

# Gengfeng Zheng

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

100  
papers

11,392  
citations

44  
h-index

106  
g-index

111  
ext. papers

13,677  
ext. citations

13.8  
avg, IF

6.79  
L-index

#	Paper	IF	Citations
100	System Engineering Enhances Photoelectrochemical CO <sub>2</sub> Reduction. <i>Journal of Physical Chemistry C</i> , <b>2022</b> , 126, 1689-1700	3.8	1
99	Electrochemical conversion of C <sub>1</sub> molecules to sustainable fuels in solid oxide electrolysis cells. <i>Chinese Journal of Catalysis</i> , <b>2022</b> , 43, 92-103	11.3	1
98	Efficient CO Electroreduction to Ethanol by Cu Sn Catalyst.. <i>Small Methods</i> , <b>2022</b> , 6, e2101334	12.8	5
97	Polarization Engineering of Covalent Triazine Frameworks for Highly Efficient Photosynthesis of Hydrogen Peroxide from Molecular Oxygen and Water.. <i>Advanced Materials</i> , <b>2022</b> , e2110266	24	6
96	Electron Localization and Lattice Strain Induced by Surface Lithium Doping Enable Ampere-Level Electrosynthesis of Formate from CO. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 25741-25745	16.4	7
95	Electron Localization and Lattice Strain Induced by Surface Lithium Doping Enable Ampere-Level Electrosynthesis of Formate from CO <sub>2</sub> . <i>Angewandte Chemie</i> , <b>2021</b> , 133, 25945	3.6	1
94	Double sulfur vacancies by lithium tuning enhance CO electroreduction to n-propanol. <i>Nature Communications</i> , <b>2021</b> , 12, 1580	17.4	43
93	Electrochemical nitrogen fixation via bimetallic Sn-Ti sites on defective titanium oxide catalysts. <i>Journal of Colloid and Interface Science</i> , <b>2021</b> , 588, 242-247	9.3	6
92	Designing Copper-Based Catalysts for Efficient Carbon Dioxide Electroreduction. <i>Advanced Materials</i> , <b>2021</b> , 33, e2005798	24	36
91	Promoting N electroreduction to ammonia by fluorine-terminating TiCT MXene. <i>Nano Convergence</i> , <b>2021</b> , 8, 14	9.2	5
90	Electrocatalytic Methane Oxidation Greatly Promoted by Chlorine Intermediates. <i>Angewandte Chemie</i> , <b>2021</b> , 133, 17538-17543	3.6	2
89	Electrocatalytic Methane Oxidation Greatly Promoted by Chlorine Intermediates. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 17398-17403	16.4	8
88	Electrocatalytic Methane Oxidation to Ethanol via Rh/ZnO Nanosheets. <i>Journal of Physical Chemistry C</i> , <b>2021</b> , 125, 13324-13330	3.8	6
87	Electrochemical Methane Conversion. <i>Small Structures</i> , <b>2021</b> , 2, 2100037	8.7	4
86	Efficient Electrocatalytic CO <sub>2</sub> Reduction to C <sub>2</sub> + Alcohols at Defect-Site-Rich Cu Surface. <i>Joule</i> , <b>2021</b> , 5, 429-440	27.8	47
85	Heterogeneous Electrocatalysts for CO <sub>2</sub> Reduction. <i>ACS Applied Energy Materials</i> , <b>2021</b> , 4, 1034-1044	6.1	8
84	Lithiation-Enabled High-Density Nitrogen Vacancies Electrocatalyze CO to C Products. <i>Advanced Materials</i> , <b>2021</b> , 33, e2103150	24	8

