Shuaifeng Lou

List of Publications by Citations

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	Superior performance of ordered macroporous TiNb2O7 anodes for lithium ion batteries: Understanding from the structural and pseudocapacitive insights on achieving high rate capability. *Nano Energy*, **2017**, 34, 15-25	17.1	264
108	Understanding undesirable anode lithium plating issues in lithium-ion batteries. *RSC Advances*, **2016**, 6, 88683-88700	3.7	204
107	Ultrahigh Mass Activity for Carbon Dioxide Reduction Enabled by Gold-Iron Core-Shell Nanoparticles. *Journal of the American Chemical Society*, **2017**, 139, 15608-15611	16.4	151
106	ZIF-8 with Ferrocene Encapsulated: A Promising Precursor to Single-Atom Fe Embedded Nitrogen-Doped Carbon as Highly Efficient Catalyst for Oxygen Electroreduction. *Small*, **2018**, 14, e1704282	11	148
105	Pseudocapacitive Li+ intercalation in porous Ti2Nb10O29 nanospheres enables ultra-fast lithium storage. *Energy Storage Materials*, **2018**, 11, 57-66	19.4	119
104	High-rate capability of three-dimensionally ordered macroporous T-Nb2O5 through Li+ intercalation pseudocapacitance. *Journal of Power Sources*, **2017**, 361, 80-86	8.9	106
103	Facile synthesis of nanostructured TiNb2O7 anode materials with superior performance for high-rate lithium ion batteries. *Chemical Communications*, **2015**, 51, 17293-6	5.8	96
102	Lithium-rich Li1.2Ni0.13Co0.13Mn0.54O2 oxide coated by Li3PO4 and carbon nanocomposite layers as high performance cathode materials for lithium ion batteries. *Journal of Materials Chemistry A*, **2015**, 3, 2634-2641	13	92
101	Improved electrochemical performance of micro-sized SiO-based composite anode by prelithiation of stabilized lithium metal powder. *Journal of Power Sources*, **2017**, 347, 170-177	8.9	91
100	Interface Issues and Challenges in All-Solid-State Batteries: Lithium, Sodium, and Beyond. *Advanced Materials*, **2021**, 33, e2000721	24	84
99	Enabling reliable lithium metal batteries by a bifunctional anionic electrolyte additive. *Energy Storage Materials*, **2018**, 11, 197-204	19.4	82
98	Ti-Based Oxide Anode Materials for Advanced Electrochemical Energy Storage: Lithium/Sodium Ion Batteries and Hybrid Pseudocapacitors. *Small*, **2019**, 15, e1904740	11	69
97	Micro-sized spherical silicon@carbon@graphene prepared by spray drying as anode material for lithium-ion batteries. *Journal of Alloys and Compounds*, **2017**, 723, 434-440	5.7	67
96	A two-dimensional nitrogen-rich carbon/silicon composite as high performance anode material for lithium ion batteries. *Chemical Engineering Journal*, **2018**, 341, 37-46	14.7	66
95	Facilitating the redox reaction of polysulfides by an electrocatalytic layer-modified separator for lithium–sulfur batteries. *Journal of Materials Chemistry A*, **2017**, 5, 10936-10945	13	65
94	An Li-rich oxide cathode material with mosaic spinel grain and a surface coating for high performance Li-ion batteries. *Journal of Materials Chemistry A*, **2014**, 2, 15640	13	65
93	Achieving long-life Prussian blue analogue cathode for Na-ion batteries via triple-cation lattice substitution and coordinated water capture. *Nano Energy*, **2019**, 61, 201-210	17.1	63

92	Improved electrochemical performance and capacity fading mechanism of nano-sized LiMn0.9Fe0.1PO4 cathode modified by polyacene coating. *Journal of Materials Chemistry A*, **2015**, 3, 1569-1579	13	55
91	Synergistic engineering of defects and architecture in Co3O4@C nanosheets toward Li/Na ion batteries with enhanced pseudocapacitances. *Nano Energy*, **2020**, 78, 105366	17.1	53
90	Pd-around-CeO2 hybrid nanostructure catalyst: three-phase-transfer synthesis, electrocatalytic properties and dual promoting mechanism. *Journal of Materials Chemistry A*, **2014**, 2, 1429-1435	13	50
89	1,3,6-Hexanetricarbonitrile as electrolyte additive for enhancing electrochemical performance of high voltage Li-rich layered oxide cathode. *Journal of Power Sources*, **2017**, 361, 227-236	8.9	47
