

Chong Liu

List of Publications by Year in descending order

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102
papers

18,552
citations

19636

61
h-index

34964

98
g-index

107
all docs

107
docs citations

107
times ranked

25225
citing authors

#	ARTICLE	IF	CITATIONS
1	Balancing surface adsorption and diffusion of lithium-polysulfides on nonconductive oxides for lithium-sulfur battery design. <i>Nature Communications</i> , 2016, 7, 11203.	5.8	1,136
2	Multifunctional Mesoporous Composite Microspheres with Well-Designed Nanostructure: A Highly Integrated Catalyst System. <i>Journal of the American Chemical Society</i> , 2010, 132, 8466-8473.	6.6	887
3	Radiative human body cooling by nanoporous polyethylene textile. <i>Science</i> , 2016, 353, 1019-1023.	6.0	764
4	Water splitting-biosynthetic system with CO ₂ reduction efficiencies exceeding photosynthesis. <i>Science</i> , 2016, 352, 1210-1213.	6.0	760
5	25th Anniversary Article: Semiconductor Nanowires - Synthesis, Characterization, and Applications. <i>Advanced Materials</i> , 2014, 26, 2137-2184.	11.1	759
6	Composite lithium metal anode by melt infusion of lithium into a 3D conducting scaffold with lithiophilic coating. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 2862-2867.	3.3	755
7	Transparent air filter for high-efficiency PM2.5 capture. <i>Nature Communications</i> , 2015, 6, 6205.	5.8	690
8	Rapid water disinfection using vertically aligned MoS ₂ nanofilms and visible light. <i>Nature Nanotechnology</i> , 2016, 11, 1098-1104.	15.6	681
9	Simultaneously Efficient Light Absorption and Charge Separation in WO ₃ /BiVO ₄ Core/Shell Nanowire Photoanode for Photoelectrochemical Water Oxidation. <i>Nano Letters</i> , 2014, 14, 1099-1105.	4.5	652
10	Electrodeposited Cobalt-Sulfide Catalyst for Electrochemical and Photoelectrochemical Hydrogen Generation from Water. <i>Journal of the American Chemical Society</i> , 2013, 135, 17699-17702.	6.6	540
11	A Fully Integrated Nanosystem of Semiconductor Nanowires for Direct Solar Water Splitting. <i>Nano Letters</i> , 2013, 13, 2989-2992.	4.5	506
12	Electrocatalytic Nitrogen Reduction at Low Temperature. <i>Joule</i> , 2018, 2, 846-856.	11.7	429
13	A dual-mode textile for human body radiative heating and cooling. <i>Science Advances</i> , 2017, 3, e1700895.	4.7	399
14	Surface Fluorination of Reactive Battery Anode Materials for Enhanced Stability. <i>Journal of the American Chemical Society</i> , 2017, 139, 11550-11558.	6.6	398
15	A high tap density secondary silicon particle anode fabricated by scalable mechanical pressing for lithium-ion batteries. <i>Energy and Environmental Science</i> , 2015, 8, 2371-2376.	15.6	397
16	A half-wave rectified alternating current electrochemical method for uranium extraction from seawater. <i>Nature Energy</i> , 2017, 2, .	19.8	388
17	Ordered Mesoporous Silicas and Carbons with Large Accessible Pores Templated from Amphiphilic Diblock Copolymer Poly(ethylene oxide)-b-polystyrene. <i>Journal of the American Chemical Society</i> , 2007, 129, 1690-1697.	6.6	377
18	Nanowire-Bacteria Hybrids for Unassisted Solar Carbon Dioxide Fixation to Value-Added Chemicals. <i>Nano Letters</i> , 2015, 15, 3634-3639.	4.5	362

