Ming Liu

List of Publications by Year
in descending order

52	5,446	109137	182168
papers	citations	35 h-index	51 g-index

53	53	53	6430
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Review of Recent Development of In Situ/Operando Characterization Techniques for Lithium Battery Research. Advanced Materials, 2019, 31, e1806620.	11.1	390
2	Novel gel polymer electrolyte for high-performance lithiumâ€“sulfur batteries. Nano Energy, 2016, 22, 278-289.	8.2	382
3	SiO₂ Hollow Nanosphereâ€Based Composite Solid Electrolyte for Lithium Metal Batteries to Suppress Lithium Dendrite Growth and Enhance Cycle Life. Advanced Energy Materials, 2016, 6, 1502214.	10.2	346
4	In Situ Synthesis of a Hierarchical Allâ€Solidâ€State Electrolyte Based on Nitrile Materials for Highâ€Performance Lithiumâ€Ion Batteries. Advanced Energy Materials, 2015, 5, 1500353.	10.2	300
5	Gassing in Li4Ti5O12-based batteries and its remedy. Scientific Reports, 2012, 2, 913.	1.6	284
6	Interface chemistry of an amide electrolyte for highly reversible lithium metal batteries. Nature Communications, 2020, 11, 4188.	5.8	226
7	Effect of solid electrolyte interface (SEI) film on cyclic performance of Li4Ti5O12 anodes for Li ion batteries. Journal of Power Sources, 2013, 239, 269-276.	4.0	223
8	Boron phosphide monolayer as a potential anode material for alkali metal-based batteries. Journal of Materials Chemistry A, 2017, 5, 672-679.	5.2	217
9	Revealing High Na-Content P2-Type Layered Oxides as Advanced Sodium-Ion Cathodes. Journal of the American Chemical Society, 2020, 142, 5742-5750.	6.6	206
10	Ultrafine TiO₂ Decorated Carbon Nanofibers as Multifunctional Interlayer for High-Performance Lithiumâ€“Sulfur Battery. ACS Applied Materials & Interfaces, 2016, 8, 23105-23113.	4.0	200
11	Suppressing Selfâ€Discharge and Shuttle Effect of Lithiumâ€“Sulfur Batteries with V₂O₅â€Decorated Carbon Nanofiber Interlayer. Small, 2017, 13, 1602539.	5.2	190
12	Dense coating of Li4Ti5O12 and graphene mixture on the separator to produce long cycle life of lithium-sulfur battery. Nano Energy, 2016, 30, 1-8.	8.2	179
13	A review of gassing behavior in Li₄Ti₅O₁₂-based lithium ion batteries. Journal of Materials Chemistry A, 2017, 5, 6368-6381.	5.2	157
14	An interwoven MoO₃@CNT scaffold interlayer for high-performance lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2018, 6, 8612-8619.	5.2	141
15	A honeycomb-cobweb inspired hierarchical coreâ€“shell structure design for electrospun silicon/carbon fibers as lithium-ion battery anodes. Carbon, 2016, 98, 582-591.	5.4	128
16	Borophene and defective borophene as potential anchoring materials for lithiumâ€“sulfur batteries: a first-principles study. Journal of Materials Chemistry A, 2018, 6, 2107-2114.	5.2	127
17	Recent innovative configurations in high-energy lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2017, 5, 5222-5234.	5.2	115
18	Ultrafine Titanium Nitride Sheath Decorated Carbon Nanofiber Network Enabling Stable Lithium Metal Anodes. Advanced Functional Materials, 2019, 29, 1903229.	7.8	112