88	Insights into interfacial effect and local lithium-ion transport in polycrystalline cathodes of solid-state batteries. *Nature Communications*, **2020**, 11, 5700	17.4	40
87	A three-dimensional silicon/nitrogen-doped graphitized carbon composite as high-performance anode material for lithium ion batteries. *Journal of Alloys and Compounds*, **2019**, 777, 190-197	5.7	40
86	Ni-MOF derived NiO/C nanospheres grown in situ on reduced graphene oxide towards high performance hybrid supercapacitor. *Journal of Alloys and Compounds*, **2019**, 801, 158-165	5.7	38
85	Polyvinylpyrrolidone-Coordinated Single-Site Platinum Catalyst Exhibits High Activity for Hydrogen Evolution Reaction. *Angewandte Chemie - International Edition*, **2020**, 59, 15902-15907	16.4	38
84	Changing of SEI Film and Electrochemical Properties about MCMB Electrodes during Long-Term Charge/Discharge Cycles. *Journal of the Electrochemical Society*, **2013**, 160, A2093-A2099	3.9	36
83	Unravelling the Interface Layer Formation and Gas Evolution/Suppression on a TiNbO Anode for Lithium-Ion Batteries. *ACS Applied Materials & Interfaces*, **2018**, 10, 27056-27062	9.5	35
82	A dual-salt coupled fluoroethylene carbonate succinonitrile-based electrolyte enables Li-metal batteries. *Journal of Materials Chemistry A*, **2020**, 8, 2066-2073	13	35
81	Engineering of Nitrogen Coordinated Single Cobalt Atom Moieties for Oxygen Electroreduction. *ACS Applied Materials & Interfaces*, **2019**, 11, 41258-41266	9.5	32
80	A New Anion Receptor for Improving the Interface between Lithium- and Manganese-Rich Layered Oxide Cathode and the Electrolyte. *Chemistry of Materials*, **2017**, 29, 2141-2149	9.6	31
79	Amorphous carbon-encapsulated Si nanoparticles loading on MCMB with sandwich structure for lithium ion batteries. *Electrochimica Acta*, **2019**, 306, 590-598	6.7	31
78	Pseudocapacitive Li+ storage boosts ultrahigh rate performance of structure-tailored CoFe2O4@Fe2O3 hollow spheres triggered by engineered surface and near-surface reactions. *Nano Energy*, **2019**, 66, 104179	17.1	30
77	Multi-scale Imaging of Solid-State Battery Interfaces: From Atomic Scale to Macroscopic Scale. *CheM*, **2020**, 6, 2199-2218	16.2	30
76	Electrochemical performance degeneration mechanism of LiCoO2 with high state of charge during long-term charge/discharge cycling. *RSC Advances*, **2015**, 5, 81235-81242	3.7	29
75	Anisotropically Electrochemical-Mechanical Evolution in Solid-State Batteries and Interfacial Tailored Strategy. *Angewandte Chemie - International Edition*, **2019**, 58, 18647-18653	16.4	29

74	Lithium deposition on graphite anode during long-term cycles and the effect on capacity loss. *RSC Advances*, **2014**, 4, 26335-26341	3.7	29
73	Mild Synthesis of Pt/SnO2 /Graphene Nanocomposites with Remarkably Enhanced Ethanol Electro-oxidation Activity and Durability. *Chemistry - A European Journal*, **2016**, 22, 193-8	4.8	29
72	Self-doping Ti1-xNb2+xO7 anode material for lithium-ion battery and its electrochemical performance. *Journal of Alloys and Compounds*, **2017**, 728, 534-540	5.7	27
71	Accelerating anodic biofilms formation and electron transfer in microbial fuel cells: Role of anionic biosurfactants and mechanism. *Bioelectrochemistry*, **2017**, 117, 48-56	5.6	26
70	Unravelling the Enhanced High-Temperature Performance of Lithium-Rich Oxide Cathode with Methyl Diphenylphosphinite as Electrolyte Additive. *ChemElectroChem*, **2018**, 5, 1569-1575	4.3	26
69	Inducing uniform lithium nucleation by integrated lithium-rich li-in anode with lithiophilic 3D framework. *Energy Storage Materials*, **2020**, 33, 423-431	19.4	26
68	Unraveling the Origins of the "Unreactive Core" in Conversion Electrodes to Trigger High Sodium-Ion Electrochemistry. *ACS Energy Letters*, **2019**, 4, 2007-2012	20.1	25
