Junjie Zhong

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103 140 10,942 50 h-index g-index citations papers 6.73 15.6 150 15,153 L-index avg, IF ext. papers ext. citations

#	Paper	IF	Citations
140	Enhanced electrocatalytic CO reduction via field-induced reagent concentration. <i>Nature</i> , 2016 , 537, 38	2-38 <u>.6</u>	997
139	CO electroreduction to ethylene via hydroxide-mediated copper catalysis at an abrupt interface. <i>Science</i> , 2018 , 360, 783-787	33.3	980
138	Dopant-induced electron localization drives CO reduction to C hydrocarbons. <i>Nature Chemistry</i> , 2018 , 10, 974-980	17.6	435
137	CO electrolysis to multicarbon products at activities greater than 1 A cm. <i>Science</i> , 2020 , 367, 661-666	33.3	403
136	Electrochemical CO Reduction into Chemical Feedstocks: From Mechanistic Electrocatalysis Models to System Design. <i>Advanced Materials</i> , 2019 , 31, e1807166	24	396
135	Steering post-CL coupling selectivity enables high efficiency electroreduction of carbon dioxide to multi-carbon alcohols. <i>Nature Catalysis</i> , 2018 , 1, 421-428	36.5	348
134	Turning the Page: Advancing Paper-Based Microfluidics for Broad Diagnostic Application. <i>Chemical Reviews</i> , 2017 , 117, 8447-8480	68.1	333
133	Molecular tuning of CO-to-ethylene conversion. <i>Nature</i> , 2020 , 577, 509-513	50.4	321
132	Multi-site electrocatalysts for hydrogen evolution in neutral media by destabilization of water molecules. <i>Nature Energy</i> , 2019 , 4, 107-114	62.3	264
131	Optofluidics for energy applications. <i>Nature Photonics</i> , 2011 , 5, 583-590	33.9	223
130	Copper nanocavities confine intermediates for efficient electrosynthesis of C3 alcohol fuels from carbon monoxide. <i>Nature Catalysis</i> , 2018 , 1, 946-951	36.5	205
129	Enhanced Nitrate-to-Ammonia Activity on Copper-Nickel Alloys via Tuning of Intermediate Adsorption. <i>Journal of the American Chemical Society</i> , 2020 , 142, 5702-5708	16.4	192
128	Metal-Organic Frameworks Mediate Cu Coordination for Selective CO Electroreduction. <i>Journal of the American Chemical Society</i> , 2018 , 140, 11378-11386	16.4	188
127	Binding Site Diversity Promotes CO Electroreduction to Ethanol. <i>Journal of the American Chemical Society</i> , 2019 , 141, 8584-8591	16.4	178
126	Cooperative CO2-to-ethanol conversion via enriched intermediates at moleculefhetal catalyst interfaces. <i>Nature Catalysis</i> , 2020 , 3, 75-82	36.5	164
125	Copper-on-nitride enhances the stable electrosynthesis of multi-carbon products from CO. <i>Nature Communications</i> , 2018 , 9, 3828	17.4	164
124	Efficient electrically powered CO2-to-ethanol via suppression of deoxygenation. <i>Nature Energy</i> , 2020 , 5, 478-486	62.3	163

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123	Catalyst synthesis under CO2 electroreduction favours faceting and promotes renewable fuels electrosynthesis. <i>Nature Catalysis</i> , 2020 , 3, 98-106	36.5	158
122	Combined high alkalinity and pressurization enable efficient CO2 electroreduction to CO. <i>Energy and Environmental Science</i> , 2018 , 11, 2531-2539	35.4	147
121	Photon management for augmented photosynthesis. <i>Nature Communications</i> , 2016 , 7, 12699	17.4	142
120	High Rate, Selective, and Stable Electroreduction of CO2 to CO in Basic and Neutral Media. <i>ACS Energy Letters</i> , 2018 , 3, 2835-2840	20.1	136
119	A Surface Reconstruction Route to High Productivity and Selectivity in CO Electroreduction toward C Hydrocarbons. <i>Advanced Materials</i> , 2018 , 30, e1804867	24	131