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19	Favoring the unfavored: Selective electrochemical nitrogen fixation using a reticular chemistry approach. <i>Science Advances</i> , 2018, 4, eaar3208.	4.7	333
20	Large-Scale Synthesis of Transition-Metal-Doped TiO ₂ Nanowires with Controllable Overpotential. <i>Journal of the American Chemical Society</i> , 2013, 135, 9995-9998.	6.6	326
21	Semiconductor Nanowires for Artificial Photosynthesis. <i>Chemistry of Materials</i> , 2014, 26, 415-422.	3.2	314
22	Roll-to-Roll Transfer of Electrospun Nanofiber Film for High-Efficiency Transparent Air Filter. <i>Nano Letters</i> , 2016, 16, 1270-1275.	4.5	289
23	Synthesis of Core/Shell Colloidal Magnetic Zeolite Microspheres for the Immobilization of Trypsin. <i>Advanced Materials</i> , 2009, 21, 1377-1382.	11.1	281
24	Warming up human body by nanoporous metallized polyethylene textile. <i>Nature Communications</i> , 2017, 8, 496.	5.8	280
25	Plasmon-Enhanced Photocatalytic Activity of Iron Oxide on Gold Nanopillars. <i>ACS Nano</i> , 2012, 6, 234-240.	7.3	278
26	Atomic Layer Deposition of Platinum Catalysts on Nanowire Surfaces for Photoelectrochemical Water Reduction. <i>Journal of the American Chemical Society</i> , 2013, 135, 12932-12935.	6.6	256
27	3D Porous Sponge-Inspired Electrode for Stretchable Lithium-Ion Batteries. <i>Advanced Materials</i> , 2016, 28, 3578-3583.	11.1	247
28	Hybrid bioinorganic approach to solar-to-chemical conversion. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 11461-11466.	3.3	234
29	Facile Synthesis of Hierarchically Porous Carbons from Dual Colloidal Crystal/Block Copolymer Template Approach. <i>Chemistry of Materials</i> , 2007, 19, 3271-3277.	3.2	207
30	In Situ Electrochemically Derived Nanoporous Oxides from Transition Metal Dichalcogenides for Active Oxygen Evolution Catalysts. <i>Nano Letters</i> , 2016, 16, 7588-7596.	4.5	186
31	Direct/Alternating Current Electrochemical Method for Removing and Recovering Heavy Metal from Water Using Graphene Oxide Electrode. <i>ACS Nano</i> , 2019, 13, 6431-6437.	7.3	181
32	Excitation-wavelength-dependent small polaron trapping of photoexcited carriers in $\hat{\Gamma}$ -Fe ₂ O ₃ . <i>Nature Materials</i> , 2017, 16, 819-825.	13.3	178
33	Design of template-stabilized active and earth-abundant oxygen evolution catalysts in acid. <i>Chemical Science</i> , 2017, 8, 4779-4794.	3.7	172
34	Silver nanoparticles boost charge-extraction efficiency in <i>Shewanella</i> microbial fuel cells. <i>Science</i> , 2021, 373, 1336-1340.	6.0	171
35	Electrochemical tuning of olivine-type lithium transition-metal phosphates as efficient water oxidation catalysts. <i>Energy and Environmental Science</i> , 2015, 8, 1719-1724.	15.6	167
36	Ambient nitrogen reduction cycle using a hybrid inorganic-biological system. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 6450-6455.	3.3	167

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37	Three-Dimensional Spirals of Atomic Layered MoS ₂ . Nano Letters, 2014, 14, 6418-6423.	4.5	161
38	Conducting Nanosponge Electroporation for Affordable and High-Efficiency Disinfection of Bacteria and Viruses in Water. Nano Letters, 2013, 13, 4288-4293.	4.5	160
39	Nanowire Photoelectrochemistry. Chemical Reviews, 2019, 119, 9221-9259.	23.0	158
40	Remediation of heavy metal contaminated soil by asymmetrical alternating current electrochemistry. Nature Communications, 2019, 10, 2440.	5.8	156
41	Surfactant-Free, Large-Scale, Solution-Phase Liquid-Solid Growth of Gallium Phosphide Nanowires and Their Use for Visible-Light-Driven Hydrogen Production from Water Reduction. Journal of the American Chemical Society, 2011, 133, 19306-19309.	6.6	147
42	Directed Assembly of Nanoparticle Catalysts on Nanowire Photoelectrodes for Photoelectrochemical CO ₂ Reduction. Nano Letters, 2016, 16, 5675-5680.	4.5	125
43	Close-Packed Nanowire-Bacteria Hybrids for Efficient Solar-Driven CO ₂ Fixation. Joule, 2020, 4, 800-811.	11.7	124
44	Static Electricity Powered Copper Oxide Nanowire Microbicidal Electroporation for Water Disinfection. Nano Letters, 2014, 14, 5603-5608.	4.5	118
45	Ultra-Large-Pore Mesoporous Carbons Templated from Poly(ethylene oxide)- <i>b</i> -Polystyrene Diblock Copolymer by Adding Polystyrene Homopolymer as a Pore Expander. Chemistry of Materials, 2008, 20, 7281-7286.	3.2	115
46	Physical Biology of the Materials-Organism Interface. Journal of the American Chemical Society, 2018, 140, 1978-1985.	6.6	115
47	Mesoporous Monocrystalline TiO ₂ and Its Solid-State Electrochemical Properties. Chemistry of Materials, 2009, 21, 2540-2546.	3.2	114
48	Single-nanowire photoelectrochemistry. Nature Nanotechnology, 2016, 11, 609-612.	15.6	111
49	Femtosecond M _{2,3} -Edge Spectroscopy of Transition-Metal Oxides: Photoinduced Oxidation State Change in Fe_2O_3 . Journal of Physical Chemistry Letters, 2013, 4, 3667-3671.	2.1	110
50	Zn-Doped p-Type Gallium Phosphide Nanowire Photocathodes from a Surfactant-Free Solution Synthesis. Nano Letters, 2012, 12, 5407-5411.	4.5	105
51	Design of Amphiphilic ABC Triblock Copolymer for Templating Synthesis of Large-Pore Ordered Mesoporous Carbons with Tunable Pore Wall Thickness. Chemistry of Materials, 2009, 21, 3996-4005.	3.2	102
52	Perfluorocarbon nanoemulsion promotes the delivery of reducing equivalents for electricity-driven microbial CO ₂ reduction. Nature Catalysis, 2019, 2, 407-414.	16.1	93
53	Nitrogen-Defective Polymeric Carbon Nitride Nanolayer Enabled Efficient Electrocatalytic Nitrogen Reduction with High Faradaic Efficiency. Nano Letters, 2020, 20, 2879-2885.	4.5	92
54	Thick wall mesoporous carbons with a large pore structure templated from a weakly hydrophobic PEO-PMMA diblock copolymer. Journal of Materials Chemistry, 2008, 18, 91-97.	6.7	91