#	Article	IF	Citations
19	Revealing the Impact of Space-Charge Layers on the Li-Ion Transport in All-Solid-State Batteries. Joule, 2020, 4, 1311-1323.	11.7	111
20	Electrosprayed porous Fe3O4/carbon microspheres as anode materials for high-performance lithium-ion batteries. Nano Research, 2018, 11, 892-904.	5.8	110
21	Modeling of lithium-sulfur batteries incorporating the effect of Li2S precipitation. Journal of Power Sources, 2016, 336, 115-125.	4.0	87
22	An efficient Li2S-based lithium-ion sulfur battery realized by a bifunctional electrolyte additive. Nano Energy, 2017, 40, 240-247.	8.2	81
23	Tandem Interface and Bulk Li-Ion Transport in a Hybrid Solid Electrolyte with Microsized Active Filler. ACS Energy Letters, 2019, 4, 2336-2342.	8.8	80
24	In-situ Fabrication of a Freestanding Acrylate-based Hierarchical Electrolyte for Lithium-sulfur Batteries. Electrochimica Acta, 2016, 213, 871-878.	2.6	74
25	Additives synergy for stable interface formation on rechargeable lithium metal anodes. Energy Storage Materials, 2020, 29, 377-385.	9.5	66
26	Efficient Li-Metal Plating/Stripping in Carbonate Electrolytes Using a LiNO₃-Gel Polymer Electrolyte, Monitored by Operando Neutron Depth Profiling. Chemistry of Materials, 2019, 31, 4564-4574.	3.2	65
27	Cyclized-polyacrylonitrile modified carbon nanofiber interlayers enabling strong trapping of polysulfides in lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2016, 4, 12973-12980.	5.2	64
28	A highly-safe lithium-ion sulfur polymer battery with SnO2 anode and acrylate-based gel polymer electrolyte. Nano Energy, 2016, 28, 97-105.	8.2	60
29	Monodispersed SnO 2 nanospheres embedded in framework of graphene and porous carbon as anode for lithium ion batteries. Energy Storage Materials, 2016, 3, 98-105.	9.5	60
30	Unraveling the Positive Roles of Point Defects on Carbon Surfaces in Nonaqueous Lithiumâ€“Oxygen Batteries. Journal of Physical Chemistry C, 2016, 120, 18394-18402.	1.5	50
31	Two-dimensional SiS as a potential anode material for lithium-based batteries: A first-principles study. Journal of Power Sources, 2016, 331, 391-399.	4.0	46
32	A self-cleaning Li-S battery enabled by a bifunctional redox mediator. Journal of Power Sources, 2017, 361, 203-210.	4.0	46
33	High dielectric barium titanate porous scaffold for efficient Li metal cycling in anode-free cells. Nature Communications, 2021, 12, 6536.	5.8	44
34	Increase and discretization of the energy barrier for individual LiNi_xCo_yMn_yO₂ (x + 2y =1) particles with the growth of a Li₂CO₃ surface film. Journal of Materials Chemistry A, 2019, 7, 12723-12731.	5.2	43
35	Controlling the Lithium-Metal Growth To Enable Low-Lithium-Metal-Excess All-Solid-State Lithium-Metal Batteries. , 2020, 2, 665-670.		37
36	Quantification of the Li-ion diffusion over an interface coating in all-solid-state batteries via NMR measurements. Nature Communications, 2021, 12, 5943.	5.8	36

#	Article	IF	Citations
37	Restructured rimous copper foam as robust lithium host. Energy Storage Materials, 2020, 26, 250-259.	9.5	34
38	In situ construction of Li3N-enriched interface enabling ultra-stable solid-state LiNi0.8Co0.1Mn0.1O2/lithium metal batteries. Nano Energy, 2022, 100, 107470.	8.2	34
39	A Novel Lithiated Siliconâ€“Sulfur Battery Exploiting an Optimized Solidâ€Like Electrolyte to Enhance Safety and Cycle Life. Small, 2017, 13, 1602015.	5.2	33
40	Facile Synthesis of Antâ€Nestâ€Like Porous Duplex Copper as Deeply Cycling Host for Lithium Metal Anodes. Small, 2020, 16, e2001784.	5.2	33
41	Liâ€ion Reaction to Improve the Rate Performance of Nanoporous Anatase TiO₂ Anodes. Energy Technology, 2013, 1, 668-674.	1.8	30
42	High catalytic activity of anatase titanium dioxide for decomposition of electrolyte solution in lithium ion battery. Journal of Power Sources, 2014, 268, 882-886.	4.0	25
43	A Direct View on Li-Ion Transport and Li-Metal Plating in Inorganic and Hybrid Solid-State Electrolytes. Accounts of Chemical Research, 2022, 55, 333-344.	7.6	25
44	Si Nanoparticles Intercalated into Interlayers of Slightly Exfoliated Graphite filled by Carbon as Anode with High Volumetric Capacity for Lithium-ion Battery. Electrochimica Acta, 2015, 184, 364-370.	2.6	24
45	A Lithium/Polysulfide Battery with Dual-Working Mode Enabled by Liquid Fuel and Acrylate-Based Gel Polymer Electrolyte. ACS Applied Materials & Interfaces, 2017, 9, 2526-2534.	4.0	24
46	High-performance nitrogen-doped titania nanowire decorated carbon cloth electrode for lithium-polysulfide batteries. Electrochimica Acta, 2017, 242, 137-145.	2.6	22
47	Room temperature all-solid-state lithium batteries based on a soluble organic cage ionic conductor. Nature Communications, 2022, 13, 2031.	5.8	19
48	A stabilized high-energy Li-polyiodide semi-liquid battery with a dually-protected Li anode. Journal of Power Sources, 2017, 347, 136-144.	4.0	17
49	An aprotic lithium/polyiodide semi-liquid battery with an ionic shield. Journal of Power Sources, 2017, 342, 9-16.	4.0	15
50	Design, Construction, and Testing of a Gasifier-Specific Solid Oxide Fuel Cell System. Energies, 2018, 11, 1985.	1.6	13
51	Lithium titanate hybridized with trace amount of graphene used as an anode for a high rate lithium ion battery. Electrochimica Acta, 2014, 142, 247-253.	2.6	11
52	A Li₂Sâ€Based Sacrificial Layer for Stable Operation of Lithiumâ€Sulfur Batteries. Energy Technology, 2018, 6, 2210-2219.	1.8	4