118	High-Density Nanosharp Microstructures Enable Efficient CO Electroreduction. <i>Nano Letters</i> , 2016 , 16, 7224-7228	11.5	126
117	2D Metal Oxyhalide-Derived Catalysts for Efficient CO Electroreduction. <i>Advanced Materials</i> , 2018 , 30, e1802858	24	123
116	Pore-Scale Assessment of Nanoparticle-Stabilized CO2 Foam for Enhanced Oil Recovery. <i>Energy & Energy Fuels</i> , 2014 , 28, 6221-6227	4.1	116
115	CO electrolysis to multicarbon products in strong acid. <i>Science</i> , 2021 , 372, 1074-1078	33.3	115
114	Efficient electrocatalytic conversion of carbon monoxide to propanol using fragmented copper. <i>Nature Catalysis</i> , 2019 , 2, 251-258	36.5	111
113	Energy: the microfluidic frontier. <i>Lab on A Chip</i> , 2014 , 14, 3127-34	7.2	109
112	Two-dimensional slither swimming of sperm within a micrometre of a surface. <i>Nature Communications</i> , 2015 , 6, 8703	17.4	103
111	Optofluidic concentration: plasmonic nanostructure as concentrator and sensor. <i>Nano Letters</i> , 2012 , 12, 1592-6	11.5	102
110	Magnetic Extraction of Microplastics from Environmental Samples. <i>Environmental Science and Technology Letters</i> , 2019 , 6, 68-72	11	100
109	Direct DNA Analysis with Paper-Based Ion Concentration Polarization. <i>Journal of the American Chemical Society</i> , 2015 , 137, 13913-9	16.4	100
108	Hydronium-Induced Switching between CO Electroreduction Pathways. <i>Journal of the American Chemical Society</i> , 2018 , 140, 3833-3837	16.4	100
107	Hydroxide promotes carbon dioxide electroreduction to ethanol on copper via tuning of adsorbed hydrogen. <i>Nature Communications</i> , 2019 , 10, 5814	17.4	95
106	Deep Learning with Microfluidics for Biotechnology. <i>Trends in Biotechnology</i> , 2019 , 37, 310-324	15.1	92

105	Constraining CO coverage on copper promotes high-efficiency ethylene electroproduction. <i>Nature Catalysis</i> , 2019 , 2, 1124-1131	36.5	89
104	Copper adparticle enabled selective electrosynthesis of n-propanol. <i>Nature Communications</i> , 2018 , 9, 4614	17.4	86
103	Microfluidics for sperm analysis and selection. <i>Nature Reviews Urology</i> , 2017 , 14, 707-730	5.5	80
102	Chloride-mediated selective electrosynthesis of ethylene and propylene oxides at high current density. <i>Science</i> , 2020 , 368, 1228-1233	33.3	78
101	Rapid Microfluidics-Based Measurement of CO2 Diffusivity in Bitumen. <i>Energy & Diffusion of Co2 Diffusion of</i>	4.1	74
100	Field-emission from quantum-dot-in-perovskite solids. <i>Nature Communications</i> , 2017 , 8, 14757	17.4	68
99	Steam-on-a-chip for oil recovery: the role of alkaline additives in steam assisted gravity drainage. <i>Lab on A Chip</i> , 2013 , 13, 3832-9	7.2	66
98	Efficient Methane Electrosynthesis Enabled by Tuning Local CO Availability. <i>Journal of the American Chemical Society</i> , 2020 , 142, 3525-3531	16.4	65
97	Full Characterization of CO-Oil Properties On-Chip: Solubility, Diffusivity, Extraction Pressure, Miscibility, and Contact Angle. <i>Analytical Chemistry</i> , 2018 , 90, 2461-2467	7.8	58
96	Bitumen Toluene Mutual Diffusion Coefficients Using Microfluidics. <i>Energy & amp; Fuels</i> , 2013 , 27, 2042	-2 0 .48	57
95	Microfluidic and nanofluidic phase behaviour characterization for industrial CO, oil and gas. <i>Lab on A Chip</i> , 2017 , 17, 2740-2759	7.2	56
94	Self-Cleaning CO2 Reduction Systems: Unsteady Electrochemical Forcing Enables Stability. <i>ACS Energy Letters</i> , 2021 , 6, 809-815	20.1	56
