Liumin Suo

List of Publications by Year
in descending order

74 papers	13,545 citations	41258 49 h-index	74018 75 g-index
76 all docs	76 docs citations	76 times ranked	10762 citing authors

#	Article	IF	Citations
1	â€œWater-in-saltâ€•electrolyte enables high-voltage aqueous lithium-ion chemistries. Science, 2015, 350, 938-943.	6.0	2,553
2	A new class of Solvent-in-Salt electrolyte for high-energy rechargeable metallic lithium batteries. Nature Communications, 2013, 4, 1481.	5.8	1,917
3	Advanced Highâ€Voltage Aqueous Lithiumâ€Ion Battery Enabled by â€œWaterâ€inâ€Bisaltâ€•Electrolyte. Angewandte Chemie - International Edition, 2016, 55, 7136-7141.	7.2	571
4	Fluorine-donating electrolytes enable highly reversible 5-V-class Li metal batteries. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 1156-1161.	3.3	512
5	â€œWaterâ€inâ€Saltâ€•Electrolyte Makes Aqueous Sodiumâ€Ion Battery Safe, Green, and Longâ€Lasting. Advanced Energy Materials, 2017, 7, 1701189.	10.2	487
6	Advanced Highâ€Voltage Aqueous Lithiumâ€Ion Battery Enabled by â€œWaterâ€inâ€Bisaltâ€•Electrolyte. Angewandte Chemie, 2016, 128, 7252-7257.	1.6	459
7	Intercalation-conversion hybrid cathodes enabling Liâ€“S full-cell architectures with jointly superior gravimetric and volumetric energy densities. Nature Energy, 2019, 4, 374-382.	19.8	449
8	How Solid-Electrolyte Interphase Forms in Aqueous Electrolytes. Journal of the American Chemical Society, 2017, 139, 18670-18680.	6.6	365
9	High-Performance All-Solid-State Lithiumâ€“Sulfur Battery Enabled by a Mixed-Conductive Li₂S Nanocomposite. Nano Letters, 2016, 16, 4521-4527.	4.5	333
10	Progress in Aqueous Rechargeable Sodiumâ€Ion Batteries. Advanced Energy Materials, 2018, 8, 1703008.	10.2	297
11	Liquid Structure with Nano-Heterogeneity Promotes Cationic Transport in Concentrated Electrolytes. ACS Nano, 2017, 11, 10462-10471.	7.3	283
12	High power rechargeable magnesium/iodine battery chemistry. Nature Communications, 2017, 8, 14083.	5.8	251
13	Nitrogen-Doped Carbon for Sodium-Ion Battery Anode by Self-Etching and Graphitization of Bimetallic MOF-Based Composite. CheM, 2017, 3, 152-163.	5.8	228
14	Enhancing the Reversibility of Mg/S Battery Chemistry through Li⁺ Mediation. Journal of the American Chemical Society, 2015, 137, 12388-12393.	6.6	225
15	Highâ€Voltage Aqueous Naâ€Ion Battery Enabled by Inertâ€Cationâ€Assisted Waterâ€inâ€Salt Electrolyte. Advanced Materials, 2020, 32, e1904427.	11.1	221
16	A Rechargeable Al/S Battery with an Ionicâ€Liquid Electrolyte. Angewandte Chemie - International Edition, 2016, 55, 9898-9901.	7.2	215
17	Electrospun FeS₂@Carbon Fiber Electrode as a High Energy Density Cathode for Rechargeable Lithium Batteries. ACS Nano, 2016, 10, 1529-1538.	7.3	199
18	Superior Stable Selfâ€Healing SnP₃ Anode for Sodiumâ€Ion Batteries. Advanced Energy Materials, 2015, 5, 1500174.	10.2	197