83	Electrocatalytic Reactions for Converting CO <sub>2</sub> to Value-Added Products. <i>Small Science</i> , <b>2021</b> , 1, 2100043		21
82	Promoting electrocatalytic carbon monoxide reduction to ethylene on copper-polypyrrole interface. <i>Journal of Colloid and Interface Science</i> , <b>2021</b> , 600, 847-853	9.3	2
81	Efficient carboxylation of styrene and carbon dioxide by single-atomic copper electrocatalyst. <i>Journal of Colloid and Interface Science</i> , <b>2021</b> , 601, 378-384	9.3	6
80	Lithium Vacancy-Tuned [CuO] Sites for Selective CO Electroreduction to C Products.. <i>Small</i> , <b>2021</b> , e2106433	10.4	3
79	Chlorine-doped carbon for electrocatalytic nitrogen reduction. <i>Molecular Catalysis</i> , <b>2020</b> , 492, 111029	3.3	6
78	Ru-doped, oxygen-vacancy-containing CeO <sub>2</sub> nanorods toward N <sub>2</sub> electroreduction. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 7229-7234	13	22
77	Fast cooling induced grain-boundary-rich copper oxide for electrocatalytic carbon dioxide reduction to ethanol. <i>Journal of Colloid and Interface Science</i> , <b>2020</b> , 570, 375-381	9.3	16
76	Enhanced Nitrate-to-Ammonia Activity on Copper-Nickel Alloys via Tuning of Intermediate Adsorption. <i>Journal of the American Chemical Society</i> , <b>2020</b> , 142, 5702-5708	16.4	192
75	Boosting CO <sub>2</sub> Electroreduction to CH <sub>4</sub> via Tuning Neighboring Single-Copper Sites. <i>ACS Energy Letters</i> , <b>2020</b> , 5, 1044-1053	20.1	154
74	Recent advances of metal nanoclusters for aerobic oxidation. <i>Materials Today Nano</i> , <b>2020</b> , 11, 100080	9.7	5
73	Oxygen vacancies enhanced cooperative electrocatalytic reduction of carbon dioxide and nitrite ions to urea. <i>Journal of Colloid and Interface Science</i> , <b>2020</b> , 577, 109-114	9.3	27
72	Hydrophobically made Ag nanoclusters with enhanced performance for CO <sub>2</sub> aqueous electroreduction. <i>Journal of Power Sources</i> , <b>2020</b> , 476, 228705	8.9	10
71	Precise tuning of heteroatom positions in polycyclic aromatic hydrocarbons for electrocatalytic nitrogen fixation. <i>Journal of Colloid and Interface Science</i> , <b>2020</b> , 580, 623-629	9.3	2
70	Electron-Deficient Cu Sites on Cu <sub>3</sub> Ag <sub>1</sub> Catalyst Promoting CO <sub>2</sub> Electroreduction to Alcohols. <i>Advanced Energy Materials</i> , <b>2020</b> , 10, 2001987	21.8	43
69	Pushing the activity of CO <sub>2</sub> electroreduction by system engineering. <i>Science Bulletin</i> , <b>2019</b> , 64, 1805-1816	16.6	25
68	Selective carbon dioxide electroreduction to ethylene and ethanol by core-shell copper/cuprous oxide. <i>Journal of Colloid and Interface Science</i> , <b>2019</b> , 552, 426-431	9.3	28
67	Electron distribution tuning of fluorine-doped carbon for ammonia electrosynthesis. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 16979-16983	13	35
66	Achieving Efficient CO Electrochemical Reduction on Tunable In(OH)-Coupled CuO-Derived Hybrid Catalysts. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 22346-22351	9.5	17

