

Shuaifeng Lou

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

109
papers

3,351
citations

31
h-index

54
g-index

115
ext. papers

4,316
ext. citations

10
avg, IF

5.55
L-index

#	Paper	IF	Citations
109	Crystallographic engineering to reduce diffusion barrier for enhanced intercalation pseudocapacitance of TiNb ₂ O ₇ in fast-charging batteries. <i>Energy Storage Materials</i> , 2022 , 47, 178-178	19.4	3
108	Tailoring lithium-peroxide reaction kinetics with CuN ₂ C ₂ single-atom moieties for lithium-oxygen batteries. <i>Nano Energy</i> , 2022 , 93, 106810	17.1	2
107	Molecular bridges stabilize lithium metal anode and solid-state electrolyte interface. <i>Chemical Engineering Journal</i> , 2022 , 432, 134271	14.7	0
106	Regulating Li deposition by constructing homogeneous LiF protective layer for high-performance Li metal anode. <i>Chemical Engineering Journal</i> , 2022 , 427, 131625	14.7	6
105	Single-Atom Tailored Hierarchical Transition Metal Oxide Nanocages for Efficient Lithium Storage.. <i>Small</i> , 2022 , e2200367	11	2
104	Poly (vinyl ethylene carbonate)-based dual-salt gel polymer electrolyte enabling high voltage lithium metal batteries. <i>Chemical Engineering Journal</i> , 2022 , 437, 135419	14.7	1
103	Stable silicon anodes realized by multifunctional dynamic cross-linking structure with self-healing chemistry and enhanced ionic conductivity for lithium-ion batteries. <i>Nano Energy</i> , 2022 , 99, 107334	17.1	4
102	Substrate strain tunes operando geometric distortion and oxygen reduction activity of CuNC single-atom sites. <i>Nature Communications</i> , 2021 , 12, 6335	17.4	20
101	Stable lithium anode enabled by biphasic hybrid SEI layer toward high-performance lithium metal batteries. <i>Chemical Engineering Journal</i> , 2021 , 433, 133570	14.7	1
100	π-Conjugation Induced Anchoring of Ferrocene on Graphdiyne Enable Shuttle-Free Redox Mediation in Lithium-Oxygen Batteries. <i>Advanced Science</i> , 2021 , e2103964	13.6	1
99	Stable Silicon Anodes by Molecular Layer Deposited Artificial Zincone Coatings. <i>Advanced Functional Materials</i> , 2021 , 31, 2010526	15.6	13
98	A Review of Magnesium Aluminum Chloride Complex Electrolytes for Mg Batteries. <i>Advanced Functional Materials</i> , 2021 , 31, 2100650	15.6	7
97	Electrochemical behaviors in the anode of LiCoO ₂ /mesocarbon microbead battery and their impacts on the capacity degradation. <i>Ionics</i> , 2021 , 27, 2353-2365	2.7	1
96	Interface Reinforcement of a Prussian Blue Cathode Using a Non-Flammable Co-Solvent Cresyl Diphenyl Phosphate for a High-Safety Na-Ion Battery. <i>ACS Sustainable Chemistry and Engineering</i> , 2021 , 9, 5809-5817	8.3	3
95	Formation of an Artificial Mg-Permeable Interphase on Mg Anodes Compatible with Ether and Carbonate Electrolytes. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 24565-24574	9.5	7
94	An Interphase-enhanced Liquid Na-K Anode for Dendrite-free Alkali Metal Batteries Enabled by SiCl ₄ Electrolyte Additive. <i>Energy Storage Materials</i> , 2021 , 37, 199-206	19.4	9
93	Stabilizing Lithium Metal Anode Enabled by a Natural Polymer Layer for Lithium-Sulfur Batteries. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 28252-28260	9.5	6