93	Designing anion exchange membranes for CO2 electrolysers. <i>Nature Energy</i> , 2021 , 6, 339-348	62.3	56
92	Fluorescent Dyes for Visualizing Microplastic Particles and Fibers in Laboratory-Based Studies. <i>Environmental Science and Technology Letters</i> , 2019 , 6, 334-340	11	55
91	Efficient upgrading of CO to C fuel using asymmetric C-C coupling active sites. <i>Nature Communications</i> , 2019 , 10, 5186	17.4	55
90	Paper-Based Quantification of Male Fertility Potential. Clinical Chemistry, 2016, 62, 458-65	5.5	46
89	Fast fluorescence-based microfluidic method for measuring minimum miscibility pressure of CO2 in crude oils. <i>Analytical Chemistry</i> , 2015 , 87, 3160-4	7.8	45
88	Direct and indirect electroosmotic flow velocity measurements in microchannels. <i>Journal of Colloid and Interface Science</i> , 2002 , 254, 184-9	9.3	45

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87	Oxygen-tolerant electroproduction of C2 products from simulated flue gas. <i>Energy and Environmental Science</i> , 2020 , 13, 554-561	35.4	45
86	Capillary Condensation in 8 nm Deep Channels. <i>Journal of Physical Chemistry Letters</i> , 2018 , 9, 497-503	6.4	42
85	Condensation in One-Dimensional Dead-End Nanochannels. ACS Nano, 2017, 11, 304-313	16.7	41
84	Tuning OH binding energy enables selective electrochemical oxidation of ethylene to ethylene glycol. <i>Nature Catalysis</i> , 2020 , 3, 14-22	36.5	41
83	High-Rate and Efficient Ethylene Electrosynthesis Using a Catalyst/Promoter/Transport Layer. <i>ACS Energy Letters</i> , 2020 , 5, 2811-2818	20.1	39
82	CO2 Electroreduction to Formate at a Partial Current Density of 930 mA cm2 with InP Colloidal Quantum Dot Derived Catalysts. <i>ACS Energy Letters</i> , 2021 , 6, 79-84	20.1	39
81	Suppressing the liquid product crossover in electrochemical CO2 reduction. SmartMat, 2021, 2, 12-16	22.8	38
80	Microfluidic pore-scale comparison of alcohol- and alkaline-based SAGD processes. <i>Journal of Petroleum Science and Engineering</i> , 2017 , 154, 139-149	4.4	37
79	Microfluidic Manufacturing of Polymeric Nanoparticles: Comparing Flow Control of Multiscale Structure in Single-Phase Staggered Herringbone and Two-Phase Reactors. <i>Langmuir</i> , 2016 , 32, 12781-1	2 789	37
78	Visualization and numerical modelling of microfluidic on-chip injection processes. <i>Journal of Colloid and Interface Science</i> , 2003 , 260, 431-9	9.3	37
77	Determination of dew point conditions for CO2 with impurities using microfluidics. <i>Environmental Science & Environmental Scie</i>	10.3	36
76	A dynamic loading method for controlling on-chip microfluidic sample injection. <i>Journal of Colloid and Interface Science</i> , 2003 , 266, 448-56	9.3	36
75	Deep learning for the classification of human sperm. Computers in Biology and Medicine, 2019, 111, 1033	3 4 2	35
74	Predominance of sperm motion in corners. <i>Scientific Reports</i> , 2016 , 6, 26669	4.9	32
73	Nanomodel visualization of fluid injections in tight formations. <i>Nanoscale</i> , 2018 , 10, 21994-22002	7.7	32
72	Joint tuning of nanostructured Cu-oxide morphology and local electrolyte programs high-rate CO2 reduction to C2H4. <i>Green Chemistry</i> , 2017 , 19, 4023-4030	10	31
71	Accessory-free quantitative smartphone imaging of colorimetric paper-based assays. <i>Lab on A Chip</i> , 2019 , 19, 1991-1999	7.2	30