67	Role of fluorine surface modification in improving electrochemical cyclability of concentration gradient Li[Ni0.73Co0.12Mn0.15]O2 cathode material for Li-ion batteries. *RSC Advances*, **2016**, 6, 26307-26316	3.7	24
66	A quasi-solid-state Li–S battery with high energy density, superior stability and safety. *Journal of Materials Chemistry A*, **2019**, 7, 6533-6542	13	24
65	Improved high-voltage performance of LiNi1/3Co1/3Mn1/3O2 cathode with Tris(2,2,2-trifluoroethyl) phosphite as electrolyte additive. *Electrochimica Acta*, **2017**, 243, 72-81	6.7	22
64	Capacity degradation mechanism and improvement actions for 4 V-class all-solid-state lithium-metal polymer batteries. *Chemical Engineering Journal*, **2020**, 392, 123665	14.7	22
63	Scalable mesoporous silicon microparticles composed of interconnected nanoplates for superior lithium storage. *Chemical Engineering Journal*, **2019**, 375, 121923	14.7	21
62	Accelerated aging and degradation mechanism of LiFePO/graphite batteries cycled at high discharge rates.. *RSC Advances*, **2018**, 8, 25695-25703	3.7	21
61	Intercalation pseudocapacitive electrochemistry of Nb-based oxides for fast charging of lithium-ion batteries. *Nano Energy*, **2021**, 81, 105635	17.1	21
60	Pseudocapacitive Li+ intercalation in ZnO/ZnO@C composites enables high-rate lithium-ion storage and stable cyclability. *Ceramics International*, **2017**, 43, 11998-12004	5.1	20
59	Substrate strain tunes operando geometric distortion and oxygen reduction activity of CuNC single-atom sites. *Nature Communications*, **2021**, 12, 6335	17.4	20
58	CoS/N-doped carbon core/shell nanocrystals as an anode material for potassium-ion storage. *Journal of Solid State Electrochemistry*, **2019**, 23, 27-32	2.6	20
57	Improved electrochemical performance of NaAlO2-coated LiCoO2 for lithium-ion batteries. *Journal of Solid State Electrochemistry*, **2017**, 21, 1195-1201	2.6	18

56	High-performance carbon-coated LiMnPO4 nanocomposites by facile two-step solid-state synthesis for lithium-ion battery. *Journal of Solid State Electrochemistry*, **2015**, 19, 281-288	2.6	18
55	Enhanced electrochemical performance of Li4Ti5O12 through in-situ coating 70Li2S-30P2S5 solid electrolyte for all-solid-state lithium batteries. *Journal of Alloys and Compounds*, **2018**, 752, 8-13	5.7	17
54	Improved Electrochemical Performance of LiNi0.8Co0.15Al0.05O2 Cathode Material by Coating of Graphene Nanodots. *Journal of the Electrochemical Society*, **2019**, 166, A1038-A1044	3.9	16
53	Insights into the role of oxygen functional groups and defects in the rechargeable nonaqueous Li-O2 batteries. *Electrochimica Acta*, **2018**, 292, 838-845	6.7	16
52	Improving electrochemical performance of Nano-Si/N-doped carbon through tunning the microstructure from two dimensions to three dimensions. *Electrochimica Acta*, **2020**, 332, 135507	6.7	15
51	Correlating the electrocatalytic stability of platinum monolayer catalysts with their structural evolution in the oxygen reduction reaction. *Journal of Materials Chemistry A*, **2018**, 6, 20725-20736	13	15
50	Interrelated interfacial issues between a Li7La3Zr2O12-based garnet electrolyte and Li anode in the solid-state lithium battery: a review. *Journal of Materials Chemistry A*, **2021**, 9, 5952-5979	13	15
49	Carbon fibers/ZnO nanowires hybrid nanogenerator based on an insulating interface barrier. *RSC Advances*, **2017**, 7, 21452-21458	3.7	14
48	Recovery Strategy and Mechanism of Aged Lithium Ion Batteries after Shallow Depth of Discharge at Elevated Temperature. *ACS Applied Materials & Interfaces*, **2016**, 8, 5234-42	9.5	14
47	Scalable submicron/micron silicon particles stabilized in a robust graphite-carbon architecture for enhanced lithium storage. *Journal of Colloid and Interface Science*, **2019**, 555, 783-790	9.3	13
46	Stable Silicon Anodes by Molecular Layer Deposited Artificial Zincone Coatings. *Advanced Functional Materials*, **2021**, 31, 2010526	15.6	13