92	In-situ thermal polymerization boosts succinonitrile-based composite solid-state electrolyte for high performance Li-metal battery. <i>Journal of Power Sources</i> , 2021 , 496, 229861	8.9	11
91	Unraveling the advances of trace doping engineering for potassium ion battery anodes via tomography. <i>Journal of Energy Chemistry</i> , 2021 , 58, 355-363	12	9
90	Interface Issues and Challenges in All-Solid-State Batteries: Lithium, Sodium, and Beyond. <i>Advanced Materials</i> , 2021 , 33, e2000721	24	84
89	Intercalation pseudocapacitive electrochemistry of Nb-based oxides for fast charging of lithium-ion batteries. <i>Nano Energy</i> , 2021 , 81, 105635	17.1	21
88	Reversible Silicon Anodes with Long Cycles by Multifunctional Volumetric Buffer Layers. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 4093-4101	9.5	12
87	Hierarchical pores from microscale to macroscale boost ultrahigh lithium intercalation pseudocapacitance of biomass carbon. <i>Journal of Energy Storage</i> , 2021 , 33, 102068	7.8	2
86	An armor-like artificial solid electrolyte interphase layer for high performance lithium-sulfur batteries. <i>Applied Materials Today</i> , 2021 , 24, 101108	6.6	2
85	Fast lithium transport kinetics regulated by low energy-barrier Li_xMnO_2 for long-life lithium metal batteries. <i>Energy Storage Materials</i> , 2021 , 41, 1-7	19.4	9
84	Monovacancy Coupled Pyridinic N Site Enables Surging Oxygen Reduction Activity of Metal-Free CN _x Catalyst. <i>ACS Sustainable Chemistry and Engineering</i> , 2021 , 9, 1264-1271	8.3	2
83	Interrelated interfacial issues between a $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ -based garnet electrolyte and Li anode in the solid-state lithium battery: a review. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 5952-5979	13	15
82	Polyvinylpyrrolidone-Coordinated Single-Site Platinum Catalyst Exhibits High Activity for Hydrogen Evolution Reaction. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 15902-15907	16.4	38
81	Surface nitrided and carbon coated TiNb_2O_7 anode material with excellent performance for lithium-ion batteries. <i>Journal of Alloys and Compounds</i> , 2020 , 835, 155241	5.7	10
80	FeOF/TiO Hetero-Nanostructures for High-Areal-Capacity Fluoride Cathodes. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 33803-33809	9.5	5
79	Perovskite LaCoMnO with Tunable Defect and Surface Structures as Cathode Catalysts for Li-O Batteries. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 10452-10460	9.5	11
78	Superior Electrochemical Performance of WNb_2O_8 Nanorods Triggered by Ultra-Efficient Li^+ Diffusion. <i>ChemistrySelect</i> , 2020 , 5, 1209-1213	1.8	5
77	A dual-salt coupled fluoroethylene carbonate succinonitrile-based electrolyte enables Li-metal batteries. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 2066-2073	13	35
76	Improving electrochemical performance of Nano-Si/N-doped carbon through tuning the microstructure from two dimensions to three dimensions. <i>Electrochimica Acta</i> , 2020 , 332, 135507	6.7	15
75	Unraveling the Relationship between Ti^{4+} Doping and Li^+ Mobility Enhancement in Ti^{4+} Doped $\text{Li}_3\text{V}_2(\text{PO}_4)_3$. <i>ACS Applied Energy Materials</i> , 2020 , 3, 715-722	6.1	6