65	Electrochemical N fixation by Cu-modified iron oxide dendrites. <i>Journal of Colloid and Interface Science</i> , <b>2019</b> , 552, 312-318	9.3	16
64	Enhanced N-doping in mesoporous carbon for efficient electrocatalytic CO <sub>2</sub> conversion. <i>Nano Research</i> , <b>2019</b> , 12, 2324-2329	10	63
63	In situ formed Co clusters in selective oxidation of C-H bond: Stabilizing effect from reactants. <i>Molecular Catalysis</i> , <b>2019</b> , 470, 1-7	3.3	12
62	One-dimensional Nanomaterial Electrocatalysts for CO Fixation. <i>Chemistry - an Asian Journal</i> , <b>2019</b> , 14, 3969-3980	4.5	10
61	Doping strain induced bi-Ti pairs for efficient N activation and electrocatalytic fixation. <i>Nature Communications</i> , <b>2019</b> , 10, 2877	17.4	173
60	Electrolyte Driven Highly Selective CO <sub>2</sub> Electroreduction at Low Overpotentials. <i>ACS Catalysis</i> , <b>2019</b> , 9, 10440-10447	13.1	23
59	2020 Roadmap on gas-involved photo- and electro- catalysis. <i>Chinese Chemical Letters</i> , <b>2019</b> , 30, 2089-2109	10.9	59
58	Defective graphene for electrocatalytic CO reduction. <i>Journal of Colloid and Interface Science</i> , <b>2019</b> , 534, 332-337	9.3	44
57	NbO <sub>2</sub> Electrocatalyst Toward 32% Faradaic Efficiency for N <sub>2</sub> Fixation. <i>Small Methods</i> , <b>2019</b> , 3, 1800386	12.8	77
56	Tuning Active Sites of MXene for Efficient Electrocatalytic N <sub>2</sub> Fixation. <i>Chem</i> , <b>2019</b> , 5, 15-17	16.2	19
55	Nanowire arrays restore vision in blind mice. <i>Nature Communications</i> , <b>2018</b> , 9, 786	17.4	58
54	Aqueous electrocatalytic N <sub>2</sub> reduction under ambient conditions. <i>Nano Research</i> , <b>2018</b> , 11, 2992-3008	10	170
53	Topotactic Engineering of Ultrathin 2D Nonlayered Nickel Selenides for Full Water Electrolysis. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1702704	21.8	138
52	Unconventional morphologies of CoO nanocrystals via controlled oxidation of cobalt oleate precursors. <i>Chemical Communications</i> , <b>2018</b> , 54, 3867-3870	5.8	2
51	Single-Atomic Cu with Multiple Oxygen Vacancies on Ceria for Electrocatalytic CO <sub>2</sub> Reduction to CH <sub>4</sub> . <i>ACS Catalysis</i> , <b>2018</b> , 8, 7113-7119	13.1	323
50	Mesoporous tin oxide for electrocatalytic CO reduction. <i>Journal of Colloid and Interface Science</i> , <b>2018</b> , 531, 564-569	9.3	32
49	Nanostructured Copper-Based Electrocatalysts for CO <sub>2</sub> Reduction. <i>Small Methods</i> , <b>2018</b> , 2, 1800121	12.8	84
48	Automated in Vivo Nanosensing of Breath-Borne Protein Biomarkers. <i>Nano Letters</i> , <b>2018</b> , 18, 4716-4726	11.5	16