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19	Stabilizing high voltage LiCoO₂ cathode in aqueous electrolyte with interphase-forming additive. Energy and Environmental Science, 2016, 9, 3666-3673.	15.6	190
20	Flexible Aqueous Liâ€Ion Battery with High Energy and Power Densities. Advanced Materials, 2017, 29, 1701972.	11.1	175
21	A Pyrazineâ€Based Polymer for Fastâ€Charge Batteries. Angewandte Chemie - International Edition, 2019, 58, 17820-17826.	7.2	173
22	â€œWater-in-Saltâ€• electrolytes enable green and safe Li-ion batteries for large scale electric energy storage applications. Journal of Materials Chemistry A, 2016, 4, 6639-6644.	5.2	172
23	Towards understanding the effects of carbon and nitrogen-doped carbon coating on the electrochemical performance of Li4Ti5O12 in lithium ion batteries: a combined experimental and theoretical study. Physical Chemistry Chemical Physics, 2011, 13, 15127.	1.3	169
24	Hybrid Mg²⁺/Li⁺ Battery with Long Cycle Life and High Rate Capability. Advanced Energy Materials, 2015, 5, 1401507.	10.2	155
25	Unique aqueous Li-ion/sulfur chemistry with high energy density and reversibility. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 6197-6202.	3.3	151
26	Phase Transformation and Lithiation Effect on Electronic Structure of Li_{<i>x</i>}FePO₄: An In-Depth Study by Soft X-ray and Simulations. Journal of the American Chemical Society, 2012, 134, 13708-13715.	6.6	136
27	Ether-based electrolyte enabled Na/FeS2 rechargeable batteries. Electrochemistry Communications, 2015, 54, 18-22.	2.3	121
28	Epitaxial Induced Plating Currentâ€Collector Lasting Lifespan of Anodeâ€Free Lithium Metal Battery. Advanced Energy Materials, 2021, 11, 2003709.	10.2	119
29	In situ formed carbon bonded and encapsulated selenium composites for Liâ€“Se and Naâ€“Se batteries. Journal of Materials Chemistry A, 2015, 3, 555-561.	5.2	115
30	Spinel LiNi_{0.5}Mn_{1.5}O₄ Cathode for Highâ€Energy Aqueous Lithiumâ€Ion Batteries. Advanced Energy Materials, 2017, 7, 1600922.	10.2	103
31	â€œWater-in-Saltâ€• electrolyte enabled LiMn2O4/TiS2 Lithium-ion batteries. Electrochemistry Communications, 2017, 82, 71-74.	2.3	99
32	Double-oxide sulfur host for advanced lithium-sulfur batteries. Nano Energy, 2017, 38, 12-18.	8.2	93
33	Water-in-Salt Electrolyte Promotes High-Capacity FeFe(CN)₆ Cathode for Aqueous Al-Ion Battery. ACS Applied Materials & Interfaces, 2019, 11, 41356-41362.	4.0	93
34	In Situ Formation of a Stable Interface in Solid-State Batteries. ACS Energy Letters, 2019, 4, 1650-1657.	8.8	93
35	The Compensation Effect Mechanism of Feâ€“Ni Mixed Prussian Blue Analogues in Aqueous Rechargeable Aluminumâ€Ion Batteries. ChemSusChem, 2020, 13, 732-740.	3.6	93
36	Roll-to-roll fabrication of organic nanorod electrodes for sodium ion batteries. Nano Energy, 2015, 13, 537-545.	8.2	91

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37	Pomegranate-Structured Conversion-Reaction Cathode with a Built-in Li Source for High-Energy Li-Ion Batteries. ACS Nano, 2016, 10, 5567-5577.	7.3	88
38	Carbon cage encapsulating nano-cluster Li2S by ionic liquid polymerization and pyrolysis for high performance Liâ€“S batteries. Nano Energy, 2015, 13, 467-473.	8.2	76
39	Iodine Vapor Transport-Triggered Preferential Growth of Chevrel Mo₆S₈ Nanosheets for Advanced Multivalent Batteries. ACS Nano, 2020, 14, 1102-1110.	7.3	72
40	Ultralight Electrolyte for Highâ€Energy Lithiumâ€“Sulfur Pouch Cells. Angewandte Chemie - International Edition, 2021, 60, 17547-17555.	7.2	72
41	Liâ€Rich Li₂[Ni_{0.8}Co_{0.1}Mn_{0.1}]O₂ for Anodeâ€Free Lithium Metal Batteries. Angewandte Chemie - International Edition, 2021, 60, 8289-8296.	7.2	71
42	Interface Concentratedâ€Confinement Suppressing Cathode Dissolution in Waterâ€inâ€Salt Electrolyte. Advanced Energy Materials, 2020, 10, 2000665.	10.2	70
43	A Rechargeable Al/S Battery with an Ionicâ€Liquid Electrolyte. Angewandte Chemie, 2016, 128, 10052-10055.	1.6	64
44	In situ lithiated FeF3/C nanocomposite as high energy conversion-reaction cathode for lithium-ion batteries. Journal of Power Sources, 2016, 307, 435-442.	4.0	64
45	Manipulating Sulfur Mobility Enables Advanced Li-S Batteries. Matter, 2019, 1, 1047-1060.	5.0	63
46	Amorphous anion-rich titanium polysulfides for aluminum-ion batteries. Science Advances, 2021, 7, .	4.7	63
47	FT-Raman spectroscopy study of solvent-in-salt electrolytes. Chinese Physics B, 2016, 25, 016101.	0.7	61
48	Aqueous interphase formed by CO2 brings electrolytes back to salt-in-water regime. Nature Chemistry, 2021, 13, 1061-1069.	6.6	57
49	Reversible Al3+ storage mechanism in anatase TiO2 cathode material for ionic liquid electrolyte-based aluminum-ion batteries. Journal of Energy Chemistry, 2020, 51, 72-80.	7.1	56
50	Highly ordered staging structural interface between LiFePO4 and FePO4. Physical Chemistry Chemical Physics, 2012, 14, 5363.	1.3	53
51	Sizeâ€Dependent Staging and Phase Transition in LiFePO₄/FePO₄. Advanced Functional Materials, 2014, 24, 312-318.	7.8	48
52	A Better Choice to Achieve High Volumetric Energy Density: Anodeâ€Free Lithiumâ€Metal Batteries. Advanced Materials, 2022, 34, e2110323.	11.1	46
53	Novel approach for a high-energy-density Liâ€“air battery: tri-dimensional growth of Li2O2 crystals tailored by electrolyte Li+ ion concentrations. Journal of Materials Chemistry A, 2014, 2, 9020.	5.2	41
54	Lowâ€Density Fluorinated Silane Solvent Enhancing Deep Cycle Lithiumâ€“Sulfur Batteriesâ€™ Lifetime. Advanced Materials, 2021, 33, e2102034.	11.1	39

