to CO on a Gold Electrode. <i>ACS Catalysis</i> , 2021, 11, 4936-4945.	11.2	97
258	Nonnitrogen Coordination Environment Steering Electrochemical CO <sub>2</sub> -to-CO Conversion over Single-Atom Tin Catalysts in a Wide Potential Window. <i>ACS Catalysis</i> , 2021, 11, 5212-5221.	11.2	79
259	“Two Ships in a Bottle” Design for Zn-Ag-O Catalyst Enabling Selective and Long-Lasting CO <sub>2</sub> Electroreduction. <i>Journal of the American Chemical Society</i> , 2021, 143, 6855-6864.	13.7	139
260	Operando cathode activation with alkali metal cations for high current density operation of water-fed zero-gap carbon dioxide electrolyzers. <i>Nature Energy</i> , 2021, 6, 439-448.	39.5	175
261	Role of High-Index Facet Cu(711) Surface in Controlling the C <sub>2</sub> Selectivity for CO <sub>2</sub> Reduction Reaction—A DFT Study. <i>Journal of Physical Chemistry C</i> , 2021, 125, 10919-10925.	3.1	17
262	Symmetry-Broken Au-Cu Heterostructures and their Tandem Catalysis Process in Electrochemical CO <sub>2</sub> Reduction. <i>Advanced Functional Materials</i> , 2021, 31, 2101255.	14.9	64
263	Two-Dimensional Palladium-Copper Alloy Nanodendrites for Highly Stable and Selective Electrochemical Formate Production. <i>Nano Letters</i> , 2021, 21, 4092-4098.	9.1	59
264	Self-Assembly of Hydroxyl Metal-Organic Polyhedra and Polymer into Cu-Based Hollow Spheres for Product-Selective CO <sub>2</sub> Electroreduction. <i>Small Structures</i> , 2021, 2, 2100012.	12.0	20
265	Linking the Dynamic Chemical State of Catalysts with the Product Profile of Electrocatalytic CO <sub>2</sub> Reduction. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 17254-17267.	13.8	185
266	Selectivity Map for the Late Stages of CO and CO <sub>2</sub> Reduction to C <sub>2</sub> Species on Copper Electrodes. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 10784-10790.	13.8	30
267	Selectivity Map for the Late Stages of CO and CO <sub>2</sub> Reduction to C <sub>2</sub> Species on Copper Electrodes. <i>Angewandte Chemie</i> , 2021, 133, 10879-10885.	2.0	3
268	Silica-copper catalyst interfaces enable carbon-carbon coupling towards ethylene electrosynthesis. <i>Nature Communications</i> , 2021, 12, 2808.	12.8	91
269	Metalloporphyrin Encapsulation for Enhanced Conversion of CO <sub>2</sub> to C <sub>2</sub> H <sub>4</sub> . <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 25937-25945.	8.0	33
270	Low coordination number copper catalysts for electrochemical CO <sub>2</sub> methanation in a membrane electrode assembly. <i>Nature Communications</i> , 2021, 12, 2932.	12.8	97
271	High-Rate CO <sub>2</sub> Electroreduction to C <sub>2</sub> + Products over a Copper-Copper Iodide Catalyst. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 14329-14333.	13.8	177
272	Rational design of copper-based electrocatalysts and electrochemical systems for CO <sub>2</sub> reduction: From active sites engineering to mass transfer dynamics. <i>Materials Today Physics</i> , 2021, 18, 100354.	6.0	39

#	ARTICLE	IF	CITATIONS
273	How Strain Alters CO <sub>2</sub> Electroreduction on Model Cu(001) Surfaces. ACS Catalysis, 2021, 11, 6662-6671.	11.2	23
274	Dynamic Surface Chemistry of Catalysts in Oxygen Evolution Reaction. Small Science, 2021, 1, 2100011.	9.9	59
275	Advances and Challenges for the Electrochemical Reduction of CO <sub>2</sub> to CO: From Fundamentals to Industrialization. Angewandte Chemie, 2021, 133, 20795-20816.	2.0	82
276	Transition Metal Chalcogenides as a Versatile and Tunable Platform for Catalytic CO <sub>2</sub> and N <sub>2</sub> Electroreduction. ACS Materials Au, 2021, 1, 6-36.	6.0	55
277	Elucidating the reactivity and nature of active sites for tin phthalocyanine during CO <sub>2</sub> reduction. , 2021, 11, 1191-1197.		4
278	Fundamentals, On-Going Advances and Challenges of Electrochemical Carbon Dioxide Reduction. Electrochemical Energy Reviews, 2022, 5, 82-111.	25.5	17
279	The Sabatier Principle in Electrocatalysis: Basics, Limitations, and Extensions. Frontiers in Energy Research, 2021, 9, .	2.3	175
280	One-dimensional nanomaterial supported metal single-atom electrocatalysts: Synthesis, characterization, and applications. Nano Select, 2021, 2, 2072-2111.	3.7	12
281	<i>In-Situ</i> Generated High-Valent Iron Single-Atom Catalyst for Efficient Oxygen Evolution. Nano Letters, 2021, 21, 4795-4801.	9.1	47
282	Nitrogen-doped carbon with high graphitic-N exposure for electroreduction of CO <sub>2</sub> to CO. Ionics, 2021, 27, 3089-3098.	2.4	12
283	A redox cascade of NO <sup>x</sup> complexes: Structures and nitrogen deoxygenation thermodynamics. Polyhedron, 2021, 200, 115119.	2.2	2
284	Highly Scalable Conversion of Blood Protoporphyrin to Efficient Electrocatalyst for CO <sub>2</sub> to CO Conversion. Advanced Materials Interfaces, 2021, 8, 2100067.	3.7	4
285	Tandem catalysis in electrochemical CO <sub>2</sub> reduction reaction. Nano Research, 2021, 14, 4471-4486.	10.4	105
286	Enhanced Electrochemical Methanation of Carbon Dioxide at the Single-Layer Hexagonal Boron Nitride/Cu Interfacial Perimeter. Nano Letters, 2021, 21, 4469-4476.	9.1	16
287	A review of non-noble metal-based electrocatalysts for CO <sub>2</sub> electroreduction. Rare Metals, 2021, 40, 3019.	7.1	74
288	Generalizable Trends in Electrochemical Protonation Barriers. Journal of Physical Chemistry Letters, 2021, 12, 5193-5200.	4.6	19
289	Tricycloquinazoline-Based 2D Conductive Metal-Organic Frameworks as Promising Electrocatalysts for CO <sub>2</sub> Reduction. Angewandte Chemie - International Edition, 2021, 60, 14473-14479.	13.8	130
290	Pseudo-copper Ni-Zn alloy catalysts for carbon dioxide reduction to C <sub>2</sub> products. Frontiers of Physics, 2021, 16, 1.	5.0	19

#	ARTICLE	IF	CITATIONS
291	High-Rate CO <sub>2</sub> Electroreduction to C <sub>2+</sub> Products over a Copper-Copper Iodide Catalyst. <i>Angewandte Chemie</i> , 2021, 133, 14450-14454.	2.0	36
292	Architectural Design for Enhanced C <sub>2</sub> Product Selectivity in Electrochemical CO <sub>2</sub> Reduction Using Cu-Based Catalysts: A Review. <i>ACS Nano</i> , 2021, 15, 7975-8000.	14.6	183
293	Intrinsic Defect-Rich Graphene Coupled Cobalt Phthalocyanine for Robust Electrochemical Reduction of Carbon Dioxide. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 25523-25532.	8.0	23
294	Tricycloquinazoline-Based 2D Conductive Metal-Organic Frameworks as Promising Electrocatalysts for CO <sub>2</sub> Reduction. <i>Angewandte Chemie</i> , 2021, 133, 14594-14600.	2.0	12
295	Advances and Challenges for the Electrochemical Reduction of CO <sub>2</sub> to CO: From Fundamentals to Industrialization. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 20627-20648.	13.8	408
296	Electronic Modulation of Non-van der Waals 2D Electrocatalysts for Efficient Energy Conversion. <i>Advanced Materials</i> , 2021, 33, e2008422.	21.0	190
297	The inhibition of the proton donor ability of bicarbonate promotes the electrochemical conversion of CO <sub>2</sub> in bicarbonate solutions. <i>Journal of CO<sub>2</sub> Utilization</i> , 2021, 48, 101521.	6.8	26
298	Size-Dependent Selectivity of Electrochemical CO <sub>2</sub> Reduction on Converted In <sub>2</sub> O <sub>3</sub> Nanocrystals. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 15844-15848.	13.8	71
299	Revealing the CO Coverage-Driven C-C Coupling Mechanism for Electrochemical CO <sub>2</sub> Reduction on Cu <sub>2</sub> O Nanocubes <i>via</i> Operando Raman Spectroscopy. <i>ACS Catalysis</i> , 2021, 11, 7694-7701.	11.2	186
300	Computational-experimental study of the onset potentials for CO <sub>2</sub> reduction on polycrystalline and oxide-derived copper electrodes. <i>Electrochimica Acta</i> , 2021, 380, 138247.	5.2	4
301	Boron Dopant Induced Electron-Rich Bismuth for Electrochemical CO <sub>2</sub> Reduction with High Solar Energy Conversion Efficiency. <i>Small</i> , 2021, 17, e2101128.	10.0	42
302	Strategies and challenges with the microbial conversion of methanol to high-value chemicals. <i>Biotechnology and Bioengineering</i> , 2021, 118, 3655-3668.	3.3	12
303	Highlights and challenges in the selective reduction of carbon dioxide to methanol. <i>Nature Reviews Chemistry</i> , 2021, 5, 564-579.	30.2	253
304	Sub-Second Time-Resolved Surface-Enhanced Raman Spectroscopy Reveals Dynamic CO Intermediates during Electrochemical CO <sub>2</sub> Reduction on Copper. <i>Angewandte Chemie</i> , 2021, 133, 16712-16720.	2.0	17
305	Sub-Second Time-Resolved Surface-Enhanced Raman Spectroscopy Reveals Dynamic CO Intermediates during Electrochemical CO <sub>2</sub> Reduction on Copper. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 16576-16584.	13.8	141
306	Inhibiting the Hydrogen Evolution Reaction (HER) with Proximal Cations: A Strategy for Promoting Selective Electrocatalytic Reduction. <i>ACS Catalysis</i> , 2021, 11, 8155-8164.	11.2	32
307	Defect Engineering in Graphene-Confined Single-Atom Iron Catalysts for Room-Temperature Methane Conversion. <i>Journal of Physical Chemistry C</i> , 2021, 125, 12628-12635.	3.1	22
308	Size-Dependent Selectivity of Electrochemical CO <sub>2</sub> Reduction on Converted In <sub>2</sub> O <sub>3</sub> Nanocrystals. <i>Angewandte Chemie</i> , 2021, 133, 15978-15982.	2.0	9

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309	The Synthesis of Hexaazatrinaphthylene-Based 2D Conjugated Copper Metal-Organic Framework for Highly Selective and Stable Electroreduction of CO <sub>2</sub> to Methane. <i>Angewandte Chemie</i> , 2021, 133, 16545-16551.	2.0	13
310	A review on electrochemical synthesized copper-based catalysts for electrochemical reduction of CO <sub>2</sub> to C <sub>2</sub> + products. <i>Chemical Engineering Journal</i> , 2021, 414, 128825.	12.7	114
311	Recent Progresses in Electrochemical Carbon Dioxide Reduction on Copper-Based Catalysts toward Multicarbon Products. <i>Advanced Functional Materials</i> , 2021, 31, 2102151.	14.9	123
312	Electroreduction of Carbon Dioxide into Formate: A Comprehensive Review. <i>ChemElectroChem</i> , 2021, 8, 3207-3220.	3.4	65
313	Recent Development of Electrocatalytic CO <sub>2</sub> Reduction Application to Energy Conversion. <i>Small</i> , 2021, 17, e2100323.	10.0	53
314	The Synthesis of Hexaazatrinaphthylene-Based 2D Conjugated Copper Metal-Organic Framework for Highly Selective and Stable Electroreduction of CO <sub>2</sub> to Methane. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 16409-16415.	13.8	87
315	Photoelectrocatalytic carbon dioxide reduction: Fundamental, advances and challenges. <i>Nano Materials Science</i> , 2021, 3, 344-367.	8.8	47
316	Graphene-based electrocatalysts: Hydrogen evolution reactions and overall water splitting. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 21401-21418.	7.1	108
317	Toward a First-Principles Framework for Predicting Collective Properties of Electrolytes. <i>Accounts of Chemical Research</i> , 2021, 54, 2833-2843.	15.6	21
318	CO <sub>2</sub> Electroreduction to Formate at a Partial Current Density up to 590 mA mg <sup>-1</sup> via Micrometer-Scale Lateral Structuring of Bismuth Nanosheets. <i>Small</i> , 2021, 17, e2100602.	10.0	25
319	Atomically Structural Regulations of Carbon-Based Single-Atom Catalysts for Electrochemical CO <sub>2</sub> Reduction. <i>Small Methods</i> , 2021, 5, e2100102.	8.6	61
320	Amino Assisted Protonation for Carbon-Carbon Coupling During Electroreduction of Carbon Dioxide to Ethylene on Copper(I) Oxide. <i>ChemCatChem</i> , 2021, 13, 4325-4333.	3.7	18
321	Polymer-Supported Liquid Layer Electrolyzer Enabled Electrochemical CO <sub>2</sub> Reduction to CO with High Energy Efficiency. <i>ChemistryOpen</i> , 2021, 10, 639-644.	1.9	9
322	Defective carbon-based materials: controllable synthesis and electrochemical applications. <i>EnergyChem</i> , 2021, 3, 100059.	19.1	34
323	Supported metallic nanoparticles prepared by an organometallic route to boost the electrocatalytic conversion of CO <sub>2</sub> . <i>Journal of CO<sub>2</sub> Utilization</i> , 2021, 50, 101613.	6.8	5
324	Molecular Linking Stabilizes Bi Nanoparticles for Efficient Electrochemical Carbon Dioxide Reduction. <i>Journal of Physical Chemistry C</i> , 2021, 125, 12699-12706.	3.1	6
325	The experimental research for reducing the minimum miscibility pressure of carbon dioxide miscible flooding. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 145, 111091.	16.4	14
326	The benefits of cycling. <i>Nature Energy</i> , 2021, 6, 698-699.	39.5	3

#	ARTICLE	IF	CITATIONS
329	Geometric Modulation of Local CO Flux in Ag@Cu <sub>2</sub> O Nanoreactors for Steering the CO <sub>2</sub> RR Pathway toward High-Efficiency Methane Production. <i>Advanced Materials</i> , 2021, 33, e2101741.	21.0	116
330	Large-Area Vertically Aligned Bismuthene Nanosheet Arrays from Galvanic Replacement Reaction for Efficient Electrochemical CO <sub>2</sub> Conversion. <i>Advanced Materials</i> , 2021, 33, e2100910.	21.0	81
331	Process modeling, techno-economic assessment, and life cycle assessment of the electrochemical reduction of CO <sub>2</sub> : a review. <i>IScience</i> , 2021, 24, 102813.	4.1	59
332	Advances in Understanding the Electrocatalytic Reconstruction Chemistry of Coordination Compounds. <i>Small</i> , 2021, 17, e2100629.	10.0	10
333	Selective photocatalytic reduction CO <sub>2</sub> to CH <sub>4</sub> on ultrathin TiO <sub>2</sub> nanosheet via coordination activation. <i>Applied Catalysis B: Environmental</i> , 2021, 288, 120000.	20.2	87
335	Comprehensive Mechanism of CO <sub>2</sub> Electroreduction toward Ethylene and Ethanol: The Solvent Effect from Explicit Water-Cu(100) Interface Models. <i>ACS Catalysis</i> , 2021, 11, 9688-9701.	11.2	65
336	Recent Advances in Bimetallic Cu-Based Nanocrystals for Electrocatalytic CO <sub>2</sub> Conversion. <i>Chemistry - an Asian Journal</i> , 2021, 16, 2168-2184.	3.3	15
337	Dynamic structure change of Cu nanoparticles on carbon supports for CO <sub>2</sub> electroreduction toward multicarbon products. <i>Informa-Materials</i> , 2021, 3, 1285-1294.	17.3	22
338	Chemical upgrade of carbon monoxide to acetate on an atomically dispersed copper catalyst via CO-insertion. <i>Materials Today Physics</i> , 2021, 19, 100418.	6.0	12
339	Black single-crystal TiO <sub>2</sub> nanosheet array films with oxygen vacancy on {001} facets for boosting photocatalytic CO <sub>2</sub> reduction. <i>Journal of Alloys and Compounds</i> , 2021, 870, 159400.	5.5	42
340	Absence of CO <sub>2</sub> electroreduction on copper, gold and silver electrodes without metal cations in solution. <i>Nature Catalysis</i> , 2021, 4, 654-662.	34.4	386
341	Micro-Electrode with Fast Mass Transport for Enhancing Selectivity of Carbonaceous Products in Electrochemical CO <sub>2</sub> Reduction. <i>Advanced Functional Materials</i> , 2021, 31, 2103966.	14.9	16
342	Comprehensive Understanding of the Thriving Ambient Electrochemical Nitrogen Reduction Reaction. <i>Advanced Materials</i> , 2021, 33, e2007650.	21.0	229
343	Integrating Single Atoms with Different Microenvironments into One Porous Organic Polymer for Efficient Photocatalytic CO <sub>2</sub> Reduction. <i>Advanced Materials</i> , 2021, 33, e2101568.	21.0	96
344	Polyoxometalate Interlayered Zinc-Metallophthalocyanine Molecular Layer Sandwich as Photocoupled Electrocatalytic CO <sub>2</sub> Reduction Catalyst. <i>Journal of the American Chemical Society</i> , 2021, 143, 13721-13730.	13.7	49
345	Electroreduction of Carbon Dioxide by Heterogenized Cofacial Porphyrins. <i>Transactions of Tianjin University</i> , 0, , 1.	6.4	3
346	Lithiation-Enabled High-Density Nitrogen Vacancies Electrocatalyze CO <sub>2</sub> to C <sub>2</sub> Products. <i>Advanced Materials</i> , 2021, 33, e2103150.	21.0	48
347	In Situ Spectroscopic Diagnosis of CO <sub>2</sub> Reduction at the Pt Electrode/Pyridine-Containing Electrolyte Interface. <i>ACS Catalysis</i> , 2021, 11, 10836-10846.	11.2	7

#	ARTICLE	IF	CITATIONS
348	Radiolytic Approach for Efficient, Selective and Catalyst-free CO <sub>2</sub> Conversion at Room Temperature. ChemPhysChem, 2021, 22, 1900-1906.	2.1	9
349	Enhanced Activation of CO <sub>2</sub> on h-BN Nanosheets via Forming a Donor-Acceptor Heterostructure with 2D MX <sub>2</sub> Electrenes. Journal of Physical Chemistry C, 2021, 125, 18762-18769.	3.1	7
350	Decorating graphdiyne on ultrathin bismuth subcarbonate nanosheets to promote CO <sub>2</sub> electroreduction to formate. Science Bulletin, 2021, 66, 1533-1541.	9.0	45
351	Electrocatalytic CO <sub>2</sub> reduction on nanostructured metal-based materials: Challenges and constraints for a sustainable pathway to decarbonization. Journal of CO <sub>2</sub> Utilization, 2021, 50, 101579.	6.8	29
352	Stabilization and activation of Pd nanoparticles for efficient CO <sub>2</sub> -reduction: Importance of their generation within supramolecular network of tridentate Schiff-base ligands with N,N coordination sites. Electrochimica Acta, 2021, 388, 138550.	5.2	5
353	Electrochemical Reduction of CO <sub>2</sub> Toward C <sub>2</sub> Valuables on Cu@Ag Core-Shell Tandem Catalyst with Tunable Shell Thickness. Small, 2021, 17, e2102293.	10.0	69
354	Electronic Tuning of SnS <sub>2</sub> Nanosheets by Hydrogen Incorporation for Efficient CO <sub>2</sub> Electroreduction. Nano Letters, 2021, 21, 7789-7795.	9.1	35
355	Phase-Dependent Electrocatalytic CO <sub>2</sub> Reduction on Pd <sub>3</sub> Bi Nanocrystals. Angewandte Chemie, 2021, 133, 21909-21913.	2.0	11
356	Electrocatalytic Reactions for Converting CO <sub>2</sub> to Value-Added Products. Small Science, 2021, 1, 2100043.	9.9	66
357	Gold-like activity copper-like selectivity of heteroatomic transition metal carbides for electrocatalytic carbon dioxide reduction reaction. Nature Communications, 2021, 12, 5067.	12.8	40
358	The effect of extended conjugation on electrocatalytic CO <sub>2</sub> reduction by molecular catalysts and macromolecular structures. Current Opinion in Electrochemistry, 2021, 28, 100716.	4.8	3
359	Implanting Numerous Hydrogen-Bonding Networks in a Cu-Porphyrin-Based Nanosheet to Boost CH <sub>4</sub> Selectivity in Neutral-Media CO <sub>2</sub> Electroreduction. Angewandte Chemie, 2021, 133, 22123-22129.	2.0	14
360	Tunable Selectivity for Electrochemical CO <sub>2</sub> Reduction by Bimetallic Cu-Sn Catalysts: Elucidating the Roles of Cu and Sn. ACS Catalysis, 2021, 11, 11103-11108.	11.2	82
361	Gold Nanoclusters as Electrocatalysts: Atomic Level Understanding from Fundamentals to Applications. Chemistry of Materials, 2021, 33, 7595-7612.	6.7	36
362	Unique Dual-Sites Boosting Overall CO <sub>2</sub> Photoconversion by Hierarchical Electron Harvesters. Small, 2021, 17, e2103796.	10.0	38
363	Ultra-Low-Loaded Ni-Fe Dimer Anchored to Nitrogen/Oxygen Sites for Boosting Electroreduction of Carbon Dioxide. ChemSusChem, 2021, 14, 4499-4506.	6.8	9
364	Lewis Acid Site-Promoted Single-Atomic Cu Catalyzes Electrochemical CO <sub>2</sub> Methanation. Nano Letters, 2021, 21, 7325-7331.	9.1	133
365	Implanting Numerous Hydrogen-Bonding Networks in a Cu-Porphyrin-Based Nanosheet to Boost CH <sub>4</sub> Selectivity in Neutral-Media CO <sub>2</sub> Electroreduction. Angewandte Chemie - International Edition, 2021, 60, 21952-21958.	13.8	96



#	ARTICLE	IF	CITATIONS
366	Atomic level engineering of noble metal nanocrystals for energy conversion catalysis. Journal of Energy Chemistry, 2021, 63, 604-624.	12.9	12
367	Synergistic Effect of Atomically Dispersed Ni–Zn Pair Sites for Enhanced CO <sub>2</sub> Electroreduction. Advanced Materials, 2021, 33, e2102212.	21.0	155
368	Research progress of electrochemical CO <sub>2</sub> reduction for copper-based catalysts to multicarbon products. Coordination Chemistry Reviews, 2021, 441, 213983.	18.8	45
369	Manipulating Cu Nanoparticle Surface Oxidation States Tunes Catalytic Selectivity toward CH <sub>4</sub> or C <sub>2</sub> Products in CO <sub>2</sub> Electroreduction. Advanced Energy Materials, 2021, 11, 2101424.	19.5	71
370	Phase-Dependent Electrocatalytic CO <sub>2</sub> Reduction on Pd <sub>3</sub> Bi Nanocrystals. Angewandte Chemie - International Edition, 2021, 60, 21741-21745.	13.8	59
371	Dual single-cobalt atom-based carbon electrocatalysts for efficient CO <sub>2</sub> -to-syngas conversion with industrial current densities. Applied Catalysis B: Environmental, 2021, 291, 120092.	20.2	43
372	Mapping Composition–Selectivity Relationships of Supported Sub-10 nm Cu–Ag Nanocrystals for High-Rate CO <sub>2</sub> Electroreduction. ACS Nano, 2021, 15, 14858-14872.	14.6	28
373	Surface Oxidized Ag Nanofilms Towards Highly Effective CO <sub>2</sub> Reduction. ChemElectroChem, 2021, 8, 3579-3583.	3.4	7
374	Investigating the Effect of the Initial Valence States of Copper on CO <sub>2</sub> Electroreduction. ChemElectroChem, 2021, 8, 3366-3370.	3.4	5
375	Hierarchically Porous CuAg via 3D Printing/Dealloying for Tunable CO <sub>2</sub> Reduction to Syngas. ACS Applied Materials & Interfaces, 2021, 13, 45385-45393.	8.0	22
376	Predesign of Catalytically Active Sites via Stable Coordination Cluster Model System for Electroreduction of CO <sub>2</sub> to Ethylene. Angewandte Chemie, 0, , .	2.0	4
377	The Reaction of CO <sub>2</sub> with a Borylnitrene: Formation of an $\beta$ -Oxaziridinone. Angewandte Chemie - International Edition, 2021, 60, 23112-23116.	13.8	7
378	Constructing Catalytic Crown Ether-Based Covalent Organic Frameworks for Electroreduction of CO <sub>2</sub> . ACS Energy Letters, 2021, 6, 3496-3502.	17.4	53
379	Gas diffusion electrodes and membranes for CO <sub>2</sub> reduction electrolyzers. Nature Reviews Materials, 2022, 7, 55-64.	48.7	265
380	Cell-free chemoenzymatic starch synthesis from carbon dioxide. Science, 2021, 373, 1523-1527.	12.6	274
381	Facile synthesis of porous Cu-Sn alloy electrode with prior selectivity of formate in a wide potential range for CO <sub>2</sub> electrochemical reduction. Applied Catalysis B: Environmental, 2021, 292, 120119.	20.2	54
382	Lewis-Basic EDTA as a Highly Active Molecular Electrocatalyst for CO <sub>2</sub> Reduction to CH <sub>4</sub> . Angewandte Chemie, 2021, 133, 23184.	2.0	11
383	Efficient CO <sub>2</sub> electroreduction on Pd-based core-shell nanostructure with tensile strain. Journal of Electroanalytical Chemistry, 2021, 896, 115205.	3.8	4



#	ARTICLE	IF	CITATIONS
384	Decoration of Active Sites in Covalentâ€‘Organic Framework: An Effective Strategy of Building Efficient Photocatalysis for CO <sub>2</sub> Reduction. ACS Sustainable Chemistry and Engineering, 2021, 9, 13376-13384.	6.7	34
385	Feâˆ‘Ni Nanoparticles on Nâ€‘doped Carbon as Catalysts for Electrocatalytic Reduction of CO <sub>2</sub> to Tune CO/H <sub>2</sub> Ratio. ChemElectroChem, 2021, 8, 4233-4239.	3.4	5
386	Predesign of Catalytically Active Sites via Stable Coordination Cluster Model System for Electroreduction of CO <sub>2</sub> to Ethylene. Angewandte Chemie - International Edition, 2021, 60, 26210-26217.	13.8	44
387	Strategies for Improved Electrochemical CO <sub>2</sub> Reduction to Valueâ€‘Added Products by Highly Anticipated Copperâ€‘Based Nanoarchitectures. Chemical Record, 2022, 22, .	5.8	12
388	Seeing is believing: In-situ visualising dynamic evolution in CO <sub>2</sub> electrolysis. Current Opinion in Electrochemistry, 2022, 31, 100846.	4.8	5
389	Copper-catalysed exclusive CO <sub>2</sub> to pure formic acid conversion via single-atom alloying. Nature Nanotechnology, 2021, 16, 1386-1393.	31.5	282
390	The Reaction of CO <sub>2</sub> with a Borylnitrene: Formation of an â€‘Oxaziridinone. Angewandte Chemie, 2021, 133, 23296.	2.0	0
391	Metal-Nitrogen-doped carbon single-atom electrocatalysts for CO <sub>2</sub> electroreduction. Composites Part B: Engineering, 2021, 220, 108986.	12.0	35
392	Reprint of â€‘Electrocatalytic CO <sub>2</sub> reduction to C <sub>2</sub> + products on Cu and Cu <sub>x</sub> Zn <sub>y</sub> electrodes: Effects of chemical composition and surface morphologyâ€‘. Journal of Electroanalytical Chemistry, 2021, 896, 115609.	3.8	8
393	A roadmap towards the development of superior photocatalysts for solar- driven CO <sub>2</sub> -to-fuels production. Renewable and Sustainable Energy Reviews, 2021, 148, 111298.	16.4	31
394	Atomically Dispersed sâ€‘Block Magnesium Sites for Electroreduction of CO <sub>2</sub> to CO. Angewandte Chemie, 2021, 133, 25445-25449.	2.0	22
395	Efficient CO <sub>2</sub> electroreduction coupled with semi-dehydrogenation of tetrahydroisoquinoline by MOFs modified electrodes. Journal of Energy Chemistry, 2021, 63, 328-335.	12.9	16
396	Dynamic Restructuring of Cuâ€‘Doped SnS <sub>2</sub> Nanoflowers for Highly Selective Electrochemical CO <sub>2</sub> Reduction to Formate. Angewandte Chemie, 2021, 133, 26437-26441.	2.0	8
397	<i>Operando</i> Local pH Measurement within Gas Diffusion Electrodes Performing Electrochemical Carbon Dioxide Reduction. Journal of Physical Chemistry C, 2021, 125, 20896-20904.	3.1	25
398	Atomically Dispersed sâ€‘Block Magnesium Sites for Electroreduction of CO <sub>2</sub> to CO. Angewandte Chemie - International Edition, 2021, 60, 25241-25245.	13.8	104
399	A Facile Strategy for Constructing a Carbonâ€‘Particleâ€‘Modified Metalâ€‘Organic Framework for Enhancing the Efficiency of CO <sub>2</sub> Electroreduction into Formate. Angewandte Chemie - International Edition, 2021, 60, 23394-23402.	13.8	58
400	Lewisâ€‘Basic EDTA as a Highly Active Molecular Electrocatalyst for CO <sub>2</sub> Reduction to CH <sub>4</sub> . Angewandte Chemie - International Edition, 2021, 60, 23002-23009.	13.8	33
401	A Facile Strategy for Constructing a Carbonâ€‘Particleâ€‘Modified Metalâ€‘Organic Framework for Enhancing the Efficiency of CO <sub>2</sub> Electroreduction into Formate. Angewandte Chemie, 2021, 133, 23582-23590.	2.0	16