47	Electronic Tuning of Co, Ni-Based Nanostructured (Hydr)oxides for Aqueous Electrocatalysis. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1804886	15.6	53
46	Efficient solar-driven electrocatalytic CO reduction in a redox-medium-assisted system. <i>Nature Communications</i> , <b>2018</b> , 9, 5003	17.4	64
45	Oxygen Vacancy Tuning toward Efficient Electrocatalytic CO <sub>2</sub> Reduction to C <sub>2</sub> H <sub>4</sub> . <i>Small Methods</i> , <b>2018</b> , 3, 1800449	12.8	51
44	Sub-5 nm SnO <sub>2</sub> chemically coupled hollow carbon spheres for efficient electrocatalytic CO <sub>2</sub> reduction. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 20121-20127	13	48
43	Defect and Interface Engineering for Aqueous Electrocatalytic CO <sub>2</sub> Reduction. <i>Joule</i> , <b>2018</b> , 2, 2551-2582	27.8	272
42	Lasing from lead halide perovskite semiconductor microcavity system. <i>Nanoscale</i> , <b>2018</b> , 10, 10371-10376	7.7	20
41	2D Assembly of Confined Space toward Enhanced CO <sub>2</sub> Electroreduction. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1801230	21.8	35
40	Boron-Doped Graphene for Electrocatalytic N <sub>2</sub> Reduction. <i>Joule</i> , <b>2018</b> , 2, 1610-1622	27.8	517
39	Cu, Co-Embedded N-Enriched Mesoporous Carbon for Efficient Oxygen Reduction and Hydrogen Evolution Reactions. <i>Advanced Energy Materials</i> , <b>2017</b> , 7, 1700193	21.8	339
38	Hierarchically tubular nitrogen-doped carbon structures for the oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 13634-13638	13	18
37	Bridged-multi-octahedral cobalt oxide nanocrystals with a Co-terminated surface as an oxygen evolution and reduction electrocatalyst. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 7416-7422	13	20
36	One-Dimensional Earth-Abundant Nanomaterials for Water-Splitting Electrocatalysts. <i>Advanced Science</i> , <b>2017</b> , 4, 1600380	13.6	195
35	CuCoOx/FeOOH Core-Shell Nanowires as an Efficient Bifunctional Oxygen Evolution and Reduction Catalyst. <i>ACS Energy Letters</i> , <b>2017</b> , 2, 2498-2505	20.1	92
34	Selective Etching of Nitrogen-Doped Carbon by Steam for Enhanced Electrochemical CO <sub>2</sub> Reduction. <i>Advanced Energy Materials</i> , <b>2017</b> , 7, 1701456	21.8	146
33	Tuning of CO Reduction Selectivity on Metal Electrocatalysts. <i>Small</i> , <b>2017</b> , 13, 1701809	11	136
32	Unconventional mesoporous single crystalline NiO by synergistically controlled evaporation and hydrolysis. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 23840-23843	13	4
31	Colloidal nanocrystals for electrochemical reduction reactions. <i>Journal of Colloid and Interface Science</i> , <b>2017</b> , 485, 308-327	9.3	14
30	Superb Alkaline Hydrogen Evolution and Simultaneous Electricity Generation by Pt-Decorated Ni <sub>3</sub> N Nanosheets. <i>Advanced Energy Materials</i> , <b>2017</b> , 7, 1601390	21.8	176

