

# Yi Cui

## List of Publications by Year in descending order

Source: [//exaly.com/author-pdf/1542143/publications.pdf](https://exaly.com/author-pdf/1542143/publications.pdf)

Version: 2025-02-01

124  
papers

49,417  
citations

5586

77  
h-index

13681

121  
g-index

137  
all docs

137  
docs citations

137  
times ranked

44674  
citing authors

#	ARTICLE	IF	CITATIONS
1	Twisted epitaxy of gold nanodisks grown between twisted substrate layers of molybdenum disulfide. <i>Science</i> , 2024, 383, 212-219.	38.2	10
2	Capacity recovery by transient voltage pulse in silicon-anode batteries. <i>Science</i> , 2024, 386, 322-327.	38.2	5
3	Liquid electrolyte: The nexus of practical lithium metal batteries. <i>Joule</i> , 2022, 6, 588-616.	29.1	303
4	Anisotropy of the magnetic and transport properties of $\text{EuZn}_2\text{As}_2$ . <i>Physical Review B</i> , 2022, 105, .	3.2	15
5	Concentrated dual-cation electrolyte strategy for aqueous zinc-ion batteries. <i>Energy and Environmental Science</i> , 2021, 14, 4463-4473.	30.6	294
6	Electronic Structure Trends Across the Rare-Earth Series in Superconducting Infinite-Layer Nickelates. <i>Physical Review X</i> , 2021, 11, .	10.6	66
7	Zeolite-based Electrolyte Accelerating the Realization of Solid-state Li-Air Battery. <i>Chemical Research in Chinese Universities</i> , 2021, 37, 801-802.	2.7	12
8	Origin of enhanced water oxidation activity in an iridium single atom anchored on NiFe oxyhydroxide catalyst. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.7	92
9	A Water Stable, Near-Zero-Strain $\text{O}_3$ -Layered Titanium-Based Anode for Long Cycle Sodium-Ion Battery. <i>Advanced Functional Materials</i> , 2020, 30, .	17.1	49
10	Self-assembled materials for electrochemical energy storage. <i>MRS Bulletin</i> , 2020, 45, 815-822.	4.4	8
11	Design Principles of Artificial Solid Electrolyte Interphases for Lithium-Metal Anodes. <i>Cell Reports Physical Science</i> , 2020, 1, 100119.	5.1	173
12	Stretchable electrochemical energy storage devices. <i>Chemical Society Reviews</i> , 2020, 49, 4466-4495.	38.2	257
13	Addendum: Editorial Expression of Concern: Theory-guided Sn/Cu alloying for efficient $\text{CO}_2$ electroreduction at low overpotentials. <i>Nature Catalysis</i> , 2020, 3, 604-604.	27.4	4
14	High-temperature, spectrally-selective, scalable, and flexible thin-film Si absorber and emitter. <i>Optical Materials Express</i> , 2020, 10, 208.	2.9	7
15	Multi-modal Analytical Insights Into Li-Ion Battery Ageing with XFC. <i>Microscopy and Microanalysis</i> , 2019, 25, 2130-2131.	0.5	1
16	Dynamic Structure and Chemistry of the Silicon Solid-Electrolyte Interphase Visualized by Cryogenic Electron Microscopy. <i>Matter</i> , 2019, 1, 1232-1245.	13.9	134
17	A Dynamic, Electrolyte-Blocking, and Single-Ion-Conductive Network for Stable Lithium-Metal Anodes. <i>Joule</i> , 2019, 3, 2761-2776.	29.1	201
18	Selenium Nanocomposite Cathode with Long Cycle Life for Rechargeable Lithium-Selenium Batteries. <i>Batteries and Supercaps</i> , 2019, 2, 784-791.	4.4	31