#	ARTICLE	IF	CITATIONS
402	Dual 2D CuSe/g-C <sub>3</sub> N <sub>4</sub> heterostructure for boosting electrocatalytic reduction of CO <sub>2</sub> . <i>Electrochimica Acta</i> , 2021, 390, 138766.	5.2	30
403	Selective electroreduction of CO <sub>2</sub> to formate over the co-electrodeposited Cu/Sn bimetallic catalyst. <i>Materials Today Energy</i> , 2021, 21, 100797.	4.7	10
404	Molecular-Scale Insights into Electrochemical Reduction of CO <sub>2</sub> on Hydrophobically Modified Cu Surfaces. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 47619-47628.	8.0	24
405	Surface characterization of copper electrocatalysts by lead underpotential deposition. <i>Journal of Electroanalytical Chemistry</i> , 2021, 896, 115446.	3.8	25
406	Thermochemical aerobic oxidation catalysis in water can be analysed as two coupled electrochemical half-reactions. <i>Nature Catalysis</i> , 2021, 4, 742-752.	34.4	38
407	The Role of Surface Curvature in Electrocatalysts. <i>Chemistry - A European Journal</i> , 2022, 28, .	3.3	9
408	Dynamic Restructuring of Cu-Doped SnS <sub>2</sub> Nanoflowers for Highly Selective Electrochemical CO <sub>2</sub> Reduction to Formate. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 26233-26237.	13.8	66
409	Fabrication of bacterial cellulose membrane-based alkaline-exchange membrane for application in electrochemical reduction of CO <sub>2</sub> . <i>Separation and Purification Technology</i> , 2021, 272, 118910.	7.9	8
410	0D/1D heterostructure for efficient electrocatalytic CO <sub>2</sub> -to-C <sub>1</sub> conversion by ultra-small cluster-based multi-metallic sulfide nanoparticles and MWCNTs. <i>Chemical Engineering Journal</i> , 2021, 422, 130045.	12.7	12
411	Boosted CO desorption behaviors induced by spatial dyadic heterostructure in polymeric carbon nitride for efficient photocatalytic CO <sub>2</sub> conversion. <i>Applied Catalysis B: Environmental</i> , 2021, 295, 120289.	20.2	30
412	Exploring deep effects of atomic vacancies on activating CO <sub>2</sub> photoreduction via rationally designing indium oxide photocatalysts. <i>Chemical Engineering Journal</i> , 2021, 422, 129888.	12.7	110
413	Efficient carboxylation of styrene and carbon dioxide by single-atomic copper electrocatalyst. <i>Journal of Colloid and Interface Science</i> , 2021, 601, 378-384.	9.4	27
414	Two-dimensional pyrite supported transition metal for highly-efficient electrochemical CO <sub>2</sub> reduction: A theoretical screening study. <i>Chemical Engineering Journal</i> , 2021, 424, 130541.	12.7	31
415	Keggin-type polyoxometalates molecularly loaded in Zr-ferrocene metal organic framework nanosheets for solar-driven CO <sub>2</sub> cycloaddition. <i>Applied Catalysis B: Environmental</i> , 2021, 296, 120329.	20.2	52
416	Degradation study on tin- and bismuth-based gas-diffusion electrodes during electrochemical CO <sub>2</sub> reduction in highly alkaline media. <i>Journal of Energy Chemistry</i> , 2021, 62, 367-376.	12.9	30
417	In situ cofactor regeneration enables selective CO <sub>2</sub> reduction in a stable and efficient enzymatic photoelectrochemical cell. <i>Applied Catalysis B: Environmental</i> , 2021, 296, 120349.	20.2	21
418	Electron structure and reaction pathway regulation on porous cobalt-doped CeO <sub>2</sub> /graphene aerogel: A free-standing cathode for flexible and advanced Li-CO <sub>2</sub> batteries. <i>Energy Storage Materials</i> , 2021, 42, 484-492.	18.0	38
419	Enhanced catalytic activity and stability of bismuth nanosheets decorated by 3-aminopropyltriethoxysilane for efficient electrochemical reduction of CO <sub>2</sub> . <i>Applied Catalysis B: Environmental</i> , 2021, 298, 120602.	20.2	19

#	ARTICLE	IF	CITATIONS
420	Carbon sustained SnO <sub>2</sub> -Bi <sub>2</sub> O <sub>3</sub> hollow nanofibers as Janus catalyst for high-efficiency CO <sub>2</sub> electroreduction. Chemical Engineering Journal, 2021, 426, 131867.	12.7	24
421	Progress in the electrochemical reduction of CO <sub>2</sub> to formic acid: A review on current trends and future prospects. Journal of Environmental Chemical Engineering, 2021, 9, 106394.	6.7	53
422	Unravelling the electrocatalytic activity of bismuth nanosheets towards carbon dioxide reduction: Edge plane versus basal plane. Applied Catalysis B: Environmental, 2021, 299, 120693.	20.2	21
423	Dual-phase MoC-Mo <sub>2</sub> C nanosheets prepared by molten salt electrochemical conversion of CO <sub>2</sub> as excellent electrocatalysts for the hydrogen evolution reaction. Nano Energy, 2021, 90, 106533.	16.0	48
424	Graphitic-N highly doped graphene-like carbon: A superior metal-free catalyst for efficient reduction of CO <sub>2</sub> . Applied Catalysis B: Environmental, 2021, 298, 120510.	20.2	46
425	Electrochemical CO <sub>2</sub> reduction improved by tuning the Cu-Cu distance in halogen-bridged dinuclear cuprous coordination polymers. Journal of Catalysis, 2021, 404, 12-17.	6.2	5
426	Effect of co-adsorbed water on electrochemical CO <sub>2</sub> reduction reaction on transition metal oxide catalysts. Applied Surface Science, 2021, 570, 151031.	6.1	7
427	Coupling CO <sub>2</sub> reduction with ethane aromatization for enhancing catalytic stability of iron-modified ZSM-5. Journal of Energy Chemistry, 2022, 66, 210-217.	12.9	9
428	Opportunities and challenges in CO <sub>2</sub> utilization. Journal of Environmental Sciences, 2022, 113, 322-344.	6.1	90
429	A perspective on the electrocatalytic conversion of carbon dioxide to methanol with metallomacrocyclic catalysts. Journal of Energy Chemistry, 2022, 64, 263-275.	12.9	28
430	Predictable interfacial mass transfer intensification of Sn@N doped multichannel hollow carbon nanofibers for the CO <sub>2</sub> electro-reduction reaction. Sustainable Energy and Fuels, 2021, 5, 3097-3101.	4.9	4
431	Electrochemical CO <sub>2</sub> reduction to ethanol: from mechanistic understanding to catalyst design. Journal of Materials Chemistry A, 2021, 9, 12474-12494.	10.3	36
432	Electrocatalysis using nanomaterials. Frontiers of Nanoscience, 2021, 18, 343-420.	0.6	2
433	Tuning metal single atoms embedded in N <sub>x</sub> C <sub>y</sub> moieties toward high-performance electrocatalysis. Energy and Environmental Science, 2021, 14, 3455-3468.	30.8	176
434	COF-confined catalysts: from nanoparticles and nanoclusters to single atoms. Journal of Materials Chemistry A, 2021, 9, 24148-24174.	10.3	37
435	CO <sub>2</sub> conversion by plasma: how to get efficient CO <sub>2</sub> conversion and high energy efficiency. Physical Chemistry Chemical Physics, 2021, 23, 7974-7987.	2.8	27
436	Transition metal nitrides for electrochemical energy applications. Chemical Society Reviews, 2021, 50, 1354-1390.	38.1	580
437	Stabilization effects in binary colloidal Cu and Ag nanoparticle electrodes under electrochemical CO <sub>2</sub> reduction conditions. Nanoscale, 2021, 13, 4835-4844.	5.6	29

#	ARTICLE	IF	CITATIONS
438	Recent advances in Cu-based catalysts for electroreduction of carbon dioxide. <i>Materials Chemistry Frontiers</i> , 2021, 5, 2668-2683.	5.9	21
439	Effective CO Migration among Multiadsorbed Sites Achieves the Low-Barrier and High-Selective Conversion to C <sub>2</sub> Products on the Ni <sub>2</sub> B <sub>5</sub> Monolayer. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 3845-3855.	8.0	11
440	Nickel-mediated N≡N bond formation and N <sub>2</sub> O liberation <i>via</i> nitrogen oxanion reduction. <i>Chemical Science</i> , 2021, 12, 10664-10672.	7.4	8
441	Direct synthesis of polycarbonate diols from atmospheric flow CO <sub>2</sub> and diols without using dehydrating agents. <i>Green Chemistry</i> , 2021, 23, 5786-5796.	9.0	21
442	The role of site coordination on the CO <sub>2</sub> electroreduction pathway on stepped and defective copper surfaces. <i>Catalysis Science and Technology</i> , 2021, 11, 2770-2781.	4.1	10
443	Spectrometric Study of Electrochemical CO <sub>2</sub> Reduction on Pd and Pd-B Electrodes. <i>ACS Catalysis</i> , 2021, 11, 840-848.	11.2	56
444	Theoretical investigation of defective MXenes as potential electrocatalysts for CO reduction toward C <sub>2</sub> products. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 12431-12438.	2.8	11
445	Along the Channel Gradients Impact on the Spatioactivity of Gas Diffusion Electrodes at High Conversions during CO <sub>2</sub> Electroreduction. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 1286-1296.	6.7	47
446	N-Bridged Co≡N≡Ni: new bimetallic sites for promoting electrochemical CO <sub>2</sub> reduction. <i>Energy and Environmental Science</i> , 2021, 14, 3019-3028.	30.8	128
447	Synergized Cu/Pb Core/Shell Electrocatalyst for High-Efficiency CO <sub>2</sub> Reduction to C <sub>2</sub> + Liquids. <i>ACS Nano</i> , 2021, 15, 1039-1047.	14.6	64
448	Cooperative CO <sub>2</sub> -to-ethanol conversion via enriched intermediates at molecule-metal catalyst interfaces. <i>Nature Catalysis</i> , 2020, 3, 75-82.	34.4	390
449	Direct and continuous generation of pure acetic acid solutions via electrocatalytic carbon monoxide reduction. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	93
450	BN cluster-doped graphdiyne as visible-light assisted metal-free catalysts for conversion CO <sub>2</sub> to hydrocarbon fuels. <i>Nanotechnology</i> , 2020, 31, 495401.	2.6	16
451	Electrochemical flow systems enable renewable energy industrial chain of CO <sub>2</sub> reduction. <i>Pure and Applied Chemistry</i> , 2020, 92, 1937-1951.	1.9	8
452	Comparing Molecular Mechanisms in Solar NH <sub>3</sub> Production and Relations with CO <sub>2</sub> Reduction. <i>International Journal of Molecular Sciences</i> , 2021, 22, 139.	4.1	12
453	Electrocatalytic reduction of CO <sub>2</sub> and CO to multi-carbon compounds over Cu-based catalysts. <i>Chemical Society Reviews</i> , 2021, 50, 12897-12914.	38.1	266
454	Origin of the N-coordinated single-atom Ni sites in heterogeneous electrocatalysts for CO <sub>2</sub> reduction reaction. <i>Chemical Science</i> , 2021, 12, 14065-14073.	7.4	35
455	A cost-effective indium/carbon catalyst for highly efficient electrocatalytic reduction of CO <sub>2</sub> to HCOOH. <i>Sustainable Energy and Fuels</i> , 2021, 5, 5798-5803.	4.9	7

#	ARTICLE	IF	CITATIONS
456	Electrochemical reduction of carbon dioxide with nearly 100% carbon monoxide faradaic efficiency from vacancy-stabilized single-atom active sites. <i>Journal of Materials Chemistry A</i> , 2021, 9, 24955-24962.	10.3	30
457	Current density in solar fuel technologies. <i>Energy and Environmental Science</i> , 2021, 14, 5760-5787.	30.8	32
458	Effective Screening Route for Highly Active and Selective Metal <sup>II</sup> -Nitrogen <sup>I</sup> -Doped Carbon Catalysts in CO <sub>2</sub> Electrochemical Reduction. <i>Small</i> , 2021, 17, e2103705.	10.0	12
459	Theory-Guided Enhancement of CO <sub>2</sub> Reduction to Ethanol on Ag <sup>0</sup> -Cu Tandem Catalysts via Particle-Size Effects. <i>ACS Catalysis</i> , 2021, 11, 13330-13336.	11.2	34
460	Prediction of the Osmotic/Activity Coefficients of Alkali Hydroxide Electrolytes. <i>Industrial &amp; Engineering Chemistry Research</i> , 2021, 60, 14948-14954.	3.7	1
461	Research on Minimum Miscible Pressure Between Crude Oil and Supercritical Carbon Dioxide System in Ultra-Low Permeability Reservoir by the Long-Slim-Tube Experiment Method. <i>Frontiers in Earth Science</i> , 2021, 9, .	1.8	2
462	Copper-Mediated Decarboxylative Coupling between Arylacetic Acids and 1,3-Dicarbonyl Compounds. <i>Organic Letters</i> , 2021, 23, 7878-7882.	4.6	10
464	Rational confinement engineering of <sup>MOF</sup> -derived carbon <sup>II</sup> -based electrocatalysts toward <sup>CO<sub>2</sub></sup> reduction and <sup>O<sub>2</sub></sup> reduction reactions. <i>Informa<sup>II</sup>-Mater<sup>I</sup>ijly</i> , 2022, 4, .	17.3	58
465	Surface-coordinated metal-organic framework thin films (SURMOFs): From fabrication to energy applications. <i>EnergyChem</i> , 2021, 3, 100065.	19.1	25
466	How can the Dual <sup>II</sup> -atom Catalyst Fe <sup>II</sup> -NC Surpass Single <sup>II</sup> -atom Catalysts Fe <sup>II</sup> -NC/Co <sup>II</sup> -NC in CO <sub>2</sub> RR? <sup>II</sup> CO Intermediate Assisted Promotion via a Synergistic Effect. <i>Energy and Environmental Materials</i> , 2023, 6, .	12.8	24
467	Control over Electrochemical CO <sub>2</sub> Reduction Selectivity by Coordination Engineering of Tin Single <sup>II</sup> -Atom Catalysts. <i>Advanced Science</i> , 2021, 8, e2102884.	11.2	77
468	Key factors for designing single-atom metal-nitrogen-carbon catalysts for electrochemical CO <sub>2</sub> reduction. <i>Current Opinion in Electrochemistry</i> , 2022, 31, 100854.	4.8	13
469	Modulating carbon dioxide activation on carbon nanotube immobilized salophen complexes by varying metal centers for efficient electrocatalytic reduction. <i>Journal of Colloid and Interface Science</i> , 2022, 608, 1827-1836.	9.4	8
470	Boosting CO <sub>2</sub> Electroreduction via Construction of a Stable ZnS/ZnO Interface. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 20368-20374.	8.0	18
471	Influence of sub-zero temperature on nucleation and growth of copper nanoparticles in electrochemical reactions. <i>IScience</i> , 2021, 24, 103289.	4.1	3
472	Polymeric carbon nitride supported Bi nanoparticles as highly efficient CO <sub>2</sub> reduction electrocatalyst in a wide potential range. <i>Journal of Colloid and Interface Science</i> , 2022, 608, 1676-1684.	9.4	16
473	Insights into the Electronic Effects in Methanol Electro-Oxidation by Ternary In <sup>II</sup> -Sn <sup>II</sup> -Pd <sub>2</sub> Intermetallic Compounds. <i>ACS Applied Energy Materials</i> , 2021, 4, 11279-11289.	5.1	10
474	Highly Electrocatalytic Conversion and Separation of Organometallic Ions to Vapor on an Au-Modified Nickel Foam Cathode: A Classic Application for Mercury Speciation Analysis at the 1/4g/L Level. <i>Journal of Physical Chemistry C</i> , 2021, 125, 23709-23719.	3.1	5

#	ARTICLE	IF	CITATIONS
475	Insight into the Effect of Metal Cations in the Electrolyte on Performance for Electrocatalytic CO <sub>2</sub> Reduction Reaction. Energy and Environmental Materials, 2022, 5, 1008-1009.	12.8	5
477	How the surface state of nickel/gadolinium-doped ceria cathodes influences the electrochemical performance in direct CO <sub>2</sub> electrolysis. Journal of Catalysis, 2021, 404, 518-528.	6.2	10
478	Dynamic Restructuring of Coordinatively Unsaturated Copper Paddle Wheel Clusters to Boost Electrochemical CO <sub>2</sub> Reduction to Hydrocarbons**. Angewandte Chemie, 2022, 134, .	2.0	8
479	Dynamic Restructuring of Coordinatively Unsaturated Copper Paddle Wheel Clusters to Boost Electrochemical CO <sub>2</sub> Reduction to Hydrocarbons**. Angewandte Chemie - International Edition, 2022, 61, .	13.8	61
480	Technologies and perspectives for achieving carbon neutrality. Innovation(China), 2021, 2, 100180.	9.1	306
481	Strong Boronâ€“Carbon Bonding Interaction Drives CO <sub>2</sub> Reduction to Ethanol over the Boron-Doped Cu(111) Surface: An Insight from the First-Principles Calculations. Journal of Physical Chemistry C, 2021, 125, 572-582.	3.1	12
482	Non-peripheral octamethyl-substituted cobalt phthalocyanine nanorods supported on N-doped reduced graphene oxide achieve efficient electrocatalytic CO <sub>2</sub> reduction to CO. Chemical Engineering Journal, 2022, 430, 133050.	12.7	29
483	Cu+â€“Ti3+ interface interaction mediated CO <sub>2</sub> coordination model for controlling the selectivity of photocatalytic reduction CO <sub>2</sub> . Applied Catalysis B: Environmental, 2022, 301, 120803.	20.2	29
484	Tuning CuZn interfaces in metalâ€“organic framework-derived electrocatalysts for enhancement of CO <sub>2</sub> conversion to C <sub>2</sub> products. Catalysis Science and Technology, 2021, 11, 8065-8078.	4.1	17
485	Ultrafine CuS anchored on nitrogen and sulfur Co-doped graphene for selective CO <sub>2</sub> electroreduction to formate. Applied Surface Science, 2022, 575, 151796.	6.1	19
486	In Situ/Operando Insights into the Stability and Degradation Mechanisms of Heterogeneous Electrocatalysts. Small, 2022, 18, e2104205.	10.0	14
487	Switching CO <sub>2</sub> Electroreduction Selectivity Between C <sub>1</sub> and C <sub>2</sub> Hydrocarbons on Cu Gasâ€“Diffusion Electrodes. Energy and Environmental Materials, 2023, 6, .	12.8	7
488	Residual iodine on in-situ transformed bismuth nanosheets induced activity difference in CO <sub>2</sub> electroreduction. Journal of CO <sub>2</sub> Utilization, 2022, 55, 101802.	6.8	12
489	Understanding Single-Atom Catalysis in View of Theory. JACS Au, 2021, 1, 2130-2145.	7.9	86
490	Constructing artificial mimic-enzyme catalysts for carbon dioxide electroreduction. Science China Chemistry, 2022, 65, 106-113.	8.2	7
491	Direct Evidence of Subsurface Oxygen Formation in Oxideâ€“Derived Cuâ€“X-ray Photoelectron Spectroscopy. Angewandte Chemie, 0, , .	2.0	1
492	Dynamic transformation of cubic copper catalysts during CO <sub>2</sub> electroreduction and its impact on catalytic selectivity. Nature Communications, 2021, 12, 6736.	12.8	83
493	A Multiscale Strategy to Construct Cobalt Nanoparticles Confined within Hierarchical Carbon Nanofibers for Efficient CO <sub>2</sub> Electroreduction. Small, 2022, 18, e2104958.	10.0	4



#	ARTICLE	IF	CITATIONS
494	Photocatalytic and Photoelectrochemical Carbon Dioxide Reductions toward Value-Added Multicarbon Products. ACS ES&T Engineering, 2022, 2, 975-988.	7.6	22
495	Unified mechanistic understanding of CO <sub>2</sub> reduction to CO on transition metal and single atom catalysts. Nature Catalysis, 2021, 4, 1024-1031.	34.4	154
496	CuZnAl-Oxide Nanopyramidal Mesoporous Materials for the Electrocatalytic CO <sub>2</sub> Reduction to Syngas: Tuning of H <sub>2</sub> /CO Ratio. Nanomaterials, 2021, 11, 3052.	4.1	10
497	A Systematic Study of the Influence of Electrolyte Ions on the Electrode Activity. ChemElectroChem, 2022, 9, .	3.4	8
498	Nanoporous tin oxides for efficient electrochemical CO <sub>2</sub> reduction to formate. Green Chemical Engineering, 2022, 3, 138-145.	6.3	13
499	Direct Evidence of Subsurface Oxygen Formation in Oxide-Derived Cu by X-ray Photoelectron Spectroscopy. Angewandte Chemie - International Edition, 2022, 61, .	13.8	37
500	Interface-Induced Electrocatalytic Enhancement of CO <sub>2</sub> to Formate Conversion on Heterostructured Bismuth-Based Catalysts. Small, 2022, 18, e2105682.	10.0	53
501	Exploration of the electrical double-layer structure: Influence of electrolyte components on the double-layer capacitance and potential of maximum entropy. Current Opinion in Electrochemistry, 2022, 32, 100882.	4.8	10
502	Single-atom alloying sprinkles magic over copper for exclusive CO <sub>2</sub> conversion to pure formic acid. Science China Chemistry, 2022, 65, 421-422.	8.2	2
503	Coordination engineering of cobalt phthalocyanine by functionalized carbon nanotube for efficient and highly stable carbon dioxide reduction at high current density. Nano Research, 2022, 15, 3056-3064.	10.4	40
504	Cu-based bimetallic electrocatalysts for CO <sub>2</sub> reduction. , 2022, 1, 100012.		69
505	Laser-fabricated channeled Cu <sub>6</sub> Sn <sub>5</sub> /Sn as electrocatalyst and gas diffusion electrode for efficient CO <sub>2</sub> electroreduction to formate. Applied Catalysis B: Environmental, 2022, 307, 120991.	20.2	26
506	Hybrid Organic-Inorganic Heterogeneous Interfaces for Electrocatalysis: A Theoretical Study of CO <sub>2</sub> Reduction to C <sub>2</sub> . ChemCatChem, 2022, 14, .	3.7	5
507	Nanoconfinement Engineering over Hollow Multi-Shell Structured Copper towards Efficient Electrocatalytical C-C coupling. Angewandte Chemie - International Edition, 2022, 61, .	13.8	57
508	Nanoconfinement Engineering over Hollow Multi-Shell Structured Copper towards Efficient Electrocatalytical C-C coupling. Angewandte Chemie, 2022, 134, e202113498.	2.0	4
509	Nickel single-atom catalysts intrinsically promoted by fast pyrolysis for selective electroreduction of CO <sub>2</sub> into CO. Applied Catalysis B: Environmental, 2022, 304, 120997.	20.2	73
510	Probing the local activity of CO <sub>2</sub> reduction on gold gas diffusion electrodes: effect of the catalyst loading and CO <sub>2</sub> pressure. Chemical Science, 2021, 12, 15682-15690.	7.4	19
511	Recent advances in photo-assisted electrocatalysts for energy conversion. Journal of Materials Chemistry A, 2021, 9, 27193-27214.	10.3	19



#	ARTICLE	IF	CITATIONS
512	Recent advances in electrocatalysis with phthalocyanines. Chemical Society Reviews, 2021, 50, 12985-13011.	38.1	135
513	Dynamic Evolution of Active Sites in Electrocatalytic CO <sub>2</sub> Reduction Reaction: Fundamental Understanding and Recent Progress. Advanced Functional Materials, 2022, 32, .	14.9	65
514	Electrocatalysis enabled transformation of earth-abundant water, nitrogen and carbon dioxide for a sustainable future. Materials Advances, 2022, 3, 1359-1400.	5.4	17
515	Vacancies and electronic effects enhanced photoelectrochemical activity of Cu-doped Bi <sub>2</sub> Se <sub>3</sub> for efficient CO <sub>2</sub> reduction to formate. Journal of Alloys and Compounds, 2022, 903, 163707.	5.5	18
516	Evolution of Triple-Phase interface for enhanced electrochemical CO <sub>2</sub> reduction. Chemical Engineering Journal, 2022, 431, 134348.	12.7	17
517	Excellent performance of the photoelectrocatalytic CO <sub>2</sub> reduction to formate by Bi <sub>2</sub> S <sub>3</sub> /ZIF-8 composite. Applied Surface Science, 2022, 579, 152206.	6.1	12
518	Electrochemical CO <sub>2</sub> reduction (CO <sub>2</sub> RR) to multi-carbon products over copper-based catalysts. Coordination Chemistry Reviews, 2022, 454, 214340.	18.8	175
519	Paper-based flexible devices for energy harvesting, conversion and storage applications: A review. Nano Energy, 2022, 94, 106927.	16.0	40
520	Rationalâ€œDesigned Principles for Electrochemical and Photoelectrochemical Upgrading of CO <sub>2</sub> to Valueâ€œAdded Chemicals. Advanced Science, 2022, 9, e2105204.	11.2	75
521	Atomically dispersed Ni anchored on polymer-derived mesh-like N-doped carbon nanofibers as an efficient CO <sub>2</sub> electrocatalytic reduction catalyst. Nano Research, 2022, 15, 3959-3963.	10.4	18
522	CO <sub>2</sub> electrochemical reduction on metalâ€œorganic framework catalysts: current status and future directions. Journal of Materials Chemistry A, 2022, 10, 5899-5917.	10.3	38
523	Dealloyed nanoporous materials for electrochemical energy conversion and storage. EnergyChem, 2022, 4, 100069.	19.1	43
524	Assembling Metal Organic Layer Composites for Highâ€œPerformance Electrocatalytic CO <sub>2</sub> Reduction to Formate. Angewandte Chemie, 2022, 134, .	2.0	3
526	Pyridine-grafted nitrogen-doped carbon nanotubes achieving efficient electroreduction of CO <sub>2</sub> to CO within a wide electrochemical window. Journal of Materials Chemistry A, 2022, 10, 1852-1860.	10.3	12
528	Insights into Thiourea-Based Bifunctional Catalysts for Efficient Conversion of CO <sub>2</sub> to Cyclic Carbonates. Journal of Organic Chemistry, 2022, 87, 3145-3155.	3.2	10
529	Assembling Metal Organic Layer Composites for Highâ€œPerformance Electrocatalytic CO <sub>2</sub> Reduction to Formate. Angewandte Chemie - International Edition, 2022, 61, .	13.8	25
530	Synergistically enhanced single-atomic site catalysts for clean energy conversion. Journal of Materials Chemistry A, 2022, 10, 5673-5698.	10.3	12
531	Two-Dimensional Conjugated Metalâ€œOrganic Frameworks for Electrocatalysis: Opportunities and Challenges. ACS Nano, 2022, 16, 1759-1780.	14.6	94

#	ARTICLE	IF	CITATIONS
533	Advances of the functionalized carbon nitrides for electrocatalysis. , 2022, 4, 211-236.		33
534	Boosting CH <sub>4</sub> selectivity in CO <sub>2</sub> electroreduction using a metallacycle-based porous crystal with biomimetic adaptive cavities. Journal of Materials Chemistry A, 2022, 10, 11948-11954.	10.3	4
535	Monolithic Cl-Modified Nanoporous Ag Nanowires for Electrochemical CO <sub>2</sub> Reduction to CO. ACS Applied Energy Materials, 2022, 5, 1627-1634.	5.1	11
536	Customizable CO <sub>2</sub> Electroreduction to C <sub>1</sub> or C <sub>2+</sub> Products through Cu <sub>y</sub> /CeO <sub>2</sub> Interface Engineering. ACS Catalysis, 2022, 12, 1004-1011.	11.2	47
537	Defect engineered SnO <sub>2</sub> nanoparticles enable strong CO <sub>2</sub> chemisorption toward efficient electroconversion to formate. Dalton Transactions, 2022, 51, 3512-3519.	3.3	7
538	Multi-dimensional designer catalysts for negative emissions science (NES): bridging the gap between synthesis, simulations, and analysis. IScience, 2022, 25, 103700.	4.1	3
539	Guanidyl-implanted UiO-66 as an efficient catalyst for the enhanced conversion of carbon dioxide into cyclic carbonates. Dalton Transactions, 2022, 51, 2567-2576.	3.3	15
540	Metal Nanocomposite Synthesis and Its Application in Electrochemical CO <sub>2</sub> Reduction. Energy, Environment, and Sustainability, 2022, , 69-89.	1.0	2
541	Resolving local reaction environment toward an optimized CO <sub>2</sub> -to-CO conversion performance. Energy and Environmental Science, 2022, 15, 749-759.	30.8	48
542	Au-activated N motifs in non-coherent cupric porphyrin metal organic frameworks for promoting and stabilizing ethylene production. Nature Communications, 2022, 13, 63.	12.8	64
543	Intermetallic Cu <sub>11</sub> In <sub>9</sub> in situ formed on hierarchical nanoporous Cu for highly selective CO <sub>2</sub> electroreduction. Journal of Materials Chemistry A, 2022, 10, 4333-4343.	10.3	7
544	Toward Excellence of Electrocatalyst Design by Emerging Descriptorâ€œOriented Machine Learning. Advanced Functional Materials, 2022, 32, .	14.9	43
545	Mechanistic routes toward C <sub>3</sub> products in copper-catalysed CO <sub>2</sub> electroreduction. Catalysis Science and Technology, 2022, 12, 409-417.	4.1	24
546	System Engineering Enhances Photoelectrochemical CO <sub>2</sub> Reduction. Journal of Physical Chemistry C, 2022, 126, 1689-1700.	3.1	23
547	Dualâ€œmetal singleâ€œatomic catalyst: The challenge in synthesis, characterization, and mechanistic investigation for electrocatalysis. SmartMat, 2022, 3, 533-564.	10.7	35
548	Surface and interface chemistry in metalâ€œfree electrocatalysts for electrochemical CO <sub>2</sub> reduction. SmartMat, 2022, 3, 5-34.	10.7	25
549	Redox Replacement of Silver on MOFâ€œDerived Cu/C Nanoparticles on Gas Diffusion Electrodes for Electrocatalytic CO <sub>2</sub> Reduction. Chemistry - A European Journal, 2022, 28, .	3.3	11
550	Toward understanding the role of the electric double layer structure and electrolyte effects on well-defined interfaces for electrocatalysis. Current Opinion in Electrochemistry, 2022, 32, 100918.	4.8	25

#	ARTICLE	IF	CITATIONS
551	Bismuthene with stable Bi O bonds for efficient CO <sub>2</sub> electroreduction to formate. Chemical Engineering Science, 2022, 251, 117409.	3.8	15
552	Electrochemically reconstructed perovskite with cooperative catalytic sites for CO <sub>2</sub> -to-formate conversion. Applied Catalysis B: Environmental, 2022, 306, 121101.	20.2	14
553	Understanding the role of metal and N species in M@NC catalysts for electrochemical CO <sub>2</sub> reduction reaction. Applied Catalysis B: Environmental, 2022, 306, 121115.	20.2	35
554	Effects of Ag Nanoparticle Coated Metal Electrodes on Electrochemical CO <sub>2</sub> Reduction in Aqueous KHCO <sub>3</sub> . Electrochemistry, 2022, 90, 037009-037009.	1.4	1
555	Accelerating Pd Electrocatalysis for CO <sub>2</sub> -to-Formate Conversion across a Wide Potential Window by Optimized Incorporation of Cu. ACS Applied Materials & Interfaces, 2022, 14, 8896-8905.	8.0	26
556	A metal-supported single-atom catalytic site enables carbon dioxide hydrogenation. Nature Communications, 2022, 13, 819.	12.8	83
557	Green Carbon Science: Efficient Carbon Resource Processing, Utilization, and Recycling towards Carbon Neutrality. Angewandte Chemie, 2022, 134, .	2.0	11
558	Green Carbon Science: Efficient Carbon Resource Processing, Utilization, and Recycling towards Carbon Neutrality. Angewandte Chemie - International Edition, 2022, 61, .	13.8	146
559	Accelerating CO <sub>2</sub> Electroreduction to Multicarbon Products via Synergistic Electricâ€”Thermal Field on Copper Nanoneedles. Journal of the American Chemical Society, 2022, 144, 3039-3049.	13.7	147
560	Interfacial Assembly of Functional Mesoporous Carbonâ€”Based Materials into Films for Batteries and Electrocatalysis. Advanced Materials Interfaces, 2022, 9, .	3.7	13
561	High Performance 3D Selfâ€”Supporting Cuâ€”Bi Aerogels for Electrocatalytic Reduction of CO <sub>2</sub> to Formate. ChemSusChem, 2022, 15, .	6.8	15
562	Nanostructure@metal-organic frameworks (MOFs) for catalytic carbon dioxide (CO <sub>2</sub> ) conversion in photocatalysis, electrocatalysis, and thermal catalysis. Nano Research, 2022, 15, 2834-2854.	10.4	52
563	The Role of Cation Acidity on the Competition between Hydrogen Evolution and CO <sub>2</sub> Reduction on Gold Electrodes. Journal of the American Chemical Society, 2022, 144, 1589-1602.	13.7	127
564	Theoretical Insight on Why N-Vacancy Promotes the Selective Co <sub>2</sub> Reduction to Ethanol on Nmn Doped Graphitic Carbon Nitride Sheets. SSRN Electronic Journal, 0, , .	0.4	0
565	Strategies for breaking molecular scaling relationships for the electrochemical CO <sub>2</sub> reduction reaction. Dalton Transactions, 2022, 51, 6993-7010.	3.3	14
566	Coupling Co <sub>2</sub> Reduction with Ch <sub>3</sub> oh Oxidation for Efficient Electrosynthesis of Formate on Hierarchical Bifunctional Cusn Alloy. SSRN Electronic Journal, 0, , .	0.4	0
567	Ferroelectric Heterojunction and Bi-Ti-In Trimetallic Sites Mediated Co <sub>2</sub> Coordination Model on the Indium-Doped Bi <sub>4</sub> ti <sub>3</sub> o <sub>12</sub> -Cuin <sub>5</sub> s <sub>8</sub> for Controlling the Selectivity of Photoreduction of Co <sub>2</sub> . SSRN Electronic Journal, 0, , .	0.4	0
568	Effect of pore diameter and length on electrochemical CO <sub>2</sub> reduction reaction at nanoporous gold catalysts. Chemical Science, 2022, 13, 3288-3298.	7.4	24