70	Promoting CO methanation via ligand-stabilized metal oxide clusters as hydrogen-donating motifs. Nature Communications, 2020, 11, 6190	17.4	30

69	Bubble nucleation and growth in nanochannels. Physical Chemistry Chemical Physics, 2017, 19, 8223-822	9 3.6	29
68	Enhanced Solar-to-Hydrogen Generation with Broadband Epsilon-Near-Zero Nanostructured Photocatalysts. <i>Advanced Materials</i> , 2017 , 29, 1701165	24	29
67	Asphaltene Deposition during Bitumen Extraction with Natural Gas Condensate and Naphtha. <i>Energy & Description of the Energy & Description of </i>	4.1	29
66	Low pressure supercritical CO extraction of astaxanthin from Haematococcus pluvialis demonstrated on a microfluidic chip. <i>Bioresource Technology</i> , 2018 , 250, 481-485	11	29
65	Nanoscale Phase Measurement for the Shale Challenge: Multicomponent Fluids in Multiscale Volumes. <i>Langmuir</i> , 2018 , 34, 9927-9935	4	28
64	Deep learning-based selection of human sperm with high DNA integrity. <i>Communications Biology</i> , 2019 , 2, 250	6.7	28
63	Enhanced multi-carbon alcohol electroproduction from CO via modulated hydrogen adsorption. <i>Nature Communications</i> , 2020 , 11, 3685	17.4	28
62	Low coordination number copper catalysts for electrochemical CO methanation in a membrane electrode assembly. <i>Nature Communications</i> , 2021 , 12, 2932	17.4	27
61	Single Pass CO2 Conversion Exceeding 85% in the Electrosynthesis of Multicarbon Products via Local CO2 Regeneration. <i>ACS Energy Letters</i> , 2021 , 6, 2952-2959	20.1	27
60	Biological Responses to Climate Change and Nanoplastics Are Altered in Concert: Full-Factor Screening Reveals Effects of Multiple Stressors on Primary Producers. <i>Environmental Science & Technology</i> , 2020 , 54, 2401-2410	10.3	25
59	Direct Visualization of Evaporation in a Two-Dimensional Nanoporous Model for Unconventional Natural Gas. <i>ACS Applied Nano Materials</i> , 2018 , 1, 1332-1338	5.6	25
58	Biomass-to-biocrude on a chip via hydrothermal liquefaction of algae. <i>Lab on A Chip</i> , 2016 , 16, 256-60	7.2	25
57	Microfluidic Synthesis of Photoresponsive Spool-Like Block Copolymer Nanoparticles: Flow-Directed Formation and Light-Triggered Dissociation. <i>Chemistry of Materials</i> , 2015 , 27, 8094-8104	9.6	25
56	Exploring Anomalous Fluid Behavior at the Nanoscale: Direct Visualization and Quantification via Nanofluidic Devices. <i>Accounts of Chemical Research</i> , 2020 , 53, 347-357	24.3	25
55	Disposable silicon-glass microfluidic devices: precise, robust and cheap. <i>Lab on A Chip</i> , 2018 , 18, 3872-38	3 9 02	25
54	Stable, active CO reduction to formate via redox-modulated stabilization of active sites. <i>Nature Communications</i> , 2021 , 12, 5223	17.4	25
53	Natural gas vaporization in a nanoscale throat connected model of shale: multi-scale, multi-component and multi-phase. <i>Lab on A Chip</i> , 2019 , 19, 272-280	7.2	24
52	Field tested milliliter-scale blood filtration device for point-of-care applications. <i>Biomicrofluidics</i> , 2013 , 7, 44111	3.2	24

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51	Microfluidic assessment of swimming media for motility-based sperm selection. <i>Biomicrofluidics</i> , 2015 , 9, 044113	3.2	23	
50	Increased Temperature and Turbulence Alter the Effects of Leachates from Tire Particles on Fathead Minnow (). <i>Environmental Science & Eamp; Technology</i> , 2020 , 54, 1750-1759	10.3	23	
49	Light dilution via wavelength management for efficient high-density photobioreactors. <i>Biotechnology and Bioengineering</i> , 2017 , 114, 1160-1169	4.9	22	
