

# Cong Liu

## List of Publications by Year in descending order

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Version: 2024-02-01

60  
papers

5,246  
citations

201674

27  
h-index

144013

57  
g-index

64  
all docs

64  
docs citations

64  
times ranked

8126  
citing authors

#	ARTICLE	IF	CITATIONS
1	Nanostructured transition metal dichalcogenide electrocatalysts for CO <sub>2</sub> reduction in ionic liquid. <i>Science</i> , 2016, 353, 467-470.	12.6	778
2	A lithium-oxygen battery with a long cycle life in an air-like atmosphere. <i>Nature</i> , 2018, 555, 502-506.	27.8	433
3	Highly selective electrocatalytic CO <sub>2</sub> reduction to ethanol by metallic clusters dynamically formed from atomically dispersed copper. <i>Nature Energy</i> , 2020, 5, 623-632.	39.5	393
4	Burning lithium in CS <sub>2</sub> for high-performing compact Li <sub>2</sub> S-graphene nanocapsules for Li-S batteries. <i>Nature Energy</i> , 2017, 2, .	39.5	349
5	Facet-dependent active sites of a single Cu <sub>2</sub> O particle photocatalyst for CO <sub>2</sub> reduction to methanol. <i>Nature Energy</i> , 2019, 4, 957-968.	39.5	349
6	Carbon Dioxide Conversion to Methanol over Size-Selected Cu <sub>4</sub> Clusters at Low Pressures. <i>Journal of the American Chemical Society</i> , 2015, 137, 8676-8679.	13.7	299
7	Sub-4 nm PtZn Intermetallic Nanoparticles for Enhanced Mass and Specific Activities in Catalytic Electrooxidation Reaction. <i>Journal of the American Chemical Society</i> , 2017, 139, 4762-4768.	13.7	265
8	CO <sub>2</sub> Reduction on Transition Metal (Fe, Co, Ni, and Cu) Surfaces: In Comparison with Homogeneous Catalysis. <i>Journal of Physical Chemistry C</i> , 2012, 116, 5681-5688.	3.1	247
9	Tailoring the Edge Structure of Molybdenum Disulfide toward Electrocatalytic Reduction of Carbon Dioxide. <i>ACS Nano</i> , 2017, 11, 453-460.	14.6	208
10	Cathode Based on Molybdenum Disulfide Nanoflakes for Lithium-Oxygen Batteries. <i>ACS Nano</i> , 2016, 10, 2167-2175.	14.6	184
11	Copper Cluster Size Effect in Methanol Synthesis from CO <sub>2</sub> . <i>Journal of Physical Chemistry C</i> , 2017, 121, 10406-10412.	3.1	144
12	Current Development of Pd(II) Complexes as Potential Antitumor Agents. <i>Anti-Cancer Agents in Medicinal Chemistry</i> , 2009, 9, 356-368.	1.7	141
13	Ordering Heterogeneity of [MnO <sub>6</sub> ] Octahedra in Tunnel-Structured MnO <sub>2</sub> and Its Influence on Ion Storage. <i>Joule</i> , 2019, 3, 471-484.	24.0	123
14	Tuning Li <sub>2</sub> O <sub>2</sub> Formation Routes by Facet Engineering of MnO <sub>2</sub> Cathode Catalysts. <i>Journal of the American Chemical Society</i> , 2019, 141, 12832-12838.	13.7	107
15	The electrolyte comprising more robust water and superhalides transforms Zn-metal anode reversibly and dendrite-free. <i>Nature Energy</i> , 2021, 3, 339-348.		100
16	Highly Efficient Hydrogen Evolution Reaction Using Crystalline Layered Three-Dimensional Molybdenum Disulfides Grown on Graphene Film. <i>Chemistry of Materials</i> , 2016, 28, 549-555.	6.7	98
17	Toward Highly Efficient Electrocatalyst for Li-O <sub>2</sub> Batteries Using Biphasic N-Doping Cobalt@Graphene Multiple-Capsule Heterostructures. <i>Nano Letters</i> , 2017, 17, 2959-2966.	9.1	91
18	Atomically Precise Strategy to a PtZn Alloy Nanocluster Catalyst for the Deep Dehydrogenation of <i>n</i> -Butane to 1,3-Butadiene. <i>ACS Catalysis</i> , 2018, 8, 10058-10063.	11.2	67