#	ARTICLE	IF	CITATIONS
569	Bi catalysts supported on GaN nanowires toward efficient photoelectrochemical CO <sub>2</sub> reduction. Journal of Materials Chemistry A, 2022, 10, 7869-7877.	10.3	18
570	Interface regulation promoting carbon monoxide gas diffusion electrolysis towards C <sub>2</sub> + <sub>2</sub> products. Chemical Communications, 2022, 58, 3645-3648.	4.1	2
571	Highly Exposed Single-Interlayered Cu Edges Enable High-Rate CO <sub>2</sub> to CH <sub>4</sub> Electrosynthesis. Advanced Energy Materials, 2022, 12, .	19.5	26
572	Activity Origin of Antimony Nanosheets toward Selective Electroreduction of CO <sub>2</sub> to Formic Acid. Journal of Physical Chemistry C, 2022, 126, 4015-4023.	3.1	7
573	Promoting the Electrocatalytic Reduction of CO <sub>2</sub> on Ultrathin Porous Bismuth Nanosheets with Tunable Surface-Active Sites and Local pH Environments. ACS Applied Materials & Interfaces, 2022, 14, 10648-10655.	8.0	23
574	Theoretical Insights into Nitrogen-Doped Graphene-Supported Fe, Co, and Ni as Single-Atom Catalysts for CO <sub>2</sub> Reduction Reaction. Journal of Physical Chemistry C, 2022, 126, 4338-4346.	3.1	24
575	Strong Correlation between the Dynamic Chemical State and Product Profile of Carbon Dioxide Electroreduction. ACS Applied Materials & Interfaces, 2022, 14, 22681-22696.	8.0	30
576	Electroreduction of CO <sub>2</sub> with Tunable Selectivity on Au-Pd Bimetallic Catalyst: A First Principle Study. ACS Applied Materials & Interfaces, 2022, 14, 11313-11321.	8.0	4
577	Electrochemical conversion of CO <sub>2</sub> in non-conventional electrolytes: Recent achievements and future challenges. Electrochemical Science Advances, 2023, 3, .	2.8	8
578	Intercalated Gold Nanoparticle in 2D Palladium Nanosheet Avoiding CO Poisoning for Formate Production under a Wide Potential Window. ACS Applied Materials & Interfaces, 2022, 14, 10344-10352.	8.0	5
579	Catalysis for <i>e</i> -Chemistry: Need and Gaps for a Future De-Fossilized Chemical Production, with Focus on the Role of Complex (Direct) Syntheses by Electrocatalysis. ACS Catalysis, 2022, 12, 2861-2876.	11.2	44
580	Entanglement of Spatial and Energy Segmentation for C <sub>1</sub> Pathways in CO <sub>2</sub> Reduction on Carbon Skeleton Supported Atomic Catalysts. Advanced Energy Materials, 2022, 12, .	19.5	27
582	Copper Carbonate Hydroxide as Precursor of Interfacial CO in CO <sub>2</sub> Electroreduction. ChemSusChem, 2022, 15, .	6.8	17
583	Advanced Machine Learning Methods for Learning from Sparse Data in High-Dimensional Spaces: A Perspective on Uses in the Upstream of Development of Novel Energy Technologies. Physchem, 2022, 2, 72-95.	1.1	8
584	Review of photocatalytic and photo-electrocatalytic reduction of CO <sub>2</sub> on carbon supported films. International Journal of Hydrogen Energy, 2022, 47, 30908-30936.	7.1	16
585	Surface Reconstruction with a Sandwich-like C/Cu/C Catalyst for Selective and Stable CO <sub>2</sub> Electroreduction. ACS Applied Materials & Interfaces, 2022, 14, 13261-13270.	8.0	14
586	Gadolinium Changes the Local Electron Densities of Nickel 3d Orbitals for Efficient Electrocatalytic CO <sub>2</sub> Reduction. Angewandte Chemie, 0, , .	2.0	1
587	Multi-field driven hybrid catalysts for CO <sub>2</sub> reduction: Progress, mechanism and perspective. Materials Today, 2022, 54, 225-246.	14.2	14

#	ARTICLE	IF	CITATIONS
588	Manganese Carbonyl Complexes as Selective Electrocatalysts for CO <sub>2</sub> Reduction in Water and Organic Solvents. <i>Accounts of Chemical Research</i> , 2022, 55, 955-965.	15.6	17
589	Molecular Catalysts for the Reductive Homocoupling of CO <sub>2</sub> towards C <sub>2+</sub> Compounds. <i>Angewandte Chemie</i> , 2022, 134, .	2.0	7
590	Carbonâ€‘Confined Indium Oxides for Efficient Carbon Dioxide Reduction in a Solidâ€‘State Electrolyte Flow Cell. <i>Angewandte Chemie</i> , 0, , .	2.0	7
591	Combining experimental and theoretical insights for reduction of CO <sub>2</sub> to multi-carbon compounds. <i>Discover Chemical Engineering</i> , 2022, 2, 1.	2.2	3
592	Carbonâ€‘Confined Indium Oxides for Efficient Carbon Dioxide Reduction in a Solidâ€‘State Electrolyte Flow Cell. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	72
593	Molecular Catalysts for the Reductive Homocoupling of CO <sub>2</sub> towards C <sub>2+</sub> Compounds. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	38
594	Gadolinium Changes the Local Electron Densities of Nickel 3d Orbitals for Efficient Electrocatalytic CO <sub>2</sub> Reduction. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	32
595	Emerging Trends in Sustainable CO <sub>2</sub> â€‘Management Materials. <i>Advanced Materials</i> , 2022, 34, e2201547.	21.0	52
596	Using pH Dependence to Understand Mechanisms in Electrochemical CO Reduction. <i>ACS Catalysis</i> , 2022, 12, 4344-4357.	11.2	53
597	Unraveling the Interfacial Polarization Effect between Pd and Polymeric Carbon Nitride toward Efficient CO <sub>2</sub> Electroreduction to CO. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 12314-12322.	8.0	5
598	Constructing Cuâ€‘C Bonds in a Graphdiyneâ€‘Regulated Cu Singleâ€‘Atom Electrocatalyst for CO <sub>2</sub> Reduction to CH <sub>4</sub> . <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	92
599	Boosting the Productivity of Electrochemical CO <sub>2</sub> Reduction to Multiâ€‘Carbon Products by Enhancing CO <sub>2</sub> Diffusion through a Porous Organic Cage. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	43
600	Electrochemical CO <sub>2</sub> reduction toward multicarbon alcohols - The microscopic world of catalysts & process conditions. <i>IScience</i> , 2022, 25, 104010.	4.1	32
601	A CuO <sub>x</sub> /Cu/C electrocatalystâ€‘based gas diffusion electrode for the electroreduction of CO <sub>2</sub> with high selectivity to C <sub>2</sub> H <sub>4</sub> . <i>Electrochemical Science Advances</i> , 2023, 3, .	2.8	4
602	Confined Growth of Silverâ€‘Copper Janus Nanostructures with {100} Facets for Highly Selective Tandem Electrocatalytic Carbon Dioxide Reduction. <i>Advanced Materials</i> , 2022, 34, e2110607.	21.0	82
603	Synthetic strategies for MOF-based single-atom catalysts for photo- and electro-catalytic CO <sub>2</sub> reduction. <i>IScience</i> , 2022, 25, 104177.	4.1	26
604	Optimizing Copper Oxidation State to Promote Ethylene Generation in Efficient Carbon Dioxide Conversion. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 4677-4682.	6.7	12
605	Dynamically Formed Surfactant Assembly at the Electrified Electrodeâ€‘Electrolyte Interface Boosting CO <sub>2</sub> Electroreduction. <i>Journal of the American Chemical Society</i> , 2022, 144, 6613-6622.	13.7	106

#	ARTICLE	IF	CITATIONS
606	Operando Metalloid Zn <sup>+</sup> Active Sites for Highly Efficient Carbon Dioxide Reduction Electrocatalysis. Angewandte Chemie, 0, , .	2.0	0
607	Boosting the Productivity of Electrochemical CO <sub>2</sub> Reduction to Multi-Carbon Products by Enhancing CO <sub>2</sub> Diffusion through a Porous Organic Cage. Angewandte Chemie, 0, , .	2.0	0
608	Ultrasmall Cu Nanocrystals Dispersed in Nitrogen-Doped Carbon as Highly Efficient Catalysts for CO <sub>2</sub> Electroreduction. ACS Applied Materials & Interfaces, 2022, 14, 17240-17248.	8.0	8
609	Constructing Cu <sup>+</sup> C Bonds in a Graphdiyne-Regulated Cu Single-Atom Electrocatalyst for CO <sub>2</sub> Reduction to CH <sub>4</sub> . Angewandte Chemie, 2022, 134, .	2.0	8
610	In Operando Identification of In Situ Formed Metalloid Zinc <sup>+</sup> Active Sites for Highly Efficient Electrocatalyzed Carbon Dioxide Reduction. Angewandte Chemie - International Edition, 2022, 61, .	13.8	25
611	Rational design strategies of Cu-based electrocatalysts for CO <sub>2</sub> electroreduction to C <sub>2</sub> products. Journal of Energy Chemistry, 2022, 71, 63-82.	12.9	53
612	Electrocatalytic CO <sub>2</sub> conversion to C <sub>2</sub> products: Catalysts design, market perspectives and techno-economic aspects. Renewable and Sustainable Energy Reviews, 2022, 161, 112329.	16.4	35
613	Emerging of heterostructured materials in CO <sub>2</sub> electroreduction: A perspective. Carbon Capture Science & Technology, 2022, 3, 100043.	10.4	8
614	Pt nanoclusters embedded Fe-based metal-organic framework as a dual-functional electrocatalyst for hydrogen evolution and alcohols oxidation. Journal of Colloid and Interface Science, 2022, 616, 279-286.	9.4	18
615	In-situ reconstruction of catalysts in cathodic electrocatalysis: New insights into active-site structures and working mechanisms. Journal of Energy Chemistry, 2022, 70, 414-436.	12.9	28
616	Rational catalyst design and interface engineering for electrochemical CO <sub>2</sub> reduction to high-valued alcohols. Journal of Energy Chemistry, 2022, 70, 310-331.	12.9	34
617	Enhanced electrochemical CO <sub>2</sub> -to-C <sub>2</sub> + conversion from synergistic interaction between terrace and step sites on monocrystalline high-index Cu facets. Journal of Energy Chemistry, 2022, 70, 382-387.	12.9	9
618	The structure-activity correlation of single-site Ni catalysts dispersed onto porous carbon spheres toward electrochemical CO <sub>2</sub> reduction. Fuel, 2022, 321, 124043.	6.4	13
619	Electrocatalytic nitrate reduction to ammonia on defective Au <sub>1</sub> Cu (111) single-atom alloys. Applied Catalysis B: Environmental, 2022, 310, 121346.	20.2	113
620	Atomically dispersed metal sites in COF-based nanomaterials for electrochemical energy conversion. Green Energy and Environment, 2023, 8, 360-382.	8.7	15
621	Dynamics at Polarized Carbon Dioxide-Iron Oxyhydroxide Interfaces Unveil the Origin of Multicarbon Product Formation. ACS Catalysis, 2022, 12, 411-430.	11.2	19
622	Design of porous organic polymer catalysts for transformation of carbon dioxide. Green Chemical Engineering, 2022, 3, 96-110.	6.3	29
623	The Crystal Plane is not the Key Factor for CO <sub>2</sub> to Methane Electrosynthesis on Reconstructed Cu <sub>2</sub> O Microparticles. Angewandte Chemie, 2022, 134, .	2.0	1



#	ARTICLE	IF	CITATIONS
624	The Crystal Plane is not the Key Factor for CO <sub>2</sub> -to-Methane Electrosynthesis on Reconstructed Cu <sub>2</sub> O Microparticles. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	69
625	Interfacial Electrolyte Effects on Electrocatalytic CO <sub>2</sub> Reduction. <i>ACS Catalysis</i> , 2022, 12, 331-362.	11.2	123
626	Atomic Bridging Structure of Nickel-Nitrogen-Carbon for Highly Efficient Electrocatalytic Reduction of CO <sub>2</sub> . <i>Angewandte Chemie - International Edition</i> , 2022, 61, e202113918.	13.8	85
627	Engineering Electrochemical Surface for Efficient Carbon Dioxide Upgrade. <i>Advanced Energy Materials</i> , 2022, 12, .	19.5	33
628	Lithium Vacancy-Tuned [Cu <sub>4</sub> ] Sites for Selective CO <sub>2</sub> Electroreduction to C <sub>2+</sub> Products. <i>Small</i> , 2022, 18, e2106433.	10.0	13
629	Atomic Bridging Structure of Nickel-Nitrogen-Carbon for Highly Efficient Electrocatalytic Reduction of CO <sub>2</sub> . <i>Angewandte Chemie</i> , 2022, 134, .	2.0	12
630	Efficient CO <sub>2</sub> Electroreduction to Ethanol by Cu <sub>3</sub> Sn Catalyst. <i>Small Methods</i> , 2022, 6, e2101334.	8.6	39
631	Dual-Metal Atom Electrocatalysts: Theory, Synthesis, Characterization, and Applications. <i>Advanced Energy Materials</i> , 2022, 12, .	19.5	78
632	In situ dual doping for constructing efficient CO <sub>2</sub> -to-methanol electrocatalysts. <i>Nature Communications</i> , 2022, 13, 1965.	12.8	84
633	Understanding and leveraging the effect of cations in the electrical double layer for electrochemical CO <sub>2</sub> reduction. <i>Chem Catalysis</i> , 2022, 2, 1267-1276.	6.1	52
634	Single-Atom Metal Anchored Zr <sub>6</sub> -Cluster-Porphyrin Framework Hollow Nanocapsules with Ultrahigh Active-Center Density for Electrocatalytic CO <sub>2</sub> Reduction. <i>Nano Letters</i> , 2022, 22, 3340-3348.	9.1	29
635	Coupling CO <sub>2</sub> reduction with CH <sub>3</sub> OH oxidation for efficient electrosynthesis of formate on hierarchical bifunctional CuSn alloy. <i>Nano Energy</i> , 2022, 98, 107277.	16.0	38
636	Active and conductive layer stacked superlattices for highly selective CO <sub>2</sub> electroreduction. <i>Nature Communications</i> , 2022, 13, 2039.	12.8	69
637	Structural and interfacial engineering of well-defined metal-organic ensembles for electrocatalytic carbon dioxide reduction. <i>Chinese Journal of Catalysis</i> , 2022, 43, 1417-1432.	14.0	11
638	CsPbBr <sub>3</sub> perovskite based tandem device for CO <sub>2</sub> photoreduction. <i>Chemical Engineering Journal</i> , 2022, 443, 136447.	12.7	8
639	Structural Reconstruction of Catalysts in Electroreduction Reaction: Identifying, Understanding, and Manipulating. <i>Advanced Materials</i> , 2022, 34, e2110699.	21.0	16
640	Zero-Gap Bipolar Membrane Electrolyzer for Carbon Dioxide Reduction Using Acid-Tolerant Molecular Electrocatalysts. <i>Journal of the American Chemical Society</i> , 2022, 144, 7551-7556.	13.7	52
641	Local reaction environment for selective electroreduction of carbon monoxide. <i>Energy and Environmental Science</i> , 2022, 15, 2470-2478.	30.8	27



#	ARTICLE	IF	CITATIONS
642	<i>In situ</i> formed N-containing copper nanoparticles: a high-performance catalyst toward carbon monoxide electroreduction to multicarbon products with high faradaic efficiency and current density. <i>Nanoscale</i> , 2022, 14, 7262-7268.	5.6	10
643	Why heterogeneous single-atom catalysts preferentially produce CO <sub>2</sub> reduction reaction. <i>Chemical Science</i> , 2022, 13, 6366-6372.	7.4	35
644	Recent advances in the electroreduction of carbon dioxide to formic acid over carbon-based materials. <i>New Carbon Materials</i> , 2022, 37, 277-287.	6.1	13
645	Bismuth/Graphdiyne Heterostructure for Electrocatalytic Conversion of CO <sub>2</sub> to Formate. <i>Chemical Research in Chinese Universities</i> , 2022, 38, 1380-1386.	2.6	6
646	Effectively Tuning the Ratio of CO and H <sub>2</sub> into Syngas through CO <sub>2</sub> Electrochemical Reduction over a Wide Potential Range on a ZnO Nanosheet via Ni Doping. <i>ACS Applied Energy Materials</i> , 2022, 5, 5531-5539.	5.1	8
647	Review on covalent organic frameworks and derivatives for electrochemical and photocatalytic CO <sub>2</sub> reduction. <i>Catalysis Today</i> , 2023, 409, 103-118.	4.4	17
648	Recent advances in the rational design of single-atom catalysts for electrochemical CO <sub>2</sub> reduction. <i>Nano Research</i> , 2022, 15, 9747-9763.	10.4	19
649	Continuum Modeling of Porous Electrodes for Electrochemical Synthesis. <i>Chemical Reviews</i> , 2022, 122, 11022-11084.	47.7	46
650	Modeling Operando Electrochemical CO <sub>2</sub> Reduction. <i>Chemical Reviews</i> , 2022, 122, 11085-11130.	47.7	66
651	Flexible Cuprous Triazolate Frameworks as Highly Stable and Efficient Electrocatalysts for CO <sub>2</sub> Reduction with Tunable C <sub>2</sub> H <sub>4</sub> /CH <sub>4</sub> Selectivity. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	50
652	Catalyst designing strategies for electrochemical CO <sub>2</sub> reduction: a perspective. <i>Progress in Energy</i> , 2022, 4, 032002.	10.9	5
653	Nano-crumpled induced Sn-Bi bimetallic interface pattern with moderate electron bank for highly efficient CO <sub>2</sub> electroreduction. <i>Nature Communications</i> , 2022, 13, 2486.	12.8	99
654	Flexible Cuprous Triazolate Frameworks as Highly Stable and Efficient Electrocatalysts for CO <sub>2</sub> Reduction with Tunable C <sub>2</sub> H <sub>4</sub> /CH <sub>4</sub> Selectivity. <i>Angewandte Chemie</i> , 2022, 134, .	2.0	4
655	Insights into Highly-Efficient CO <sub>2</sub> Electroreduction to CO on Supported Gold Nanoparticles in an Alkaline Gas-Phase Electrolyzer. <i>Journal of the Electrochemical Society</i> , 2022, 169, 054513.	2.9	5
656	Carbon Catalysts for Electrochemical CO <sub>2</sub> Reduction toward Multicarbon Products. <i>Advanced Energy Materials</i> , 2022, 12, .	19.5	50
657	Fast Transformation of CO <sub>2</sub> into CO Via a Hydrogen Bond Network on the Cu Electrocatalysts. <i>Journal of Physical Chemistry C</i> , 2022, 126, 7841-7848.	3.1	8
658	Electrochemical CO <sub>2</sub> conversion towards syngas: Recent catalysts and improving strategies for ratio-tunable syngas. <i>Journal of Power Sources</i> , 2022, 535, 231453.	7.8	27
659	Porphyrin and phthalocyanine based covalent organic frameworks for electrocatalysis. <i>Coordination Chemistry Reviews</i> , 2022, 464, 214563.	18.8	72

#	ARTICLE	IF	CITATIONS
660	Effect mechanism of NO on electrocatalytic reduction of CO <sub>2</sub> to CO over Pd@Cu bimetal catalysts. Fuel, 2022, 323, 124339.	6.4	9
661	The 2022 solar fuels roadmap. Journal Physics D: Applied Physics, 2022, 55, 323003.	2.8	58
662	<i>Operando</i> Resonant Soft X-ray Scattering Studies of Chemical Environment and Interparticle Dynamics of Cu Nanocatalysts for CO <sub>2</sub> Electroreduction. Journal of the American Chemical Society, 2022, 144, 8927-8931.	13.7	18
663	Two-dimensional metal organic nanosheet as promising electrocatalysts for carbon dioxide reduction: A computational study. Applied Surface Science, 2022, 597, 153724.	6.1	10
664	Renewable synthetic fuel: turning carbon dioxide back into fuel. Frontiers in Energy, 2022, 16, 145-149.	2.3	31
665	Syngas mediated microbial electrosynthesis for CO <sub>2</sub> to acetate conversion using Clostridium ljungdahlii. Resources, Conservation and Recycling, 2022, 184, 106395.	10.8	14
666	Electrochemical reactions towards the formation of heteroatomic bonds beyond CO <sub>2</sub> and N <sub>2</sub> reduction. Sustainable Energy and Fuels, 2022, 6, 3283-3303.	4.9	7
667	Silver modified copper foam electrodes for enhanced reduction of CO <sub>2</sub> to C <sub>2</sub> + products. Materials Advances, 2022, 3, 4964-4972.	5.4	11
668	Potential-Dependent Free Energy Relationship in Interpreting the Electrochemical Performance of CO <sub>2</sub> Reduction on Single Atom Catalysts. ACS Catalysis, 2022, 12, 6606-6617.	11.2	34
669	Carbon Dioxide Valorization via Formate Electrosynthesis in a Wide Potential Window. Advanced Functional Materials, 2022, 32, .	14.9	37
670	In-situ constructing Schottky junction and oxygen vacancy on HNb <sub>3</sub> O <sub>8</sub> nanosheets for rapid charge transfer and enrichment for boosted photocatalytic CO <sub>2</sub> reduction towards CH <sub>4</sub> . Molecular Catalysis, 2022, 526, 112382.	2.0	5
671	Tuning strategies and structure effects of electrocatalysts for carbon dioxide reduction reaction. Chinese Journal of Catalysis, 2022, 43, 1618-1633.	14.0	6
672	Metal organic framework-ionic liquid hybrid catalysts for the selective electrochemical reduction of CO <sub>2</sub> to CH <sub>4</sub> . Chinese Journal of Catalysis, 2022, 43, 1687-1696.	14.0	14
673	Efficient syngas production via CO <sub>2</sub> reforming and electroreduction reactions through catalyst design. Energy Conversion and Management, 2022, 265, 115744.	9.2	20
674	Electrodeposited Sn@Cu@Sn dendrites for selective electrochemical CO <sub>2</sub> reduction to formic acid. Nanoscale, 2022, 14, 9297-9303.	5.6	10
675	Recent strategies for the electrochemical reduction of CO <sub>2</sub> into methanol. Advances in Catalysis, 2022, , 29-62.	0.2	2
676	Nickel Phthalocyanine Modified Fruit -Peel -Derived Carbon Framework Selectively Electro-Catalyzes Co <sub>2</sub> -to-Co Conversion. SSRN Electronic Journal, 0, , .	0.4	0
677	A hierarchical Single-Atom Ni-N <sub>3</sub> -C catalyst for electrochemical CO <sub>2</sub> reduction to CO with Near-Unity faradaic efficiency in a broad potential range. Chemical Engineering Journal, 2022, 446, 137296.	12.7	30

#	ARTICLE	IF	CITATIONS
678	Atomic Layer Infiltration Enabled Cu Coordination Environment Construction for Enhanced Electrochemical CO <sub>2</sub> Reduction Selectivity: Case Study of a Cu Metal-Organic Framework. Chemistry of Materials, 2022, 34, 6713-6722.	6.7	10
679	Modulating the Orbital of Bismuth Nanosheet by Nickel Doping for Electrocatalytic Carbon Dioxide Reduction Reaction. ChemSusChem, 2022, 15, .	6.8	7
680	Stabilization of Cu <sup>+</sup> via Strong Electronic Interaction for Selective and Stable CO <sub>2</sub> Electroreduction. Angewandte Chemie, 2022, 134, .	2.0	6
681	Stabilization of Cu <sup>+</sup> via Strong Electronic Interaction for Selective and Stable CO <sub>2</sub> Electroreduction. Angewandte Chemie - International Edition, 2022, 61, .	13.8	55
682	Interactions of CO <sub>2</sub> Anion Radicals with Electrolyte Environments from First-Principles Simulations. ACS Omega, 2022, 7, 18131-18138.	3.5	5
683	Electrocatalytic Reduction of CO <sub>2</sub> to Ethanol at Close to Theoretical Potential via Engineering Abundant Electron-Donating Cu <sup>+</sup> Species. Angewandte Chemie, 2022, 134, .	2.0	12
684	Interfacial Electron Delocalization in Engineering Nanosized Anti-Perovskite Nitride for Efficient CO <sub>2</sub> Electroreduction. Chemistry of Materials, 2022, 34, 5607-5620.	6.7	11
685	Electrocatalytic CO <sub>2</sub> and HCOOH interconversion on Pd-based catalysts. , 2022, 1, 100007.		6
686	Metal-Organic framework catalysts: A versatile platform for bioinspired electrochemical conversion of carbon dioxide. Chemical Engineering Journal, 2022, 446, 137311.	12.7	13
687	Scalable preparation of a CuO nanosheet array <i>via</i> corrosion engineering for selective C-C coupling in CO <sub>2</sub> electroreduction. Journal of Materials Chemistry A, 0, , .	10.3	6
688	Design strategies for markedly enhancing energy efficiency in the electrocatalytic CO <sub>2</sub> reduction reaction. Energy and Environmental Science, 2022, 15, 3603-3629.	30.8	75
689	Reaction mechanism and kinetics for carbon dioxide reduction on iron-nickel Bi-atom catalysts. Journal of Materials Chemistry A, 2022, 10, 13266-13277.	10.3	6
690	Low-potential-driven electrocatalytic reduction of CO <sub>2</sub> to hydrocarbons by cobalt-based metal-organic nanosheets. Journal of Catalysis, 2022, 413, 168-175.	6.2	7
691	Tandem effect of Ag@C/Cu catalysts enhances ethanol selectivity for electrochemical CO <sub>2</sub> reduction in flow reactors. Cell Reports Physical Science, 2022, 3, 100949.	5.6	31
692	Design of experiments unravels insights into selective ethylene or methane production on evaporated Cu catalysts. Journal of Energy Chemistry, 2022, 75, 422-429.	12.9	6
693	Electrocatalysis on oxide surfaces: Fundamental challenges and opportunities. Current Opinion in Electrochemistry, 2022, 35, 101095.	4.8	9
694	Molecular Inhibition for Selective CO <sub>2</sub> Conversion. Angewandte Chemie - International Edition, 2022, 61, .	13.8	21
695	Electrocatalytic Reduction of CO <sub>2</sub> to Ethanol at Close to Theoretical Potential via Engineering Abundant Electron-Donating Cu <sup>+</sup> Species. Angewandte Chemie - International Edition, 2022, 61, .	13.8	64

#	ARTICLE	IF	CITATIONS
696	Pyrrolic Nâ€Stabilized Monovalent Ni Singleâ€Atom Electrocatalyst for Efficient CO <sub>2</sub> Reduction: Identifying the Role of Pyrrolicâ€N and Synergistic Electrocatalysis. Advanced Functional Materials, 2022, 32, .	14.9	40
697	Total conversion of centimeter-scale nickel foam into single atom electrocatalysts with highly selective CO <sub>2</sub> electrocatalytic reduction in neutral electrolyte. Nano Research, 2023, 16, 2003-2010.	10.4	13
698	The Effect of Temperature on the Cationâ€Promoted Electrochemical CO <sub>2</sub> Reduction on Gold. ChemElectroChem, 2022, 9, .	3.4	14
699	Molecular Inhibition for Selective CO <sub>2</sub> Conversion. Angewandte Chemie, 2022, 134, .	2.0	3
700	Triboelectric Plasma CO <sub>2</sub> Reduction Reaching a Mechanical Energy Conversion Efficiency of 2.3%. Advanced Science, 2022, 9, .	11.2	10
701	Enhancing Biohybrid CO <sub>2</sub> to Multicarbon Reduction via Adapted Whole-Cell Catalysts. Nano Letters, 2022, 22, 5503-5509.	9.1	16
702	Electrocatalytic CO <sub>2</sub> reduction towards industrial applications. , 2023, 5, .		41
703	Towards sustainable CO <sub>2</sub> electrochemical transformation via coupling design strategy. Materials Today Sustainability, 2022, 19, 100179.	4.1	8
704	Long-chain hydrocarbons by CO <sub>2</sub> electroreduction using polarized nickel catalysts. Nature Catalysis, 2022, 5, 545-554.	34.4	107
705	Fully exposed nickel clusters with electron-rich centers for high-performance electrocatalytic CO <sub>2</sub> reduction to CO. Science Bulletin, 2022, 67, 1477-1485.	9.0	13
706	Tandem Electrocatalytic CO <sub>2</sub> Reduction inside a Membrane with Enhanced Selectivity for Ethylene. Journal of Physical Chemistry C, 2022, 126, 10045-10052.	3.1	15
707	In-situ structural evolution of Bi <sub>2</sub> O <sub>3</sub> nanoparticle catalysts for CO <sub>2</sub> electroreduction. International Journal of Extreme Manufacturing, 2022, 4, 035002.	12.7	12
708	2022 roadmap on low temperature electrochemical CO <sub>2</sub> reduction. JPhys Energy, 2022, 4, 042003.	5.3	76
709	Copper-tetracyanoquinodimethane-derived copper electrocatalysts for highly selective carbon dioxide reduction to ethylene. Nano Research, 2022, 15, 7910-7916.	10.4	9
710	Electrochemical reduction of CO <sub>2</sub> in the captured state using aqueous or nonaqueous amines. IScience, 2022, 25, 104558.	4.1	17
711	MXenes for electrocatalysis applications: Modification and hybridization. Chinese Journal of Catalysis, 2022, 43, 2057-2090.	14.0	76
712	Conjugated ligands effect for the electrocatalytic CO <sub>2</sub> reduction activity of Sn <sub>6</sub> O <sub>6</sub> platform by experimental and theoretical studies. Carbon Capture Science & Technology, 2022, 4, 100055.	10.4	1
713	Robust palladium hydride catalyst for electrocatalytic formate formation with high CO tolerance. Applied Catalysis B: Environmental, 2022, 316, 121659.	20.2	11