74	Capacity degradation mechanism and improvement actions for 4 V-class all-solid-state lithium-metal polymer batteries. <i>Chemical Engineering Journal</i> , 2020 , 392, 123665	14.7	22
73	Nanocable with thick active intermediate layer for stable and high-areal-capacity sodium storage. <i>Nano Energy</i> , 2020 , 78, 105265	17.1	5
72	Insights into interfacial effect and local lithium-ion transport in polycrystalline cathodes of solid-state batteries. <i>Nature Communications</i> , 2020 , 11, 5700	17.4	40
71	Multi-scale Imaging of Solid-State Battery Interfaces: From Atomic Scale to Macroscopic Scale. <i>CheM</i> , 2020 , 6, 2199-2218	16.2	30
70	Inducing uniform lithium nucleation by integrated lithium-rich li-in anode with lithiophilic 3D framework. <i>Energy Storage Materials</i> , 2020 , 33, 423-431	19.4	26
69	Synergistic engineering of defects and architecture in Co ₃ O ₄ @C nanosheets toward Li/Na ion batteries with enhanced pseudocapacitances. <i>Nano Energy</i> , 2020 , 78, 105366	17.1	53
68	Black phosphorus-modified sulfurized polyacrylonitrile with high C-rate and cycling performance in ether-based electrolyte for lithium sulfur batteries. <i>Chemical Communications</i> , 2020 , 56, 12797-12800	5.8	11
67	Solvate ionic liquid boosting favorable interfaces kinetics to achieve the excellent performance of Li ₄ Ti ₅ O ₁₂ anodes in Li ₁₀ GeP ₂ S ₁₂ based solid-state batteries. <i>Chemical Engineering Journal</i> , 2020 , 382, 123046	14.7	5
66	Scalable mesoporous silicon microparticles composed of interconnected nanoplates for superior lithium storage. <i>Chemical Engineering Journal</i> , 2019 , 375, 121923	14.7	21
65	Ni-MOF derived NiO/C nanospheres grown in situ on reduced graphene oxide towards high performance hybrid supercapacitor. <i>Journal of Alloys and Compounds</i> , 2019 , 801, 158-165	5.7	38
64	Achieving long-life Prussian blue analogue cathode for Na-ion batteries via triple-cation lattice substitution and coordinated water capture. <i>Nano Energy</i> , 2019 , 61, 201-210	17.1	63
63	Amorphous carbon-encapsulated Si nanoparticles loading on MCMB with sandwich structure for lithium ion batteries. <i>Electrochimica Acta</i> , 2019 , 306, 590-598	6.7	31
62	Synthesis of Well-Defined Pt-Based Catalysts for Methanol Oxidation Reaction Based on Electron Hole Separation Effects. <i>ACS Sustainable Chemistry and Engineering</i> , 2019 , 7, 8597-8603	8.3	6
61	Improved Electrochemical Performance of LiNi _{0.8} Co _{0.15} Al _{0.05} O ₂ Cathode Material by Coating of Graphene Nanodots. <i>Journal of the Electrochemical Society</i> , 2019 , 166, A1038-A1044	3.9	16
60	A porous N-doped carbon aggregate as sulfur host for lithium-sulfur batteries. <i>Ionics</i> , 2019 , 25, 2131-2138	3.7	5
59	Scalable submicron/micron silicon particles stabilized in a robust graphite-carbon architecture for enhanced lithium storage. <i>Journal of Colloid and Interface Science</i> , 2019 , 555, 783-790	9.3	13
58	Unraveling the Origins of the "Unreactive Core" in Conversion Electrodes to Trigger High Sodium-Ion Electrochemistry. <i>ACS Energy Letters</i> , 2019 , 4, 2007-2012	20.1	25
57	Anisotropically Electrochemical-Mechanical Evolution in Solid-State Batteries and Interfacial Tailored Strategy. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 18647-18653	16.4	29