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19	Computational studies of electrochemical CO <sub>2</sub> reduction on subnanometer transition metal clusters. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 26584-26599.	2.8	62
20	Revealing nanoscale mineralization pathways of hydroxyapatite using in situ liquid cell transmission electron microscopy. <i>Science Advances</i> , 2020, 6, .	10.3	61
21	Encapsulating Various Sulfur Allotropes within Graphene Nanocages for Long-Lasting Lithium Storage. <i>Advanced Functional Materials</i> , 2018, 28, 1706443.	14.9	60
22	Chemoselective Hydrogenation with Supported Organoplatinum(IV) Catalyst on Zn(II)-Modified Silica. <i>Journal of the American Chemical Society</i> , 2018, 140, 3940-3951.	13.7	56
23	Deciphering the Atomic Patterns Leading to MnO <sub>2</sub> Polymorphism. <i>CheM</i> , 2019, 5, 1793-1805.	11.7	46
24	Insights into Structural Evolution of Lithium Peroxides with Reduced Charge Overpotential in Li <sup>+</sup> O <sub>2</sub> System. <i>Advanced Energy Materials</i> , 2019, 9, 1900662.	19.5	38
25	Electrophilic Organoiridium(III) Pincer Complexes on Sulfated Zirconia for Hydrocarbon Activation and Functionalization. <i>Journal of the American Chemical Society</i> , 2019, 141, 6325-6337.	13.7	38
26	Evidence for Redox Mechanisms in Organometallic Chemisorption and Reactivity on Sulfated Metal Oxides. <i>Journal of the American Chemical Society</i> , 2018, 140, 6308-6316.	13.7	34
27	Highly Efficient Solar-Driven Carbon Dioxide Reduction on Molybdenum Disulfide Catalyst Using Choline Chloride-Based Electrolyte. <i>Advanced Energy Materials</i> , 2019, 9, 1803536.	19.5	34
28	Cation Additive Enabled Rechargeable LiOH-Based Lithium-Oxygen Batteries. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 22978-22982.	13.8	29
29	Reaction Mechanism of the Reverse Water-Gas Shift Reaction Using First-Row Middle Transition Metal Catalysts L <sub>2</sub> M (M = Fe, Mn, Co): A Computational Study. <i>Inorganic Chemistry</i> , 2011, 50, 8782-8789.	4.0	27
30	Operando HERFD-XANES and surface sensitive <sup>1</sup> H <sup>1</sup> /4 analyses identify the structural evolution of copper(II) phthalocyanine for electroreduction of CO <sub>2</sub> . <i>Journal of Energy Chemistry</i> , 2022, 64, 1-7.	12.9	27
31	C-O Bond Cleavage of Dimethyl Ether by Transition Metal Ions: A Systematic Study on Catalytic Properties of Metals and Performance of DFT Functionals. <i>Journal of Physical Chemistry A</i> , 2013, 117, 5140-5148.	2.5	26
32	Isolated, well-defined organovanadium( <sup>III</sup> ) on silica: single-site catalyst for hydrogenation of alkenes and alkynes. <i>Chemical Communications</i> , 2017, 53, 7325-7328.	4.1	26
33	Supported Aluminum Catalysts for Olefin Hydrogenation. <i>ACS Catalysis</i> , 2017, 7, 689-694.	11.2	25
34	Theoretical Studies on the Catalysis of the Reverse Water-Gas Shift Reaction Using First-Row Transition Metal <sup>2</sup> -Diketiminato Complexes. <i>Journal of Physical Chemistry A</i> , 2010, 114, 6207-6216.	2.5	23
35	Role of Boron in Enhancing the Catalytic Performance of Supported Platinum Catalysts for the Nonoxidative Dehydrogenation of <i>n</i> -Butane. <i>ACS Catalysis</i> , 2020, 10, 1500-1510.	11.2	21
36	Water Oxidation Catalysis via Size-Selected Iridium Clusters. <i>Journal of Physical Chemistry C</i> , 2018, 122, 9965-9972.	3.1	20