#	ARTICLE	IF	CITATIONS
714	Nickel Phthalocyanine Modified Fruit -Peel -Derived Carbon Framework Selectively Electro-Catalyzes Co <sub>2</sub> -to-Co Conversion. SSRN Electronic Journal, 0, , .	0.4	0
715	The interfacial effect induced by rare earth oxide in boosting the conversion of CO <sub>2</sub> to formate. Energy and Environmental Science, 2022, 15, 3494-3502.	30.8	25
716	Efficient Co <sub>2</sub> Reduction to Reveal the Piezocatalytic Mechanism: From Displacement Current to Active Sites. SSRN Electronic Journal, 0, , .	0.4	0
717	Boosting electrocatalytic CO <sub>2</sub> to ethanol production via asymmetric C-C coupling. Nature Communications, 2022, 13, .	12.8	158
718	DFT Study on the CO <sub>2</sub> Reduction to C <sub>2</sub> Chemicals Catalyzed by Fe and Co Clusters Supported on N-Doped Carbon. Nanomaterials, 2022, 12, 2239.	4.1	5
719	Rare-Earth Single-Atom Catalysts: A New Frontier in Photo/Electrocatalysis. Small Methods, 2022, 6, .	8.6	63
720	Enzyme-Inspired Microenvironment Engineering of a Single-Molecular Heterojunction for Promoting Concerted Electrochemical CO <sub>2</sub> Reduction. Advanced Materials, 2022, 34, .	21.0	30
721	Role-Specialized Division of Labor in CO <sub>2</sub> Reduction with Doubly-Functionalized Iron Porphyrin Atropisomers. Angewandte Chemie, 0, , .	2.0	1
722	Recent advances in the electrochemical CO reduction reaction towards highly selective formation of C <sub>x</sub> products (X= 1-3). Chem Catalysis, 2022, 2, 1961-1988.	6.1	7
723	In situ spectroelectrochemical probing of CO redox landscape on copper single-crystal surfaces. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	27
724	Unraveling the Potential-Dependent Volcanic Selectivity Changes of an Atomically Dispersed Ni Catalyst During CO <sub>2</sub> Reduction. ACS Catalysis, 2022, 12, 8676-8686.	11.2	16
725	Role-Specialized Division of Labor in CO <sub>2</sub> Reduction with Doubly-Functionalized Iron Porphyrin Atropisomers. Angewandte Chemie - International Edition, 2022, 61, .	13.8	23
726	The porosity engineering for single-atom metal-nitrogen-carbon catalysts for the electroreduction of CO <sub>2</sub> . Current Opinion in Green and Sustainable Chemistry, 2022, 37, 100651.	5.9	4
727	Photoreduction of CO <sub>2</sub> into CH <sub>4</sub> Using Novel Composite of Triangular Silver Nanoplates on Graphene-BiVO <sub>4</sub> . Catalysts, 2022, 12, 750.	3.5	0
728	Insights Into the Template Effect on Nanostructured CuO Catalysts for Electrochemical CO <sub>2</sub> Reduction to CO. Frontiers in Energy Research, 0, 10, .	2.3	2
729	Microenvironment Engineering for the Electrocatalytic CO <sub>2</sub> Reduction Reaction. Angewandte Chemie - International Edition, 2022, 61, .	13.8	58
730	Ethanol Electro-oxidation Reaction Selectivity on Platinum in Aqueous Media. ACS Sustainable Chemistry and Engineering, 2023, 11, 4960-4968.	6.7	8
731	Microenvironment Engineering for the Electrocatalytic CO <sub>2</sub> Reduction Reaction. Angewandte Chemie, 2022, 134, .	2.0	8

#	ARTICLE	IF	CITATIONS
732	Rigorous Evaluation of Liquid Products in High-Rate CO <sub>2</sub> /CO Electrolysis. ACS Energy Letters, 2022, 7, 2595-2601.	17.4	13
733	Mechanically induced Cu active sites for selective C-C coupling in CO <sub>2</sub> electroreduction. Journal of Energy Chemistry, 2022, 74, 198-202.	12.9	15
734	Constructing surface vacancy to activate the stuck MXenes for high-performance CO <sub>2</sub> reduction reaction. Journal of CO <sub>2</sub> Utilization, 2022, 62, 102074.	6.8	15
735	Surface restructuring in AgCu single-atom alloy catalyst and self-enhanced selectivity toward CO <sub>2</sub> reduction. Electrochimica Acta, 2022, 426, 140774.	5.2	16
736	Tin-based metal organic framework catalysts for high-efficiency electrocatalytic CO <sub>2</sub> conversion into formate. Journal of Colloid and Interface Science, 2022, 626, 836-847.	9.4	26
737	Cu-Based Organic-Inorganic Composite Materials for Electrochemical CO <sub>2</sub> Reduction. Chemistry - an Asian Journal, 2022, 17, .	3.3	12
738	In Situ Periodic Regeneration of Catalyst during CO <sub>2</sub> Electroreduction to C <sub>2</sub> Products. Angewandte Chemie - International Edition, 2022, 61, .	13.8	30
739	Porous copper cluster-based MOF with strong cuprophilic interactions for highly selective electrocatalytic reduction of CO <sub>2</sub> to CH <sub>4</sub> . Nano Research, 2022, 15, 10185-10193.	10.4	24
740	Bacteria-inspired photocatalyst sheet for sustainable carbon dioxide utilization. Nature Catalysis, 2022, 5, 633-641.	34.4	42
741	Heterogenization of Molecular Electrocatalytic Active Sites through Reticular Chemistry. Advanced Materials, 2023, 35, .	21.0	11
742	Molecular trapdoor mechanism of In-SSZ-13(MP) holds promise for selective electrochemical reduction of CO <sub>2</sub> at low concentrations. Applied Catalysis B: Environmental, 2022, 317, 121771.	20.2	5
743	Tin Sulfide Chalcogel Derived SnS <sub>x</sub> for CO <sub>2</sub> Electroreduction. , 0, 1, .		0
744	Dealloyed Intermetallic Cu <sub>5</sub> Ca Fine Powders as Nanoporous Electrocatalysts for CO <sub>2</sub> Reduction. ACS Applied Nano Materials, 2022, 5, 11991-11996.	5.0	1
745	Electrochemical CO <sub>2</sub> -to-Formate Conversion Over Positive Charge Depleted Tin Sites. ACS Applied Energy Materials, 2022, 5, 9324-9332.	5.1	6
746	Regulated CO adsorption by the electrode with OH <sup>-</sup> repulsive property for enhancing C-C coupling. Green Chemical Engineering, 2022, , .	6.3	0
747	Single-Atom Catalysts Supported on the Graphene/Graphdiyne Heterostructure for Effective CO <sub>2</sub> Electroreduction. Inorganic Chemistry, 2022, 61, 12012-12022.	4.0	14
748	Electrochemical Upgrading of Formic Acid to Formamide via Coupling Nitrite Co-Reduction. Journal of the American Chemical Society, 2022, 144, 16006-16011.	13.7	57
749	Effect of Humidity on C <sub>1</sub> , C <sub>2</sub> Product Selectivity for CO <sub>2</sub> Reduction in a Hybrid Gas/Liquid Electrochemical Reactor. ACS Applied Energy Materials, 2022, 5, 9309-9314.	5.1	2



#	ARTICLE	IF	CITATIONS
750	Bicarbonate Rebalances the $\text{COOH}^*/\text{OCO}^*$ Dual Pathways in $\text{CO}_2$ Electrocatalytic Reduction: <i>In Situ</i> Surface-Enhanced Raman Spectroscopic Evidence. Journal of Physical Chemistry Letters, 2022, 13, 7296-7305.	4.6	5
751	Probing the Dynamics of Low-Overpotential $\text{CO}_2$ -to-CO Activation on Copper Electrodes with Time-Resolved Raman Spectroscopy. Journal of the American Chemical Society, 2022, 144, 15047-15058.	13.7	33
752	Shape-controlled synthesis of Pd nanotetrahedrons with Pt-doped surfaces for highly efficient electrocatalytic oxygen reduction and formic acid oxidation. Chemical Engineering Journal, 2023, 451, 138786.	12.7	11
753	Atomically dispersed $\text{Co}^{\sim}\text{Cu}$ alloy reconstructed from metal-organic framework to promote electrochemical $\text{CO}_2$ methanation. Nano Research, 2023, 16, 3680-3686.	10.4	8
754	Rational Manipulation of Intermediates on Copper for $\text{CO}_2$ Electroreduction Toward Multicarbon Products. Transactions of Tianjin University, 2022, 28, 265-291.	6.4	16
755	Advances of Cobalt Phthalocyanine in Electrocatalytic $\text{CO}_2$ Reduction to CO: a Mini Review. Electrocatalysis, 2022, 13, 675-690.	3.0	19
756	Electrical double layer design for proton-coupled electron transfer electrode processes: Recent advances in well-defined Electrode-Electrolyte interface. Current Opinion in Electrochemistry, 2022, 36, 101121.	4.8	6
757	Efficient and Selective Electroreduction of $\text{CO}_2$ to $\text{HCOOH}$ over Bismuth-Based Bromide Perovskites in Acidic Electrolytes. Chemistry - A European Journal, 2022, 28, .	3.3	11
758	Insight Into Heterogeneous Electrocatalyst Design Understanding for the Reduction of Carbon Dioxide. Advanced Energy Materials, 2022, 12, .	19.5	24
759	Electrocatalytic $\text{CO}_2$ -to- $\text{C}_2$ with Ampere-Level Current on Heteroatom-Engineered Copper <i>via</i> Tuning $\text{CO}$ Intermediate Coverage. Journal of the American Chemical Society, 2022, 144, 14936-14944.	13.7	122
760	In Situ Periodic Regeneration of Catalyst during $\text{CO}_2$ Electroreduction to $\text{C}_2$ Products. Angewandte Chemie, 2022, 134, .	2.0	4
761	Interfacial electric field effect on electrochemical carbon dioxide reduction reaction. Chem Catalysis, 2022, 2, 2229-2252.	6.1	29
762	Size Control of Zn, N-doped Carbon Supported Copper Nanoparticles for Effective and Selective $\text{CO}_2$ Electroreduction. Catalysis Letters, 2023, 153, 2115-2124.	2.6	2
763	In Situ Engineering of the $\text{Cu}^+/\text{Cu}^0$ Interface to Boost $\text{C}_2$ Selectivity in $\text{CO}_2$ Electroreduction. ACS Applied Materials & Interfaces, 2022, 14, 36527-36535.	8.0	13
764	Efficient Electrocatalytic Reduction of $\text{CO}_2$ to Ethane over Nitrogen-Doped $\text{Fe}_2\text{O}_3$ . Journal of the American Chemical Society, 2022, 144, 14769-14777.	13.7	41
765	Boosting Electrochemical $\text{CO}_2$ Reduction to Methane via Tuning Oxygen Vacancy Concentration and Surface Termination on a Copper/Ceria Catalyst. ACS Catalysis, 2022, 12, 10973-10983.	11.2	34
766	Hydrophobicity Graded Gas Diffusion Layer for Stable Electrochemical Reduction of $\text{CO}_2$ . Angewandte Chemie - International Edition, 2022, 61, .	13.8	12
767	Hydrophobicity Graded Gas Diffusion Layer for Stable Electrochemical Reduction of $\text{CO}_2$ . Angewandte Chemie, 2022, 134, .	2.0	3

#	ARTICLE	IF	CITATIONS
768	Dual-Scale Integration Design of Sn-ZnO Catalyst toward Efficient and Stable CO <sub>2</sub> Electroreduction. <i>Advanced Materials</i> , 2022, 34, .	21.0	28
769	Structural evolution and strain generation of derived-Cu catalysts during CO <sub>2</sub> electroreduction. <i>Nature Communications</i> , 2022, 13, .	12.8	55
770	Probing Electrolyte Influence on CO <sub>2</sub> Reduction in Aprotic Solvents. <i>Journal of Physical Chemistry C</i> , 2022, 126, 13595-13606.	3.1	10
771	Room-temperature Electrochemical C <sub>1</sub> -to-fuel Conversion: Perspectives from Material Engineering and Device Design. <i>EnergyChem</i> , 2022, 4, 100086.	19.1	5
772	A special Bi-S motif catalyst for highly selective CO <sub>2</sub> conversion to methanol. <i>Journal of Catalysis</i> , 2022, 413, 1077-1088.	6.2	5
773	Realizing efficient C-N coupling via electrochemical co-reduction of CO <sub>2</sub> and NO <sub>3</sub> - on AuPd nanoalloy to form urea: Key C-N coupling intermediates. <i>Applied Catalysis B: Environmental</i> , 2022, 318, 121819.	20.2	36
774	Catalyst Design for Electrolytic CO <sub>2</sub> Reduction Toward Low-Carbon Fuels and Chemicals. <i>Electrochemical Energy Reviews</i> , 2022, 5, .	25.5	16
775	Efficient CO <sub>2</sub> reduction to reveal the piezocatalytic mechanism: From displacement current to active sites. <i>Applied Catalysis B: Environmental</i> , 2023, 320, 122007.	20.2	34
776	CHAPTER 14. CO <sub>2</sub> Capture and Conversion Using Different Renewable Sources. , 2022, , 374-391.		0
777	Accelerated interfacial proton transfer for promoting electrocatalytic activity. <i>Chemical Science</i> , 2022, 13, 10884-10890.	7.4	4
778	Highly efficient electrochemical CO <sub>2</sub> reduction over crystalline-amorphous In <sub>2</sub> O <sub>3</sub> -CeO <sub>x</sub> heterostructures. <i>Inorganic Chemistry Frontiers</i> , 2022, 9, 5926-5931.	6.0	7
779	Bulk-immiscible CuAg alloy nanorods prepared by phase transition from oxides for electrochemical CO <sub>2</sub> reduction. <i>Chemical Communications</i> , 2022, 58, 11163-11166.	4.1	24
780	How membrane characteristics influence the performance of CO <sub>2</sub> and CO electrolysis. <i>Energy and Environmental Science</i> , 2022, 15, 4440-4469.	30.8	40
781	Elucidating electrochemical CO <sub>2</sub> reduction reaction processes on Cu( <i>hkl</i> ) single-crystal surfaces by <i>in situ</i> Raman spectroscopy. <i>Energy and Environmental Science</i> , 2022, 15, 3968-3977.	30.8	58
782	Dual-Atom Cu <sub>2</sub> /N-Doped Carbon Catalyst for Electroreduction of Co <sub>2</sub> to C <sub>2</sub> H <sub>4</sub> . <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
783	The interfacial aspect of Bi <sub>2</sub> O <sub>3</sub> /CeO <sub>x</sub> heterostructure catalysts for HCOOH production from CO <sub>2</sub> electroreduction. <i>Journal of Materials Chemistry A</i> , 2022, 10, 22694-22700.	10.3	6
784	CHAPTER 4. CO <sub>2</sub> Conversion to Chemicals and Fuel Cells Using Renewable Energy Sources. , 2022, , 126-170.		0
785	Mechanistic insight into electrocatalytic glyoxal reduction on copper and its relation to CO <sub>2</sub> reduction. <i>Chemical Science</i> , 2022, 13, 11205-11214.	7.4	3

#	ARTICLE	IF	CITATIONS
786	A Sn-stabilized Cu <sup>+</sup> electrocatalyst toward highly selective CO <sub>2</sub> -to-CO in a wide potential range. <i>Chemical Science</i> , 2022, 13, 11918-11925.	7.4	10
787	Single-atom photocatalysts for CO <sub>2</sub> reduction: Charge transfer and adsorption-activation mechanism. , 2022, 1, 127-138.		0
788	Electrocatalytic CO <sub>2</sub> reduction to alcohols by modulating the molecular geometry and Cu coordination in bicentric copper complexes. <i>Nature Communications</i> , 2022, 13, .	12.8	52
789	A nitrogen-doped graphene-supported nickel-single-atom catalyst in the flow cell meets the industrial criteria of carbon dioxide reduction reaction to carbon monoxide. <i>Frontiers in Catalysis</i> , 0, 2, .	3.9	1
790	Photochemistry Journey to Multielectron and Multiproton Chemical Transformation. <i>Journal of the American Chemical Society</i> , 2022, 144, 16219-16231.	13.7	30
791	Dynamic restructuring of epitaxial Au–Cu biphasic interface for tandem CO <sub>2</sub> -to-C <sub>2</sub> + alcohol conversion. <i>CheM</i> , 2022, 8, 3288-3301.	11.7	20
792	What It Takes for Imidazolium Cations to Promote Electrochemical Reduction of CO <sub>2</sub> . <i>ACS Energy Letters</i> , 2022, 7, 3439-3446.	17.4	12
793	Electrocatalytic Reduction of Carbon Dioxide to High-Value Multicarbon Products with Metal–Organic Frameworks and Their Derived Materials. , 2022, 4, 2058-2079.		35
794	Advances in Thermo-, Photo-, and Electrocatalytic Continuous Conversion of Carbon Dioxide into Liquid Chemicals. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 12906-12932.	6.7	8
795	Electrochemical methods for carbon dioxide separations. <i>Nature Reviews Methods Primers</i> , 2022, 2, .	21.2	26
796	Recent Advances in Non-Precious Metal–Nitrogen–Carbon Single-Site Catalysts for CO <sub>2</sub> Electroreduction Reaction to CO. <i>Electrochemical Energy Reviews</i> , 2022, 5, .	25.5	18
797	Triple-Phase Interface Engineered Hierarchical Porous Electrode for CO <sub>2</sub> Electroreduction to Formate. <i>Advanced Science</i> , 2022, 9, .	11.2	10
798	Theory-Guided Modulation of Optimal Silver Nanoclusters toward Efficient CO <sub>2</sub> Electroreduction. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 43257-43264.	8.0	6
799	Phase engineering of metal nanocatalysts for electrochemical CO <sub>2</sub> reduction. <i>EScience</i> , 2022, 2, 467-485.	41.6	44
800	Modelling a detailed kinetic mechanism for electrocatalytic reduction of CO <sub>2</sub> . <i>Proceedings of the Combustion Institute</i> , 2023, 39, 5647-5655.	3.9	4
801	Gaseous CO <sub>2</sub> Coupling with N-Containing Intermediates for Key C–N Bond Formation during Urea Production from Coelectrolysis over Cu. <i>ACS Catalysis</i> , 2022, 12, 11494-11504.	11.2	24
802	Electronic and Nano-structural Modulation of Co(OH) <sub>2</sub> Nanosheets by Fe-Benzenedicarboxylate for Efficient Oxygen Evolution. <i>Chemical Research in Chinese Universities</i> , 2023, 39, 219-223.	2.6	4
803	In situ resource utilization of lunar soil for highly efficient extraterrestrial fuel and oxygen supply. <i>National Science Review</i> , 2023, 10, .	9.5	2

#	ARTICLE	IF	CITATIONS
804	Boosting the reaction kinetics in aprotic lithium-carbon dioxide batteries with unconventional phase metal nanomaterials. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	23
805	Direct Observation of Solventâ€“Reaction Intermediate Interactions in Heterogeneously Catalyzed Alcohol Coupling. Journal of the American Chemical Society, 2022, 144, 17387-17398.	13.7	1
806	Facilitating Molecular Activation and Proton Feeding by Dual Active Sites on Polymeric Carbon Nitride for Efficient CO <sub>2</sub> Photoreduction. Angewandte Chemie, 2022, 134, .	2.0	7
807	Abundant (110) Facets on PdCu <sub>3</sub> Alloy Promote Electrochemical Conversion of CO <sub>2</sub> to CO. ACS Applied Materials & Interfaces, 2022, 14, 41969-41977.	8.0	7
808	Electrocatalytic CO <sub>2</sub> Reduction by [Re(CO) <sub>3</sub> Cl(3-(pyridin-2-yl)-5-phenyl-1,2,4-triazole)] and [Re(CO) <sub>3</sub> Cl(3-(2-pyridyl)-1,2,4-triazole)]. ACS Omega, 2022, 7, 34089-34097.	3.5	4
809	Polyoxometalate-based nanostructures for electrocatalytic and photocatalytic CO <sub>2</sub> reduction. , 2022, 1, 9140006.		56
810	Synthesis of TBABâ€“based Deep Eutectic Solvents as the Catalyst in the Coupling Reaction between CO <sub>2</sub> and Epoxides under Ambient Temperature. ChemistrySelect, 2022, 7, .	1.5	4
811	Facilitating Molecular Activation and Proton Feeding by Dual Active Sites on Polymeric Carbon Nitride for Efficient CO <sub>2</sub> Photoreduction. Angewandte Chemie - International Edition, 2022, 61, .	13.8	34
812	Copper-based catalysts for electrochemical carbon monoxide reduction. Cell Reports Physical Science, 2022, 3, 101072.	5.6	6
813	Continuous CO <sub>2</sub> electrolysis using a CO <sub>2</sub> exsolution-induced flow cell. Nature Energy, 2022, 7, 978-988.	39.5	60
814	Inâ€“Situ Hydrogenâ€“Bond Tailoring To Construct Ultrathin Bi <sub>2</sub> O <sub>2</sub> /Bi <sub>2</sub> O <sub>2</sub> (OH)(NO <sub>3</sub> ) Nanosheets: Interactive CO <sub>2</sub> RR Promotion and Bismuthâ€“Oxygen Moiety Preservation. Chemistry - A European Journal, 2022, 28, .	3.3	4
815	Defective hBN-Supported Fe <sub>2</sub> N Single Cluster Catalyst for Active and Selective Electro-Reduction of Multiple CO to Propane: Theoretical Elucidation of Metalâ€“Nonmetal Synergic Effects. ACS Applied Materials & Interfaces, 2022, 14, 46657-46664.	8.0	2
816	Towards understanding of CO <sub>2</sub> electroreduction to C <sub>2+</sub> products on copperâ€“based catalysts. , 2022, 1, .		13
817	Aluminum-Doped Mesoporous Copper Oxide Nanofibers Enabling High-Efficiency CO <sub>2</sub> Electroreduction to Multicarbon Products. Chemistry of Materials, 2022, 34, 9023-9030.	6.7	8
818	Catalytic Processes to Accelerate Decarbonization in a Netâ€“Zero Carbon World. ChemSusChem, 2022, 15, .	6.8	12
819	Bimetallic Cu-Bi catalysts for efficient electroreduction of CO <sub>2</sub> to formate. Frontiers in Chemistry, 0, 10, .	3.6	3
820	Natureâ€“Inspired Design of Molybdenumâ€“Selenium Dualâ€“Singleâ€“Atom Electrocatalysts for CO <sub>2</sub> Reduction. Advanced Materials, 2022, 34, .	21.0	44
821	Boron-Doped Platinum-Group Metals in Electrocatalysis: A Perspective. ACS Catalysis, 2022, 12, 12750-12764.	11.2	31

#	ARTICLE	IF	CITATIONS
822	The reduction reaction of carbon dioxide on a precise number of Fe atoms anchored on two-dimensional biphenylene. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 27474-27482.	2.8	4
823	Buffering the local pH <i>via</i> single-atomic Mn–N auxiliary sites to boost CO <sub>2</sub> electroreduction. <i>Chemical Science</i> , 2022, 13, 13172-13177.	7.4	8
824	Ampere-level CO <sub>2</sub> reduction to multicarbon products over a copper gas penetration electrode. <i>Energy and Environmental Science</i> , 2022, 15, 5391-5404.	30.8	33
825	A gradient Sn <sup>4+</sup> @Sn <sup>2+</sup> core@shell structure induced by a strong metal oxide–support interaction for enhanced CO <sub>2</sub> electroreduction. <i>Dalton Transactions</i> , 2022, 51, 16135-16144.	3.3	1
826	Tandem electrocatalytic CO <sub>2</sub> reduction with Fe-porphyrins and Cu nanocubes enhances ethylene production. <i>Chemical Science</i> , 2022, 13, 12673-12680.	7.4	16
827	“ <i>Supporting Information</i> ”. <i>Chinese Science Bulletin</i> , 2022, , .	0.7	0
828	Sn Dopants with Synergistic Oxygen Vacancies Boost CO <sub>2</sub> Electroreduction on CuO Nanosheets to CO at Low Overpotential. <i>ACS Nano</i> , 2022, 16, 19210-19219.	14.6	42
829	Spin polarization strategy to deploy proton resource over atomic-level metal sites for highly selective CO <sub>2</sub> electrolysis. <i>Frontiers of Chemical Science and Engineering</i> , 2022, 16, 1772-1781.	4.4	2
830	The Advance and Critical Functions of Energetic Carbon Dots in Carbon Dioxide Photo/Electroreduction Reactions. <i>Small Methods</i> , 2022, 6, .	8.6	7
831	Electrochemical Hydrogenation of CO on Cu(100): Insights from Accurate Multiconfigurational Wavefunction Methods. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 10282-10290.	4.6	6
832	Bismuth-based materials for CO <sub>2</sub> photoreduction. <i>Current Opinion in Green and Sustainable Chemistry</i> , 2023, 39, 100718.	5.9	3
833	Toward Unifying the Mechanistic Concepts in Electrochemical CO <sub>2</sub> Reduction from an Integrated Material Design and Catalytic Perspective. <i>Advanced Functional Materials</i> , 2022, 32, .	14.9	15
834	Emerging dual-atomic-site catalysts for electrocatalytic CO <sub>2</sub> reduction. <i>Science China Materials</i> , 2022, 65, 3302-3323.	6.3	31
835	Host–guest tuning of the CO <sub>2</sub> reduction activity of an iron porphyrin cage. <i>Natural Sciences</i> , 2023, 3, .	2.1	3
836	Structures, Scaling Relations, and Selectivities of the Copper-Based Binary Catalysts for CO <sub>2</sub> Reduction Reactions. <i>Journal of Physical Chemistry C</i> , 2022, 126, 17966-17974.	3.1	1
837	Recent advances in Zn–CO <sub>2</sub> batteries for the co-production of electricity and carbonaceous fuels. <i>Nano Materials Science</i> , 2022, , .	8.8	2
838	Progress of Nb-containing catalysts for carbon dioxide reduction: a minireview. <i>Tungsten</i> , 2022, 4, 284-295.	4.8	19
839	Charting C–C coupling pathways in electrochemical CO <sub>2</sub> reduction on Cu(111) using embedded correlated wavefunction theory. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	7.1	21

#	ARTICLE	IF	CITATIONS
840	Modulating the Electronic Structures of Dual-Atom Catalysts via Coordination Environment Engineering for Boosting CO <sub>2</sub> Electroreduction. Angewandte Chemie - International Edition, 2022, 61, .	13.8	37
841	Interfacial engineering of SnO <sub>2</sub> /Bi <sub>2</sub> O <sub>3</sub> heterojunction on heteroatoms-doped carbon for high-performance CO <sub>2</sub> electroreduction to formate. Nano Research, 2023, 16, 2278-2285.	10.4	12
842	Progress and Understanding of CO <sub>2</sub> /CO Electroreduction in Flow Electrolyzers. ACS Catalysis, 2022, 12, 12993-13020.	11.2	25
843	Heteroatom-Doped Asymmetric Metal-NC Single Atom Catalysts for Electrochemical CO <sub>2</sub> Reduction Reaction. Chemistry - an Asian Journal, 2022, 17, .	3.3	4
844	Modulating the Electronic Structures of Dual-Atom Catalysts via Coordination Environment Engineering for Boosting CO <sub>2</sub> Electroreduction. Angewandte Chemie, 0, , .	2.0	0
845	Sprayed Ag oxygen reduction reaction gas-diffusion electrodes for the electrocatalytic reduction of CO <sub>2</sub> to CO. , 2023, 2, .		0
846	Fundamental aspects in CO <sub>2</sub> electroreduction reaction and solutions from in situ vibrational spectroscopies. Chinese Journal of Catalysis, 2022, 43, 2772-2791.	14.0	25
847	Electrochemical Reduction of Carbon Dioxide: Recent Advances on Au-Based Nanocatalysts. Catalysts, 2022, 12, 1348.	3.5	14
848	Stabilization of oxidation state in ZnO decorated-CeO <sub>2</sub> for enhanced formation of CO in CO <sub>2</sub> electroreduction. Applied Surface Science, 2023, 609, 155235.	6.1	4
849	Effects of nitrogen and oxygen on electrochemical reduction of CO <sub>2</sub> in nitrogen-doped carbon black. Carbon, 2023, 202, 1-11.	10.3	12
850	Cu-doped MoSi <sub>2</sub> N <sub>4</sub> monolayer as a highly efficient catalyst for CO reduction toward C <sub>2</sub> + products. Applied Surface Science, 2023, 609, 155332.	6.1	6
851	Multivariate indium-organic frameworks for highly efficient carbon dioxide capture and electrocatalytic conversion. Inorganic Chemistry Frontiers, 2022, 10, 158-167.	6.0	4
852	Pit-embellished low-valent metal active sites customize CO <sub>2</sub> photoreduction to methanol. , 2023, 1, 36-44.		7
853	Probing the electrified solid-liquid interfaces with laser-induced transient techniques. , 2024, , 43-58.		0
854	On factors of ions in seawater for CO <sub>2</sub> reduction. Applied Catalysis B: Environmental, 2023, 323, 122166.	20.2	10
855	Surface Water as an Initial Proton Source for the Electrochemical CO Reduction Reaction on Copper Surfaces. Angewandte Chemie, 0, , .	2.0	0
856	Boosting CO <sub>2</sub> electroreduction to formate via bismuth oxide clusters. Nano Research, 2023, 16, 12050-12057.	10.4	9
857	A Two-Dimensional van der Waals Heterostructure with Isolated Electron-Deficient Cobalt Sites toward High-Efficiency CO <sub>2</sub> Electroreduction. Journal of the American Chemical Society, 2022, 144, 21502-21511.	13.7	24



#	ARTICLE	IF	CITATIONS
858	Surface promotion of copper nanoparticles with alumina clusters derived from layered double hydroxide accelerates CO <sub>2</sub> reduction to ethylene in membrane electrode assemblies. Nano Research, 2023, 16, 4685-4690.	10.4	12
859	Reduced graphene oxide electrode-coating as anti-corrosive/anti-oxidative laminate for Al/Cu liquid-phase batteries. Journal of Materials Research, 2023, 38, 1792-1802.	2.6	1
860	Surface Water as an Initial Proton Source for the Electrochemical CO Reduction Reaction on Copper Surfaces. Angewandte Chemie - International Edition, 2023, 62, .	13.8	9
861	Electrocatalytic CO <sub>2</sub> reduction using self-supported zinc sulfide arrays for selective CO production. Applied Surface Science, 2023, 612, 155646.	6.1	6
862	Recent progress and challenges in heterogeneous CO <sub>2</sub> catalytic activation. Current Opinion in Green and Sustainable Chemistry, 2023, 39, 100720.	5.9	2
863	Rational design of bismuth-based catalysts for electrochemical CO <sub>2</sub> reduction. Chinese Journal of Catalysis, 2022, 43, 3062-3088.	14.0	8
864	Coordination Environment in Single-Atom Catalysts for High-Performance Electrocatalytic CO <sub>2</sub> Reduction. Small Structures, 2023, 4, .	12.0	12
865	Robust catalysis of hierarchically nanoporous gold for CO <sub>2</sub> electrochemical reduction. Electrochimica Acta, 2023, 437, 141537.	5.2	6
866	Recent Advances and Perspectives of Electrochemical CO <sub>2</sub> Reduction Toward C <sub>2</sub> + Products on Cu-Based Catalysts. Electrochemical Energy Reviews, 2022, 5, .	25.5	24
867	Highly Exposed {111} Edge on Fragmented g-C <sub>3</sub> N <sub>4</sub> Framework with Integrated Molybdenum Atoms for Catalytic CO <sub>2</sub> Cycloaddition: DFT and Techno-Economic Assessment. Small, 2023, 19, .	10.0	1
868	Predictive stochastic analysis of massive filter-based electrochemical reaction networks. , 2023, 2, 123-137.		8
869	Efficient electrocatalytic reduction of CO <sub>2</sub> to CO on highly dispersed Ag nanoparticles confined by Poly(ionic liquid). Chemical Engineering Journal, 2023, 455, 140910.	12.7	2
870	Dynamic ion exchange engineering BiOI-derived Bi <sub>2</sub> O <sub>2</sub> CO <sub>3</sub> to promote CO <sub>2</sub> electroreduction for efficient formate production. Chemical Engineering Journal, 2023, 455, 140926.	12.7	9
871	Tailoring microenvironment for enhanced electrochemical CO <sub>2</sub> reduction on ultrathin tin oxide derived nanosheets. Nano Energy, 2023, 105, 108031.	16.0	14
872	Structural ordering enhances highly selective production of acetic acid from CO <sub>2</sub> at ultra-low potential. , 2023, 1, 162-170.		6
873	Organic molecules involved in Cu-based electrocatalysts for selective CO <sub>2</sub> reduction to C <sub>2</sub> + products. Materials Today Chemistry, 2023, 27, 101328.	3.5	5
874	PNP-type ligands enabled copper-catalyzed <i>N</i> -formylation of amines with CO <sub>2</sub> in the presence of silanes. Organic and Biomolecular Chemistry, 2023, 21, 832-837.	2.8	4
875	A crystal growth kinetics guided Cu aerogel for highly efficient CO <sub>2</sub> electrolysis to C <sub>2</sub> +alcohols. Chemical Science, 2023, 14, 310-316.	7.4	7