45	Reversible Silicon Anodes with Long Cycles by Multifunctional Volumetric Buffer Layers. *ACS Applied Materials & Interfaces*, **2021**, 13, 4093-4101	9.5	12
44	Perovskite LaCoMnO with Tunable Defect and Surface Structures as Cathode Catalysts for Li-O Batteries. *ACS Applied Materials & Interfaces*, **2020**, 12, 10452-10460	9.5	11
43	Black phosphorus-modified sulfurized polyacrylonitrile with high C-rate and cycling performance in ether-based electrolyte for lithium sulfur batteries. *Chemical Communications*, **2020**, 56, 12797-12800	5.8	11
42	In-situ thermal polymerization boosts succinonitrile-based composite solid-state electrolyte for high performance Li-metal battery. *Journal of Power Sources*, **2021**, 496, 229861	8.9	11
41	Surface nitrided and carbon coated TiNb2O7 anode material with excellent performance for lithium-ion batteries. *Journal of Alloys and Compounds*, **2020**, 835, 155241	5.7	10
40	Improvement of bond strength between ZnO nanorods and carbon fibers using magnetron sputtered ZnO films as the interphase. *CrystEngComm*, **2017**, 19, 868-875	3.3	9
39	Interface Modifications by Tris(2,2,2-trifluoroethyl) Borate for Improving the High-Voltage Performance of LiNi1/3Co1/3Mn1/3O2Cathode. *Journal of the Electrochemical Society*, **2017**, 164, A1924-A1932	3.9	9

38	An Interphase-enhanced Liquid Na-K Anode for Dendrite-free Alkali Metal Batteries Enabled by SiCl4 Electrolyte Additive. *Energy Storage Materials*, **2021**, 37, 199-206	19.4	9
37	Unraveling the advances of trace doping engineering for potassium ion battery anodes via tomography. *Journal of Energy Chemistry*, **2021**, 58, 355-363	12	9
36	Rapid Prediction of the Open-Circuit-Voltage of Lithium Ion Batteries Based on an Effective Voltage Relaxation Model. *Energies*, **2018**, 11, 3444	3.1	9
35	Fast lithium transport kinetics regulated by low energy-barrier LixMnO2 for long-life lithium metal batteries. *Energy Storage Materials*, **2021**, 41, 1-7	19.4	9
34	Ultrathin Si Nanosheets Dispersed in Graphene Matrix Enable Stable Interface and High Rate Capability of Anode for Lithium-ion Batteries. *Advanced Functional Materials*,2110046	15.6	8
33	Evaluation of Oxygen Reduction Activity by the Thin-Film Rotating Disk Electrode Methodology: the Effects of Potentiodynamic Parameters. *Electrocatalysis*, **2016**, 7, 305-316	2.7	8
32	A Review of Magnesium Aluminum Chloride Complex Electrolytes for Mg Batteries. *Advanced Functional Materials*, **2021**, 31, 2100650	15.6	7
31	Formation of an Artificial Mg-Permeable Interphase on Mg Anodes Compatible with Ether and Carbonate Electrolytes. *ACS Applied Materials & Interfaces*, **2021**, 13, 24565-24574	9.5	7
30	Enhanced Methanol Oxidation in Acid Media on Pt/S, P Co-doped Graphene with 3D Porous Network Structure Engineering. *ChemElectroChem*, **2019**, 6, 1157-1165	4.3	7
29	Synthesis of Well-Defined Pt-Based Catalysts for Methanol Oxidation Reaction Based on Electron□Hole Separation Effects. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 8597-8603	8.3	6
28	Excellent room-temperature performance of lithium metal polymer battery with enhanced interfacial compatibility. *Electrochimica Acta*, **2018**, 283, 1261-1268	6.7	6
27	Unraveling the Relationship between Ti4+ Doping and Li+ Mobility Enhancement in Ti4+ Doped Li3V2(PO4)3. *ACS Applied Energy Materials*, **2020**, 3, 715-722	6.1	6
26	Stabilizing Lithium Metal Anode Enabled by a Natural Polymer Layer for Lithium-Sulfur Batteries. *ACS Applied Materials & Interfaces*, **2021**, 13, 28252-28260	9.5	6
25	Toward Promising Turnkey Solution for Next-Generation Lithium Ion Batteries: Scale Preparation, Fading Analysis, and Enhanced Performance of Microsized Si/C Composites. *ACS Applied Energy Materials*, **2018**, 1, 6977-6985	6.1	6
24	Accelerated Aging Analysis on Cycle Life of LiFePO4/Graphite Batteries Based on Different Rates. *ChemElectroChem*, **2018**, 5, 2301-2309	4.3	6