#	ARTICLE	IF	CITATIONS
19	Robust and conductive two-dimensional metal-organic frameworks with exceptionally high volumetric and areal capacitance. <i>Nature Energy</i> , 2018, 3, 30-36.	26.7	911
20	Deformable Organic Nanowire Field-Effect Transistors. <i>Advanced Materials</i> , 2018, 30, .	24.7	90
21	Energy Materials Research at the University of Science and Technology of China. <i>Advanced Materials</i> , 2018, 30, 1806572.	24.7	0
22	An electrochemical thermal transistor. <i>Nature Communications</i> , 2018, 9, .	14.1	123
23	Lithium Electrochemical Tuning for Electrocatalysis. <i>Advanced Materials</i> , 2018, 30, .	24.7	59
24	An intermediate temperature garnet-type solid electrolyte-based molten lithium battery for grid energy storage. <i>Nature Energy</i> , 2018, 3, 732-738.	26.7	189
25	Lithium metal stripping beneath the solid electrolyte interphase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 8529-8534.	7.7	173
26	Spectrally Selective Nanocomposite Textile for Outdoor Personal Cooling. <i>Advanced Materials</i> , 2018, 30, .	24.7	458
27	An Ultrastrong Double-Layer Nanodiamond Interface for Stable Lithium Metal Anodes. <i>Joule</i> , 2018, 2, 1595-1609.	29.1	171
28	A Class of Organopolysulfides As Liquid Cathode Materials for High-Energy-Density Lithium Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 21084-21090.	8.1	71
29	Dual-Functional Lipid Coating for the Nanopillar-Based Capture of Circulating Tumor Cells with High Purity and Efficiency. <i>Langmuir</i> , 2017, 33, 1097-1104.	3.8	20
30	Nanoscale Nucleation and Growth of Electrodeposited Lithium Metal. <i>Nano Letters</i> , 2017, 17, 1132-1139.	8.8	1,268
31	Electrochemical Control of Copper Intercalation into Nanoscale Bi <sub>2</sub> Se <sub>3</sub> . <i>Nano Letters</i> , 2017, 17, 1741-1747.	8.8	37
32	Tuning of the Contact Properties for High-Efficiency Si/PEDOT:PSS Heterojunction Solar Cells. <i>ACS Energy Letters</i> , 2017, 2, 556-562.	17.5	81
33	Introduction. , 2017, , 1-4.		0
34	Black TiO <sub>2</sub> Nanomaterials for Lithium-Sulfur Batteries. , 2017, , 275-304.		1
35	Reviving the lithium metal anode for high-energy batteries. <i>Nature Nanotechnology</i> , 2017, 12, 194-206.	23.9	5,388
36	Holistic computational structure screening of more than 12,000 candidates for solid lithium-ion conductor materials. <i>Energy and Environmental Science</i> , 2017, 10, 306-320.	30.6	308

#	ARTICLE	IF	CITATIONS
37	Enhancing ionic conductivity in composite polymer electrolytes with well-aligned ceramic nanowires. <i>Nature Energy</i> , 2017, 2, .	26.7	864
38	Shape-Controlled TiO <sub>2</sub> Nanocrystals for Na-Ion Battery Electrodes: The Role of Different Exposed Crystal Facets on the Electrochemical Properties. <i>Nano Letters</i> , 2017, 17, 992-1000.	8.8	166
39	Direct Blow-Spinning of Nanofibers on a Window Screen for Highly Efficient PM <sub>2.5</sub> Removal. <i>Nano Letters</i> , 2017, 17, 1140-1148.	8.8	262
40	Non-encapsulation approach for high-performance Li-S batteries through controlled nucleation and growth. <i>Nature Energy</i> , 2017, 2, 813-820.	26.7	353
41	Atomic Layer Deposition of Stable LiAlF <sub>4</sub> Lithium Ion Conductive Interfacial Layer for Stable Cathode Cycling. <i>ACS Nano</i> , 2017, 11, 7019-7027.	15.4	307
42	Development of an Activated Carbon-Based Electrode for the Capture and Rapid Electrolytic Reductive Debromination of Methyl Bromide from Postharvest Fumigations. <i>Environmental Science &amp; Technology</i> , 2016, 50, 11200-11208.	11.3	9
43	High-Efficiency Silicon/Organic Heterojunction Solar Cells with Improved Junction Quality and Interface Passivation. <i>ACS Nano</i> , 2016, 10, 11525-11531.	15.4	90
44	All-Integrated Bifunctional Separator for Li Dendrite Detection via Novel Solution Synthesis of a Thermostable Polyimide Separator. <i>Journal of the American Chemical Society</i> , 2016, 138, 11044-11050.	15.7	182
45	Organotrissulfide: A High Capacity Cathode Material for Rechargeable Lithium Batteries. <i>Angewandte Chemie</i> , 2016, 128, 10181-10185.	1.5	19
46	High-Performance Lithium Metal Negative Electrode with a Soft and Flowable Polymer Coating. <i>ACS Energy Letters</i> , 2016, 1, 1247-1255.	17.5	293
47	Promises and challenges of nanomaterials for lithium-based rechargeable batteries. <i>Nature Energy</i> , 2016, 1, .	26.7	1,483
48	Selective deposition and stable encapsulation of lithium through heterogeneous seeded growth. <i>Nature Energy</i> , 2016, 1, .	26.7	1,726
49	Stabilizing Lithium Metal Anodes by Uniform Li-Ion Flux Distribution in Nanochannel Confinement. <i>Journal of the American Chemical Society</i> , 2016, 138, 15443-15450.	15.7	411
50	Interwall Friction and Sliding Behavior of Centimeters Long Double-Walled Carbon Nanotubes. <i>Nano Letters</i> , 2016, 16, 1367-1374.	8.8	37
51	Prognostic Imaging Biomarkers in Glioblastoma: Development and Independent Validation on the Basis of Multiregion and Quantitative Analysis of MR Images. <i>Radiology</i> , 2016, 278, 546-553.	9.6	95
52	The path towards sustainable energy. <i>Nature Materials</i> , 2016, 16, 16-22.	20.9	3,728
53	Roll-to-Roll Encapsulation of Metal Nanowires between Graphene and Plastic Substrate for High-Performance Flexible Transparent Electrodes. <i>Nano Letters</i> , 2015, 15, 4206-4213.	8.8	417
54	Polarization-sensitive broadband photodetector using a black phosphorus vertical p-n junction. <i>Nature Nanotechnology</i> , 2015, 10, 707-713.	23.9	1,108