#	ARTICLE	IF	CITATIONS
876	Building efficient and durable 3D nanotubes electrode for solid oxide electrolytic cells. Journal of Power Sources, 2023, 556, 232479.	7.8	5
877	A Review of CO <sub>2</sub> Reduction Reaction Catalyzed by Atomical-Level Ag Nanomaterials: Atom-Precise Nanoclusters and Atomically Dispersed Catalysts. Surfaces and Interfaces, 2023, 36, 102555.	3.0	4
878	Ethanol formation from CO <sub>2</sub> hydrogenation at atmospheric pressure using Cu catalysts: Water as a key component. Applied Catalysis B: Environmental, 2023, 324, 122221.	20.2	8
879	Electrochemical CO <sub>2</sub> Reduction. RSC Green Chemistry, 2022, , 362-387.	0.1	0
880	Near-Unity Electrochemical CO <sub>2</sub> to CO Conversion over Sn-Doped Copper Oxide Nanoparticles. ACS Catalysis, 2022, 12, 15146-15156.	11.2	18
882	Copper/alkaline earth metal oxide interfaces for electrochemical CO <sub>2</sub> -to-alcohol conversion by selective hydrogenation. Nature Catalysis, 2022, 5, 1081-1088.	34.4	67
883	Two-Dimensional Metal Phosphorus Trichalcogenide Nanostructure for Sustainable Energy Conversion. ACS Symposium Series, 0, , 1-25.	0.5	3
884	Light Inducing the Geometric Conversion of $\text{NiO}_{6\text{O}}$ to Trigger a Faster Oxygen Evolution Reaction Pathway: The Coupled Oxygen Evolution Mechanism. Energy and Environmental Materials, 2023, 6, .	12.8	7
885	Effects of ligand tuning and core doping of atomically precise copper nanoclusters on CO <sub>2</sub> electroreduction selectivity. Communications Chemistry, 2022, 5, .	4.5	11
886	Enhanced Charge Transfer Kinetics for the Electroreduction of Carbon Dioxide on Silver Electrodes Functionalized with Cationic Surfactants. Advanced Functional Materials, 2023, 33, .	14.9	4
887	Analysis on Electrochemical CO <sub>2</sub> Reduction by Diamond Doping Technology. Journal of Electrochemical Energy Conversion and Storage, 2023, 20, .	2.1	2
888	Single-Atom Metal-Organic Framework and Copper Foil Tandem Catalyst for Highly Selective CO <sub>2</sub> Electroreduction to C <sub>2</sub> H <sub>4</sub> . Small, 2023, 19, .	10.0	14
889	Ball-Milling-Triggered Synthesis of Si/C/SiC@MCMB Composites from Carbon Dioxide for Improved Lithium Storage Capability. Energy & Fuels, 2023, 37, 746-753.	5.1	9
890	Research Progress on Graphite-Derived Materials for Electrocatalysis in Energy Conversion and Storage. Molecules, 2022, 27, 8644.	3.8	3
891	TM <sub>2</sub> B <sub>2</sub> Quadruple Active Sites Supported on a Defective C <sub>3</sub> N Monolayer as Catalyst for the Electrochemical CO <sub>2</sub> Reduction: A Theoretical Perspective. ChemSusChem, 2023, 16, .	6.8	3
892	Ultrasound-assisted synthesis of copper-based catalysts for the electrocatalytic CO <sub>2</sub> reduction: Effect of ultrasound irradiation, precursor concentration and calcination temperature. Sustainable Materials and Technologies, 2022, , e00557.	3.3	0
893	Recent status and advanced progress of tip effect induced by micro-nanostructure. Chinese Chemical Letters, 2023, 34, 108049.	9.0	5
894	Regulating Morphological Features of Nickel Single-Atom Catalysts for Selective and Enhanced Electroreduction of CO <sub>2</sub> . Small Methods, 2023, 7, .	8.6	7

#	ARTICLE	IF	CITATIONS
895	Time-Resolved Monitoring of Electrochemical Reactions Using In Situ Stimulated Raman Spectroscopy. ACS Sustainable Chemistry and Engineering, 2023, 11, 13-17.	6.7	2
896	Selective CO <sub>2</sub> electroreduction to methanol via enhanced oxygen bonding. Nature Communications, 2022, 13, .	12.8	27
897	Correlating Oxidation State and Surface Ligand Motifs with the Selectivity of CO <sub>2</sub> Photoreduction to C <sub>2</sub> Products. Angewandte Chemie, 2023, 135, .	2.0	3
898	Tuning the C <sub>1</sub> /C <sub>2</sub> Selectivity of Electrochemical CO <sub>2</sub> Reduction on Cu@CeO <sub>2</sub> Nanorods by Oxidation State Control. Advanced Materials, 2023, 35, .	21.0	17
899	Achieving highly selective electrochemical CO <sub>2</sub> reduction to C <sub>2</sub> H <sub>4</sub> on Cu nanosheets. Journal of Energy Chemistry, 2023, 79, 312-320.	12.9	11
900	Atomic Replacement of PtNi Nanoalloys within Zn-ZIF-8 for the Fabrication of a Multisite CO <sub>2</sub> Reduction Electrocatalyst. Journal of the American Chemical Society, 2022, 144, 23223-23229.	13.7	42
901	Operando X-ray Absorption Spectroscopy Study of SnO <sub>2</sub> Nanoparticles for Electrochemical Reduction of CO <sub>2</sub> to Formate. ACS Applied Materials & Interfaces, 2022, 14, 55636-55643.	8.0	3
902	Correlating Oxidation State and Surface Ligand Motifs with the Selectivity of CO <sub>2</sub> Photoreduction to C <sub>2</sub> Products. Angewandte Chemie - International Edition, 2023, 62, .	13.8	12
904	Partially Nitrided Ni Nanoclusters Achieve Energy-Efficient Electrocatalytic CO <sub>2</sub> Reduction to CO at Ultralow Overpotential. Advanced Materials, 2023, 35, .	21.0	26
905	Delocalization state-induced selective bond breaking for efficient methanol electrosynthesis from CO <sub>2</sub> . Nature Catalysis, 2023, 6, 6-15.	34.4	61
906	The bio-inspired heterogeneous single-cluster catalyst Ni <sub>100</sub> @Fe <sub>4</sub> S <sub>4</sub> for enhanced electrochemical CO <sub>2</sub> reduction to CH <sub>4</sub> . Nanoscale, 2023, 15, 2756-2766.	5.6	17
907	Surface Engineering in MgCo <sub>2</sub> O <sub>4</sub> Spinel Oxide for an Improved Oxygen Evolution Reaction. ACS Sustainable Chemistry and Engineering, 2023, 11, 744-750.	6.7	6
908	In Situ Carbon-Encapsulated Copper-Doped Cerium Oxide Derived from MOFs for Boosting CO <sub>2</sub> -to-CH <sub>4</sub> Electro-Conversion. ACS Catalysis, 2023, 13, 1545-1553.	11.2	22
909	The Necessity for Multiscale <i>In Situ</i> Characterization of Tailored Electrocatalyst Nanoparticle Stability. Chemistry of Materials, 2023, 35, 386-394.	6.7	3
910	Recent Advances of Core-Shell Cu-Based Catalysts for the Reduction of CO <sub>2</sub> to C <sub>2</sub> + Products. Chemistry - an Asian Journal, 2023, 18, .	3.3	4
911	Machine Learning Assisted Understanding and Discovery of CO <sub>2</sub> Reduction Reaction Electrocatalyst. Journal of Physical Chemistry C, 2023, 127, 882-893.	3.1	12
912	Electrocatalysis Mechanism and Structure-Activity Relationship of Atomically Dispersed Metal-Nitrogen-Carbon Catalysts for Electrocatalytic Reactions. Small Methods, 2023, 7, .	8.6	7
913	Graphdiyne supported Ag@Cu tandem catalytic scheme for electrocatalytic reduction of CO <sub>2</sub> to C <sub>2</sub> + products. Nanoscale, 2023, 15, 2106-2113.	5.6	8

#	ARTICLE	IF	CITATIONS
914	Dual atomic catalysts from COF-derived carbon for CO <sub>2</sub> RR by suppressing HER through synergistic effects. , 2023, 5, .		18
915	Theoretical Screening of CO <sub>2</sub> Electroreduction over MOF-808-Supported Self-Adaptive Dual-Metal-Site Pairs. Inorganic Chemistry, 2023, 62, 930-941.	4.0	4
916	Promoting Electrolysis of Carbon Monoxide toward Acetate and 1-Propanol in Flow Electrolyzer. ACS Energy Letters, 0, , 935-942.	17.4	5
917	Coordination Polymer Electrocatalysts Enable Efficient CO <sub>2</sub> to Acetate Conversion. Advanced Materials, 2023, 35, .	21.0	18
918	Selectivity of CO <sub>2</sub> , carbonic acid and bicarbonate electroreduction over Iron-porphyrin catalyst: A DFT study. Electrochimica Acta, 2023, 442, 141784.	5.2	3
919	Coverage-driven selectivity switch from ethylene to acetate in high-rate CO <sub>2</sub> /CO electrolysis. Nature Nanotechnology, 2023, 18, 299-306.	31.5	59
920	Product Distribution Control Guided by a Microkinetic Analysis for CO Reduction at High-Flux Electrocatalysis Using Gas-Diffusion Cu Electrodes. ACS Catalysis, 2023, 13, 1791-1803.	11.2	8
921	A Decade of Electrocatalysis with Metal Aerogels: A Perspective. Catalysts, 2023, 13, 167.	3.5	4
922	Interfacial pH measurements during CO <sub>2</sub> reduction on gold using a rotating ring-disk electrode. Physical Chemistry Chemical Physics, 2023, 25, 2897-2906.	2.8	14
923	The spatial distribution of cobalt phthalocyanine and copper nanocubes controls the selectivity towards C <sub>2</sub> products in tandem electrocatalytic CO <sub>2</sub> reduction. Chemical Science, 2023, 14, 1097-1104.	7.4	8
924	Dual-atom Cu <sub>2</sub> /N-doped carbon catalyst for electroreduction of CO <sub>2</sub> to C <sub>2</sub> H <sub>4</sub> . Applied Catalysis A: General, 2023, 651, 119025.	4.3	13
925	Pause electrolysis for acidic CO <sub>2</sub> reduction on 3-dimensional Cu. Materials Reports Energy, 2023, 3, 100173.	3.2	2
926	Defect-Engineered Cu-Based Nanomaterials for Efficient CO <sub>2</sub> Reduction over Ultrawide Potential Window. ACS Nano, 2023, 17, 402-410.	14.6	14
927	Navigating CO utilization in tandem electrocatalysis of CO <sub>2</sub> . Trends in Chemistry, 2023, 5, 252-266.	8.5	4
928	Modulation of Nanobubble Behaviors through Ionic Liquids during CO <sub>2</sub> Electroreduction. ACS Sustainable Chemistry and Engineering, 2023, 11, 1909-1916.	6.7	2
929	Metal-organic frameworks embedded with nanoparticles for CO <sub>2</sub> capture and conversion. , 2023, , 261-275.		0
930	Self-Supporting Bi-Sb Bimetallic Nanoleaf for Electrochemical Synthesis of Formate by Highly Selective CO <sub>2</sub> Reduction. ACS Applied Materials & Interfaces, 2023, 15, 6942-6950.	8.0	14
931	Electrochemical CO <sub>2</sub> reduction: Progress and opportunity with alloying copper. Materials Reports Energy, 2023, 3, 100175.	3.2	5

#	ARTICLE	IF	CITATIONS
932	Unravelling the Effect of Activators used in The Synthesis of Biomassâ€Derived Carbon Electrocatalysts on the Electrocatalytic Performance for CO <sub>2</sub> Reduction. ChemSusChem, 2023, 16, .	6.8	6
933	Electrochemical CO <sub>2</sub> reduction catalyzed by organic/inorganic hybrids. EScience, 2023, 3, 100097.	41.6	15
934	Cuâ€Pd Bimetallic Gas Diffusion Electrodes for Electrochemical Reduction of CO <sub>2</sub> to C <sub>2</sub> + Products. Small Structures, 2023, 4, .	12.0	10
935	Rational design of atomic site catalysts for electrochemical CO <sub>2</sub> reduction. Chemical Communications, 2023, 59, 2682-2696.	4.1	1
936	Electrochemical-driven reconstruction for efficient reduction of carbon dioxide into alcohols. Chem Catalysis, 2023, 3, 100512.	6.1	4
937	Mitigating Electrode Inactivation during CO <sub>2</sub> Electrocatalysis in Aprotic Solvents with Alkali Cations. Journal of Physical Chemistry Letters, 2023, 14, 920-926.	4.6	6
938	Steering CO <sub>2</sub> electroreduction selectivity towards CH <sub>4</sub> and C <sub>2</sub> H <sub>4</sub> on a tannic acid-modified Cu electrode. Materials Chemistry Frontiers, 2023, 7, 1395-1402.	5.9	3
939	Highly Tunable Syngas Product Ratios Enabled by Novel Nanoscale Hybrid Electrolytes Designed for Combined CO <sub>2</sub> Capture and Electrochemical Conversion. Advanced Functional Materials, 2023, 33, .	14.9	2
940	Surface modification of gold by carbazole dendrimers for improved carbon dioxide electroreduction. Chemical Communications, 2023, 59, 3459-3462.	4.1	2
941	Direct observation of the local microenvironment in inhomogeneous CO <sub>2</sub> reduction gas diffusion electrodes <i>via</i> versatile pOH imaging. Energy and Environmental Science, 2023, 16, 1783-1795.	30.8	17
942	Recent advances in probing electrode processes at well-defined electrified solidâ€liquid interfaces. , 2024, , 124-135.		0
943	Cu <sup>+</sup> -Mediated CO Coordination for Promoting Câ€C Coupling for CO <sub>2</sub> and CO Electroreduction. ACS Applied Materials & Interfaces, 2023, 15, 13228-13237.	8.0	4
944	Preâ€Activation of CO <sub>2</sub> at Cobalt Phthalocyanineâ€Mg(OH) <sub>2</sub> Interface for Enhanced Turnover Rate. Advanced Functional Materials, 2023, 33, .	14.9	14
945	Stable CuIn alloy for electrochemical CO <sub>2</sub> reduction to CO with high-selectivity. Materials Today Physics, 2023, 33, 101050.	6.0	6
946	Insight into the Electrochemical CO <sub>2</sub> -to-Ethanol Conversion Catalyzed by Cu <sub>2</sub> S Nanocrystal-Decorated Cu Nanosheets. ACS Applied Materials & Interfaces, 2023, 15, 18857-18866.	8.0	7
947	Elucidating the Roles of Nafion/Solvent Formulations in Copper-Catalyzed CO <sub>2</sub> Electrolysis. ACS Catalysis, 2023, 13, 5336-5347.	11.2	10
948	MXene-based single atom catalysts for efficient CO <sub>2</sub> RR towards CO: A novel strategy for high-throughput catalyst design and screening. Chemical Engineering Journal, 2023, 461, 141936.	12.7	9
949	Designing Nâ€Confused Metalloporphyrinâ€Based Covalent Organic Frameworks for Enhanced Electrocatalytic Carbon Dioxide Reduction. Small, 2023, 19, .	10.0	5

#	ARTICLE	IF	CITATIONS
950	Carbonâ€‘Anchored Molybdenum Oxide Nanoclusters as Efficient Catalysts for the Electrosynthesis of Ammonia and Urea. <i>Angewandte Chemie - International Edition</i> , 2023, 62, .	13.8	16
951	CO <sub>2</sub> electrolysis: Advances and challenges in electrocatalyst engineering and reactor design. <i>Materials Reports Energy</i> , 2023, 3, 100194.	3.2	1
952	Restructuring and Activation of Cu(111) under Electrocatalytic Reduction Conditions. <i>Angewandte Chemie - International Edition</i> , 2023, 62, .	13.8	7
953	Electrochemistryâ€‘Based CO <sub>2</sub> Removal Technologies. <i>ChemSusChem</i> , 2023, 16, .	6.8	3
954	Restructuring and Activation of Cu(111) under Electrocatalytic Reduction Conditions. <i>Angewandte Chemie</i> , 0, , .	2.0	0
955	In-situ constructing Cu <sub>1</sub> Bi <sub>1</sub> bimetallic catalyst to promote the electroreduction of CO <sub>2</sub> to formate by synergistic electronic and geometric effects. <i>Journal of Energy Chemistry</i> , 2023, 79, 263-271.	12.9	7
956	SO <sub>4</sub> <sup>2-</sup> mediated CO <sub>2</sub> activation on metal electrode for efficient CO <sub>2</sub> electroreduction. <i>Chemical Engineering Journal</i> , 2023, 464, 142510.	12.7	5
957	Electrochemical reduction of CO <sub>2</sub> via a CuO/SnO <sub>2</sub> heterojunction catalyst. <i>Chemical Physics Letters</i> , 2023, 818, 140438.	2.6	3
958	Roadmap to the sustainable synthesis of polymers: From the perspective of CO <sub>2</sub> upcycling. <i>Progress in Materials Science</i> , 2023, 135, 101103.	32.8	5
959	CO <sub>2</sub> electrolysis toward Acetate: A review. <i>Current Opinion in Electrochemistry</i> , 2023, 39, 101253.	4.8	6
960	Optimized manufacturing of gas diffusion electrodes for CO <sub>2</sub> electroreduction with automatic spray pyrolysis. <i>Journal of Environmental Chemical Engineering</i> , 2023, 11, 109724.	6.7	10
961	Monotonically increasing relationship between conversion selectivity from CO <sub>2</sub> to CO and the interface area of Cu-Ag biphasic electrochemical catalyst. <i>Journal of Alloys and Compounds</i> , 2023, 947, 169638.	5.5	4
962	Efficiently electrochemical CO <sub>2</sub> reduction on molybdenum-nitrogen-carbon catalysts with optimized p-block axial ligands. <i>Chemical Engineering Science</i> , 2023, 273, 118638.	3.8	2
963	Insight into the surface-reconstruction of metalâ€‘organic framework-based nanomaterials for the electrocatalytic oxygen evolution reaction. <i>Coordination Chemistry Reviews</i> , 2023, 484, 215117.	18.8	7
964	Spectating the proton migration on catalyst with noninnocent ligand in aqueous electrochemical CO <sub>2</sub> reduction. <i>Applied Catalysis B: Environmental</i> , 2023, 329, 122542.	20.2	3
965	CO <sub>2</sub> electroreduction on single atom catalysts: Is water just a solvent?. <i>Journal of Catalysis</i> , 2023, 422, 1-11.	6.2	10
966	Ultrafine Cu nanoclusters confined within covalent organic frameworks for efficient electroreduction of CO <sub>2</sub> to CH <sub>4</sub> by synergistic strategy. <i>EScience</i> , 2023, 3, 100116.	41.6	8
967	Geometric and Electronic Structural Engineering of Isolated Ni Single Atoms for a Highly Efficient CO <sub>2</sub> Electroreduction. <i>Small</i> , 2023, 19, .	10.0	7



#	ARTICLE	IF	CITATIONS
968	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
969	Organic Additiveâ€derived Films on Cu Electrodes Promote Electrochemical CO <sub>2</sub> Reduction to C <sub>2</sub> + Products Under Strongly Acidic Conditions. <i>Angewandte Chemie</i> , 2023, 135, .	2.0	7
970	Organic Additiveâ€derived Films on Cu Electrodes Promote Electrochemical CO <sub>2</sub> Reduction to C <sub>2</sub> + Products Under Strongly Acidic Conditions. <i>Angewandte Chemie - International Edition</i> , 2023, 62, .	13.8	32
971	Modulating microenvironment of active moiety in Prussian blue analogues via surface coordination to enhance CO <sub>2</sub> photoreduction. <i>Separation and Purification Technology</i> , 2023, 311, 123230.	7.9	9
972	A Triptyceneâ€Based 2D MOF with Vertically Extended Structure for Improving the Electrocatalytic Performance of CO <sub>2</sub> to Methane. <i>Angewandte Chemie</i> , 2023, 135, .	2.0	6
973	A Triptyceneâ€Based 2D MOF with Vertically Extended Structure for Improving the Electrocatalytic Performance of CO <sub>2</sub> to Methane. <i>Angewandte Chemie - International Edition</i> , 2023, 62, .	13.8	22
974	Highly Ethylene-Selective Electroreduction CO <sub>2</sub> Over Cu Phosphate Nanostructures with Tunable Morphology. <i>Topics in Catalysis</i> , 2023, 66, 1527-1538.	2.8	2
975	Si Doping-Induced Electronic Structure Regulation of Single-Atom Fe Sites for Boosted CO <sub>2</sub> Electroreduction at Low Overpotentials. <i>Research</i> , 2023, 6, 0079.	5.7	15
976	Highâ€Concentration Electrosynthesis of Formic Acid/Formate from CO <sub>2</sub> : Reactor and Electrode Design Strategies. <i>Energy and Environmental Materials</i> , 2023, 6, .	12.8	11
977	Molecular Modulation of Sequestered Copper Sites for Efficient Electroreduction of Carbon Dioxide to Methane. <i>Advanced Functional Materials</i> , 2023, 33, .	14.9	10
978	Binderâ€Free Nâ€Functionalized Carbon Electrodes for Oxygen Evolution Reaction. <i>ChemElectroChem</i> , 2023, 10, .	3.4	2
979	Pyrrolic N anchored atomic Niâ€“N3â€“C catalyst for highly effective electroreduction of CO <sub>2</sub> into CO. <i>Carbon</i> , 2023, 206, 62-71.	10.3	6
980	Operando studies reveal active Cu nanograins for CO <sub>2</sub> electroreduction. <i>Nature</i> , 2023, 614, 262-269.	27.8	189
981	Comprehensive understanding and rational regulation of microenvironment for gasâ€involving electrochemical reactions. , 2023, 5, .		4
982	Tuning Structures and Microenvironments of Cu-Based Catalysts for Sustainable CO <sub>2</sub> and CO Electroreduction. <i>Accounts of Materials Research</i> , 2023, 4, 264-274.	11.7	15
983	Promoting water dissociation for efficient solar driven CO <sub>2</sub> electroreduction via improving hydroxyl adsorption. <i>Nature Communications</i> , 2023, 14, .	12.8	13
984	Bimetallic Synergy in Single-Atom Alloy Nanocatalysts for CO <sub>2</sub> Reduction to Ethylene. <i>ACS Applied Nano Materials</i> , 2023, 6, 2394-2402.	5.0	5
985	Nickel phthalocyanine modified fruit-peel-derived carbon framework selectively electro-catalyzes CO <sub>2</sub> -to-CO conversion. <i>Journal of Molecular Liquids</i> , 2023, 376, 121432.	4.9	0

#	ARTICLE	IF	CITATIONS
986	Asymmetric coordinated single-atom Pd sites for high performance CO <sub>2</sub> electroreduction and Zn–CO <sub>2</sub> battery. Chemical Engineering Journal, 2023, 461, 141865.	12.7	4
987	Selective Tandem CO <sub>2</sub> -to-C <sub>2+</sub> Alcohol Conversion at a Single-Crystal Au/Cu Bimetallic Interface. Journal of Physical Chemistry C, 2023, 127, 3470-3477.	3.1	0
988	Activation of CO <sub>2</sub> by Direct Cleavage Triggered by Photoelectrons on Rutile TiO <sub>2</sub> (110). Journal of Physical Chemistry Letters, 2023, 14, 1928-1933.	4.6	5
989	In-situ/operando Raman techniques for in-depth understanding on electrocatalysis. Chemical Engineering Journal, 2023, 461, 141939.	12.7	26
990	Enhanced Pomegranate–Structured SnO <sub>2</sub> Electrocatalysts for the Electrochemical CO <sub>2</sub> Reduction to Formate. ChemElectroChem, 2023, 10, .	3.4	2
991	Can Metal–Nitrogen–Carbon Single-Atom Catalysts Boost the Electroreduction of Carbon Monoxide?. JACS Au, 2023, 3, 943-952.	7.9	11
992	Chlorine-promoted copper catalysts for CO <sub>2</sub> electroreduction into highly reduced products. Cell Reports Physical Science, 2023, 4, 101294.	5.6	2
993	p–d Orbital Hybridization Induced by p-Block Metal-Doped Cu Promotes the Formation of C <sub>2+</sub> Products in Ampere-Level CO <sub>2</sub> Electroreduction. Journal of the American Chemical Society, 2023, 145, 4675-4682.	13.7	58
995	Electronic modulation of two-dimensional bismuth-based nanosheets for electrocatalytic CO <sub>2</sub> reduction to formate: A review. Materials Reports Energy, 2023, 3, 100181.	3.2	1
996	Unlocking nanotubular bismuth oxyiodide toward carbon-neutral electrosynthesis. , 2023, 1, 290-300.		2
997	Accurate descriptions of molecule-surface interactions in electrocatalytic CO <sub>2</sub> reduction on the copper surfaces. Nature Communications, 2023, 14, .	12.8	12
998	Defective Metal Oxides: Lessons from CO <sub>2</sub> RR and Applications in NO <sub>x</sub> RR. Advanced Materials, 2023, 35, .	21.0	16
999	Hydrophobic Ni@N–Doped TiO <sub>2</sub> Nanosheet Arrays–Carbon Paper Photocatalyst for CO <sub>2</sub> Photoreduction at Tri–Phase Interfaces. Advanced Sustainable Systems, 2023, 7, .	5.3	2
1000	Oxidation of metallic Cu by supercritical CO <sub>2</sub> and control synthesis of amorphous nano-metal catalysts for CO <sub>2</sub> electroreduction. Nature Communications, 2023, 14, .	12.8	17
1001	Room-temperature photosynthesis of propane from CO <sub>2</sub> with Cu single atoms on vacancy-rich TiO <sub>2</sub> . Nature Communications, 2023, 14, .	12.8	68
1002	Clarifying the local microenvironment of metal–organic frameworks and their derivatives for electrochemical CO <sub>2</sub> reduction: advances and perspectives. , 2023, 1, 179-229.		4
1003	Superhydrophobic and Conductive Wire Membrane for Enhanced CO <sub>2</sub> Electroreduction to Multicarbon Products. Angewandte Chemie, 2023, 135, .	2.0	1
1004	Superhydrophobic and Conductive Wire Membrane for Enhanced CO <sub>2</sub> Electroreduction to Multicarbon Products. Angewandte Chemie - International Edition, 2023, 62, .	13.8	20

#	ARTICLE	IF	CITATIONS
1005	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
1006	Electrochemical impedance spectroscopy for studying the SO <sub>2</sub> electrocatalytic oxidation on Pt electrodes. Electrochimica Acta, 2023, 446, 142125.	5.2	0
1007	Kinetic Understanding of Catalytic Selectivity and Product Distribution of Electrochemical Carbon Dioxide Reduction Reaction. JACS Au, 2023, 3, 905-918.	7.9	8
1008	Photoinduced CO <sub>2</sub> Conversion under Arctic Conditionsâ€”The High Potential of Plasmon Chemistry under Low Temperature. ACS Catalysis, 2023, 13, 3830-3840.	11.2	4
1009	Face mask-derived Ni, N-doped graphene sheets for electrocatalytic CO <sub>2</sub> -to-CO reduction. Journal of Solid State Electrochemistry, 2023, 27, 1261-1268.	2.5	1
1010	On the role of C <sub>4</sub> and C <sub>5</sub> products in electrochemical CO <sub>2</sub> reduction via copper-based catalysts. Energy and Environmental Science, 2023, 16, 1697-1710.	30.8	13
1011	Plasmonic Auâ€”Cu nanostructures: Synthesis and applications. Frontiers in Chemistry, 0, 11, .	3.6	2
1012	Accelerating electrochemical CO <sub>2</sub> reduction to multi-carbon products via asymmetric intermediate binding at confined nanointerfaces. Nature Communications, 2023, 14, .	12.8	53
1013	Molecular Views on Fischerâ€”Tropsch Synthesis. Chemical Reviews, 2023, 123, 5798-5858.	47.7	38
1014	Nanoconfinement effects on CuBi <sub>3</sub> alloy catalyst for efficient CO <sub>2</sub> electroreduction to formic acid. Journal of CO <sub>2</sub> Utilization, 2023, 70, 102456.	6.8	0
1015	Efficient Electrocatalytic Reduction of CO <sub>2</sub> to Ethanol Enhanced by Spacing Effect of Cu <sub>1-x</sub> Se in Cu <sub>2-x</sub> Se Nanosheets. Advanced Functional Materials, 2023, 33, .	14.9	6
1016	Carbonâ€”Anchored Molybdenum Oxide Nanoclusters as Efficient Catalysts for the Electrosynthesis of Ammonia and Urea. Angewandte Chemie, 2023, 135, .	2.0	0
1017	Rational design and synergistic effect of ultrafine Ag nanodots decorated fish-scale-like Zn nanoleaves for highly selective electrochemical CO <sub>2</sub> reduction. Nano Research, 2023, 16, 8910-8918.	10.4	3
1018	Bi <sub>2</sub> S <sub>3</sub> nanorods grown on multiwalled carbon nanotubes as highly active catalysts for CO <sub>2</sub> electroreduction to formate. Physical Chemistry Chemical Physics, 2023, 25, 9198-9207.	2.8	2
1019	Selectivity switching between CO and formate for CO <sub>2</sub> reduction on Sb modified amorphous ZnO by electronic effect. Nano Research, 2023, 16, 12144-12152.	10.4	3
1020	Upgrading CO <sub>2</sub> into acetate on Bi <sub>2</sub> O <sub>3</sub> @carbon felt integrated electrode via coupling electrocatalysis with microbial synthesis. SusMat, 2023, 3, 235-247.	14.9	10
1021	Modulating microenvironments to enhance CO <sub>2</sub> electroreduction performance. EScience, 2023, 3, 100119.	41.6	11
1022	Tailoring the Catalytic Microenvironment of Cu <sub>2</sub> O with SiO <sub>2</sub> to Enhance C <sub>2+</sub> Product Selectivity in CO <sub>2</sub> Electroreduction. ACS Catalysis, 2023, 13, 4444-4453.	11.2	25

