Designing Safe Electrolyte Systems for a Highâ€Stabilit

Advanced Energy Materials

8, 1702348

DOI: 10.1002/aenm.201702348

Citation Report

#	Article	IF	Citations
1	A bifunctional electrolyte additive for H₂O/HF scavenging and enhanced graphite/LiNi_{0.5}Co_{0.2}Mn_{0.3}O₂ cell performance at a high voltage. Sustainable Energy and Fuels, 2018, 2, 1481-1490.	2.5	36
2	Perspectives for restraining harsh lithium dendrite growth: Towards robust lithium metal anodes. Energy Storage Materials, 2018, 15, 148-170.	9.5	247
3	Nanoscale in situ detection of nucleation and growth of Li electrodeposition at various current densities. Journal of Materials Chemistry A, 2018, 6, 4629-4635.	5.2	24
4	Amorphous Vanadium Oxide Thin Films as Stable Performing Cathodes of Lithium and Sodium-Ion Batteries. Nanoscale Research Letters, 2018, 13, 363.	3.1	26
5	Two-Dimensional CeO2/RGO Composite-Modified Separator for Lithium/Sulfur Batteries. Nanoscale Research Letters, 2018, 13, 377.	3.1	29
6	A PPy/ZnO functional interlayer to enhance electrochemical performance of lithium/sulfur batteries. Nanoscale Research Letters, 2018, 13, 307.	3.1	35
7	An Intrinsic Flameâ€Retardant Organic Electrolyte for Safe Lithiumâ€Sulfur Batteries. Angewandte Chemie, 2019, 131, 801-805.	1.6	23
8	High-Conductivity Argyrodite Li₆PS₅Cl Solid Electrolytes Prepared via Optimized Sintering Processes for All-Solid-State Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2018, 10, 42279-42285.	4.0	170
9	Simultaneously Porous Structure and Chemical Anchor: A Multifunctional Composite by One-Step Mechanochemical Strategy toward High-Performance and Safe Lithiumâ€“Sulfur Battery. ACS Applied Materials & Interfaces, 2018, 10, 41359-41369.	4.0	12
10	Revisiting Scientific Issues for Industrial Applications of Lithiumâ€“Sulfur Batteries. Energy and Environmental Materials, 2018, 1, 196-208.	7.3	158
11	A Nonflammable and Thermotolerant Separator Suppresses Polysulfide Dissolution for Safe and Longâ€Cycle Lithiumâ€Sulfur Batteries. Advanced Energy Materials, 2018, 8, 1802441.	10.2	133
12	Route of Irreversible Transformation in Layered Tin Thiophosphite and Enhanced Lithium Storage Performance. ACS Applied Energy Materials, 0, , .	2.5	8
13	Cu₂O Nanoparticles and Multi-Branched Nanowires as Anodes for Lithium-Ion Batteries. Nano, 2018, 13, 1850103.	0.5	7
14	Simultaneously Inhibiting Lithium Dendrites Growth and Polysulfides Shuttle by a Flexible MOFâ€Based Membrane in Liâ€“S Batteries. Advanced Energy Materials, 2018, 8, 1802130.	10.2	223
15	Lithium cobaltate: a novel host material enables high-rate and stable lithiumâ€“sulfur batteries. Rare Metals, 2018, 37, 929-935.	3.6	19
16	Novel 2D Sb₂S₃ Nanosheet/CNT Coupling Layer for Exceptional Polysulfide Recycling Performance. Advanced Energy Materials, 2018, 8, 1800710.	10.2	93
17	AlF₃-Modified carbon nanofibers as a multifunctional 3D interlayer for stable lithium metal anodes. Chemical Communications, 2018, 54, 8347-8350.	2.2	28
18	Separator Modification and Functionalization for Inhibiting the Shuttle Effect in Lithiumâ€Sulfur Batteries. Physica Status Solidi - Rapid Research Letters, 2018, 12, 1800249.	1.2	32