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37	Cleavage of the $\beta$ -O-4 linkage of lignin using group 8 pincer complexes: A DFT study. <i>Journal of Molecular Catalysis A</i> , 2015, 399, 33-41.	4.8	19
38	Catalytic Upgrading of Biomass-Derived Compounds via C-C Coupling Reactions: Computational and Experimental Studies of Acetaldehyde and Furan Reactions in HZSM-5. <i>Journal of Physical Chemistry C</i> , 2015, 119, 24025-24035.	3.1	19
39	Mechanistic Aspects of a Surface Organovanadium(III) Catalyst for Hydrocarbon Hydrogenation and Dehydrogenation. <i>ACS Catalysis</i> , 2019, 9, 11055-11066.	11.2	17
40	Computational Investigation of the Role of Active Site Heterogeneity for a Supported Organovanadium(III) Hydrogenation Catalyst. <i>ACS Catalysis</i> , 2021, 11, 7257-7269.	11.2	16
41	Enhancing electrocatalysis for hydrogen production over CoP catalyst by strain: a density functional theory study. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 9137-9140.	2.8	15
42	Molecular Dynamics Studies of the Protein-Protein Interactions in Inhibitor of $\beta$ Kinase-12. <i>Journal of Chemical Information and Modeling</i> , 2014, 54, 562-572.	5.4	13
43	Pairwise semi-hydrogenation of alkyne to <i>cis</i> -alkene on platinum-tin intermetallic compounds. <i>Nanoscale</i> , 2020, 12, 8519-8524.	5.6	12
44	Development of activity-descriptor relationships for supported metal ion hydrogenation catalysts on silica. <i>Polyhedron</i> , 2018, 152, 73-83.	2.2	11
45	Theoretical Determination of Size Effects in Zeolite-Catalyzed Alcohol Dehydration. <i>Catalysts</i> , 2019, 9, 700.	3.5	11
46	Single-Molecule Kinetics of Styrene Hydrogenation on Silica-Supported Vanadium: The Role of Disorder for Single-Atom Catalysts. <i>Journal of Physical Chemistry C</i> , 2021, 125, 20286-20300.	3.1	10
47	Approaching theoretical specific capacity of iron-rich lithium iron silicate using graphene-incorporation and fluorine-doping. <i>Journal of Materials Chemistry A</i> , 2022, 10, 4006-4014.	10.3	10
48	Nuclearity effects in supported, single-site Fe( $\mu_2$ ) hydrogenation pre-catalysts. <i>Dalton Transactions</i> , 2018, 47, 10842-10846.	3.3	9
49	Cation Additive Enabled Rechargeable LiOH-Based Lithium-Oxygen Batteries. <i>Angewandte Chemie</i> , 2020, 132, 23178-23182.	2.0	8
50	Integrated Experimental and Computational K-Edge X-ray Absorption Near-Edge Structure Analysis of Vanadium Catalysts. <i>Journal of Physical Chemistry C</i> , 2022, 126, 11949-11962.	3.1	7
51	Investigation of Thermochemistry Associated with the Carbon-Carbon Coupling Reactions of Furan and Furfural Using ab Initio Methods. <i>Journal of Physical Chemistry A</i> , 2014, 118, 4392-4404.	2.5	6
52	Electrochemical Investigation of Low-Valent Multiply Bonded Group VI Dimers: A Standard Chemical Reduction Leads to an Unexpected Product. <i>Organometallics</i> , 2020, 39, 4430-4436.	2.3	6
53	Lithium-Ion Battery Materials as Tunable, $\alpha$ -Redox Non-Innocent-Catalyst Supports. <i>ACS Catalysis</i> , 0, , 7233-7242.	11.2	6
54	Periodic Trends in 3d Metal Mediated CO <sub>2</sub> Activation. <i>ACS Symposium Series</i> , 2013, , 67-88.	0.5	3

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55	Hydrogen Activation by Silica-Supported Metal Ion Catalysts: Catalytic Properties of Metals and Performance of DFT Functionals. <i>Journal of Physical Chemistry A</i> , 2019, 123, 171-186.	2.5	3
56	Tale of Three Molecular Nitrides: Mononuclear Vanadium (V) and (IV) Nitrides As Well As a Mixed-Valence Trivanadium Nitride Having a V <sub>3</sub> N <sub>4</sub> Double-Diamond Core. <i>Journal of the American Chemical Society</i> , 2022, 144, 10201-10219.	13.7	3
57	Thermal Atomic Layer Deposition of Gold: Mechanistic Insights, Nucleation, and Epitaxy. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 9091-9100.	8.0	2
58	Computational Aspects of Single-Molecule Kinetics for Coupled Catalytic Cycles: A Spectral Analysis. <i>Journal of Physical Chemistry A</i> , 0, , .	2.5	2
59	In situ Liquid Cell Transmission Electron Microscopy Study of Hydroxyapatite Mineralization Process. <i>Microscopy and Microanalysis</i> , 2019, 25, 1502-1502.	0.4	1
60	Titelbild: Cation Additive Enabled Rechargeable LiOH-Based Lithium-Oxygen Batteries ( <i>Angew. Chem.</i> )	2.0	0