56	Pseudocapacitive Li ⁺ storage boosts ultrahigh rate performance of structure-tailored CoFe ₂ O ₄ @Fe ₂ O ₃ hollow spheres triggered by engineered surface and near-surface reactions. <i>Nano Energy</i> , 2019 , 66, 104179	17.1	30
55	Engineering of Nitrogen Coordinated Single Cobalt Atom Moieties for Oxygen Electroreduction. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 41258-41266	9.5	32
54	Anisotropically Electrochemical/Mechanical Evolution in Solid-State Batteries and Interfacial Tailored Strategy. <i>Angewandte Chemie</i> , 2019 , 131, 18820-18826	3.6	4
53	A quasi-solid-state LiB battery with high energy density, superior stability and safety. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 6533-6542	13	24
52	Ti-Based Oxide Anode Materials for Advanced Electrochemical Energy Storage: Lithium/Sodium Ion Batteries and Hybrid Pseudocapacitors. <i>Small</i> , 2019 , 15, e1904740	11	69
51	A three-dimensional silicon/nitrogen-doped graphitized carbon composite as high-performance anode material for lithium ion batteries. <i>Journal of Alloys and Compounds</i> , 2019 , 777, 190-197	5.7	40
50	Enhanced Methanol Oxidation in Acid Media on Pt/S, P Co-doped Graphene with 3D Porous Network Structure Engineering. <i>ChemElectroChem</i> , 2019 , 6, 1157-1165	4.3	7
49	CoS/N-doped carbon core/shell nanocrystals as an anode material for potassium-ion storage. <i>Journal of Solid State Electrochemistry</i> , 2019 , 23, 27-32	2.6	20
48	ZIF-8 with Ferrocene Encapsulated: A Promising Precursor to Single-Atom Fe Embedded Nitrogen-Doped Carbon as Highly Efficient Catalyst for Oxygen Electroreduction. <i>Small</i> , 2018 , 14, e1704282	11.1	148
47	Enhanced electrochemical performance of Li ₄ Ti ₅ O ₁₂ through in-situ coating 70Li ₂ S-30P ₂ S ₅ solid electrolyte for all-solid-state lithium batteries. <i>Journal of Alloys and Compounds</i> , 2018 , 752, 8-13	5.7	17
46	Unravelling the Enhanced High-Temperature Performance of Lithium-Rich Oxide Cathode with Methyl Diphenylphosphinite as Electrolyte Additive. <i>ChemElectroChem</i> , 2018 , 5, 1569-1575	4.3	26
45	A two-dimensional nitrogen-rich carbon/silicon composite as high performance anode material for lithium ion batteries. <i>Chemical Engineering Journal</i> , 2018 , 341, 37-46	14.7	66
44	Enabling reliable lithium metal batteries by a bifunctional anionic electrolyte additive. <i>Energy Storage Materials</i> , 2018 , 11, 197-204	19.4	82
43	Pseudocapacitive Li ⁺ intercalation in porous Ti ₂ Nb ₁₀ O ₂₉ nanospheres enables ultra-fast lithium storage. <i>Energy Storage Materials</i> , 2018 , 11, 57-66	19.4	119
42	Unravelling the Interface Layer Formation and Gas Evolution/Suppression on a TiNbO Anode for Lithium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 27056-27062	9.5	35
41	Accelerated aging and degradation mechanism of LiFePO ₄ /graphite batteries cycled at high discharge rates.. <i>RSC Advances</i> , 2018 , 8, 25695-25703	3.7	21
40	Excellent room-temperature performance of lithium metal polymer battery with enhanced interfacial compatibility. <i>Electrochimica Acta</i> , 2018 , 283, 1261-1268	6.7	6
39	Rapid Prediction of the Open-Circuit-Voltage of Lithium Ion Batteries Based on an Effective Voltage Relaxation Model. <i>Energies</i> , 2018 , 11, 3444	3.1	9