#	ARTICLE	IF	CITATIONS
55	Self-assembled three-dimensional and compressible interdigitated thin-film supercapacitors and batteries. <i>Nature Communications</i> , 2015, 6, .	14.1	251
56	Ultrahigh Surface Area Three-Dimensional Porous Graphitic Carbon from Conjugated Polymeric Molecular Framework. <i>ACS Central Science</i> , 2015, 1, 68-76.	9.6	213
57	Transition-metal doped edge sites in vertically aligned MoS <sub>2</sub> catalysts for enhanced hydrogen evolution. <i>Nano Research</i> , 2015, 8, 566-575.	8.5	609
58	Topological Insulator Nanostructures. , 2015, , 265-293.		0
59	Nanocarbon Hybrids with Silicon, Sulfur, or Paper/Textile for High-Energy Lithium Ion Batteries. , 2015, , 35-57.		0
60	Magnetic Field-Controlled Lithium Polysulfide Semiliquid Battery with Ferrofluidic Properties. <i>Nano Letters</i> , 2015, 15, 7394-7399.	8.8	62
61	Lateral and Vertical Two-Dimensional Layered Topological Insulator Heterostructures. <i>ACS Nano</i> , 2015, 9, 10916-10921.	15.4	31
62	In-operando optical imaging of temporal and spatial distribution of polysulfides in lithium-sulfur batteries. <i>Nano Energy</i> , 2015, 11, 579-586.	16.3	89
63	Use of low cost and easily regenerated Prussian Blue cathodes for efficient electrical energy recovery in a microbial battery. <i>Energy and Environmental Science</i> , 2015, 8, 546-551.	30.6	63
64	Surface defects and their impact on the electronic structure of Mo-doped CaO films: an STM and DFT study. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 12764-12772.	2.8	20
65	Optical transmission enhancement through chemically tuned two-dimensional bismuth chalcogenide nanoplates. <i>Nature Communications</i> , 2014, 5, .	14.1	108
66	General Strategy for Zero-Valent Intercalation into Two-Dimensional Layered Nanomaterials. <i>Chemistry of Materials</i> , 2014, 26, 2313-2317.	6.9	64
67	Light management for photovoltaics using high-index nanostructures. <i>Nature Materials</i> , 2014, 13, 451-460.	20.9	815
68	Nanostructured conductive polypyrrole hydrogels as high-performance, flexible supercapacitor electrodes. <i>Journal of Materials Chemistry A</i> , 2014, 2, 6086-6091.	9.3	626
69	Facile synthesis of Li <sub>2</sub> S@polypyrrole composite structures for high-performance Li <sub>2</sub> S cathodes. <i>Energy and Environmental Science</i> , 2014, 7, 672.	30.6	287
70	High Electrochemical Selectivity of Edge versus Terrace Sites in Two-Dimensional Layered MoS <sub>2</sub> Materials. <i>Nano Letters</i> , 2014, 14, 7138-7144.	8.8	282
71	Charging-free electrochemical system for harvesting low-grade thermal energy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 17011-17016.	7.7	228
72	Two-dimensional layered transition metal disulphides for effective encapsulation of high-capacity lithium sulphide cathodes. <i>Nature Communications</i> , 2014, 5, .	14.1	551