#	ARTICLE	IF	CITATIONS
1023	Ultrathin Dendritic Pd-Ag Nanoplates for Efficient and Durable Electrocatalytic Reduction of CO <sub>2</sub> to Formate. Chemistry - an Asian Journal, 2023, 18, .	3.3	5
1024	Modulation of oxygen-etching for generating nickel single atoms for efficient electroreduction of CO <sub>2</sub> to syngas (CO/H <sub>2</sub> ). Journal of Catalysis, 2023, 421, 332-341.	6.2	4
1025	Two-Dimensional Mesoporous Materials for Energy Storage and Conversion: Current Status, Chemical Synthesis and Challenging Perspectives. Electrochemical Energy Reviews, 2023, 6, .	25.5	15
1026	Membrane Electrode Assembly for Electrocatalytic CO <sub>2</sub> Reduction: Principle and Application. Angewandte Chemie - International Edition, 2023, 62, .	13.8	30
1027	Membrane Electrode Assembly for Electrocatalytic CO <sub>2</sub> Reduction: Principle and Application. Angewandte Chemie, 2023, 135, .	2.0	3
1028	Biohybrid CO <sub>2</sub> electrolysis for the direct synthesis of polyesters from CO <sub>2</sub> . Proceedings of the National Academy of Sciences of the United States of America, 2023, 120, .	7.1	8
1029	Ceria-Mediated Dynamic Sn <sup>0</sup> /Sn <sup>II</sup> Redox Cycle for CO <sub>2</sub> Electroreduction. ACS Catalysis, 2023, 13, 5033-5042.	11.2	23
1030	Combining First-Principles Kinetics and Experimental Data to Establish Guidelines for Product Selectivity in Electrochemical CO <sub>2</sub> Reduction. ACS Catalysis, 2023, 13, 5062-5072.	11.2	14
1031	Cationic Copper Species Stabilized by Zinc during the Electrocatalytic Reduction of CO <sub>2</sub> Revealed by In Situ X-Ray Spectroscopy. Advanced Sustainable Systems, 2023, 7, .	5.3	6
1032	Electroreduction of CO <sub>2</sub> : Advances in the Continuous Production of Formic Acid and Formate. ACS Energy Letters, 2023, 8, 1992-2024.	17.4	48
1033	<i>In situ</i> formation of Cu-Sn bimetallic catalysts for CO <sub>2</sub> electroreduction to formate with high efficiency. Catalysis Science and Technology, 2023, 13, 2303-2307.	4.1	3
1034	Understanding Trends in Electrochemical Methanol Oxidation Reaction Activity on a Single Transition-Metal Atom Embedded in N-Coordinated Graphene Catalysts. Journal of Physical Chemistry Letters, 2023, 14, 3384-3390.	4.6	2
1035	Adsorption of ions and solutes at electrified metal-aqueous interfaces: Insights from THz spectroscopy and simulations. , 2024, , 66-80.		0
1036	Recent progress of Cu-based electrocatalysts for upgrading biomass-derived furanic compounds. Catalysis Science and Technology, 2023, 13, 2899-2921.	4.1	4
1037	Electrochemical synthesis of propylene from carbon dioxide on copper nanocrystals. Nature Chemistry, 2023, 15, 705-713.	13.6	26
1038	Oxide-Derived Bismuth as an Efficient Catalyst for Electrochemical Reduction of Flue Gas. Small, 2023, 19, .	10.0	7
1039	Stabilizing Copper by a Reconstruction-Resistant Atomic Cu-O-Si Interface for Electrochemical CO <sub>2</sub> Reduction. Journal of the American Chemical Society, 0, , .	13.7	12
1040	Synergetic enhancement of selectivity for electroreduction of CO <sub>2</sub> to C <sub>2</sub> H <sub>4</sub> by crystal facet engineering and tandem catalysis over silver-incorporated-cuprous oxides. Materials Reports Energy, 2023, 3, 100195.	3.2	6

#	ARTICLE	IF	CITATIONS
1041	Selective CO <sub>2</sub> Electroreduction to Formate on Polypyrrole-Modified Oxygen Vacancy-Rich Bi <sub>2</sub> O <sub>3</sub> Nanosheet Precatalysts by Local Microenvironment Modulation. Small, 2023, 19, .	10.0	9
1042	The role of machine learning in carbon neutrality: Catalyst property prediction, design, and synthesis for carbon dioxide reduction. EScience, 2023, 3, 100136.	41.6	5
1043	Enriching Reaction Intermediates in Multishell Structured Copper Catalysts for Boosted Propanol Electrosynthesis from Carbon Monoxide. ACS Nano, 2023, 17, 8663-8670.	14.6	5
1044	Ionic liquids enhanced highly efficient photoelectrochemical reduction of CO <sub>2</sub> to ethanol over Cu <sub>2</sub> O/TiO <sub>2</sub> nanoarrays. Molecular Catalysis, 2023, 543, 113161.	2.0	3
1045	Cu Nanoparticles for Electrochemical Reduction of CO <sub>2</sub> to <i>n</i> -BuOH. Advanced Energy Materials, 2023, 13, .	19.5	7
1046	Superheterojunction covalent organic frameworks: Supramolecular synergetic charge transfer for highly efficient photocatalytic CO <sub>2</sub> reduction. Applied Catalysis B: Environmental, 2023, 333, 122782.	20.2	12
1047	Electrochemical CO <sub>2</sub> Reduction on Copper in Propylene Carbonate: Influence of Water Content and Temperature on the Product Distribution. Energy Technology, 2023, 11, .	3.8	2
1048	Intrinsic carbon structural imperfections for enhancing energy conversion electrocatalysts. Chemical Engineering Journal, 2023, 466, 143060.	12.7	7
1049	Hydroxypillar[5]arene-Confined Silver Nanocatalyst for Selective Electrochemical Reduction of CO <sub>2</sub> to Ethanol. Advanced Functional Materials, 2023, 33, .	14.9	5
1050	Maximizing the utilization of single-atom sites on carbon-based catalysts for efficient CO <sub>2</sub> electroreduction with ultrahigh turnover frequency. Applied Catalysis B: Environmental, 2023, 333, 122801.	20.2	5
1051	CO <sub>2</sub> Conversion Toward Real-World Applications: Electrocatalysis versus CO <sub>2</sub> Batteries. Advanced Functional Materials, 2023, 33, .	14.9	12
1052	Electrochemically stable frustrated Lewis pairs on dual-metal hydroxides for electrocatalytic CO <sub>2</sub> reduction. Dalton Transactions, 0, , .	3.3	1
1053	Applications of Metal-Organic Frameworks and Their Derivatives in Electrochemical CO <sub>2</sub> Reduction. Nano-Micro Letters, 2023, 15, .	27.0	23
1054	Enhancing catalytic activity of CO <sub>2</sub> electrolysis by building efficient and durable heterostructure for solid oxide electrolysis cell cathode. Journal of Power Sources, 2023, 574, 233134.	7.8	24
1055	Selective electrocatalytic carbon dioxide reduction with electrochemically stable frustrated Lewis pairs. Cell Reports Physical Science, 2023, 4, 101406.	5.6	4
1056	Recent advances in selective electrochemical reduction of CO <sub>2</sub> at elevated pressures. Scientia Sinica Chimica, 2023, , .	0.4	0
1057	Synchronous bio-oil upgrading and CO <sub>2</sub> fixation by co-electrolysis. Energy Conversion and Management, 2023, 288, 117135.	9.2	1
1058	How water molecules occupying the active site of a single-atom catalyst affect the electrochemical reduction of carbon dioxide. Nano Research, 2023, 16, 9091-9098.	10.4	9

#	ARTICLE	IF	CITATIONS
1059	Surface modification of Cu <sub>2</sub> O with stabilized Cu <sup>+</sup> for highly efficient and stable CO <sub>2</sub> electroreduction to C <sub>2</sub> <sup>+</sup> chemicals. Journal of Energy Chemistry, 2023, 84, 277-285.	12.9	12
1060	Modulation of the Coordination Environment of Copper for Stable CO <sub>2</sub> Electroreduction with Tunable Selectivity. ACS Applied Materials & Interfaces, 2023, 15, 25516-25523.	8.0	5
1061	Revisiting Reaction Kinetics of CO Electroreduction to C <sub>2</sub> <sup>+</sup> Products in a Flow Electrolyzer. Energy & Fuels, 2023, 37, 7904-7910.	5.1	2
1062	High-Density Cobalt Single-Atom Catalysts for Enhanced Oxygen Evolution Reaction. Journal of the American Chemical Society, 2023, 145, 8052-8063.	13.7	57
1063	Regulation of Electrocatalytic Behavior by Axial Oxygen Enhances the Catalytic Activity of CoN <sub>4</sub> Sites for CO <sub>2</sub> Reduction. Small, 2023, 19, .	10.0	3
1064	Controllable Crystallization of Two-Dimensional Bi Nanocrystals with Morphology-Boosted CO <sub>2</sub> Electroreduction in Wide pH Environments. Small, 2023, 19, .	10.0	2
1065	CO <sub>2</sub> electrolysis towards large scale operation: rational catalyst and electrolyte design for efficient flow-cell. Chemical Communications, 2023, 59, 6774-6795.	4.1	4
1066	Surface hydroxide promotes CO <sub>2</sub> electrolysis to ethylene in acidic conditions. Nature Communications, 2023, 14, .	12.8	26
1067	Hollow Hierarchical Cu <sub>2</sub> O-Derived Electrocatalysts Steering CO <sub>2</sub> Reduction to Multi-Carbon Chemicals at Low Overpotentials. Advanced Materials, 2023, 35, .	21.0	6
1068	Porifera-like nickel nanodendrite for the efficient electrosynthesis of C-N compounds from carbon dioxide and nitrate anions. Journal of Materials Chemistry A, 2023, 11, 11495-11506.	10.3	1
1069	Defect engineering of high-loading single-atom catalysts for electrochemical carbon dioxide reduction. Materials Reports Energy, 2023, 3, 100197.	3.2	1
1070	Constrained C <sub>2</sub> adsorbate orientation enables CO-to-acetate electroreduction. Nature, 2023, 617, 724-729.	27.8	41
1071	Promoting electrocatalytic CO <sub>2</sub> reduction via anchoring quaternary piperidinium cations onto copper electrode. Electrochimica Acta, 2023, 458, 142509.	5.2	5
1072	Creating interfaces of Cu <sub>0</sub> /Cu <sup>+</sup> in oxide-derived copper catalysts for electrochemical CO <sub>2</sub> reduction to multi-carbon products. Journal of Colloid and Interface Science, 2023, 645, 735-742.	9.4	4
1073	Understanding the complexity in bridging thermal and electrocatalytic methanation of CO <sub>2</sub> . Chemical Society Reviews, 2023, 52, 3627-3662.	38.1	15
1074	The origins of catalytic selectivity for the electrochemical conversion of carbon dioxide to methanol. Nano Research, 2024, 17, 5-17.	10.4	1
1076	Efficient CO Electroreduction to Methanol by CuRh Alloys with Isolated Rh Sites. ACS Catalysis, 2023, 13, 7170-7177.	11.2	5
1077	Unprecedented energy storage in metal-organic complexes via constitutional isomerism. Chemical Science, 2023, 14, 6383-6392.	7.4	3



#	ARTICLE	IF	CITATIONS
1078	Electroreduction of CO <sub>2</sub> to C <sub>2</sub> H <sub>4</sub> Regulated by Spacing Effect: Mechanistic Insights from DFT Studies. Energy Material Advances, 2023, 4, .	11.0	1
1079	From Traditional to New Benchmark Catalysts for CO <sub>2</sub> Electroreduction. Nanomaterials, 2023, 13, 1723.	4.1	1
1080	Copper-based metal-organic frameworks for CO <sub>2</sub> reduction: selectivity trends, design paradigms, and perspectives. Catalysis Science and Technology, 2023, 13, 3740-3761.	4.1	2
1081	Lewis Acids and Electron-Withdrawing Ligands Accelerate CO Coordination to Dinuclear Cu <sup>I</sup> Compounds. Inorganic Chemistry, 2023, 62, 9146-9157.	4.0	0
1082	Zn-In-O electrocatalysts with co-existing ZnO and In <sub>2</sub> O <sub>3</sub> phases for efficient reduction of CO <sub>2</sub> to formate through sacrificial mechanism. Journal of Catalysis, 2023, 424, 211-220.	6.2	6
1083	Microkinetic studies for mechanism interpretation in electrocatalytic CO and CO <sub>2</sub> reduction: current and perspective. , 2023, 1, 590-618.		0
1084	Single Atom Bi Decorated Copper Alloy Enables C <sup>+</sup> C Coupling for Electrocatalytic Reduction of CO <sub>2</sub> into C <sub>2</sub> + Products**. Angewandte Chemie, 2023, 135, .	2.0	0
1085	Single Atom Bi Decorated Copper Alloy Enables C <sup>+</sup> C Coupling for Electrocatalytic Reduction of CO <sub>2</sub> into C <sub>2</sub> + Products**. Angewandte Chemie - International Edition, 2023, 62, .	13.8	14
1086	Local microenvironment tuning induces switching between electrochemical CO <sub>2</sub> reduction pathways. Journal of Materials Chemistry A, 2023, 11, 13493-13501.	10.3	5
1087	Spectroelectrochemical Investigation of the Local Alkaline Environment on the Surface-Nanostructured Au for the Conversion of CO <sub>2</sub> to CO. Journal of Physical Chemistry C, 2023, 127, 10968-10976.	3.1	1
1088	A conductive catecholate-based framework coordinated with unsaturated bismuth boosts CO <sub>2</sub> electroreduction to formate. Chemical Science, 2023, 14, 6860-6866.	7.4	6
1089	Boosting selectivity towards formate production using CuAl alloy nanowires by altering the CO <sub>2</sub> reduction reaction pathway. Chemical Communications, 2023, 59, 7974-7977.	4.1	8
1090	Boron- and Nitrogen-Codoped Diamond Electrodes for the Improved Reactivity of Electrochemical CO <sub>2</sub> Reduction Reaction. ACS Sustainable Chemistry and Engineering, 2023, 11, 8495-8502.	6.7	4
1091	Enhanced CO Affinity on Cu Facilitates CO <sub>2</sub> Electroreduction toward Multi-Carbon Products. Small, 2023, 19, .	10.0	2
1092	Theoretical study of CO <sub>2</sub> electrochemical reduction on Cu(111) and Sn@Cu(111) surface in presence of water. Molecular Catalysis, 2023, 546, 113272.	2.0	0
1093	Efficient Electromethanation from CO <sub>2</sub> on Monodisperse Cu-Based Catalysts. Energy & Fuels, 2023, 37, 8707-8713.	5.1	2
1094	Acidic CO <sub>2</sub> Electrolysis Addressing the "Alkalinity Issue" and Achieving High CO <sub>2</sub> Utilization. Chemistry - A European Journal, 2023, 29, .	3.3	7
1095	Perovskite-Derived Bismuth with I <sup>+</sup> and Cs <sup>+</sup> Dual Modification for High-Efficiency CO <sub>2</sub> to Formate Electrosynthesis and Al-CO <sub>2</sub> Batteries. Advanced Materials, 2023, 35, .	21.0	5

#	ARTICLE	IF	CITATIONS
1096	CO Electroreduction Mechanism on Single-Atom Zn (101) Surfaces: Pathway to C2 Products. <i>Molecules</i> , 2023, 28, 4606.	3.8	0
1097	Conversion of carbon dioxide into solid carbon materials – a mini review. <i>Catalysis Science and Technology</i> , 2023, 13, 3891-3900.	4.1	4
1098	Strategies for enhancing electrochemical CO <sub>2</sub> reduction to multi-carbon fuels on copper. , 2023, 1, 100014.		15
1099	In-situ spectroscopic probe of the intrinsic structure feature of single-atom center in electrochemical CO/CO <sub>2</sub> reduction to methanol. <i>Nature Communications</i> , 2023, 14, .	12.8	21
1100	Rare-Earth-Modified Metal-Organic Frameworks and Derivatives for Photo/Electrocatalysis. <i>Small</i> , 2023, 19, .	10.0	6
1101	Insights into the dynamic evolution of catalytic active centers of the electrocatalytic carbon dioxide reduction reaction. <i>Coordination Chemistry Reviews</i> , 2023, 492, 215273.	18.8	0
1102	Inverted Region in Electrochemical Reduction of CO <sub>2</sub> Induced by Potential-Dependent Pauli Repulsion. <i>Journal of the American Chemical Society</i> , 2023, 145, 14267-14275.	13.7	11
1103	Two bimetal-doped (Fe/Co, Mn) polyoxometalate-based hybrid compounds for visible-light-driven CO <sub>2</sub> reduction. <i>Dalton Transactions</i> , 2023, 52, 9465-9471.	3.3	1
1104	Unraveling the interfacial effect of PdBi bimetallic catalysts on promoting CO <sub>2</sub> electroreduction to formate. <i>Nano Research</i> , 2023, 16, 10822-10831.	10.4	6
1106	Barriers and opportunities for the deployment of CO <sub>2</sub> electrolysis in net-zero emissions energy systems. <i>Joule</i> , 2023, 7, 1111-1133.	24.0	4
1107	InBi Bimetallic Sites for Efficient Electrochemical Reduction of CO <sub>2</sub> to HCOOH. <i>Small</i> , 2023, 19, .	10.0	9
1108	Assessment of the Degradation Mechanisms of Cu Electrodes during the CO <sub>2</sub> Reduction Reaction. <i>ACS Applied Materials &amp; Interfaces</i> , 2023, 15, 30052-30059.	8.0	7
1109	Potential-Dependent Temporal Dynamics of CO Surface Concentration in Electrocatalytic CO <sub>2</sub> Reduction. <i>Journal of Physical Chemistry Letters</i> , 2023, 14, 5754-5759.	4.6	1
1110	Enrichment of reactants and intermediates for electrocatalytic CO <sub>2</sub> reduction. <i>Chemical Society Reviews</i> , 2023, 52, 4343-4380.	38.1	31
1111	Reveal the role of inert groups in donor-acceptor conjugated polymer for two opposite photocatalytic reactions. <i>Applied Catalysis B: Environmental</i> , 2023, 337, 123004.	20.2	3
1112	Binary alloys for electrocatalytic CO <sub>2</sub> conversion to hydrocarbons and alcohols. <i>Applied Surface Science</i> , 2023, 635, 157734.	6.1	1
1113	Molten salt assisted synthesis of Single-Atom nickel catalysts for electroreduction of CO <sub>2</sub> with nearly 100% CO selectivity. <i>Applied Surface Science</i> , 2023, 636, 157828.	6.1	4
1114	Ligand-Controlled Electroreduction of CO <sub>2</sub> to Formate over Facet-Defined Bimetallic Sulfide Nanoplates. <i>Nano Letters</i> , 2023, 23, 5911-5918.	9.1	2

#	ARTICLE	IF	CITATIONS
1115	Hollow Nitrogen-Doped porous carbon spheres decorated with atomically dispersed Ni-N3 sites for efficient electrocatalytic CO2 reduction. Journal of Colloid and Interface Science, 2023, 649, 571-580.	9.4	4
1116	Cation effects on electrochemical CO2 reduction reaction. , 2023, 1, 100032.		2
1117	Nickel-carbide interface encapsulated in nitrogen-doped carbon for efficient electrocatalytic CO2 reduction. Applied Surface Science, 2023, 637, 157897.	6.1	0
1118	Regulating efficient and selective single-atom catalysts for electrocatalytic CO2 reduction. ChemPhysChem, 0, , .	2.1	0
1119	Progress of electrocatalytic urea synthesis: strategic design, reactor engineering, mechanistic details and techno-commercial study. Materials Chemistry Frontiers, 2023, 7, 3820-3854.	5.9	6
1120	Elucidating the origin of catalytic activity of nitrogen-doped carbon coated nickel toward electrochemical reduction of CO2. Journal of Colloid and Interface Science, 2023, 650, 132-142.	9.4	2
1121	Research progress in graphene based single atom catalysts in recent years. Fuel Processing Technology, 2023, 250, 107879.	7.2	4
1122	Electrochemical system design for CO2 conversion: A comprehensive review. Journal of Environmental Chemical Engineering, 2023, 11, 110467.	6.7	4
1123	The first-principles calculation to predict electroreduction of CO2 to ethanol over Al/Cu(111) bimetallic catalyst. Molecular Catalysis, 2023, 547, 113340.	2.0	2
1124	The ABC of Generalized Coordination Numbers and Their Use as a Descriptor in Electrocatalysis. Advanced Science, 2023, 10, .	11.2	10
1125	Chemical and Structural Evolution of AgCu Catalysts in Electrochemical CO <sub>2</sub> Reduction. Journal of the American Chemical Society, 2023, 145, 10116-10125.	13.7	33
1126	Regulation of three-dimensional hydrophobic state of copper dendrite adjusts the distribution of liquid products from electrochemical reduction of CO2. Applied Surface Science, 2023, 628, 157369.	6.1	4
1127	Standard-state entropies and their impact on the potential-dependent apparent activation energy in electrocatalysis. Journal of Energy Chemistry, 2023, 83, 247-254.	12.9	4
1128	Precise Site-Hydrophobicity Modulation for Boosting High-Performance CO <sub>2</sub> Electroreduction. ACS Catalysis, 2023, 13, 6652-6660.	11.2	7
1129	Strategies for local electronic structure engineering of two-dimensional electrocatalysts. Chinese Journal of Catalysis, 2023, 48, 1-14.	14.0	2
1130	Efficient strategies for promoting the electrochemical reduction of CO2 to C2+ products over Cu-based catalysts. Chinese Journal of Catalysis, 2023, 48, 32-65.	14.0	13
1131	Confinement of an alkaline environment for electrocatalytic CO <sub>2</sub> reduction in acidic electrolytes. Chemical Science, 2023, 14, 5602-5607.	7.4	10
1132	Confinement of SnCu <sub>x</sub> O <sub>2+x</sub> Nanoclusters in Zeolites for High-Efficient Electrochemical Carbon Dioxide Reduction. Advanced Energy Materials, 2023, 13, .	19.5	7

#	ARTICLE	IF	CITATIONS
1133	From bulk metals to single-atoms: design of efficient catalysts for the electroreduction of CO <sub>2</sub> . Chemical Communications, 2023, 59, 7731-7742.	4.1	3
1134	Controlling product selectivity in hybrid gas/liquid reactors using gas conditions, voltage, and temperature. Nanoscale, 2023, 15, 9423-9431.	5.6	0
1135	Hydrophobic, Ultrastable Cu <sup>+</sup> for Robust CO <sub>2</sub> Electroreduction to C <sub>2</sub> Products at Ampere-Current Levels. Journal of the American Chemical Society, 2023, 145, 11323-11332.	13.7	34
1136	Neighboring effect in single-atom catalysts for the electrochemical carbon dioxide reduction reaction. EScience, 2024, 4, 100140.	41.6	5
1137	Influencing electrocatalytic processes through topographically disordered atomic sites. Chem Catalysis, 2023, 3, 100621.	6.1	4
1138	A copper coordination polymer precatalyst with asymmetric building units for selective CO <sub>2</sub> -to-C <sub>2</sub> H <sub>4</sub> electrolysis. Journal of Materials Chemistry A, 2023, 11, 12121-12129.	10.3	2
1139	Tuning the Hydroxyl Density of MXene to Regulate the Electrochemical Performance of Anchored Cobalt Phthalocyanine for CO <sub>2</sub> Reduction. ACS Applied Materials & Interfaces, 2023, 15, 24346-24353.	8.0	4
1140	The smallest superatom Au <sub>4</sub> (PPh <sub>3</sub> ) <sub>4</sub> with two free electrons: synthesis, structure analysis, and electrocatalytic conversion of CO <sub>2</sub> to CO. Nanoscale Advances, 2023, 5, 3287-3292.	4.6	1
1141	Photoelectrochemical and electrochemical CO <sub>2</sub> reduction to formate on post-transition metal block-based catalysts. Sustainable Energy and Fuels, 2023, 7, 2545-2567.	4.9	0
1142	Joint Kinetic/In Situ Spectrometric Investigation of the Multielectron/Multiproton-Transfer-Based Adsorption Electrode Process of Phosphate Anions on the Ir(111) Surface across a Comprehensive pH Range. Journal of Physical Chemistry C, 2023, 127, 10341-10354.	3.1	0
1143	Electrode and cell design for CO <sub>2</sub> reduction: A viewpoint. Catalysis Today, 2023, 421, 114217.	4.4	6
1144	Pressure dependence in aqueous-based electrochemical CO <sub>2</sub> reduction. Nature Communications, 2023, 14, .	12.8	13
1145	Unveiling the effects of ions in the electric double layer on the carbon dioxide reduction reaction. Materials Chemistry Frontiers, 2023, 7, 2750-2763.	5.9	0
1146	Enabling heterogeneous catalysis to achieve carbon neutrality: Directional catalytic conversion of CO <sub>2</sub> into carboxylic acids. , 0, , .		22
1147	Crystal facet-dependent product selectivity of CO <sub>2</sub> reduction reaction on indium revealed by first-principles calculations. Surface Science, 2023, 735, 122333.	1.9	0
1148	New paradigm of in situ characterization for next-generation CO <sub>2</sub> electroreduction towards multi-carbon products over Cu-based catalysts. , 2023, 1, 100027.		1
1149	Hydrogenation of CaCO <sub>3</sub> for Methane by a Liquid Organic Hydrogen Carrier in the Presence of the Catalyst Precursor NiCO <sub>3</sub> . Industrial & Engineering Chemistry Research, 2023, 62, 10721-10728.	3.7	0
1150	Electrochemical CO <sub>2</sub> Reduction over Copper Phthalocyanine Derived Catalysts with Enhanced Selectivity for Multicarbon Products. ACS Catalysis, 2023, 13, 9326-9335.	11.2	12

#	ARTICLE	IF	CITATIONS
1151	Porous Mo <sub>3</sub> P/Mo Nanorods as Efficient Mott-Schottky Cathode Catalysts for Low Polarization Li-CO <sub>2</sub> Battery. Small, 2023, 19, .	10.0	4
1152	Direct Imaging of Local pH Reveals Bubble-Induced Mixing in a CO <sub>2</sub> Electrolyzer. ACS Sustainable Chemistry and Engineering, 2023, 11, 10430-10440.	6.7	1
1153	Recent advances in heterogeneous catalysis of solar-driven carbon dioxide conversion. Journal of Environmental Sciences, 2024, 140, 165-182.	6.1	0
1154	Ultrastable Cu-Based Dual-Channel Heterowire for the Switchable Electro-/Photocatalytic Reduction of CO <sub>2</sub> . Advanced Science, 2023, 10, .	11.2	2
1155	Theoretical Study on Improving the CO <sub>2</sub> Reduction Performance of the Cu <sub>2</sub> ZnGeS <sub>4</sub> Photoelectrode via Doping and Surface Engineering. Journal of Physical Chemistry C, 2023, 127, 12931-12941.	3.1	1
1156	Porous Indium Nanocrystals on Conductive Carbon Nanotube Networks for High-Performance CO <sub>2</sub> to Formate Electrocatalytic Conversion. Energy and Environmental Materials, 0, , .	12.8	1
1157	Atomic nickel on controllable mesoporous carbon nanospheres to boost electrochemical carbon dioxide reduction. Ionics, 0, , .	2.4	0
1158	Two-dimensional MBene: a comparable catalyst to MXene for effective CO <sub>2</sub> RR towards C <sub>1</sub> products. Physical Chemistry Chemical Physics, 2023, 25, 18952-18959.	2.8	4
1159	Photoelectrochemical CO <sub>2</sub> electrolyzers: From photoelectrode fabrication to reactor configuration. Journal of Energy Chemistry, 2023, 85, 455-480.	12.9	7
1160	Double-Atom Catalysts Featuring Inverse Sandwich Structure for CO <sub>2</sub> Reduction Reaction: A Synergetic First-Principles and Machine Learning Investigation. ACS Catalysis, 2023, 13, 9616-9628.	11.2	12
1161	Atomically dispersed Fe in a C <sub>2</sub> N-derived matrix for the reduction of CO <sub>2</sub> to CO. Electrochimica Acta, 2023, 463, 142855.	5.2	1
1162	Mechanistic Insights into the Formation of Hydroxyacetone, Acetone, and 1,2-Propanediol from Electrochemical CO <sub>2</sub> Reduction on Copper. Journal of the American Chemical Society, 2023, 145, 15343-15352.	13.7	2
1163	Spatially and temporally understanding dynamic solid-electrolyte interfaces in carbon dioxide electroreduction. Chemical Society Reviews, 2023, 52, 5013-5050.	38.1	21
1164	Electrochemical Carbon Dioxide Reduction to Ethylene: From Mechanistic Understanding to Catalyst Surface Engineering. Nano-Micro Letters, 2023, 15, .	27.0	11
1165	Simultaneous Defect and Size Control of Metal-Organic Framework Nanostructures for Highly Efficient Carbon Dioxide Electroreduction to Multicarbon Products. , 2023, 5, 2121-2130.		4
1166	Sub-nanomaterials for Photo/Electro-catalytic CO <sub>2</sub> Reduction: Achievements, Challenges, and Opportunities. Chemical Research in Chinese Universities, 2023, 39, 580-598.	2.6	2
1167	Selective ethane production from carbon dioxide enabled by Cu-Ga plates with large-scale manufacturing capability. Applied Surface Science, 2023, 638, 158025.	6.1	0
1168	Solvent Effect on Electrochemical CO <sub>2</sub> Reduction Reaction on Nanostructured Copper Electrodes. Journal of Physical Chemistry C, 2023, 127, 14518-14527.	3.1	2

#	ARTICLE	IF	CITATIONS
1169	Trace-Level Cobalt Dopants Enhance CO <sub>2</sub> Electroreduction and Ethylene Formation on Copper. ACS Energy Letters, 2023, 8, 3356-3364.	17.4	9
1170	High catalytic activity of tin oxide antimony supported bismuth heterogeneous catalyst with stable Bi-O structure for the electroreduction of CO <sub>2</sub> to formic acid. Electrochimica Acta, 2023, 464, 142893.	5.2	0
1171	The Economics of Electrochemical Syngas Production via Direct Air Capture. ACS Energy Letters, 2023, 8, 3398-3403.	17.4	3
1172	Intermediates-Induced CO <sub>2</sub> reduction reaction activity at single-atom M-N <sub>2</sub> (M = Fe, Co, Ni) sites. ChemPhysChem, 0, , .	2.1	0
1173	High-Performance Electrocatalytic CO <sub>2</sub> Reduction for CO Generation Using Hydrophobic Porous Carbon Supported Au. ACS Sustainable Chemistry and Engineering, 2023, 11, 11229-11238.	6.7	5
1174	Tunable functional groups on MXene regulating the catalytic property of anchored cobalt phthalocyanine for electrochemical CO <sub>2</sub> reduction. Inorganic Chemistry Frontiers, 2023, 10, 5371-5378.	6.0	3
1175	Interfacial electrochemical-chemical reaction coupling for efficient olefin oxidation to glycols. Joule, 2023, 7, 1887-1901.	24.0	4
1176	Catalytic heterostructured materials for CO <sub>2</sub> mitigation and conversion into fuels: a renewable energy approach towards a sustainable environment. Sustainable Energy and Fuels, 2023, 7, 4354-4395.	4.9	5
1177	Enriching Metal-Oxygen Species and Phosphate Modulating of Active Sites for Robust Electrocatalytic CO <sub>2</sub> Reduction. Advanced Materials, 2023, 35, .	21.0	6
1178	Bridging Trans-Scale Electrode Engineering for Mass CO <sub>2</sub> Electrolysis. JACS Au, 0, , .	7.9	0
1179	Determination of Kinematic Viscosity of Mg(ClO <sub>4</sub> ) <sub>2</sub> and KOH Brines Saturated with CO <sub>2</sub> at Sub-Zero Temperatures. Molecules, 2023, 28, 5641.	3.8	0
1180	Electrochemical Reduction of Carbon Dioxide to Methane at Transition Metal-Doped 1T-MX <sub>2</sub> Monolayers. Journal of Physical Chemistry C, 2023, 127, 15035-15042.	3.1	3
1181	MOF-based materials for electrochemical reduction of carbon dioxide. Coordination Chemistry Reviews, 2023, 494, 215333.	18.8	8
1183	Surface passivation for highly active, selective, stable, and scalable CO <sub>2</sub> electroreduction. Nature Communications, 2023, 14, .	12.8	23
1185	Integrated CO <sub>2</sub> capture and electrochemical upgradation: the underpinning mechanism and techno-chemical analysis. Chemical Society Reviews, 2023, 52, 5744-5802.	38.1	4
1186	Nitrogen-doped carbon-encompassed Ni nanoparticles prepared from Ni (II) cation-exchanged metal organic framework for efficient electrochemical CO <sub>2</sub> reduction. Journal of Electroanalytical Chemistry, 2023, 946, 117704.	3.8	0
1187	Tackling the proton limit under industrial electrochemical CO <sub>2</sub> reduction by a local proton shuttle. , 0, , .		1
1188	Theoretical Study of the Defects and Doping in Tuning the Electrocatalytic Activity of Graphene for CO <sub>2</sub> Reduction. Nanomaterials, 2023, 13, 2273.	4.1	0