38	Insights into the role of oxygen functional groups and defects in the rechargeable nonaqueous LiO ₂ batteries. <i>Electrochimica Acta</i> , 2018 , 292, 838-845	6.7	16
37	Correlating the electrocatalytic stability of platinum monolayer catalysts with their structural evolution in the oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 20725-20736	13	15
36	Toward Promising Turnkey Solution for Next-Generation Lithium Ion Batteries: Scale Preparation, Fading Analysis, and Enhanced Performance of Microsized Si/C Composites. <i>ACS Applied Energy Materials</i> , 2018 , 1, 6977-6985	6.1	6
35	Accelerated Aging Analysis on Cycle Life of LiFePO ₄ /Graphite Batteries Based on Different Rates. <i>ChemElectroChem</i> , 2018 , 5, 2301-2309	4.3	6
34	Superior performance of ordered macroporous TiNb ₂ O ₇ anodes for lithium ion batteries: Understanding from the structural and pseudocapacitive insights on achieving high rate capability. <i>Nano Energy</i> , 2017 , 34, 15-25	17.1	264
33	Improved electrochemical performance of micro-sized SiO ₂ -based composite anode by prelithiation of stabilized lithium metal powder. <i>Journal of Power Sources</i> , 2017 , 347, 170-177	8.9	91
32	A New Anion Receptor for Improving the Interface between Lithium- and Manganese-Rich Layered Oxide Cathode and the Electrolyte. <i>Chemistry of Materials</i> , 2017 , 29, 2141-2149	9.6	31
31	Improvement of bond strength between ZnO nanorods and carbon fibers using magnetron sputtered ZnO films as the interphase. <i>CrystEngComm</i> , 2017 , 19, 868-875	3.3	9
30	Carbon fibers/ZnO nanowires hybrid nanogenerator based on an insulating interface barrier. <i>RSC Advances</i> , 2017 , 7, 21452-21458	3.7	14
29	Facilitating the redox reaction of polysulfides by an electrocatalytic layer-modified separator for lithium-sulfur batteries. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 10936-10945	13	65
28	Improved high-voltage performance of LiNi _{1/3} Co _{1/3} Mn _{1/3} O ₂ cathode with Tris(2,2,2-trifluoroethyl) phosphite as electrolyte additive. <i>Electrochimica Acta</i> , 2017 , 243, 72-81	6.7	22
27	Accelerating anodic biofilms formation and electron transfer in microbial fuel cells: Role of anionic biosurfactants and mechanism. <i>Bioelectrochemistry</i> , 2017 , 117, 48-56	5.6	26
26	Pseudocapacitive Li ⁺ intercalation in ZnO/ZnO@C composites enables high-rate lithium-ion storage and stable cyclability. <i>Ceramics International</i> , 2017 , 43, 11998-12004	5.1	20
25	Ultrahigh Mass Activity for Carbon Dioxide Reduction Enabled by Gold-Iron Core-Shell Nanoparticles. <i>Journal of the American Chemical Society</i> , 2017 , 139, 15608-15611	16.4	151
24	Self-doping Ti _{1-x} Nb _{2+x} O ₇ anode material for lithium-ion battery and its electrochemical performance. <i>Journal of Alloys and Compounds</i> , 2017 , 728, 534-540	5.7	27
23	1,3,6-Hexanetricarbonitrile as electrolyte additive for enhancing electrochemical performance of high voltage Li-rich layered oxide cathode. <i>Journal of Power Sources</i> , 2017 , 361, 227-236	8.9	47
22	Interface Modifications by Tris(2,2,2-trifluoroethyl) Borate for Improving the High-Voltage Performance of LiNi _{1/3} Co _{1/3} Mn _{1/3} O ₂ Cathode. <i>Journal of the Electrochemical Society</i> , 2017 , 164, A1924-A1932	3.9	9
21	Micro-sized spherical silicon@carbon@graphene prepared by spray drying as anode material for lithium-ion batteries. <i>Journal of Alloys and Compounds</i> , 2017 , 723, 434-440	5.7	67