#	ARTICLE	IF	CITATIONS
73	Understanding Phase Transformation in Crystalline Ge Anodes for Li-Ion Batteries. <i>Chemistry of Materials</i> , 2014, 26, 3739-3746.	6.9	119
74	Improved lithium-sulfur batteries with a conductive coating on the separator to prevent the accumulation of inactive S-related species at the cathode-separator interface. <i>Energy and Environmental Science</i> , 2014, 7, 3381-3390.	30.6	487
75	Sulfur Cathodes with Hydrogen Reduced Titanium Dioxide Inverse Opal Structure. <i>ACS Nano</i> , 2014, 8, 5249-5256.	15.4	300
76	Strong Sulfur Binding with Conducting Magn@li-Phase Ti <sub>2</sub> O <sub>3</sub> Nanomaterials for Improving Lithium-Sulfur Batteries. <i>Nano Letters</i> , 2014, 14, 5288-5294.	8.8	655
77	Metamaterial mirrors in optoelectronic devices. <i>Nature Nanotechnology</i> , 2014, 9, 542-547.	23.9	167
78	A residue-free green synergistic antifungal nanotechnology for pesticide thiram by ZnO nanoparticles. <i>Scientific Reports</i> , 2014, 4, .	3.7	64
79	Charge competition with oxygen molecules determines the growth of gold particles on doped CaO films. <i>Faraday Discussions</i> , 2013, 162, 153.	2.7	11
80	Understanding the Role of Different Conductive Polymers in Improving the Nanostructured Sulfur Cathode Performance. <i>Nano Letters</i> , 2013, 13, 5534-5540.	8.8	617
81	Gold Adsorption on CeO <sub>2</sub> Thin Films Grown on Ru(0001). <i>Journal of Physical Chemistry C</i> , 2013, 117, 21879-21885.	3.2	36
82	Self-healing chemistry enables the stable operation of silicon microparticle anodes for high-energy lithium-ion batteries. <i>Nature Chemistry</i> , 2013, 5, 1042-1048.	13.9	1,073
83	All-back-contact ultra-thin silicon nanocone solar cells with 13.7% power conversion efficiency. <i>Nature Communications</i> , 2013, 4, .	14.1	295
84	High-performance hollow sulfur nanostructured battery cathode through a scalable, room temperature, one-step, bottom-up approach. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 7148-7153.	7.7	360
85	Enhanced reactivity of graphene wrinkles and their function as nanosized gas inlets for reactions under graphene. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 19042.	2.8	88
86	Transparent and conductive paper from nanocellulose fibers. <i>Energy and Environmental Science</i> , 2013, 6, 513-518.	30.6	443
87	Amphiphilic Surface Modification of Hollow Carbon Nanofibers for Improved Cycle Life of Lithium Sulfur Batteries. <i>Nano Letters</i> , 2013, 13, 1265-1270.	8.8	672
88	A membrane-free lithium/polysulfide semi-liquid battery for large-scale energy storage. <i>Energy and Environmental Science</i> , 2013, 6, 1552.	30.6	358
89	Nanoporous silicon networks as anodes for lithium ion batteries. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 440-443.	2.8	69
90	First-principles approaches to simulate lithiation in silicon electrodes. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2013, 21, 074001.	2.4	33