#	ARTICLE	IF	CITATIONS
1189	Photocatalytic CO <sub>2</sub> reduction. Nature Reviews Methods Primers, 2023, 3, .	21.2	36
1190	Surface morphology-assisted electrochemical conversion of carbon dioxide to formic acid via nanocrystalline boron-doped diamond electrodes. Chemical Engineering Journal, 2023, 473, 145463.	12.7	0
1191	Halide-guided active site exposure in bismuth electrocatalysts for selective CO <sub>2</sub> conversion into formic acid. Nature Catalysis, 2023, 6, 796-806.	34.4	18
1192	Imidazolium-functionalized Mo <sub>3</sub> P nanoparticles with an ionomer coating for electrocatalytic reduction of CO <sub>2</sub> to propane. Nature Energy, 2023, 8, 891-900.	39.5	11
1193	Distinct reconstruction of aluminum-doped oxide-derived copper enhances the selectivity of C <sub>2</sub> + products in CO <sub>2</sub> electroreduction. Journal of Materials Chemistry A, 2023, 11, 19066-19073.	10.3	1
1194	Multiscale CO <sub>2</sub> Electrolysis to C <sub>2</sub> + Products: Reaction Mechanisms, Catalyst Design, and Device Fabrication. Chemical Reviews, 2023, 123, 10530-10583.	47.7	27
1195	Atomic-scale surface restructuring of copper electrodes under CO <sub>2</sub> electroreduction conditions. Nature Catalysis, 2023, 6, 837-846.	34.4	23
1196	Recent advances of metal oxide catalysts for electrochemical NH <sub>3</sub> production from nitrogen-containing sources. Inorganic Chemistry Frontiers, 2023, 10, 5812-5838.	6.0	3
1197	Advances in bio-inspired electrocatalysts for clean energy future. Nano Research, 2024, 17, 515-533.	10.4	7
1198	Recent advancements in metal oxides for energy storage materials: Design, classification, and electrodes configuration of supercapacitor. Journal of Energy Storage, 2023, 72, 108719.	8.1	39
1199	Boronâ€Doped Nickelâ€Nitrogenâ€Carbon Singleâ€Atom Catalyst for Boosting Electrochemical CO <sub>2</sub> Reduction. Small, 2023, 19, .	10.0	1
1200	The role of ZnO nanowires to improve methanol selectivity on Cu <sub>2</sub> O nanocubes during CO <sub>2</sub> electroreduction. Applied Catalysis A: General, 2023, 666, 119394.	4.3	0
1201	The synthesis of copper-modified biochar from Elsholtzia Harchowensis and its electrochemical activity towards the reduction of carbon dioxide. Frontiers in Chemistry, 0, 11, .	3.6	1
1202	Facile Synthesis of Hierarchically Porous Niâ€Nâ€C for Efficient CO <sub>2</sub> Electroreduction to CO. ACS Applied Materials & Interfaces, 2023, 15, 42585-42593.	8.0	2
1203	Enhancing CO <sub>2</sub> reduction through the catalytic effect of a novel silicon haeckelite-inspired 2D material. Physical Chemistry Chemical Physics, 2023, 25, 25862-25870.	2.8	0
1204	CO <sub>2</sub> RR-to-CO Enhanced by Self-Assembled Monolayer and Ag Catalytic Interface. Journal of Physical Chemistry C, 2023, 127, 17685-17693.	3.1	2
1205	Advances and Regulation Strategies of the Active Moiety in Dualâ€Atom Site Catalysts for Efficient Electrocatalysis. Advanced Energy Materials, 2023, 13, .	19.5	3
1206	Making chemicals from the air: the new frontier for hybrid electrosyntheses in artificial tree-like devices. Green Chemistry, 0, , .	9.0	0

#	ARTICLE	IF	CITATIONS
1207	Constructing a square-like copper cluster to boost C–C coupling for CO <sub>2</sub> electroreduction to ethylene. Journal of Materials Chemistry A, 2023, 11, 19444-19454.	10.3	1
1208	Native frustrated Lewis pairs on core–shell In@InO <sub>x</sub> H <sub>y</sub> enhances CO <sub>2</sub> -to-formate conversion. Dalton Transactions, 2023, 52, 12543-12551.	3.3	0
1209	Reaction microenvironment control in membrane electrode assemblies for CO <sub>2</sub> electrolysis. , 2024, 2, 220-230.		4
1210	<i>In situ</i> scanning tunneling microscopy studies of carbonate-induced restructuring of Ag-decorated Cu(100) electrodes. Physical Chemistry Chemical Physics, 2023, 25, 24871-24877.	2.8	0
1211	Single B-vacancy enriched 1-borophene sheet: an efficient metal-free electrocatalyst for CO <sub>2</sub> reduction. Physical Chemistry Chemical Physics, 2023, 25, 25018-25028.	2.8	4
1212	Advances and challenges in single-site catalysts towards electrochemical CO <sub>2</sub> methanation. Energy and Environmental Science, 2023, 16, 4812-4833.	30.8	3
1213	Chlorine-mediated electrodeposition of hierarchical and hydrophobic copper electrocatalysts for efficient CO <sub>2</sub> electroreduction to ethylene. Chemical Communications, 2023, 59, 10428-10431.	4.1	0
1214	Realistic Modeling of the Electrocatalytic Process at Complex Solid–Liquid Interface. Advanced Science, 2023, 10, .	11.2	2
1215	Developing Catalysts Integrated in Gas-Diffusion Electrodes for CO <sub>2</sub> Electrolyzers. Accounts of Chemical Research, 2023, 56, 2595-2605.	15.6	0
1216	Selective HCOOH Production over Wide Potential Range via Defective Oxide-Derived Bismuth. Advanced Sustainable Systems, 2024, 8, .	5.3	0
1217	The importance of surface coverages in the rational design of electrocatalysts. Current Opinion in Electrochemistry, 2023, 42, 101402.	4.8	4
1218	Competitive Hydration Versus Migration of Pre-hydrated Electrons for CO <sub>2</sub> Reduction in Aqueous Solution Revealed by Ab Initio Molecular Dynamics Simulation. Advanced Theory and Simulations, 2023, 6, .	2.8	0
1219	Porous metal oxides in the role of electrochemical CO <sub>2</sub> reduction reaction. Journal of Energy Chemistry, 2024, 88, 373-398.	12.9	1
1220	Molecular tuning for electrochemical CO <sub>2</sub> reduction. Joule, 2023, 7, 1700-1744.	24.0	13
1221	Steering the products distribution of CO <sub>2</sub> electrolysis: A perspective on extrinsic tuning knobs. Chem Catalysis, 2023, 3, 100746.	6.1	3
1222	The reformation of catalyst: From a trial-and-error synthesis to rational design. Nano Research, 0, , .	10.4	16
1223	Selectivity of Electrochemical CO <sub>2</sub> Reduction on Metal Electrodes: The Role of the Surface Oxidized Layer. ACS Catalysis, 2023, 13, 13089-13100.	11.2	3
1224	Identification of CO <sub>2</sub> as a Reactive Reagent for C–C Bond Formation via Copper-Catalyzed Electrochemical Reduction. ACS Catalysis, 2023, 13, 11697-11710.	11.2	1

#	ARTICLE	IF	CITATIONS
1225	Functionalizing Cu nanoparticles with fluoric polymer to enhance C <sub>2</sub> + product selectivity in membraned CO <sub>2</sub> reduction. Applied Catalysis B: Environmental, 2024, 340, 123281.	20.2	2
1226	Base metal chemistry and catalysis. Cell Reports Physical Science, 2023, 4, 101548.	5.6	3
1227	Cascade electrocatalysis via AgCu single-atom alloy and Ag nanoparticles in CO <sub>2</sub> electroreduction toward multicarbon products. Nature Communications, 2023, 14, .	12.8	14
1228	Unveil the Potential-Dependent Electrochemical Formate Formation on Topological PtBi <sub>2</sub> Monolayer. ACS Applied Energy Materials, 2023, 6, 8677-8683.	5.1	1
1229	Insight on Atomically Dispersed Cu Catalysts for Electrochemical CO <sub>2</sub> Reduction. ACS Nano, 2023, 17, 18688-18705.	14.6	5
1230	Chemical and Structural In-Situ Characterization of Model Electrocatalysts by Combined Infrared Spectroscopy and Surface X-ray Diffraction. Journal of Physical Chemistry Letters, 2023, 14, 8820-8827.	4.6	1
1231	Cu/Fe <sub>3</sub> O <sub>4</sub> Nanocomposites from Layered Double Hydroxides as Catalysts for Selective Electroreduction of Carbon Dioxide. ACS Applied Nano Materials, 2023, 6, 13543-13550.	5.0	1
1232	Alkaline Ionic Liquid Microphase Promotes Deep Reduction of CO <sub>2</sub> on Copper. Journal of the American Chemical Society, 2023, 145, 21983-21990.	13.7	3
1233	Recent advances in p-block metal chalcogenide electrocatalysts for high-efficiency CO <sub>2</sub> reduction. EScience, 2024, 4, 100172.	41.6	3
1234	Green synthesis of bifunctional phthalocyanine-porphyrin cofcs in water for efficient electrocatalytic CO <sub>2</sub> reduction coupled with methanol oxidation. National Science Review, 2023, 10, .	9.5	0
1235	Copper Single-Atom Catalysts—A Rising Star for Energy Conversion and Environmental Purification: Synthesis, Modification, and Advanced Applications. Small, 2024, 20, .	10.0	0
1236	Tailoring Pore Networks “ Gas Diffusion Electrodes via Additive Manufacturing. Advanced Materials Technologies, 2023, 8, .	5.8	1
1237	Nanoengineering of metal-based electrocatalysts for carbon dioxide (CO <sub>2</sub> ) reduction: A critical review. Materials Today Physics, 2023, 38, 101250.	6.0	4
1238	From Biomimicking to Bioinspired Design of Electrocatalysts for CO <sub>2</sub> Reduction to C <sub>1</sub> Products. Angewandte Chemie, 0, , .	2.0	0
1239	From Biomimicking to Bioinspired Design of Electrocatalysts for CO <sub>2</sub> Reduction to C <sub>1</sub> Products. Angewandte Chemie - International Edition, 0, , .	13.8	1
1240	Surface reconstruction of copper foil via electrochemical etching to proliferate CH <sub>4</sub> production from CO <sub>2</sub> electroreduction. Journal of Cleaner Production, 2023, 427, 139286.	9.3	0
1242	Sulfur defect induced Cd <sub>0.3</sub> Zn <sub>0.7</sub> S in-situ anchoring on metal organic framework for enhanced photothermal catalytic CO <sub>2</sub> reduction to prepare proportionally adjustable syngas. Journal of Colloid and Interface Science, 2024, 653, 687-696.	9.4	3
1243	Review on Long-Term Stability of Electrochemical CO <sub>2</sub> Reduction. Energy & Fuels, 2023, 37, 15283-15308.	5.1	3

#	ARTICLE	IF	CITATIONS
1244	Directing the Selectivity of CO Electrolysis to Acetate by Constructing Metal-Organic Interfaces. Angewandte Chemie - International Edition, 2023, 62, .	13.8	3
1245	Directing the Selectivity of CO Electrolysis to Acetate by Constructing Metal-Organic Interfaces. Angewandte Chemie, 0, , .	2.0	0
1246	Confinement and interface engineering of CuSiO <sub>3</sub> nanotubes for enhancing CO <sub>2</sub> electroreduction to C <sub>2</sub> + products. Electrochimica Acta, 2023, 470, 143291.	5.2	0
1247	Rational design of highly efficient carbon-based materials for electrochemical CO <sub>2</sub> reduction reaction. Fuel, 2024, 357, 129760.	6.4	1
1248	Application of X-ray absorption spectroscopy in carbon-supported electrocatalysts. Nano Research, 2023, 16, 12438-12452.	10.4	2
1249	Molecular Self-Assembly in Conductive Covalent Networks for Selective Nitrate Electroreduction to Ammonia. Journal of the American Chemical Society, 2023, 145, 21491-21501.	13.7	3
1250	CO Binding Energy is an Incomplete Descriptor of Cu-Based Catalysts for the Electrochemical CO <sub>2</sub> Reduction Reaction. Angewandte Chemie - International Edition, 2023, 62, .	13.8	5
1251	Deep insight of CO <sub>2</sub> reduction reaction mechanism through experimental and theoretical anticipations. Materials Today Sustainability, 2023, 24, 100587.	4.1	5
1252	Theoretical calculation guided design of single atom-alloyed bismuth catalysts for ampere-level CO <sub>2</sub> electrolysis to formate. Applied Catalysis B: Environmental, 2023, 339, 123140.	20.2	4
1256	Tailoring the catalytic activity and selectivity on CO <sub>2</sub> to C <sub>1</sub> products by the synergistic effect of reactive molecules: A DFT study. Journal of Colloid and Interface Science, 2023, 652, 250-257.	9.4	1
1257	Strain enhances the activity of molecular electrocatalysts via carbon nanotube supports. Nature Catalysis, 2023, 6, 818-828.	34.4	51
1258	Size effects of Supported Cu-based catalysts for electrocatalytic CO <sub>2</sub> reduction reaction. Journal of Materials Chemistry A, 0, , .	10.3	1
1259	Coupling Microkinetics with Continuum Transport Models to Understand Electrochemical $\text{CO}_2 \rightarrow \text{CO} + \text{O}_2$ Reduction in Flow Reactors. , 2023, 2, .		1
1260	Crystal facet engineering coexposed CuIn (200) and In (101) in CuIn alloy nanocatalysts enabling selective and stable CO <sub>2</sub> electroreduction. Journal of Energy Chemistry, 2023, 86, 569-578.	12.9	2
1261	Regulating ethane and ethylene synthesis by proton corridor microenvironment for CO <sub>2</sub> electrolysis. Journal of Energy Chemistry, 2023, 87, 368-377.	12.9	1
1262	Oxide-Derived Copper Nanowire Bundles for Efficient CO <sub>2</sub> Reduction to Multi-Carbon Products. Catalysts, 2023, 13, 1278.	3.5	0
1263	Continuous constant potential model for describing the potential-dependent energetics of CO <sub>2</sub> RR on single atom catalysts. Journal of Chemical Physics, 2023, 159, .	3.0	2
1264	Coordination environments build up and tune a superior synergistic "genome" toward novel trifunctional (TM-NxO <sub>4</sub> )@g-C <sub>16</sub> N <sub>3</sub> -H <sub>3</sub> : High-throughput inspection of ultra-high activity for water splitting and oxygen reduction reactions. Nano Research, 0, , .	10.4	1

#	ARTICLE	IF	CITATIONS
1265	Revealing Co <sub>4</sub> @CoNP Bridge-Enabled Fast Charge Transfer and Active Intracellular Methanogenesis in Bio-Electrochemical CO <sub>2</sub> -Conversion with <i>Methanosarcina Barkeri</i> . Advanced Materials, 2023, 35, .	21.0	2
1266	Bromine-Enhanced Generation and Epoxidation of Ethylene in Tandem CO <sub>2</sub> Electrolysis Towards Ethylene Oxide. Angewandte Chemie - International Edition, 2023, 62, .	13.8	5
1267	Bioinspired Hydrophobicity for Enhancing Electrochemical CO <sub>2</sub> Reduction. Chemistry - A European Journal, 2023, 29, .	3.3	1
1268	Sulfur Changes the Electrochemical CO <sub>2</sub> Reduction Pathway over Cu Electrocatalysts. Angewandte Chemie - International Edition, 2023, 62, .	13.8	10
1269	Sulfur Changes the Electrochemical CO <sub>2</sub> Reduction Pathway over Cu Electrocatalysts. Angewandte Chemie, 2023, 135, .	2.0	0
1270	Bromine-Enhanced Generation and Epoxidation of Ethylene in Tandem CO <sub>2</sub> Electrolysis Towards Ethylene Oxide. Angewandte Chemie, 2023, 135, .	2.0	0
1271	Revealing a Double-Volcano-Like Structure-Activity Relationship for Substitution-Functionalized Metal-Phthalocyanine Catalysts toward Electrochemical CO <sub>2</sub> Reduction. Small, 2024, 20, .	10.0	0
1272	Efficient CO <sub>2</sub> Electroreduction to Multicarbon Products at CuSiO <sub>3</sub> /CuO Derived Interfaces in Ordered Pores. Advanced Materials, 0, , .	21.0	3
1274	Single atom Cu-N-C catalysts for the electro-reduction of CO <sub>2</sub> to CO assessed by rotating ring-disc electrode. Journal of Energy Chemistry, 2024, 88, 169-182.	12.9	1
1275	Recent Advances in Electrocatalytic Hydrogenation Reactions on Copper-Based Catalysts. Advanced Materials, 0, , .	21.0	1
1276	Electrowetting limits electrochemical CO <sub>2</sub> reduction in carbon-free gas diffusion electrodes. Energy Advances, 0, , .	3.3	0
1277	Synergistic interaction of FeCo anchored on phthalocyanine for efficient CO <sub>2</sub> electroreduction to C <sub>2</sub> via microkinetic study. International Journal of Hydrogen Energy, 2024, 51, 1532-1544.	7.1	0
1278	Probing Cation Effects on *CO Intermediates from Electroreduction of CO <sub>2</sub> through Operando Raman Spectroscopy. Journal of the American Chemical Society, 2023, 145, 23068-23075.	13.7	1
1279	Elucidating key mechanistic processes during acidic CO <sub>2</sub> electroreduction on gas diffusion electrodes towards stable production of formic acid. Chemical Engineering Journal, 2023, 476, 146486.	12.7	0
1280	Size, alloy and interface effects on Cu-based catalysts for enhancing electrochemical reduction of CO <sub>2</sub> . Results in Engineering, 2023, 20, 101510.	5.1	4
1281	Recent advances, application and prospect in g-C <sub>3</sub> N <sub>4</sub> -based S-scheme heterojunction photocatalysts. Separation and Purification Technology, 2024, 330, 125302.	7.9	13
1282	Synergistic engineering of heteronuclear Ni-Ag dual-atom catalysts for high-efficiency CO <sub>2</sub> electroreduction with nearly 100% CO selectivity. Chemical Engineering Journal, 2023, 476, 146556.	12.7	2
1283	High-Yield Electrosynthesis of Formic Acid from CO <sub>2</sub> Reduction on Single-Bismuth Catalyst Loaded on N-Doped Hollow Carbon Nanospheres. Small Structures, 2024, 5, .	12.0	1

#	ARTICLE	IF	CITATIONS
1284	Precise Construction of Cu <sup>0</sup> -Based Catalysts using Surface Molecular Modifiers for Electroreduction of CO <sub>2</sub> to Multi <sup>0</sup> -Carbon Products. ChemCatChem, 2023, 15, .	3.7	0
1285	Electrochemical hydrogenation of NO and CO: Differences and similarities from a computational standpoint. Current Opinion in Electrochemistry, 2023, , 101409.	4.8	0
1286	Steering electrochemical carbon dioxide reduction to alcohol production on Cu step sites. Chinese Journal of Catalysis, 2023, 52, 187-195.	14.0	0
1287	CO Binding Energy is an Incomplete Descriptor of Cu <sup>0</sup> -Based Catalysts for the Electrochemical CO <sub>2</sub> Reduction Reaction. Angewandte Chemie, 2023, 135, .	2.0	0
1288	Atomic high-spin cobalt(II) center for highly selective electrochemical CO reduction to CH <sub>3</sub> OH. Nature Communications, 2023, 14, .	12.8	11
1289	Recent advances in electrocatalytic reduction of ambient CO <sub>2</sub> toward high-value feedstock. Inorganic Chemistry Frontiers, 0, , .	6.0	0
1290	Anchoring movable Ag <sub>2</sub> CO <sub>3</sub> quantum dots on g-C <sub>3</sub> N <sub>4</sub> with rich oxygen vacancies for enhanced simulated-sunlight CO <sub>2</sub> reduction in water medium. Separation and Purification Technology, 2024, 330, 125330.	7.9	1
1291	Uncoordinated amino groups of MIL-101 anchoring cobalt porphyrins for highly selective CO <sub>2</sub> electroreduction. Journal of Colloid and Interface Science, 2023, , .	9.4	0
1292	Unveiling the Electrolyte Cations Dependent Kinetics on CoOOH <sup>0</sup> -Catalyzed Oxygen Evolution Reaction. Angewandte Chemie - International Edition, 2023, 62, .	13.8	2
1293	Unveiling the Electrolyte Cations Dependent Kinetics on CoOOH <sup>0</sup> -Catalyzed Oxygen Evolution Reaction. Angewandte Chemie, 0, , .	2.0	0
1294	Efficient reduction of CO <sub>2</sub> to C <sub>2</sub> hydrocarbons by tandem nonthermal plasma and photocatalysis. Applied Catalysis B: Environmental, 2024, 342, 123423.	20.2	3
1295	Two active sites are better than one. Nature Catalysis, 2023, 6, 864-865.	34.4	0
1296	Insights into Electrocatalyst Transformations Studied in Real Time with Electrochemical Liquid-Phase Transmission Electron Microscopy. Accounts of Chemical Research, 0, , .	15.6	0
1297	Construction of Low <sup>0</sup> -Coordination Cu <sup>0</sup> -C <sub>2</sub> Single <sup>0</sup> -Atoms Electrocatalyst Facilitating the Efficient Electrochemical CO <sub>2</sub> Reduction to Methane. Angewandte Chemie - International Edition, 2023, 62, .	13.8	1
1298	Construction of Low <sup>0</sup> -Coordination Cu <sup>0</sup> -C <sub>2</sub> Single <sup>0</sup> -Atoms Electrocatalyst Facilitate the efficient electrochemical CO <sub>2</sub> Reduction to Methane. Angewandte Chemie, 0, , .	2.0	0
1299	A Bibliometric Analysis on Pulsed Electrolysis: Electronic Effect, Double Layer Effect, and Mass Transport. Catalysts, 2023, 13, 1410.	3.5	0
1300	Understanding the role of central metal and coordination environment of single atom catalysts embedded in graphene flakes on CO <sub>2</sub> RR performance. Journal of Materials Science, 2023, 58, 15714-15726.	3.7	1
1301	High-entropy alloys in electrocatalysis: from fundamentals to applications. Chemical Society Reviews, 2023, 52, 8319-8373.	38.1	14



#	ARTICLE	IF	CITATIONS
1302	N,S coordination in Ni single-atom catalyst promoting CO <sub>2</sub> RR towards HCOOH. Physical Chemistry Chemical Physics, 2023, 25, 29951-29959.	2.8	0
1303	Recent Advances in Electrochemical CO <sub>2</sub> to Multicarbon Conversion: From Fundamentals to Industrialization. Advanced Energy Materials, 2023, 13, .	19.5	3
1304	Direct time-resolved observation of surface-bound carbon dioxide radical anions on metallic nanocatalysts. Nature Communications, 2023, 14, .	12.8	0
1305	Recent progress on ZIF-8 based MOF derivatives for electrocatalysis. Coordination Chemistry Reviews, 2024, 499, 215492.	18.8	4
1306	CuAg bimetallic catalysts derived from an Ag-anchored Cu-based metal-organic framework for CO <sub>2</sub> electroreduction to ethanol. Chemical Engineering Journal, 2023, 477, 147204.	12.7	0
1307	Tailoring ligand fields of metal-azolate frameworks for highly selective electroreduction of CO <sub>2</sub> to hydrocarbons at industrial current density. Chinese Journal of Catalysis, 2023, 53, 102-108.	14.0	0
1308	Direct Electroreduction of Carbonate to Formate. Journal of the American Chemical Society, 0, , .	13.7	0
1309	Nature-Inspired Electrocatalysts for CO <sub>2</sub> Reduction to C <sub>2+</sub> Products. Advanced Energy Materials, 2023, 13, .	19.5	1
1310	Ampere-Level Current Density CO <sub>2</sub> Reduction with High C <sub>2+</sub> Selectivity on La(OH) <sub>3</sub> -Modified Cu Catalysts. Small, 0, , .	10.0	0
1311	Multi-Shell Copper Catalysts for Selective Electroreduction of CO <sub>2</sub> to Multicarbon Chemicals. Advanced Energy Materials, 2024, 14, .	19.5	1
1312	Selective CO <sub>2</sub> Reduction to Ethylene Mediated by Adaptive Small-molecule Engineering of Copper-based Electrocatalysts. Angewandte Chemie - International Edition, 2023, 62, .	13.8	7
1313	Selective CO <sub>2</sub> Reduction to Ethylene Mediated by Adaptive Small-molecule Engineering of Copper-based Electrocatalysts. Angewandte Chemie, 2023, 135, .	2.0	3
1314	Atomic Dispersed Hetero-Pairs for Enhanced Electrocatalytic CO <sub>2</sub> Reduction. Nano-Micro Letters, 2024, 16, .	27.0	3
1315	Enhancing effect of cobalt phthalocyanine dispersion on electrocatalytic reduction of CO <sub>2</sub> towards methanol. Environmental Science and Pollution Research, 0, , .	5.3	0
1316	Solar-driven CO <sub>2</sub> conversion to methane and methanol using different nanostructured Cu <sub>2</sub> O-based catalysts modified with Au nanoparticles. Journal of Energy Chemistry, 2024, 91, 287-298.	12.9	1
1317	Ultrafast Thermal Shock Synthesis and Porosity Engineering of 3D Hierarchical Cu-Bi Nanofoam Electrodes for Highly Selective Electrochemical CO <sub>2</sub> Reduction. Nano Letters, 2023, 23, 10140-10147.	9.1	2
1318	Cation-induced changes in the inner- and outer-sphere mechanisms of electrocatalytic CO <sub>2</sub> reduction. Nature Communications, 2023, 14, .	12.8	6
1319	Electron-rich active sites created by fine-tuning the electronic structure of Co(II) porphyrin frameworks for high-performance CO <sub>2</sub> electroreduction. International Journal of Hydrogen Energy, 2024, 51, 1347-1356.	7.1	0

#	ARTICLE	IF	CITATIONS
1320	Electrocatalytic Upgrade of Impure CO <sub>2</sub> by In Situ-Reconstructed Cu Catalysts with Gas Exsolution Electrolyzers. Industrial & Engineering Chemistry Research, 2023, 62, 19482-19492.	3.7	1
1321	Advances in CO <sub>2</sub> activation by frustrated Lewis pairs: from stoichiometric to catalytic reactions. Chemical Science, 2023, 14, 13661-13695.	7.4	1
1322	Theoretical Study on the Synthesis of Urea by Electrochemical Nitrate and Carbon Dioxide over COF Series Catalysts. Catalysis Surveys From Asia, 2024, 28, 117-133.	2.6	1
1323	Insight into the Change in Local pH near the Electrode Surface Using Phosphate Species as the Probe. Journal of Physical Chemistry Letters, 2023, 14, 10457-10462.	4.6	0
1324	Electronic structural engineering of bimetallic Bi-Cu alloying nanosheet for highly-efficient CO <sub>2</sub> electroreduction and Zn-CO <sub>2</sub> batteries. Nano Research, 0, , .	10.4	2
1325	Sequential deposition of FeNCu tandem CO <sub>2</sub> reduction electrocatalysts towards the low overpotential production of C <sub>2</sub> + alcohols. JPhys Materials, 2024, 7, 015007.	4.2	0
1326	Tandem ElectroThermoCatalysis for the Oxidative Aminocarbonylation of Arylboronic Acids to Amides from CO <sub>2</sub> and Water. Angewandte Chemie - International Edition, 2024, 63, .	13.8	0
1327	Catalytic reactivity descriptors of metalNitrogen-doped carbon catalysts for electrocatalysis. , 2023, 1, 154-185.		2
1328	A critical review of current conversion facilities and research output on carbon dioxide utilization. MRS Energy & Sustainability, 0, , .	3.0	0
1329	Boosting the CO <sub>2</sub> electroreduction performance of La <sub>2</sub> -Ag CuO <sub>4</sub> perovskites via A-site substitution mechanism. Applied Catalysis B: Environmental, 2024, 342, 123444.	20.2	1
1330	Direct OC-CHO coupling towards highly C <sub>2</sub> + products selective electroreduction over stable Cu <sub>0</sub> /Cu <sub>2</sub> + interface. Nature Communications, 2023, 14, .	12.8	5
1331	Regulating Photocatalytic CO <sub>2</sub> Reduction Kinetics through Modification of Surface Coordination Sphere. Advanced Functional Materials, 2024, 34, .	14.9	5
1332	<i>Ab initio</i> study for late steps of CO <sub>2</sub> and CO electroreduction: from CHCO* toward C <sub>2</sub> products on Cu and CuZn nanoclusters. Physical Chemistry Chemical Physics, 0, , .	2.8	0
1333	Atomically Dispersed Ruthenium Catalysts with Open Hollow Structure for LithiumOxygen Batteries. Nano-Micro Letters, 2024, 16, .	27.0	1
1334	Applications of zeolitic imidazolate frameworks and their derivates in electrochemical reduction of CO <sub>2</sub> . Chemical Engineering Journal, 2023, 478, 147427.	12.7	0
1335	Theoretical investigation of the structural stability and electronic properties of Cu <sub>13-x</sub> M <sub>x</sub> and Cu <sub>55-x</sub> M <sub>x</sub> (M= Ni, In, Sn, Sb, x=1-12) nanoparticles: a DFT approach. Structural Chemistry, 0, , .	0.0	0
1336	Recent Progress on Phase Engineering of Nanomaterials. Chemical Reviews, 2023, 123, 13489-13692.	47.7	3
1337	Catalysts in Energy Applications. Catalysts, 2023, 13, 1484.	3.5	0