48	Visualization of fracturing fluid dynamics in a nanofluidic chip. <i>Journal of Petroleum Science and Engineering</i> , 2018 , 165, 181-186	4.4	22	
47	Self-adaptive Bioinspired Hummingbird-wing Stimulated Triboelectric Nanogenerators. <i>Scientific Reports</i> , 2017 , 7, 17143	4.9	22	
46	Culturing photosynthetic bacteria through surface plasmon resonance. <i>Applied Physics Letters</i> , 2012 , 101, 253701	3.4	21	
45	Pore-scale analysis of steam-solvent coinjection: azeotropic temperature, dilution and asphaltene deposition. <i>Fuel</i> , 2018 , 220, 151-158	7.1	20	
44	A photosynthetic-plasmonic-voltaic cell: Excitation of photosynthetic bacteria and current collection through a plasmonic substrate. <i>Applied Physics Letters</i> , 2014 , 104, 043704	3.4	20	
43	Gold-in-copper at low *CO coverage enables efficient electromethanation of CO. <i>Nature Communications</i> , 2021 , 12, 3387	17.4	20	
42	A combined method for pore-scale optical and thermal characterization of SAGD. <i>Journal of Petroleum Science and Engineering</i> , 2016 , 146, 866-873	4.4	20	
41	In Situ Formation of Nano Ni-Co Oxyhydroxide Enables Water Oxidation Electrocatalysts Durable at High Current Densities. <i>Advanced Materials</i> , 2021 , 33, e2103812	24	20	
40	Hydrothermal disruption of algae cells for astaxanthin extraction. <i>Green Chemistry</i> , 2017 , 19, 106-111	10	19	
39	Paper-based sperm DNA integrity analysis. <i>Analytical Methods</i> , 2016 , 8, 6260-6264	3.2	19	
38	Silica-copper catalyst interfaces enable carbon-carbon coupling towards ethylene electrosynthesis. <i>Nature Communications</i> , 2021 , 12, 2808	17.4	19	
37	Self-assembled nanoparticle-stabilized photocatalytic reactors. <i>Nanoscale</i> , 2016 , 8, 2107-15	7.7	18	
36	Effects of liquid conductivity differences on multi-component sample injection, pumping and stacking in microfluidic chips. <i>Lab on A Chip</i> , 2003 , 3, 173-9	7.2	18	
35	Direct Measurement of the Fluid Phase Diagram. Analytical Chemistry, 2016, 88, 6986-9	7.8	17	
34	A glucose meter interface for point-of-care gene circuit-based diagnostics. <i>Nature Communications</i> , 2021 , 12, 724	17.4	17	

33	Bubble Point Pressures of Hydrocarbon Mixtures in Multiscale Volumes from Density Functional Theory. <i>Langmuir</i> , 2018 , 34, 14058-14068	4	17
32	Direct visualization of fluid dynamics in sub-10 nm nanochannels. <i>Nanoscale</i> , 2017 , 9, 9556-9561	7.7	16
31	When robotics met fluidics. Lab on A Chip, 2020 , 20, 709-716	7.2	16
30	CO2 Electroreduction to Methane at Production Rates Exceeding 100 mA/cm2. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 14668-14673	8.3	14
29	Breathable waveguides for combined light and CO2 delivery to microalgae. <i>Bioresource Technology</i> , 2016 , 209, 391-6	11	13
28	Dopant-tuned stabilization of intermediates promotes electrosynthesis of valuable C3 products. <i>Nature Communications</i> , 2019 , 10, 4807	17.4	13
27	Prediction of DNA Integrity from Morphological Parameters Using a Single-Sperm DNA Fragmentation Index Assay. <i>Advanced Science</i> , 2019 , 6, 1900712	13.6	12
26	Fluorescence in sub-10 nm channels with an optical enhancement layer. <i>Lab on A Chip</i> , 2018 , 18, 568-57	37.2	12
25	Disposable Plasmonics: Rapid and Inexpensive Large Area Patterning of Plasmonic Structures with COILaser Annealing. <i>Langmuir</i> , 2015 , 31, 5252-8	4	11
