Sheng Liu

List of Publications by Year
in descending order

61	3,424	159585	144013
papers	citations	30 h-index	57 g-index

62	62	62	3437
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A Highâ€Efficiency Sulfur/Carbon Composite Based on 3D Graphene Nanosheet@Carbon Nanotube Matrix as Cathode for Lithiumâ€“Sulfur Battery. Advanced Energy Materials, 2017, 7, 1602543.	19.5	363
2	NiCo₂O₄ Nanofibers as Carbonâ€Free Sulfur Immobilizer to Fabricate Sulfurâ€Based Composite with High Volumetric Capacity for Lithiumâ€“Sulfur Battery. Advanced Energy Materials, 2019, 9, 1803477.	19.5	252
3	Protected lithium anode with porous Al₂O₃layer for lithiumâ€“sulfur battery. Journal of Materials Chemistry A, 2015, 3, 12213-12219.	10.3	189
4	Strategy of Enhancing the Volumetric Energy Density for Lithiumâ€“Sulfur Batteries. Advanced Materials, 2021, 33, e2003955.	21.0	185
5	Conductive CoOOH as Carbonâ€Free Sulfur Immobilizer to Fabricate Sulfurâ€Based Composite for Lithiumâ€“Sulfur Battery. Advanced Functional Materials, 2019, 29, 1901051.	14.9	157
6	Lithiumâ€“Magnesium Alloy as a Stable Anode for Lithiumâ€“Sulfur Battery. Advanced Functional Materials, 2019, 29, 1808756.	14.9	148
7	Lanthanum Nitrate As Electrolyte Additive To Stabilize the Surface Morphology of Lithium Anode for Lithiumâ€“Sulfur Battery. ACS Applied Materials & Interfaces, 2016, 8, 7783-7789.	8.0	140
8	Free-Standing Porous Carbon Nanofiber/Carbon Nanotube Film as Sulfur Immobilizer with High Areal Capacity for Lithiumâ€“Sulfur Battery. ACS Applied Materials & Interfaces, 2018, 10, 8749-8757.	8.0	129
9	Na-Doped LiNi_{0.8}Co_{0.15}Al_{0.05}O₂ with Excellent Stability of Both Capacity and Potential as Cathode Materials for Li-Ion Batteries. ACS Applied Energy Materials, 2018, 1, 3881-3889.	5.1	112
10	High Volumetric Energy Density Sulfur Cathode with Heavy and Catalytic Metal Oxide Host for Lithiumâ€“Sulfur Battery. Advanced Science, 2020, 7, 1903693.	11.2	96
11	Sulfur/nickel ferrite composite as cathode with high-volumetric-capacity for lithium-sulfur battery. Science China Materials, 2019, 62, 74-86.	6.3	86
12	Porous Carbon Paper as Interlayer to Stabilize the Lithium Anode for Lithiumâ€“Sulfur Battery. ACS Applied Materials & Interfaces, 2016, 8, 31684-31694.	8.0	83
13	Quantitatively regulating defects of 2D tungsten selenide to enhance catalytic ability for polysulfide conversion in a lithium sulfur battery. Energy Storage Materials, 2022, 45, 1229-1237.	18.0	81
14	Spherical Metal Oxides with High Tap Density as Sulfur Host to Enhance Cathode Volumetric Capacity for Lithiumâ€“Sulfur Battery. ACS Applied Materials & Interfaces, 2020, 12, 5909-5919.	8.0	76
15	To effectively drive the conversion of sulfur with electroactive niobium tungsten oxide microspheres for lithiumâ^'sulfur battery. Nano Energy, 2020, 77, 105173.	16.0	75
16	Encapsulating sulfur into a hybrid porous carbon/CNT substrate as a cathode for lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2015, 3, 6827-6834.	10.3	73
17	Lithiophilic gel polymer electrolyte to stabilize the lithium anode for a quasi-solid-state lithiumâ€“sulfur battery. Journal of Materials Chemistry A, 2018, 6, 18627-18634.	10.3	69
18	Highâ€Entropy Spinel Oxide Nanofibers as Catalytic Sulfur Hosts Promise the High Gravimetric and Volumetric Capacities for Lithiumâ€“Sulfur Batteries. Energy and Environmental Materials, 2022, 5, 645-654.	12.8	69