#	Article	IF	Citations
19	Development and Challenges of Functional Electrolytes for Highâ€Performance Lithiumâ€“Sulfur Batteries. Advanced Functional Materials, 2018, 28, 1800919.	7.8	129
20	Evaluation and Refinement of the General AMBER Force Field for Nineteen Pure Organic Electrolyte Solvents. Journal of Chemical & Engineering Data, 2018, 63, 3488-3502.	1.0	23
21	Gelatin-polyethylenimine composite as a functional binder for highly stable lithium-sulfur batteries. Electrochimica Acta, 2018, 282, 758-766.	2.6	51
22	Enhanced performance and anchoring polysulfide mechanism of carbon aerogel/sulfur material with Cr doping and pore tuning for Li-S batteries. Electrochimica Acta, 2018, 282, 499-509.	2.6	22
23	Rice husk-derived Mn₃O₄/manganese silicate/C nanostructured composites for high-performance hybrid supercapacitors. Inorganic Chemistry Frontiers, 2019, 6, 2788-2800.	3.0	56
24	A high performance all solid state lithium sulfur battery with lithium thiophosphate solid electrolyte. Journal of Materials Chemistry A, 2019, 7, 24173-24179.	5.2	70
25	Nb₂O₅/RGO Nanocomposite Modified Separators with Robust Polysulfide Traps and Catalytic Centers for Boosting Performance of Lithiumâ€“Sulfur Batteries. Small, 2019, 15, e1902363.	5.2	83
26	Single Nickel Atoms on Nitrogenâ€Doped Graphene Enabling Enhanced Kinetics of Lithiumâ€“Sulfur Batteries. Advanced Materials, 2019, 31, e1903955.	11.1	447
27	All-Printed Substrate-Versatile Microsupercapacitors with Thermoreversible Self-Protection Behavior Based on Safe Solâ€“Gel Transition Electrolytes. ACS Applied Materials & Interfaces, 2019, 11, 29960-29969.	4.0	17
28	Recent advances in cathode materials for rechargeable lithiumâ€“sulfur batteries. Nanoscale, 2019, 11, 15418-15439.	2.8	125
29	Challenges and development of composite solid-state electrolytes for high-performance lithium ion batteries. Journal of Power Sources, 2019, 441, 227175.	4.0	168
30	MoN Supported on Graphene as a Bifunctional Interlayer for Advanced Liâ€S Batteries. Advanced Energy Materials, 2019, 9, 1901940.	10.2	190
31	Nitrogenâ€Doped Grapheneâ€Buffered Mn₂O₃ Nanocomposite Anodes for Fast Charging and High Discharge Capacity Lithiumâ€Ion Batteries. Small, 2019, 15, e1903311.	5.2	44
32	Safety regulation of gel electrolytes in electrochemical energy storage devices. Science China Materials, 2019, 62, 1556-1573.	3.5	28
33	Flexible and Highâ€Loading Lithiumâ€“Sulfur Batteries Enabled by Integrated Threeâ€Inâ€One Fibrous Membranes. Advanced Energy Materials, 2019, 9, 1902001.	10.2	98
34	Synthesis and Electrochemical Energy Storage Applications of Micro/Nanostructured Spherical Materials. Nanomaterials, 2019, 9, 1207.	1.9	15
35	Electrolyte-Solvent-Modified Alternating Copolymer as a Single-Ion Solid Polymer Electrolyte for High-Performance Lithium Metal Batteries. ACS Applied Materials & Interfaces, 2019, 11, 35683-35692.	4.0	47
36	Designing of a Phosphorus, Nitrogen, and Sulfur Three-Flame Retardant Applied in a Gel Poly-m-phenyleneisophthalamide Nanofiber Membrane for Advanced Safety Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2019, 11, 36705-36716.	4.0	20

#	Article	IF	Citations
37	An â€œelectronegativeâ€•bifunctional coating layer: simultaneous regulation of polysulfide and Li-ion adsorption sites for long-cycling and â€œdendrite-freeâ€•Liâ€“S batteries. Journal of Materials Chemistry A, 2019, 7, 22463-22474.	5.2	49
38	Thick electrodes upon biomass-derivative carbon current collectors: High-areal capacity positive electrodes for aluminum-ion batteries. Electrochimica Acta, 2019, 323, 134805.	2.6	12
39	Tracing the technological development trajectory in post-lithium-ion battery technologies: A patent-based approach. Journal of Cleaner Production, 2019, 241, 118343.	4.6	56
40	Research Progress of the Solid State Lithium-Sulfur Batteries. Frontiers in Energy Research, 2019, 7, .	1.2	39
41	Sulfur Redox Reactions at Working Interfaces in Lithiumâ€“Sulfur Batteries: A Perspective. Advanced Materials Interfaces, 2019, 6, 1802046.	1.9	128
42	Free-Standing Selenium Impregnated Carbonized Leaf Cathodes for High-Performance Sodium-Selenium Batteries. Nanoscale Research Letters, 2019, 14, 30.	3.1	11
43	A liquid metal-based self-adaptive sulfurâ€“gallium composite for long-cycling lithiumâ€“sulfur batteries. Nanoscale, 2019, 11, 412-417.	2.8	29
44	Silicon nanoparticle-sandwiched ultrathin MoS₂â€“graphene layers as an anode material for Li-ion batteries. Materials Chemistry Frontiers, 2019, 3, 587-596.	3.2	14
45	Polyisoprene Captured Sulfur Nanocomposite Materials for High-Areal-Capacity Lithium Sulfur Battery. ACS Applied Polymer Materials, 2019, 1, 1965-1970.	2.0	37
46	A 2D/2D graphitic carbon nitride/N-doped graphene hybrid as an effective polysulfide mediator in lithiumâ€“sulfur batteries. Materials Chemistry Frontiers, 2019, 3, 1807-1815.	3.2	19
47	Preparation of flexible supercapacitor with RGO/Ni-MOF film on Ni-coated polyester fabric. Electrochimica Acta, 2019, 318, 23-31.	2.6	72
48	A review on the status and challenges of electrocatalysts in lithium-sulfur batteries. Energy Storage Materials, 2019, 20, 55-70.	9.5	349
49	A New Finding on the Enhancement of the Ability of Polysulfide Adsorption of V₂O₅ by Doping Tungsten in Lithiumâ€“Sulfur Batteries. Energy Technology, 2019, 7, 1900405.	1.8	9
50	3D nitrogen-doped hierarchical porous carbon framework for protecting sulfur cathode in lithiumâ€“sulfur batteries. New Journal of Chemistry, 2019, 43, 9641-9651.	1.4	22
51	Effective Chemical Prelithiation Strategy for Building a Silicon/Sulfur Li-Ion Battery. ACS Energy Letters, 2019, 4, 1717-1724.	8.8	151
52	Current Status and Future Prospects of Metalâ€“Sulfur Batteries. Advanced Materials, 2019, 31, e1901125.	11.1	422
53	Bifunctional Binder with Nucleophilic Lithium Polysulfide Immobilization Ability for High-Loading, High-Thickness Cathodes in Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2019, 11, 17393-17399.	4.0	24
54	Akin solidâ€“solid biphasic conversion of a Liâ€“S battery achieved by coordinated carbonate electrolytes. Journal of Materials Chemistry A, 2019, 7, 12498-12506.	5.2	52