20	High-rate capability of three-dimensionally ordered macroporous T-Nb ₂ O ₅ through Li ⁺ intercalation pseudocapacitance. <i>Journal of Power Sources</i> , 2017 , 361, 80-86	8.9	106
19	Improved electrochemical performance of NaAlO ₂ -coated LiCoO ₂ for lithium-ion batteries. <i>Journal of Solid State Electrochemistry</i> , 2017 , 21, 1195-1201	2.6	18
18	Heterogeneous Nanostructure of Ternary PtRu-Au/C Nano-catalyst Towards Formic Acid Oxidation. <i>Electrochemistry</i> , 2017 , 85, 133-135	1.2	3
17	Recovery Strategy and Mechanism of Aged Lithium Ion Batteries after Shallow Depth of Discharge at Elevated Temperature. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 5234-42	9.5	14
16	Role of fluorine surface modification in improving electrochemical cyclability of concentration gradient Li[Ni _{0.73} Co _{0.12} Mn _{0.15}]O ₂ cathode material for Li-ion batteries. <i>RSC Advances</i> , 2016 , 6, 26307-26316 ²⁴	3.7	24
15	Mild Synthesis of Pt/SnO ₂ /Graphene Nanocomposites with Remarkably Enhanced Ethanol Electro-oxidation Activity and Durability. <i>Chemistry - A European Journal</i> , 2016 , 22, 193-8	4.8	29
14	Evaluation of Oxygen Reduction Activity by the Thin-Film Rotating Disk Electrode Methodology: the Effects of Potentiodynamic Parameters. <i>Electrocatalysis</i> , 2016 , 7, 305-316	2.7	8
13	Understanding undesirable anode lithium plating issues in lithium-ion batteries. <i>RSC Advances</i> , 2016 , 6, 88683-88700	3.7	204
12	Facile synthesis of nanostructured TiNb ₂ O ₇ anode materials with superior performance for high-rate lithium ion batteries. <i>Chemical Communications</i> , 2015 , 51, 17293-6	5.8	96
11	Electrochemical performance degeneration mechanism of LiCoO ₂ with high state of charge during long-term charge/discharge cycling. <i>RSC Advances</i> , 2015 , 5, 81235-81242	3.7	29
10	Lithium-rich Li _{1.2} Ni _{0.13} Co _{0.13} Mn _{0.54} O ₂ oxide coated by Li ₃ PO ₄ and carbon nanocomposite layers as high performance cathode materials for lithium ion batteries. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 2634-2641	13	92
9	Improved electrochemical performance and capacity fading mechanism of nano-sized LiMn _{0.9} Fe _{0.1} PO ₄ cathode modified by polyacene coating. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 15693-15795 ⁵⁵	13	55
8	High-performance carbon-coated LiMnPO ₄ nanocomposites by facile two-step solid-state synthesis for lithium-ion battery. <i>Journal of Solid State Electrochemistry</i> , 2015 , 19, 281-288	2.6	18
7	Pd-around-CeO ₂ hybrid nanostructure catalyst: three-phase-transfer synthesis, electrocatalytic properties and dual promoting mechanism. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 1429-1435	13	50
6	Lithium deposition on graphite anode during long-term cycles and the effect on capacity loss. <i>RSC Advances</i> , 2014 , 4, 26335-26341	3.7	29
5	An Li-rich oxide cathode material with mosaic spinel grain and a surface coating for high performance Li-ion batteries. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 15640	13	65
4	Changing of SEI Film and Electrochemical Properties about MCMB Electrodes during Long-Term Charge/Discharge Cycles. <i>Journal of the Electrochemical Society</i> , 2013 , 160, A2093-A2099	3.9	36
3	Ultrathin Si Nanosheets Dispersed in Graphene Matrix Enable Stable Interface and High Rate Capability of Anode for Lithium-ion Batteries. <i>Advanced Functional Materials</i> , 2110046	15.6	8

2	Tracking Battery Dynamics by Operando Synchrotron X-ray Imaging: Operation from Liquid Electrolytes to Solid-State Electrolytes. <i>Accounts of Materials Research</i> ,	7.5	1
1	Tailoring Porous Transition Metal Oxide for High-Performance Lithium Storage. <i>Journal of Physical Chemistry C</i> ,	3.8	4