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19	In-situ surface modification to stabilize Ni-rich layered oxide cathode with functional electrolyte. Journal of Power Sources, 2019, 410-411, 115-123.	7.8	67
20	Microporous Carbon Polyhedrons Encapsulated Polyacrylonitrile Nanofibers as Sulfur Immobilizer for Lithiumâ€“Sulfur Battery. ACS Applied Materials & Interfaces, 2017, 9, 12436-12444.	8.0	57
21	Hollow Molybdate Microspheres as Catalytic Hosts for Enhancing the Electrochemical Performance of Sulfur Cathode under High Sulfur Loading and Lean Electrolyte. Advanced Functional Materials, 2021, 31, 2010693.	14.9	57
22	Encapsulating a high content of iodine into an active graphene substrate as a cathode material for high-rate lithiumâ€“iodine batteries. Journal of Materials Chemistry A, 2017, 5, 15235-15242.	10.3	55
23	Sulfur vacancies in Co₉S_{8â^'x}/N-doped graphene enhancing the electrochemical kinetics for high-performance lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2021, 9, 10704-10713.	10.3	53
24	Heterostructured Gel Polymer Electrolyte Enabling Long-Cycle Quasi-Solid-State Lithium Metal Batteries. ACS Energy Letters, 2022, 7, 42-52.	17.4	53
25	A Sustainable Multipurpose Separator Directed Against the Shuttle Effect of Polysulfides for Highâ€Performance Lithiumâ€“Sulfur Batteries. Advanced Energy Materials, 2022, 12, .	19.5	53
26	Yttrium Surface Gradient Doping for Enhancing Structure and Thermal Stability of High-Ni Layered Oxide as Cathode for Liâ€“Ion Batteries. ACS Applied Materials & Interfaces, 2021, 13, 7343-7354.	8.0	51
27	Understanding the Structureâ€“Performance Relationship of Lithium-Rich Cathode Materials from an Oxygen-Vacancy Perspective. ACS Applied Materials & Interfaces, 2020, 12, 47655-47666.	8.0	44
28	Evolution mechanism of phase transformation of Li-rich cathode materials in cycling. Electrochimica Acta, 2019, 328, 135109.	5.2	43
29	Metalophilic Gel Polymer Electrolyte for in Situ Tailoring Cathode/Electrolyte Interface of High-Nickel Oxide Cathodes in Quasi-Solid-State Li-Ion Batteries. ACS Applied Materials & Interfaces, 2019, 11, 14830-14839.	8.0	39
30	Conductive RuO2 stacking microspheres as an effective sulfur immobilizer for lithiumâ€“sulfur battery. Electrochimica Acta, 2020, 337, 135772.	5.2	36
31	Crystalline Multiâ€Metallic Compounds as Host Materials in Cathode for Lithiumâ€“Sulfur Batteries. Small, 2021, 17, e2005332.	10.0	33
32	Inclusion complexation enhanced cycling performance of iodine/carbon composites for lithiumâ€“iodine battery. Journal of Power Sources, 2020, 463, 228212.	7.8	31
33	Highâ€Entropy Alloys to Activate the Sulfur Cathode for Lithiumâ€“Sulfur Batteries. Energy and Environmental Materials, 2023, 6, .	12.8	31
34	Nickelâ€“Platinum Alloy Nanocrystallites with Highâ€Index Facets as Highly Effective Core Catalyst for Lithiumâ€“Sulfur Batteries. Advanced Functional Materials, 2022, 32, .	14.9	27
35	Constructing high gravimetric and volumetric capacity sulfur cathode with LiCoO2 nanofibers as carbon-free sulfur host for lithium-sulfur battery. Science China Materials, 2021, 64, 1343-1354.	6.3	23
36	Congener Substitution Reinforced Li₇P_{2.9}Sb_{0.1}S_{10.75}O_{0.25} Glass-Ceramic Electrolytes for All-Solid-State Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2021, 13, 34477-34485.	8.0	22