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55	Brownian-snowball-mechanism-induced hierarchical cobalt sulfide for supercapacitors. Journal of Power Sources, 2019, 412, 321-330.	4.0	31
56	Cation-synergy stabilizing anion redox of Chevrel phase Mo6S8 in aluminum ion battery. Energy Storage Materials, 2021, 37, 87-93.	9.5	31
57	TiO2 (B) anode for high-voltage aqueous Li-ion batteries. Energy Storage Materials, 2021, 42, 438-444.	9.5	28
58	Dense Allâ€Electrochemâ€Active Electrodes for Allâ€Solidâ€State Lithium Batteries. Advanced Materials, 2021, 33, e2008723.	11.1	26
59	Joint Cationic and Anionic Redox Chemistry for Advanced Mg Batteries. Nano Letters, 2020, 20, 6852-6858.	4.5	25
60	Water-in-salt widens the electrochemical stability window: Thermodynamic and kinetic factors. Current Opinion in Electrochemistry, 2021, 29, 100818.	2.5	25
61	Spinel-related Li2Ni0.5Mn1.5O4 cathode for 5-V anode-free lithium metal batteries. Energy Storage Materials, 2022, 45, 821-827.	9.5	21
62	A Pyrazineâ€Based Polymer for Fastâ€Charge Batteries. Angewandte Chemie, 2019, 131, 17984-17990.	1.6	19
63	Wearable Bipolar Rechargeable Aluminum Battery. , 2020, 2, 808-813.		19
64	Solid-Like Nano-Anion Cluster Constructs a Free Lithium-Ion-Conducting Superfluid Framework in a Water-in-Salt Electrolyte. Journal of Physical Chemistry C, 2021, 125, 11838-11847.	1.5	17
65	Amorphous Redox-Rich Polysulfides for Mg Cathodes. Jacs Au, 2021, 1, 1266-1274.	3.6	14
66	Cereusâ€Shaped Mesoporous Rutile TiO₂ Formed in Ionic Liquid: Synthesis and Liâ€Storage Properties. ChemElectroChem, 2014, 1, 549-553.	1.7	13
67	Ultralight Electrolyte for Highâ€Energy Lithiumâ€"Sulfur Pouch Cells. Angewandte Chemie, 2021, 133, 17688-17696.	1.6	13
68	Simplifying and accelerating kinetics enabling fast-charge Al batteries. Journal of Materials Chemistry A, 2020, 8, 23834-23843.	5.2	12
69	Electronic Conductive Inorganic Cathodes Promising Highâ€Energy Organic Batteries. Advanced Materials, 2021, 33, e2005781.	11.1	12
70	Progress in Rechargeable Aqueous Alkali-Ion Batteries in China. Energy & Fuels, 2021, 35, 9228-9239.	2.5	9
71	All-in-One Ionicâ€"Electronic Dual-Carrier Conducting Framework Thickening All-Solid-State Electrode. ACS Energy Letters, 2022, 7, 766-772.	8.8	7
72	Electroactive-catalytic conductive framework for aluminum-sulfur batteries. Energy Storage Materials, 2022, 51, 266-272.	9.5	7

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73	Sandwich Structure Corrosion-Resistant Current Collector for Aqueous Batteries. ACS Applied Energy Materials, 2021, 4, 4928-4934.	2.5	4
74	Liâ€Rich Li 2 [Ni 0.8 Co 0.1 Mn 0.1]O 2 for Anodeâ€Free Lithium Metal Batteries. Angewandte Chemie, 2021, 133, 8370-8377.	1.6	2