#	ARTICLE	IF	CITATIONS
91	Critical-temperature/Peierls-stress dependent size effects in body centered cubic nanopillars. Applied Physics Letters, 2013, 102, .	3.2	30
92	Controlling the charge state of single Mo dopants in a CaO film. Physical Review B, 2013, 88, .	3.2	26
93	Microbial battery for efficient energy recovery. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 15925-15930.	7.7	72
94	Stable cycling of double-walled silicon nanotube battery anodes through solidâ€“electrolyte interphase control. Nature Nanotechnology, 2012, 7, 310-315.	23.9	2,202
95	Engineering Empty Space between Si Nanoparticles for Lithium-Ion Battery Anodes. Nano Letters, 2012, 12, 904-909.	8.8	672
96	Absorption Enhancement in Ultrathin Crystalline Silicon Solar Cells with Antireflection and Light-Trapping Nanocone Gratings. Nano Letters, 2012, 12, 1616-1619.	8.8	596
97	Energy and environmental nanotechnology in conductive paper and textiles. Energy and Environmental Science, 2012, 5, 6423.	30.6	380
98	In Operando X-ray Diffraction and Transmission X-ray Microscopy of Lithium Sulfur Batteries. Journal of the American Chemical Society, 2012, 134, 6337-6343.	15.7	479
99	Self-limited plasmonic welding of silver nanowireâ€“junctions. Nature Materials, 2012, 11, 241-249.	20.9	1,029
100	Enhancing the efficiency of solid-state dye-sensitized solar cells with plasmonic back reflectors. , 2011, , 002497-002499.		0
101	Nano-structured textiles as high-performance aqueous cathodes for microbial fuel cells. Energy and Environmental Science, 2011, 4, 1293.	30.6	68
102	Interconnected Silicon Hollow Nanospheres for Lithium-Ion Battery Anodes with Long Cycle Life. Nano Letters, 2011, 11, 2949-2954.	8.8	1,306
103	Nanowire Solar Cells. Annual Review of Materials Research, 2011, 41, 269-295.	9.5	544
104	Metal nanogrids, nanowires, and nanofibers for transparent electrodes. MRS Bulletin, 2011, 36, 760-765.	4.4	439
105	Paper supercapacitors by a solvent-free drawing method. Energy and Environmental Science, 2011, 4, 3368.	30.6	294
106	Toward N-Doped Graphene via Solvothermal Synthesis. Chemistry of Materials, 2011, 23, 1188-1193.	6.9	983
107	Hollow Carbon Nanofiber-Encapsulated Sulfur Cathodes for High Specific Capacity Rechargeable Lithium Batteries. Nano Letters, 2011, 11, 4462-4467.	8.8	1,213
108	Lithiumâ€“ion Textile Batteries with Large Areal Mass Loading. Advanced Energy Materials, 2011, 1, 1012-1017.	22.7	231

#	ARTICLE	IF	CITATIONS
109	Nanoparticle and Microparticle Flow in Porous and Fractured Media: An Experimental Study. , 2011, , .		8
110	Faceting and disorder in nanowire solar cell arrays. , 2010, , 001848-001853.		1
111	High-performance lithium battery anodes using silicon nanowires. , 2010, , 187-191.		7
112	Nanowire platform for mapping neural circuits. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 4489-4490.	7.7	10
113	Electrospun Metal Nanofiber Webs as High-Performance Transparent Electrode. Nano Letters, 2010, 10, 4242-4248.	8.8	655
114	New Nanostructured Li <sub>2</sub> S/Silicon Rechargeable Battery with High Specific Energy. Nano Letters, 2010, 10, 1486-1491.	8.8	604
115	Effects of nanostructured back reflectors on the external quantum efficiency in thin film solar cells. Nano Research, 2010, 4, 153-158.	8.5	12
116	Controlled Transformation of the Structures of Surface Fe (FeO) and Subsurface Fe on Pt(111). Chinese Journal of Catalysis, 2010, 31, 24-32.	15.9	1
117	Vacancy ordering and lithium insertion in III <sub>2</sub> VI <sub>3</sub> nanowires. Nano Research, 2009, 2, 327-335.	8.5	27
118	Surface chemistry and morphology of the solid electrolyte interphase on silicon nanowire lithium-ion battery anodes. Journal of Power Sources, 2009, 189, 1132-1140.	8.0	568
119	Impedance Analysis of Silicon Nanowire Lithium Ion Battery Anodes. Journal of Physical Chemistry C, 2009, 113, 11390-11398.	3.2	508
120	Phase transformations in one-dimensional materials: applications in electronics and energy sciences. Journal of Materials Chemistry, 2009, 19, 5879.	8.1	9
121	Phase-Change Nanowires for Non Volatile Memory. Materials Research Society Symposia Proceedings, 2008, 997, .	0.1	0
122	Solution-Processed Metal Nanowire Mesh Transparent Electrodes. Nano Letters, 2008, 8, 689-692.	8.8	1,693
123	Nanowire batteries for next generation electronics. , 2008, , .		1
124	Highly Polarized Photoluminescence and Photodetection from Single Indium Phosphide Nanowires. Science, 2001, 293, 1455-1457.	38.2	1,729