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55	MoS ₂ -wrapped silicon nanowires for photoelectrochemical water reduction. Nano Research, 2015, 8, 281-287.	5.8	87
56	Engineering the surface of LiCoO ₂ electrodes using atomic layer deposition for stable high-voltage lithium ion batteries. Nano Research, 2017, 10, 3754-3764.	5.8	78
57	Amidoxime-Functionalized Macroporous Carbon Self-Refreshed Electrode Materials for Rapid and High-Capacity Removal of Heavy Metal from Water. ACS Central Science, 2019, 5, 719-726.	5.3	76
58	A Prussian blue route to nitrogen-doped graphene aerogels as efficient electrocatalysts for oxygen reduction with enhanced active site accessibility. Nano Research, 2017, 10, 1213-1222.	5.8	73
59	Core-Shell Nanofibrous Materials with High Particulate Matter Removal Efficiencies and Thermally Triggered Flame Retardant Properties. ACS Central Science, 2018, 4, 894-898.	5.3	73
60	In Situ Investigation on the Nanoscale Capture and Evolution of Aerosols on Nanofibers. Nano Letters, 2018, 18, 1130-1138.	4.5	65
61	Use of low cost and easily regenerated Prussian Blue cathodes for efficient electrical energy recovery in a microbial battery. Energy and Environmental Science, 2015, 8, 546-551.	15.6	63
62	Light-Induced Charge Transport within a Single Asymmetric Nanowire. Nano Letters, 2011, 11, 3755-3758.	4.5	57
63	Morphology and property investigation of primary particulate matter particles from different sources. Nano Research, 2018, 11, 3182-3192.	5.8	54
64	Salt-Induced Self-Assembly of Bacteria on Nanowire Arrays. Nano Letters, 2014, 14, 5471-5476.	4.5	48
65	Ambient methane functionalization initiated by electrochemical oxidation of a vanadium (V)-oxo dimer. Nature Communications, 2020, 11, 3686.	5.8	36
66	Alumina-coated Ag nanocrystal monolayers as surface-enhanced Raman spectroscopy platforms for the direct spectroscopic detection of water splitting reaction intermediates. Nano Research, 2014, 7, 132-143.	5.8	35
67	Controlling the Structure of MoS ₂ Membranes via Covalent Functionalization with Molecular Spacers. Nano Letters, 2020, 20, 7844-7851.	4.5	34
68	Graphene oxide in carbon nitride: from easily processed precursors to a composite material with enhanced photoelectrochemical activity and long-term stability. Journal of Materials Chemistry A, 2019, 7, 11718-11723.	5.2	30
69	Solar-powered CO ₂ reduction by a hybrid biological inorganic system. Journal of Photochemistry and Photobiology A: Chemistry, 2018, 358, 411-415.	2.0	29
70	A simple approach to the synthesis of hollow microspheres with magnetite/silica hybrid walls. Journal of Colloid and Interface Science, 2009, 333, 329-334.	5.0	28
71	Solution Catalytic Cycle of Incompatible Steps for Ambient Air Oxidation of Methane to Methanol. ACS Central Science, 2019, 5, 1584-1590.	5.3	25
72	Modeling of Electrocatalytic Dinitrogen Reduction on Microstructured Electrodes. Small Methods, 2019, 3, 1800332.	4.6	23