24	Digestible Fluorescent Coatings for Cumulative Quantification of Microplastic Ingestion. <i>Environmental Science and Technology Letters</i> , 2018 , 5, 62-67	11	11
23	The Full Pressure-Temperature Phase Envelope of a Mixture in 1000 Microfluidic Chambers. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 13962-13967	16.4	9
22	Efficient electrosynthesis of n-propanol from carbon monoxide using a Ag \mathbf{R} u \mathbf{L} u catalyst. <i>Nature Energy</i> ,	62.3	9
21	Screening High-Temperature Foams with Microfluidics for Thermal Recovery Processes. <i>Energy & Energy Fuels</i> , 2021 , 35, 7866-7873	4.1	9
20	Band-aligned C3N4\(\mathbb{B}\)S3x/2 stabilizes CdS/CuInGaS2 photocathodes for efficient water reduction. Journal of Materials Chemistry A, 2017 , 5, 3167-3171	13	8
19	Periodic harvesting of microalgae from calcium alginate hydrogels for sustained high-density production. <i>Biotechnology and Bioengineering</i> , 2017 , 114, 2023-2031	4.9	7
18	Fiber refractometer to detect and distinguish carbon dioxide and methane leakage in the deep ocean. <i>International Journal of Greenhouse Gas Control</i> , 2014 , 31, 41-47	4.2	7
17	Downstream of the CO2 Electrolyzer: Assessing the Energy Intensity of Product Separation. <i>ACS Energy Letters</i> ,4405-4412	20.1	7
16	Accelerating Fluid Development on a Chip for Renewable Energy. Energy & amp; Fuels, 2020, 34, 11219-	1 142126	7

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15	FertDish: microfluidic sperm selection-in-a-dish for intracytoplasmic sperm injection. <i>Lab on A Chip</i> , 2021 , 21, 775-783	7.2	7
14	Carbon-efficient carbon dioxide electrolysers. <i>Nature Sustainability</i> ,	22.1	7
13	Machine learning for sperm selection. <i>Nature Reviews Urology</i> , 2021 , 18, 387-403	5.5	6
12	Glycerol Oxidation Pairs with Carbon Monoxide Reduction for Low-Voltage Generation of C2 and C3 Product Streams. <i>ACS Energy Letters</i> ,3538-3544	20.1	6
11	Gold Adparticles on Silver Combine Low Overpotential and High Selectivity in Electrochemical CO2 Conversion. <i>ACS Applied Energy Materials</i> , 2021 , 4, 7504-7512	6.1	4
10	Concentrated Ethanol Electrosynthesis from CO via a Porous Hydrophobic Adlayer <i>ACS Applied Materials & Description of the Control of the C</i>	9.5	3
9	Evaluation of a Microencapsulated Phase Change Slurry for Subsurface Energy Recovery. <i>Energy & Energy Fuels</i> , 2021 , 35, 10293-10302	4.1	3
8	Effects of Hydrogen Peroxide on Cyanobacterium Microcystis aeruginosa in the Presence of Nanoplastics. <i>ACS ES&T Water</i> , 2021 , 1, 1596-1607		3
7	The Full Pressure Temperature Phase Envelope of a Mixture in 1000 Microfluidic Chambers. <i>Angewandte Chemie</i> , 2017 , 129, 14150-14155	3.6	2
6	Selection of high-quality sperm with thousands of parallel channels. <i>Lab on A Chip</i> , 2021 , 21, 2464-2475	7.2	2
5	Microplastics shift impacts of climate change on a plant-microbe mutualism: Temperature, CO, and tire wear particles. <i>Environmental Research</i> , 2022 , 203, 111727	7.9	2
4	Redox-mediated electrosynthesis of ethylene oxide from CO2 and water. <i>Nature Catalysis</i> , 2022 , 5, 185	-3 %2 5	2
3	Frontispiz: The Full Pressure I emperature Phase Envelope of a Mixture in 1000 Microfluidic Chambers. <i>Angewandte Chemie</i> , 2017 , 129,	3.6	1
2	AbCelleraß success is unprecedented: what have we learned?. <i>Lab on A Chip</i> , 2021 , 21, 2330-2332	7.2	O
1	Past, Present, and Future of Microfluidic Fluid Analysis in the Energy Industry. <i>Energy & amp; Fuels</i> ,	4.1	0