23	Regulating Li deposition by constructing homogeneous LiF protective layer for high-performance Li metal anode. *Chemical Engineering Journal*, **2022**, 427, 131625	14.7	6
22	FeOF/TiO Hetero-Nanostructures for High-Areal-Capacity Fluoride Cathodes. *ACS Applied Materials & Interfaces*, **2020**, 12, 33803-33809	9.5	5
21	Superior Electrochemical Performance of WNb2O8 Nanorods Triggered by Ultra-Efficient Li+ Diffusion. *ChemistrySelect*, **2020**, 5, 1209-1213	1.8	5

20	A porous N-doped carbon aggregate as sulfur host for lithium-sulfur batteries. *Ionics*, **2019**, 25, 2131-2138	2.7	5
19	Nanocable with thick active intermediate layer for stable and high-areal-capacity sodium storage. *Nano Energy*, **2020**, 78, 105265	17.1	5
18	Solvate ionic liquid boosting favorable interfaces kinetics to achieve the excellent performance of Li4Ti5O12 anodes in Li10GeP2S12 based solid-state batteries. *Chemical Engineering Journal*, **2020**, 382, 123046	14.7	5
17	Anisotropically Electrochemical Mechanical Evolution in Solid-State Batteries and Interfacial Tailored Strategy. *Angewandte Chemie*, **2019**, 131, 18820-18826	3.6	4
16	Tailoring Porous Transition Metal Oxide for High-Performance Lithium Storage. *Journal of Physical Chemistry C*,	3.8	4
15	Stable silicon anodes realized by multifunctional dynamic cross-linking structure with self-healing chemistry and enhanced ionic conductivity for lithium-ion batteries. *Nano Energy*, **2022**, 99, 107334	17.1	4
14	Heterogeneous Nanostructure of Ternary PtRu-Au/C Nano-catalyst Towards Formic Acid Oxidation. *Electrochemistry*, **2017**, 85, 133-135	1.2	3
13	Crystallographic engineering to reduce diffusion barrier for enhanced intercalation pseudocapacitance of TiNb2O7 in fast-charging batteries. *Energy Storage Materials*, **2022**, 47, 178-178	19.4	3
12	Interface Reinforcement of a Prussian Blue Cathode Using a Non-Flammable Co-Solvent Cresyl Diphenyl Phosphate for a High-Safety Na-Ion Battery. *ACS Sustainable Chemistry and Engineering*, **2021**, 9, 5809-5817	8.3	3
11	Tailoring lithium-peroxide reaction kinetics with CuN2C2 single-atom moieties for lithium-oxygen batteries. *Nano Energy*, **2022**, 93, 106810	17.1	2
10	Hierarchical pores from microscale to macroscale boost ultrahigh lithium intercalation pseudocapacitance of biomass carbon. *Journal of Energy Storage*, **2021**, 33, 102068	7.8	2
9	An armor-like artificial solid electrolyte interphase layer for high performance lithium-sulfur batteries. *Applied Materials Today*, **2021**, 24, 101108	6.6	2
8	Monovacancy Coupled Pyridinic N Site Enables Surging Oxygen Reduction Activity of Metal-Free CNx Catalyst. *ACS Sustainable Chemistry and Engineering*, **2021**, 9, 1264-1271	8.3	2
7	Single-Atom Tailored Hierarchical Transition Metal Oxide Nanocages for Efficient Lithium Storage.. *Small*, **2022**, e2200367	11	2
6	Stable lithium anode enabled by biphasic hybrid SEI layer toward high-performance lithium metal batteries. *Chemical Engineering Journal*, **2021**, 433, 133570	14.7	1
5	Conjugation Induced Anchoring of Ferrocene on Graphdiyne Enable Shuttle-Free Redox Mediation in Lithium-Oxygen Batteries. *Advanced Science*, **2021**, e2103964	13.6	1
4	Tracking Battery Dynamics by Operando Synchrotron X-ray Imaging: Operation from Liquid Electrolytes to Solid-State Electrolytes. *Accounts of Materials Research*,	7.5	1
3	Electrochemical behaviors in the anode of LiCoO2/mesocarbon microbead battery and their impacts on the capacity degradation. *Ionics*, **2021**, 27, 2353-2365	2.7	1

2	Poly (vinyl ethylene carbonate)-based dual-salt gel polymer electrolyte enabling high voltage lithium metal batteries. *Chemical Engineering Journal*, **2022**, 437, 135419	14.7	1
1	Molecular bridges stabilize lithium metal anode and solid-state electrolyte interface. *Chemical Engineering Journal*, **2022**, 432, 134271	14.7	0