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73	Machine-Learning-Enabled Exploration of Morphology Influence on Wire-Array Electrodes for Electrochemical Nitrogen Fixation. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 4625-4630.	2.1	23
74	Surface Valence State Effect of MoO ₂ on Electrochemical Nitrogen Reduction. <i>Advanced Science</i> , 2022, 9, e2104857.	5.6	23
75	Charge-Free Mixing Entropy Battery Enabled by Low-Cost Electrode Materials. <i>ACS Omega</i> , 2019, 4, 11785-11790.	1.6	21
76	ABC and ABAB Block Copolymers by Electrochemically Controlled Ring-Opening Polymerization. <i>Journal of the American Chemical Society</i> , 2021, 143, 19802-19808.	6.6	20
77	Electricity-powered artificial root nodule. <i>Nature Communications</i> , 2020, 11, 1505.	5.8	19
78	A novel approach to the construction of 3-D ordered macrostructures with polyhedral particles. <i>Journal of Materials Chemistry</i> , 2008, 18, 408-415.	6.7	18
79	Boron-Doped Graphene Catalyzes Dinitrogen Fixation with Electricity. <i>CheM</i> , 2018, 4, 1773-1774.	5.8	17
80	De Novo Approach to Encapsulating Biocatalysts into Synthetic Matrixes: From Enzymes to Microbial Electrocatalysts. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 52234-52249.	4.0	15
81	Homopolymer induced phase evolution in mesoporous silica from evaporation induced self-assembly process. <i>Microporous and Mesoporous Materials</i> , 2008, 116, 633-640.	2.2	14
82	Temperature nanotracers for fractured reservoirs characterization. <i>Journal of Petroleum Science and Engineering</i> , 2015, 127, 212-228.	2.1	14
83	Two are better than one. <i>Nature Chemistry</i> , 2019, 11, 200-201.	6.6	12
84	Electrochemically mediated deionization: a review. <i>Molecular Systems Design and Engineering</i> , 2021, 6, 25-51.	1.7	12
85	¹³ C-Labeling the carbon-fixation pathway of a highly efficient artificial photosynthetic system. <i>Faraday Discussions</i> , 2017, 198, 529-537.	1.6	11
86	Ag ^{II} -Mediated Electrocatalytic Ambient CH ₄ Functionalization Inspired by HSAB Theory. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 18152-18161.	7.2	10
87	Development of an Activated Carbon-Based Electrode for the Capture and Rapid Electrolytic Reductive Debromination of Methyl Bromide from Postharvest Fumigations. <i>Environmental Science & Technology</i> , 2016, 50, 11200-11208.	4.6	9
88	Nanoparticle and Microparticle Flow in Porous and Fractured Media: An Experimental Study. , 2011, , .		8
89	Spatial decoupling boosts CO ₂ electro-biofixation. <i>Nature Catalysis</i> , 2022, 5, 357-358.	16.1	8
90	Efficacy analysis of compartmentalization for ambient CH ₄ activation mediated by a Rh ^{II} metalloradical in a nanowire array electrode. <i>Chemical Science</i> , 2021, 12, 1818-1825.	3.7	7

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91	Cluster Size Control toward High Performance Solution Processed InGaZnO Thin Film Transistors. ACS Applied Electronic Materials, 2019, 1, 2483-2488.	2.0	6
92	Perfluorocarbon nanoemulsions create a beneficial O ₂ microenvironment in N ₂ -fixing biological inorganic hybrid. Chem Catalysis, 2021, 1, 704-720.	2.9	6
93	A generalized kinetic model for compartmentalization of organometallic catalysis. Chemical Science, 2022, 13, 1101-1110.	3.7	6
94	Electrocatalytic Methane Functionalization with d ⁰ Early Transition Metals Under Ambient Conditions. Angewandte Chemie - International Edition, 2021, 60, 26630-26638.	7.2	5
95	Tuning transport in graphene oxide membrane with single-site copper (II) cations. IScience, 2022, 25, 104044.	1.9	3
96	Nanowires for Photovoltaics and Artificial Photosynthesis. RSC Smart Materials, 2014, , 277-311.	0.1	2
97	Ag II Mediated Electrocatalytic Ambient CH ₄ Functionalization Inspired by HSAB Theory. Angewandte Chemie, 2021, 133, 18300-18309.	1.6	2
98	Electrocatalytic Methane Functionalization with d ⁰ Early Transition Metals Under Ambient Conditions. Angewandte Chemie, 2021, 133, 26834-26842.	1.6	1
99	Bisulfate as a redox-active ligand in vanadium-based electrocatalysis for CH ₄ functionalization. Chemical Communications, 2022, 58, 2524-2527.	2.2	1
100	Introductory lecture: Systems materials engineering approach for solar-to-chemical conversion. Faraday Discussions, 2014, 176, 9-16.	1.6	0
101	Microscopic Control of Nonequilibrium Systems: When Electrochemistry Meets Nanotechnology. Nano Letters, 2021, 21, 7429-7431.	4.5	0
102	Electrochemical Activation of Small Molecules with Microbial Catalysts. ECS Meeting Abstracts, 2020, MA2020-02, 2841-2841.	0.0	0