29	Achieving High Aqueous Energy Storage via Hydrogen-Generation Passivation. <i>Advanced Materials</i> , <b>2016</b> , 28, 7626-32	24	42
28	Egg-Derived Mesoporous Carbon Microspheres as Bifunctional Oxygen Evolution and Oxygen Reduction Electrocatalysts. <i>Advanced Energy Materials</i> , <b>2016</b> , 6, 1600794	21.8	133
27	CuCo Hybrid Oxides as Bifunctional Electrocatalyst for Efficient Water Splitting. <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 8555-8561	15.6	197
26	CoNi-Based Nanotubes/Nanosheets as Efficient Water Splitting Electrocatalysts. <i>Advanced Energy Materials</i> , <b>2016</b> , 6, 1501661	21.8	206
25	Enhancing Perovskite Solar Cell Performance by Interface Engineering Using CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>0.9</sub> I <sub>2.1</sub> Quantum Dots. <i>Journal of the American Chemical Society</i> , <b>2016</b> , 138, 8581-7	16.4	194
24	Transition metal oxide hierarchical nanotubes for energy applications. <i>Nanotechnology</i> , <b>2016</b> , 27, 02LT0134	3.4	12
23	Incorporation of well-dispersed sub-5-nm graphitic pencil nanodots into ordered mesoporous frameworks. <i>Nature Chemistry</i> , <b>2016</b> , 8, 171-8	17.6	128
22	Purcell effect in an organic-inorganic halide perovskite semiconductor microcavity system. <i>Applied Physics Letters</i> , <b>2016</b> , 108, 022103	3.4	28
21	Bifunctional CoP and CoN porous nanocatalysts derived from ZIF-67 in situ grown on nanowire photoelectrodes for efficient photoelectrochemical water splitting and CO <sub>2</sub> reduction. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 15353-15360	13	75
20	Nanostructured Bifunctional Redox Electrocatalysts. <i>Small</i> , <b>2016</b> , 12, 5656-5675	11	134
19	Carbon-Coated Co(3+)-Rich Cobalt Selenide Derived from ZIF-67 for Efficient Electrochemical Water Oxidation. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 20534-9	9.5	152
18	From Water Oxidation to Reduction: Homologous NiCo Based Nanowires as Complementary Water Splitting Electrocatalysts. <i>Advanced Energy Materials</i> , <b>2015</b> , 5, 1402031	21.8	372
17	Nanoparticle Superlattices as Efficient Bifunctional Electrocatalysts for Water Splitting. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 14305-12	16.4	328
16	Mesoporous TiO <sub>2</sub> Mesocrystals: Remarkable Defects-Induced Crystallite-Interface Reactivity and Their in Situ Conversion to Single Crystals. <i>ACS Central Science</i> , <b>2015</b> , 1, 400-8	16.8	63
15	Bio-Inspired Leaf-Mimicking Nanosheet/Nanotube Heterostructure as a Highly Efficient Oxygen Evolution Catalyst. <i>Advanced Science</i> , <b>2015</b> , 2, 1500003	13.6	78
14	A flexible ligand-based wavy layered metal-organic framework for lithium-ion storage. <i>Journal of Colloid and Interface Science</i> , <b>2015</b> , 445, 320-325	9.3	83
13	Reduced Mesoporous Co <sub>3</sub> O <sub>4</sub> Nanowires as Efficient Water Oxidation Electrocatalysts and Supercapacitor Electrodes. <i>Advanced Energy Materials</i> , <b>2014</b> , 4, 1400696	21.8	650
12	Aligned NiO nanoflake arrays grown on copper as high capacity lithium-ion battery anodes. <i>Journal of Materials Chemistry</i> , <b>2012</b> , 22, 19821		102

11	Fabrication of silicon nanowire devices for ultrasensitive, label-free, real-time detection of biological and chemical species. <i>Nature Protocols</i> , <b>2006</b> , 1, 1711-24	18.8	605
10	Multiplexed electrical detection of cancer markers with nanowire sensor arrays. <i>Nature Biotechnology</i> , <b>2005</b> , 23, 1294-301	44.5	1995
9	Parallel and Complementary Detection of Proteins by p-type and n-type Silicon Nanowire Transistor Arrays. <i>Materials Research Society Symposia Proceedings</i> , <b>2005</b> , 900, 1		
8	Synthesis and Fabrication of High-Performance n-Type Silicon Nanowire Transistors. <i>Advanced Materials</i> , <b>2004</b> , 16, 1890-1893	24	383
7	Electrical detection of single viruses. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2004</b> , 101, 14017-22	11.5	1056
6	Multiplexed Electrical Detection of Single Viruses. <i>Materials Research Society Symposia Proceedings</i> , <b>2004</b> , 828, 97		1
5	Hydroxy-Group-Enriched In <sub>2</sub> O <sub>3</sub> Facilitates CO <sub>2</sub> Electroreduction to Formate at Large Current Densities. <i>Advanced Materials Interfaces</i> , 2101956	4.6	4
4	Dual-Atomic Cu Sites for Electrocatalytic CO Reduction to C <sub>2</sub> + Products 1729-1737		10
3	Atomic-Level Copper Sites for Selective CO <sub>2</sub> Electroreduction to Hydrocarbon. <i>ACS Sustainable Chemistry and Engineering</i> ,	8.3	2
2	Highly-Exposed Single-Interlayered Cu Edges Enable High-Rate CO <sub>2</sub> -to-CH <sub>4</sub> Electrosynthesis. <i>Advanced Energy Materials</i> , 2200195	21.8	3
1	Defect-Assisted Electron Tunneling for Photoelectrochemical CO <sub>2</sub> Reduction to Ethanol at Low Overpotentials. <i>Advanced Energy Materials</i> , 2201134	21.8	4