#	ARTICLE	IF	CITATIONS
1338	Modulating the Structure and Composition of Single-Atom Electrocatalysts for CO <sub>2</sub> reduction. Advanced Science, 2024, 11, .	11.2	0
1339	Semiconductor nanosheets for electrocatalytic self-coupling of benzaldehyde to hydrobenzoin. Chemical Engineering Journal, 2024, 479, 147612.	12.7	2
1340	Enhanced Cr(VI) stabilization by terrestrial-derived soil protein: Photoelectrochemical properties and reduction mechanisms. Journal of Hazardous Materials, 2024, 465, 133153.	12.4	0
1341	Efficient multicarbon formation in acidic CO <sub>2</sub> reduction via tandem electrocatalysis. Nature Nanotechnology, 2024, 19, 311-318.	31.5	2
1342	Self-Limited Reconstruction Realized via Copper-Ligand Interaction for Stabilizing High-Selective CO <sub>2</sub> Electromethanation. ACS Catalysis, 2023, 13, 15457-15466.	11.2	1
1343	In situ spectroscopy and diffraction to look inside the next generation of gas diffusion and zero-gap electrolyzers. Current Opinion in Chemical Engineering, 2023, 42, 100979.	7.8	0
1344	Enhanced CO <sub>2</sub> Electroreduction Selectivity toward Ethylene on Pyrazolate-Stabilized Asymmetric Ni-Cu Hybrid Sites. Journal of the American Chemical Society, 2023, 145, 26444-26451.	13.7	2
1345	Tuning the selectivity of CO <sub>2</sub> electroreduction on Cu/In <sub>2</sub> O <sub>3</sub> heterogeneous interface. Nano Energy, 2024, 120, 109171.	16.0	0
1346	Selectivity of Electrochemical CO <sub>2</sub> Reduction toward Ethanol and Ethylene: The Key Role of Surface-Active Hydrogen. ACS Catalysis, 2023, 13, 15448-15456.	11.2	0
1347	Customizing CO <sub>2</sub> Electroreduction by Pulse-Induced Anion Enrichment. Journal of the American Chemical Society, 2023, 145, 26213-26221.	13.7	0
1348	Enhanced CO <sub>2</sub> Reactive Capture and Conversion Using Aminothiolate Ligand-Metal Interface. Journal of the American Chemical Society, 2023, 145, 26038-26051.	13.7	0
1349	CO <sub>2</sub> electro-reduction reaction <i>via</i> a two-dimensional TM@TAP single-atom catalyst. RSC Advances, 2023, 13, 35231-35239.	3.6	0
1350	Insight into the island-sea effect of Cu-N-C for enhanced CO <sub>2</sub> eletroreduction selectively towards C <sub>2</sub> H <sub>4</sub> . Applied Catalysis B: Environmental, 2024, 343, 123566.	20.2	3
1351	In situ dynamic re-structuring and interfacial evolution of SnS <sub>2</sub> for high-performance electrochemical CO <sub>2</sub> reduction to formate. Chemical Engineering Journal, 2024, 480, 147922.	12.7	0
1352	Copper-Bridge-Enhanced <i>p</i> -Band Center Modulation of Carbon-Bismuth Heterojunction for CO <sub>2</sub> Electroreduction. Nano Letters, 2023, 23, 10946-10954.	9.1	2
1354	<i>Operando</i> Electron Microscopy of Catalysts: The Missing Cornerstone in Heterogeneous Catalysis Research?. Chemical Reviews, 2023, 123, 13374-13418.	47.7	2
1355	Copper hydroxide/basic copper salt derived Cu <sup>0</sup> with a clear grain boundary for selective electrocatalytic CO <sub>2</sub> reduction to produce multicarbon products. Journal of Materials Chemistry A, 2023, 11, 26481-26487.	10.3	0
1356	Strategies for the proton-coupled multi-electron reduction of CO <sub>2</sub> on single-atom catalysts. Catalysis Science and Technology, 0, , .	4.1	0

#	ARTICLE	IF	CITATIONS
1357	Pentaâ€Coordinated Y Sites Modulated Single Bi Sites for Promoted Selectivity of Electrochemical CO <sub>2</sub> Reduction. Advanced Functional Materials, 2024, 34, .	14.9	0
1358	Status and challenges for CO <sub>2</sub> electroreduction to CH <sub>4</sub> : advanced catalysts and enhanced strategies. Green Chemistry, 2024, 26, 103-121.	9.0	1
1359	Tandem Electroâ€Thermoâ€Catalysis for the Oxidative Aminocarbonylation of Arylboronic Acids to Amides from CO <sub>2</sub> and Water. Angewandte Chemie, 2024, 136, .	2.0	0
1360	A Review of Studies on the Effect of Reaction Microenvironments on Electrochemical Reactions Involving Gases. Journal of Advances in Physical Chemistry, 2023, 12, 366-386.	0.1	0
1361	Highly Efficient Electroreduction of CO <sub>2</sub> to Ethanol via Asymmetric Câ€C Coupling by a Metalâ€Organic Framework with Heterodimetal Dual Sites. Journal of the American Chemical Society, 2023, 145, 26783-26790.	13.7	1
1362	Boosting Electrochemical CO <sub>2</sub> Reduction via Surface Hydroxylation over Cu-Based Electrocatalysts. ACS Catalysis, 2023, 13, 16114-16125.	11.2	3
1363	Fe acting as functionalized auxiliary agents in nitrogen-doped carbon supported Ni-based catalysts for electrocatalytic CO <sub>2</sub> Reduction: Effect of valence state. Applied Surface Science, 2024, 648, 159066.	6.1	0
1364	Metabolic engineering of yeast for the production of carbohydrate-derived foods and chemicals from C1â€3 molecules. Nature Catalysis, 0, , .	34.4	0
1365	Advances and perspectives on heteronuclear dual-atomic catalysts for prevailing the linear scaling relationship in electrocatalytic CO <sub>2</sub> reduction. Coordination Chemistry Reviews, 2024, 501, 215589.	18.8	0
1366	Integrative electrochemical and biological catalysis for the mild and efficient utilization of renewable electricity and carbon resources. Sustainable Energy and Fuels, 2024, 8, 460-480.	4.9	1
1367	Controllable Preparation, Working Mechanisms, and Actual Application of Various One-Dimensional Nanomaterials as Catalysts for CO <sub>2</sub> RR: A Review. Industrial & Engineering Chemistry Research, 0, , .	3.7	0
1369	In Situ Generation of Flash Graphene Supported Spherical Bismuth Nanoparticles in Less than 200 ms for Highly Selective Carbon Dioxide Electroreduction. , 0, , 100-108.		1
1370	Stabilizing Undercoordinated Zn Active Sites through Confinement in CeO <sub>2</sub> Nanotubes for Efficient Electrochemical CO <sub>2</sub> Reduction. Angewandte Chemie - International Edition, 2024, 63, .	13.8	4
1371	Stabilizing Undercoordinated Zn Active Sites through Confinement in CeO <sub>2</sub> Nanotubes for Efficient Electrochemical CO <sub>2</sub> Reduction. Angewandte Chemie, 2024, 136, .	2.0	1
1372	Tandem Catalysis for Enhanced CO <sub>2</sub> to Ethylene Conversion in Neutral Media. Advanced Functional Materials, 0, , .	14.9	1
1373	<i>Operando</i> Reconstruction of Porous Carbon Supported Copper Selenide Promotes the C <sub>2</sub> Production from CO <sub>2</sub> RR. Advanced Functional Materials, 0, , .	14.9	0
1374	Elucidating the structure-stability relationship of Cu single-atom catalysts using operando surface-enhanced infrared absorption spectroscopy. Nature Communications, 2023, 14, .	12.8	1
1375	In Situ Probing of CO <sub>2</sub> Reduction on Cuâ€Phthalocyanineâ€Derived Cu <sub>x</sub> O Complex. Advanced Science, 2024, 11, .	11.2	0

#	ARTICLE	IF	CITATIONS
1376	Recent Progress on Perovskite-Based Electrocatalysts for Efficient CO <sub>2</sub> Reduction. <i>Molecules</i> , 2023, 28, 8154.	3.8	0
1377	Nickel Single Atom Densityâ€Dependent CO <sub>2</sub> Efficient Electroreduction. <i>Small</i> , 0, , .	10.0	0
1378	Understanding the progress and challenges in the fields of thermo-catalysis and electro-catalysis for the CO <sub>2</sub> conversion to fuels. <i>Emergent Materials</i> , 2024, 7, 1-16.	5.7	0
1379	Dualâ€Interfacial Electrocatalyst Enriching Surface Bonded H for Energyâ€Efficient CO <sub>2</sub> â€toâ€CH <sub>3</sub> OH Conversion. <i>Advanced Functional Materials</i> , 2024, 34, .	14.9	0
1380	Understanding of C=O bonding activation during CO <sub>2</sub> electroreduction: A case study of CO <sub>2</sub> reduction to CO on ZnO. <i>Chem Catalysis</i> , 2023, 3, 100792.	6.1	1
1381	Exploring how cation entropy influences electric double layer formation and electrochemical reactivity. <i>Soft Matter</i> , 0, , .	2.7	0
1382	High-performance artificial leaf: from electrocatalyst design to solar-to-chemical conversion. <i>Materials Chemistry Frontiers</i> , 2024, 8, 1300-1333.	5.9	0
1383	FeNi alloys encapsulated with N-doped porous carbon nanotubes as highly efficient and durable CO <sub>2</sub> reduction electrocatalyst. <i>Chemical Engineering Journal</i> , 2024, 481, 148086.	12.7	0
1384	Catalyst-Free Carbon Dioxide Conversion in Water Facilitated by Pulse Discharges. <i>Journal of the American Chemical Society</i> , 2023, 145, 28233-28239.	13.7	1
1385	Rareâ€earth Elementâ€based Electrocatalysts Designed for CO <sub>2</sub> Electroâ€reduction. <i>ChemSusChem</i> , 0, , .	6.8	0
1386	Synergistic effect of CuO and Sr doped g-C <sub>3</sub> N <sub>4</sub> for CO <sub>2</sub> photoreduction into hydrocarbon fuels. <i>Chemical Engineering Journal</i> , 2024, 480, 148162.	12.7	1
1387	Electrochemical CO <sub>2</sub> Reduction to Methanol by Cobalt Phthalocyanine: Quantifying CO <sub>2</sub> and CO Binding Strengths and Their Influence on Methanol Production. <i>ACS Catalysis</i> , 0, , 366-372.	11.2	0
1388	Thermodynamic departures from ideality provide insight into electrochemical CO <sub>2</sub> reduction. <i>Chem Catalysis</i> , 2023, 3, 100853.	6.1	0
1389	Electrocatalytic CO <sub>2</sub> reduction to a single multi-carbon product. <i>Science Bulletin</i> , 2024, 69, 563-565.	9.0	0
1390	Microenvironment engineering of Cu-based materials for electrocatalytic carbon dioxide reduction. <i>Fundamental Research</i> , 2023, , .	3.3	1
1391	Enhanced interfacial effect-induced asymmetric coupling boost electroreduction of CO <sub>2</sub> to ethylene. <i>Applied Catalysis B: Environmental</i> , 2024, 344, 123666.	20.2	0
1392	Longâ€Range Confinementâ€Driven Enrichment of Surface Oxygenâ€Relevant Species Promotes Câ€C Electrocoupling in CO <sub>2</sub> Reduction. <i>Advanced Energy Materials</i> , 2024, 14, .	19.5	0
1393	Molecular engineering of dispersed tin phthalocyanine on carbon nanotubes for selective CO <sub>2</sub> reduction to formate. <i>Applied Catalysis B: Environmental</i> , 2023, , 123650.	20.2	0

#	ARTICLE	IF	CITATIONS
1394	Reconstructed Bismuth Oxide through in situ Carbonation by Carbonate-containing Electrolyte for Highly Active Electrocatalytic CO <sub>2</sub> Reduction to Formate. Angewandte Chemie - International Edition, 2024, 63, .	13.8	0
1395	Reconstructed Bismuth Oxide through in situ Carbonation by Carbonate-containing Electrolyte for Highly Active Electrocatalytic CO <sub>2</sub> Reduction to Formate. Angewandte Chemie, 2024, 136, .	2.0	0
1396	In situ reconstruction induced oxygen-deficient multiphase Cu based species hybridized with Ni single atoms as tandem platform for CO <sub>2</sub> electroreduction. Nano Research, 0, , .	10.4	0
1397	Engineering tandem catalysts and reactors for promoting electrocatalytic CO <sub>2</sub> reduction reaction toward multi-carbon products. Sustainable Materials and Technologies, 2024, 39, e00820.	3.3	0
1398	Fourteen-membered macrocyclic cobalt complex for the electrolysis of low-concentration gaseous carbon dioxide with high faradaic efficiency toward carbon monoxide. Catalysis Science and Technology, 2024, 14, 391-396.	4.1	1
1399	Catalyst design for electrochemical CO <sub>2</sub> reduction to ethylene. Matter, 2024, 7, 25-37.	10.0	0
1400	Cu-Based Materials for Enhanced C <sub>2</sub> + Product Selectivity in Photo-/Electro-Catalytic CO <sub>2</sub> Reduction: Challenges and Prospects. Nano-Micro Letters, 2024, 16, .	27.0	1
1401	Application of solid electrolytes in electrochemical reduction of CO <sub>2</sub> or O <sub>2</sub> . Chemical Engineering Journal, 2024, 481, 148452.	12.7	0
1402	Highly efficient photoelectrochemical catalytic CO <sub>2</sub> into formate with 2D indium-based metal-organic frameworks. Separation and Purification Technology, 2024, 335, 126254.	7.9	0
1403	Recent progress in nickel single-atom catalysts for the electroreduction of CO <sub>2</sub> to CO. , 0, , .		0
1404	Local reaction environment in electrocatalysis. Chemical Society Reviews, 2024, 53, 2022-2055.	38.1	2
1405	N and OH-Immobilized Cu <sub>3</sub> Clusters In Situ Reconstructed from Single-Metal Sites for Efficient CO <sub>2</sub> Electromethanation in Bicontinuous Mesochannels. Journal of the American Chemical Society, 2024, 146, 1423-1434.	13.7	0
1406	Effects of the delocalization state on electrocatalytic CO <sub>2</sub> reduction: a mini-review. , 2024, 2, 556-563.		0
1407	Covalent Organic Framework Ionomer Steering the CO <sub>2</sub> Electroreduction Pathway on Cu at Industrial-Grade Current Density. Journal of the American Chemical Society, 2024, 146, 1572-1579.	13.7	0
1408	Progress in design and preparation of multi-atom catalysts for photocatalytic CO <sub>2</sub> reduction. Science China Materials, 2024, 67, 397-423.	6.3	2
1409	Advanced triboelectric nanogenerator based self-powered electrochemical system. Chemical Engineering Journal, 2024, 481, 148640.	12.7	1
1410	The Synergistic Effect between Metal and Sulfur Vacancy to Boost CO <sub>2</sub> Reduction Efficiency: A Study on Descriptor Transferability and Activity Prediction. JACS Au, 2024, 4, 125-138.	7.9	0
1411	Reducing Ensemble Averaging for Mechanistic Understanding of Electrocatalysis in Energy Conversion Reactions. Journal of Physical Chemistry C, 2024, 128, 697-709.	3.1	0



#	ARTICLE	IF	CITATIONS
1412	Understanding of strain effect on Mo-based MXenes for electrocatalytic CO <sub>2</sub> reduction. Applied Surface Science, 2024, 654, 159501.	6.1	0
1413	Synergistic electronic structure modulation in single-atomic Ni sites dispersed on Ni nanoparticles encapsulated in N-rich carbon nanotubes synthesized at low temperature for efficient CO <sub>2</sub> electrolysis. Applied Catalysis B: Environmental, 2024, 345, 123699.	20.2	0
1414	Highly efficient CO <sub>2</sub> electrochemical reduction on dual metal (Co–Ni)–nitrogen sites. Journal of Materials Chemistry A, 2024, 12, 4601-4609.	10.3	1
1415	Interfacial microenvironment effects on electrochemical CO <sub>2</sub> reduction. Chemical Engineering Journal, 2024, 482, 148944.	12.7	0
1416	Plasmonic-assisted Electrocatalysis for CO <sub>2</sub> Reduction Reaction. ChemElectroChem, 2024, 11, .	3.4	0
1417	Fiber Bragg grating sensor for accurate and sensitive detection of carbon dioxide concentration. Sensors and Actuators B: Chemical, 2024, 404, 135264.	7.8	0
1418	Charge-switchable ligand ameliorated cobalt polyphthalocyanine polymers for high-current-density electrocatalytic CO <sub>2</sub> reduction. SmartMat, 0, .	10.7	1
1419	Accelerating the Reaction Kinetics of CO <sub>2</sub> Reduction to Multi-carbon Products by Synergistic Effect between Cation and Aprotic Solvent on Copper Electrodes. Angewandte Chemie - International Edition, 2024, 63, .	13.8	0
1420	Accelerating the Reaction Kinetics of CO <sub>2</sub> Reduction to Multi-carbon Products by Synergistic Effect between Cation and Aprotic Solvent on Copper Electrodes. Angewandte Chemie, 2024, 136, .	2.0	0
1421	The activity origin of C-N-Cu electrocatalysts for ethanol formation in the CO <sub>2</sub> reduction reaction under working conditions. Journal of Materials Chemistry A, 2024, 12, 3580-3588.	10.3	0
1422	A Sulfur-Doped Copper Catalyst with Efficient Electrocatalytic Formate Generation during the Electrochemical Carbon Dioxide Reduction Reaction. Angewandte Chemie - International Edition, 2024, 63, .	13.8	1
1423	A Sulfur-Doped Copper Catalyst with Efficient Electrocatalytic Formate Generation during the Electrochemical Carbon Dioxide Reduction Reaction. Angewandte Chemie, 2024, 136, .	2.0	0
1424	Carbonyl-linked cobalt polyphthalocyanines as high-selectivity catalyst for electrochemical CO <sub>2</sub> reduction. Chemical Communications, 2024, 60, 1715-1718.	4.1	0
1427	Carbon dioxide and "methanol" economy: advances in the catalytic synthesis of methanol from CO <sub>2</sub> . Russian Chemical Reviews, 2024, 93, RCR5101.	6.5	0
1428	Highly selective photoelectrochemical CO <sub>2</sub> reduction by crystal phase-modulated nanocrystals without parasitic absorption. Proceedings of the National Academy of Sciences of the United States of America, 2024, 121, .	7.1	0
1429	Cascade Electrocatalytic and Thermocatalytic Reduction of CO <sub>2</sub> to Propionaldehyde. Angewandte Chemie, 2024, 136, .	2.0	0
1430	Cascade Electrocatalytic and Thermocatalytic Reduction of CO <sub>2</sub> to Propionaldehyde. Angewandte Chemie - International Edition, 2024, 63, .	13.8	0
1431	How to rationally design homogeneous catalysts for efficient CO <sub>2</sub> electroreduction?. IScience, 2024, 27, 108973.	4.1	0

#	ARTICLE	IF	CITATIONS
1432	Unlocking the benefits of glassy-like carbon synthesis: Direct immobilization of single Ni sites for robust electrochemical CO <sub>2</sub> reduction reaction. Journal of CO <sub>2</sub> Utilization, 2024, 80, 102677.	6.8	0
1433	Mechanism of electrochemical carbon dioxide reduction to formate on tin electrode. Chemical Engineering Journal, 2024, 482, 148972.	12.7	0
1434	<i>In Situ</i> and <i>Operando</i> X-ray Scattering Methods in Electrochemistry and Electrocatalysis. Chemical Reviews, 2024, 124, 629-721.	47.7	0
1435	Operando imaging in electrocatalysis: insights into microstructural materials design. Chemistry - an Asian Journal, 2024, 19, .	3.3	0
1436	Co <sub>3</sub> O <sub>4</sub> /C derived from ZIF-67 cathode enhances the microbial electrosynthesis of acetate from CO <sub>2</sub> . International Journal of Hydrogen Energy, 2024, 58, 426-432.	7.1	0
1437	A First Principles Mechanistic Study of Higher Alcohol Synthesis from Syngas on a Stepped Rhodium Surface. Catalysis Letters, 0, , .	2.6	0
1438	Constant Potential Thermodynamic Integration for Obtaining the Free Energy Profile of Electrochemical Reaction. Journal of Physical Chemistry Letters, 2024, 15, 1314-1320.	4.6	1
1439	Pulse Electrolysis Turns on CO <sub>2</sub> Methanation through $\pi$ -Confused Cupric Porphyrin. Angewandte Chemie - International Edition, 2024, 63, .	13.8	0
1440	Unraveling the rate-determining step of C <sub>2</sub> <sup>+</sup> products during electrochemical CO reduction. Nature Communications, 2024, 15, .	12.8	0
1441	Pulse Electrolysis Turns on CO <sub>2</sub> Methanation through $\pi$ -Confused Cupric Porphyrin. Angewandte Chemie, 2024, 136, .	2.0	0
1442	Recent advances in nickel-based catalysts in eCO <sub>2</sub> RR for carbon neutrality. , 2024, 6, .		0
1443	Crucial effect of surface oxygen species on CO <sub>2</sub> electroreduction performance in Ti@Cu single atom alloys. Molecular Catalysis, 2024, 555, 113894.	2.0	0
1444	Two-Dimensional Metallophthalocyanine Nanomaterials for Electrocatalytic Energy Conversion. Energy and Environmental Materials, 0, , .	12.8	0
1445	Concentrated Formic Acid from CO <sub>2</sub> Electrolysis for Directly Driving Fuel Cell. Angewandte Chemie - International Edition, 2024, 63, .	13.8	0
1446	Concentrated Formic Acid from CO <sub>2</sub> Electrolysis for Directly Driving Fuel Cell. Angewandte Chemie, 2024, 136, .	2.0	0
1447	Alcoholamine-Grafted Zinc Oxide Enhances CO <sub>2</sub> Electroreduction at Elevated Temperatures. ACS Sustainable Chemistry and Engineering, 2024, 12, 2761-2770.	6.7	0
1448	Carbon Catalysts Empowering Sustainable Chemical Synthesis via Electrochemical CO <sub>2</sub> Conversion and $\pi$ -Electron Oxygen Reduction Reaction. Small, 0, , .	10.0	0
1449	Directing CO <sub>2</sub> electroreduction pathways for selective C <sub>2</sub> product formation using single-site doped copper catalysts. , 2024, 1, 159-169.		1

#	ARTICLE	IF	CITATIONS
1450	Covalent Organic Frameworks as Promising Platforms for Efficient Electrochemical Reduction of Carbon Dioxide: A Review. <i>Small Structures</i> , 2024, 5, .	12.0	0
1451	Determination of local pH in CO <sub>2</sub> electroreduction. <i>Nanoscale</i> , 2024, 16, 3926-3935.	5.6	0
1452	Electroreduction of carbon dioxide to liquid fuels: A low-cost, sustainable technology. <i>Renewable and Sustainable Energy Reviews</i> , 2024, 194, 114300.	16.4	0
1453	Materials Design for Photocatalytic CO <sub>2</sub> Conversion to C <sub>2+</sub> Products. <i>Chemistry of Materials</i> , 2024, 36, 1793-1809.	6.7	0
1454	Surface coating combined with in situ cyclic voltammetry to enhance the stability of gas diffusion electrodes for electrochemical CO <sub>2</sub> reduction. <i>Science of the Total Environment</i> , 2024, 918, 170758.	8.0	0
1455	Atomically dispersed Co <sup>2+</sup> in a redox-active COF for electrochemical CO <sub>2</sub> reduction to ethanol: unravelling mechanistic insight through <i>operando</i> studies. <i>Energy and Environmental Science</i> , 2024, 17, 2315-2325.	30.8	0
1456	Synergistic effect of phthalocyanine and pyrochlore-type oxide catalysts to enhance activity of electrochemical carbon dioxide reduction. <i>Chemistry Letters</i> , 2024, 53, .	1.3	0
1457	Bidirectional electron transfer boosts Li <sup>+</sup> CO <sub>2</sub> electrochemistry. <i>Journal of Materials Chemistry A</i> , 2024, 12, 6515-6526.	10.3	0
1458	Real-Time Detection of Acetaldehyde in Electrochemical CO Reduction on Cu Single Crystals. <i>ACS Energy Letters</i> , 2024, 9, 880-887.	17.4	0
1459	Beyond C-C coupling in CO <sub>2</sub> reduction. , 2024, 1, 134-135.		0
1460	Acidic media enables oxygen-tolerant electrosynthesis of multicarbon products from simulated flue gas. <i>Nature Communications</i> , 2024, 15, .	12.8	0
1461	A surface strategy boosting the ethylene selectivity for CO <sub>2</sub> reduction and in situ mechanistic insights. <i>Nature Communications</i> , 2024, 15, .	12.8	0
1462	Tackling the activity and selectivity challenges of electrocatalysts towards CO <sub>2</sub> reduction reaction via atomically dispersed dual atom catalysts. <i>Applied Surface Science</i> , 2024, 655, 159687.	6.1	0
1463	Strategies to Modulate the Copper Oxidation State Toward Selective C <sub>2+</sub> Production in the Electrochemical CO <sub>2</sub> Reduction Reaction. <i>Advanced Materials</i> , 0, , .	21.0	0
1464	Key Role of Cations in Stabilizing Hydrogen Radicals for CO <sub>2</sub> -to-CO Conversion via a Reverse Water-Gas Shift Reaction. <i>Journal of Physical Chemistry Letters</i> , 2024, 15, .	4.6	0
1465	Electrocatalytic reduction of CO <sub>2</sub> with enhanced C <sub>2</sub> liquid products activity by the synergistic effect of Cu single atoms and oxygen vacancies. <i>Chinese Journal of Catalysis</i> , 2024, 57, 96-104.	14.0	0
1466	Defect engineering of carbon-based electrocatalysts for the CO <sub>2</sub> reduction reaction: A review. <i>New Carbon Materials</i> , 2024, 39, 17-41.	6.1	0
1467	Steering C-C Coupling by Hollow Cu <sub>2</sub> O@C/N Nanoreactors for Highly Efficient Electroreduction of CO <sub>2</sub> to C <sub>2+</sub> Products. <i>Advanced Functional Materials</i> , 0, , .	14.9	1

#	ARTICLE	IF	CITATIONS
1468	New Mechanistic Insights into CO <sub>2</sub> /CO Electroreduction to Acetate by Combining Computations and Experiments. ACS Catalysis, 2024, 14, 3171-3180.	11.2	0
1469	Recent progress in the development of electrode materials for electrochemical carboxylation with CO <sub>2</sub> . Journal of Catalysis, 2024, 432, 115371.	6.2	0
1470	Hybrid oxide coatings generate stable Cu catalysts for CO <sub>2</sub> electroreduction. Nature Materials, 2024, 23, 680-687.	27.5	1
1471	Tuning the Catalytic Selectivity Toward C <sub>2</sub> + Oxygenate Products by Manipulating Cu Oxidation States in CO Electroreduction. ACS Applied Materials & Interfaces, 2024, 16, 10138-10147.	8.0	0
1472	Benzyl alcohol promoted electrocatalytic reduction of carbon dioxide and C <sub>2</sub> production by Cu <sub>2</sub> O/Cu. Chemical Engineering Journal, 2024, 485, 149800.	12.7	0
1473	Rapid screening of copper-based bimetallic catalysts via automatic electrocatalysis platform: Electrocatalytic reduction of CO <sub>2</sub> to C <sub>2</sub> + products on europium-modified copper. , 2024, 2, 100056.		0
1474	Role of single-atom alloy catalysts in electrochemical conversion of carbon dioxide: A theoretical study. Chemical Engineering Science, 2024, 290, 119910.	3.8	0
1475	Structuring Cu Membrane Electrode for Maximizing Ethylene Yield from CO <sub>2</sub> Electroreduction. Advanced Materials, 0, , .	21.0	0
1476	General synthesis and atomic arrangement identification of ordered Bi-Pd intermetallics with tunable electrocatalytic CO <sub>2</sub> reduction selectivity. Nature Communications, 2024, 15, .	12.8	0
1477	Impact of the PiperION Anion Exchange Membrane Thickness on the Performance of a CO <sub>2</sub> -to-HCOOH Three-Compartment Electrolyzer. Industrial & Engineering Chemistry Research, 2024, 63, 3986-3996.	3.7	0
1478	In situ copper faceting enables efficient CO <sub>2</sub> /CO electrolysis. Nature Communications, 2024, 15, .	12.8	0
1479	Impact of Potential and Active-Site Environment on Single-Iron-Atom-Catalyzed Electrochemical CO <sub>2</sub> Reduction from Accurate Quantum Many-Body Simulations. ACS Catalysis, 2024, 14, 3933-3942.	11.2	0
1480	Leveraging Dual-Atom Catalysts for Electrocatalysis Revitalization: Exploring the Structure-Performance Correlation. Advanced Energy Materials, 0, , .	19.5	0
1481	Complete electrocatalytic defluorination of perfluorooctane sulfonate in aqueous solution with nonprecious materials. Journal of Catalysis, 2024, 431, 115403.	6.2	0
1482	Rapid and controllable in-situ self-assembly of main-group metal nanofilms for highly efficient CO <sub>2</sub> electroreduction to liquid fuel in flow cells. Nano Research, 0, , .	10.4	0
1483	Current Status and Perspectives of Dual-Atom Catalysts Towards Sustainable Energy Utilization. Nano-Micro Letters, 2024, 16, .	27.0	0
1484	Copper Nanowires for Electrochemical CO <sub>2</sub> Reduction Reaction. ACS Applied Nano Materials, 0, , .	5.0	0
1485	Coordination Environment Engineering of Metal Centers in Coordination Polymers for Selective Carbon Dioxide Electroreduction toward Multicarbon Products. ACS Nano, 2024, 18, 7192-7203.	14.6	0

#	ARTICLE	IF	CITATIONS
1486	Business strategies for achieving carbon neutrality goals in collaborative ecosystems: Bridging gaps in achieving operational status. Business Strategy and the Environment, 0, , .	14.3	0
1487	New trends in the development of CO <sub>2</sub> electrochemical reduction electrolyzer. Journal of Environmental Chemical Engineering, 2024, 12, 112369.	6.7	0
1488	Advances in electrocarboxylation reactions with CO <sub>2</sub> . , 2024, 2, 45-56.		0
1489	Enhancing electrochemical carbon dioxide reduction efficiency through heat-induced metamorphosis of copper nanowires into copper oxide/copper nanotubes with tunable surface. Journal of Colloid and Interface Science, 2024, 664, 210-219.	9.4	0
1490	Polyarene Oxides with Tunable Quinone Units for Photocatalytic CO <sub>2</sub> Reduction: A Simple Strategy toward Effective and Selective Catalysts. Langmuir, 2024, 40, 6026-6034.	3.5	0
1491	Efficient C-N coupling in electrocatalytic urea generation on copper carbonate hydroxide electrocatalysts. Journal of Energy Chemistry, 2024, 93, 289-298.	12.9	0
1492	Conjugated Microporous Polymers for Catalytic CO <sub>2</sub> Conversion. Advanced Science, 2024, 11, .	11.2	0
1493	Twoâ€Dimensional Crystalline Electrocatalysts for Efficient Reduction of Carbon Dioxide. ChemElectroChem, 0, , .	3.4	0
1494	Emerging Cuâ€Based Tandem Catalytic Systems for CO <sub>2</sub> Electroreduction to Multiâ€Carbon Products. Advanced Materials Interfaces, 2024, 11, .	3.7	0
1496	Active hydrogen-controlled CO<sub>2</sub>/N<sub>2</sub>/NO<sub>x</sub> electroreduction:From mechanism understanding to catalyst design. , 2024, 2, 100058.		0
1497	S-dopant and O-vacancy of mesoporous ZnO nanosheets induce high efficiency and selectivity of electrocatalytic CO <sub>2</sub> reduction to CO. Composites Communications, 2024, 48, 101890.	6.3	0
1498	Tuning the selectivity of CO <sub>2</sub> conversion to CO on partially reduced Cu<sub>2</sub>O/ZnO heterogeneous interface. , 0, , .		0
1499	A continuous flow reactor for tubular gas diffusion electrodes. Chemical Engineering Journal, 2024, 486, 150031.	12.7	0
1500	Selective Electrified Propylene-to-Propylene Glycol Oxidation on Activated Rh-Doped Pd. Journal of the American Chemical Society, 2024, 146, 8641-8649.	13.7	0
1501	Highly selective electroreduction of CO <sub>2</sub> to CO with ZnO QDs/N-doped porous carbon catalysts. Chemical Communications, 2024, 60, 3575-3578.	4.1	0
1502	Research Status, Challenges, and Future Prospects of Carbon Dioxide Reduction Technology. Energy & Fuels, 2024, 38, 4836-4880.	5.1	0
1503	Red blood cell (RBC)-like Ni@Nâ€C composites for efficient electrochemical CO <sub>2</sub> reduction and Znâ€CO <sub>2</sub> batteries. Journal of Materials Chemistry A, 2024, 12, 9462-9468.	10.3	0
1504	Hybrid mesoporous electrodes evidence CISS effect on water oxidation. Journal of Chemical Physics, 2024, 160, .	3.0	0

#	ARTICLE	IF	CITATIONS
1505	Synergistic Effects of Amine Functional Groups and Enriched Atomic Iron Sites in Carbon Dots for Industrial Current Density CO <sub>2</sub> Electroreduction. Small, 0, , .	10.0	0
1506	Constructing strain in electrocatalytic materials for CO <sub>2</sub> reduction reactions. Green Chemistry, 2024, 26, 4449-4467.	9.0	0