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37	Elucidating the Effect of the Dopant Ionic Radius on the Structure and Electrochemical Performance of Ni-Rich Layered Oxides for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2021, 13, 56233-56241.	8.0	21
38	Metal phosphides and borides as the catalytic host of sulfur cathode for lithiumâ€“sulfur batteries. International Journal of Minerals, Metallurgy and Materials, 2022, 29, 990-1002.	4.9	21
39	Covalently Bonded Sulfur Anchored with Thiol-Modified Carbon Nanotube as a Cathode Material for Lithiumâ€“Sulfur Batteries. ACS Applied Energy Materials, 2020, 3, 487-494.	5.1	19
40	To Promote the Catalytic Conversion of Polysulfides Using Niâ€“B Alloy Nanoparticles on Carbon Nanotube Microspheres under High Sulfur Loading and a Lean Electrolyte. ACS Applied Materials & Interfaces, 2021, 13, 20222-20232.	8.0	18
41	Uniform lithium plating within 3D Cu foam enabled by Ag nanoparticles. Electrochimica Acta, 2021, 379, 138152.	5.2	18
42	Enabling LiNi_{0.88}Co_{0.09}Al_{0.03}O₂ Cathode Materials with Stable Interface by Modifying Electrolyte with Trimethyl Borate. ACS Sustainable Chemistry and Engineering, 2021, 9, 1958-1968.	6.7	16
43	Building the Stable Oxygen Framework in Highâ€Ni Layered Oxide Cathode for Highâ€Energyâ€Density Liâ€Ion Batteries. Energy and Environmental Materials, 2022, 5, 1260-1269.	12.8	15
44	High-Efficiency Hybrid Sulfur Cathode Based on Electroactive Niobium Tungsten Oxide and Conductive Carbon Nanotubes for All-Solid-State Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2022, 14, 1212-1221.	8.0	15
45	Specific Adsorption Reinforced Interface Enabling Stable Lithium Metal Electrode. Advanced Functional Materials, 2022, 32, .	14.9	13
46	Enhanced Electrochemical and Thermal Stabilities of Li[Ni 0.88 Co 0.09 Al 0.03]O 2 Cathode Material by La 4 NiLiO 8 Coating for Liâ€“Ion Batteries. ChemElectroChem, 2020, 7, 2042-2047.	3.4	12
47	From Dendrites to Hemispheres: Changing Lithium Deposition by Highly Ordered Charge Transfer Channels. ACS Applied Materials & Interfaces, 2021, 13, 6249-6256.	8.0	10
48	Organo-Soluble Decanoic Acid-Modified Ni-Rich Cathode Material LiNi_{0.90}Co_{0.07}Mn_{0.03}O₂ for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2022, 14, 16348-16356.	8.0	10
49	Capturing Polysulfides with a Functional Anhydride Compound for Lithiumâ€“Sulfur Batteries. ACS Applied Energy Materials, 2022, 5, 7719-7727.	5.1	10
50	PO43â˜ doped Li4Ti5O12 hollow microspheres as an anode material for lithium-ion batteries. RSC Advances, 2015, 5, 92354-92360.	3.6	9
51	Grafting and Depositing Lithium Polysulfides on Cathodes for Cycling Stability of Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2021, 13, 40685-40694.	8.0	8
52	Grafting polysulfides into a functional N-halo compound for high-performance lithiumâ€”sulfur battery. Science China Materials, 2020, 63, 2002-2012.	6.3	7
53	Supramolecular Polymers of two Novel 4-Substituted-1,2,4-Triazolate Complexes: [Cd(pCltrz)2(NCS)2(H2O)2] and [Cu(4-atrz)4(Cl)0.5(H2O)0.5]Â·(ClO4)1.5 (pCltrz:) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 102 2004, 29-31.	1.3	6
54	A dimensionally stable lithium alloy based composite electrode for lithium metal batteries. Chemical Engineering Journal, 2022, 450, 138074.	12.7	6

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55	Towards deriving Ni-rich cathode and oxide-based anode materials from hydroxides by sharing a facile co-precipitation method. Dalton Transactions, 2018, 47, 6934-6941.	3.3	5
56	La₂MoO₆ as an Effective Catalyst for the Cathode Reactions of Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2022, 14, 5247-5256.	8.0	5
57	Eu2O3-doped Li4SiO4 coating layer with a high ionic conductivity improving performance of LiNi0.8Co0.1Mn0.1O2 cathode materials. Electrochimica Acta, 2022, 420, 140436.	5.2	4
58	Silver Iodide as a Host Material of Sulfur for Liâ€“S Battery. Journal of the Electrochemical Society, 0, , .	2.9	3
59	Inverse-opal structured TiO2 regulating electrodeposition behavior to enable stable lithium metal electrodes. Green Energy and Environment, 2023, 8, 1664-1672.	8.7	3
60	La2NiO4 nanoparticles as a core host of sulfur to enhance cathode volumetric capacity for lithiumâ€“sulfur battery. Electrochimica Acta, 2022, 424, 140670.	5.2	3
61	Sulfur/Iodine/Graphene Composites as a Cathode Material for Lithiumâ€“Sulfur Battery. Journal of the Electrochemical Society, 2020, 167, 080521.	2.9	2