#	Article	IF	Citations
55	A rational design of the coupling mechanism of physical adsorption and chemical charge effect for high-performance lithiumâ€“sulfur batteries. RSC Advances, 2019, 9, 12710-12717.	1.7	12
56	Insights into the Crystallinity of Layerâ€Structured Transition Metal Dichalcogenides on Potassium Ion Battery Performance: A Case Study of Molybdenum Disulfide. Small, 2019, 15, e1900497.	5.2	62
57	Housing Sulfur in Polymer Composite Frameworks for Liâ€“S Batteries. Nano-Micro Letters, 2019, 11, 17.	14.4	102
58	A review of rechargeable batteries for portable electronic devices. InformaÄnÃ-MateriÃ¡ly, 2019, 1, 6-32.	8.5	694
59	Fast Charging Lithium Batteries: Recent Progress and Future Prospects. Small, 2019, 15, e1805389.	5.2	277
60	Metal Sulfideâ€Decorated Carbon Sponge as a Highly Efficient Electrocatalyst and Absorbant for Polysulfide in Highâ€Loading Li₂S Batteries. Advanced Energy Materials, 2019, 9, 1900584.	10.2	194
61	Oxygen-deficient titanium dioxide as a functional host for lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2019, 7, 10346-10353.	5.2	109
62	Strong Surface Bonding of Polysulfides by Teflonized Carbon Matrix for Enhanced Performance in Room Temperature Sodiumâ€Sulfur Battery. Advanced Materials Interfaces, 2019, 6, 1801873.	1.9	31
63	Suppression of Polysulfide Dissolution and Shuttling with Glutamate Electrolyte for Lithium Sulfur Batteries. ACS Nano, 2019, 13, 14172-14181.	7.3	64
64	Lithiophilic montmorillonite serves as lithium ion reservoir to facilitate uniform lithium deposition. Nature Communications, 2019, 10, 4973.	5.8	144
65	Diphenyl polysulfides: cathodes with excellent lithiation performance and high specific energy for LSBs. RSC Advances, 2019, 9, 34430-34436.	1.7	2
66	Singleâ€Ion Conducting Electrolyte Based on Electrospun Nanofibers for Highâ€Performance Lithium Batteries. Advanced Energy Materials, 2019, 9, 1803422.	10.2	109
67	Carbon Quantum Dotsâ€“Modified Interfacial Interactions and Ion Conductivity for Enhanced High Current Density Performance in Lithiumâ€“Sulfur Batteries. Advanced Energy Materials, 2019, 9, 1802955.	10.2	102
68	An Intrinsic Flameâ€Retardant Organic Electrolyte for Safe Lithiumâ€Sulfur Batteries. Angewandte Chemie - International Edition, 2019, 58, 791-795.	7.2	152
69	Production of S-doped porous graphene via post-treatment with MgSO4 as sulphur source. Chemical Engineering Journal, 2019, 359, 801-809.	6.6	30
70	Few-layer phosphorene: An emerging electrode material for electrochemical energy storage. Applied Materials Today, 2019, 15, 18-33.	2.3	53
71	Manganese Monoxide/Biomass-Inherited Porous Carbon Nanostructure Composite Based on the High Water-Absorbent Agaric for Asymmetric Supercapacitor. ACS Sustainable Chemistry and Engineering, 2019, 7, 4284-4294.	3.2	45
72	LiSnZr(PO4)3: NASICON-type solid electrolyte with excellent room temperature Li+ conductivity. Journal of Alloys and Compounds, 2019, 777, 602-611.	2.8	21

#	Article	IF	Citations
73	Nitrogen/Oxygen Dual-Doped Carbon Nanofibers as an Electrocatalytic Interlayer for a High Sulfur Content Lithiumâ€“Sulfur Battery. ACS Applied Energy Materials, 2019, 2, 777-787.	2.5	23
74	A lithium argyrodite Li6PS5Cl0.5Br0.5 electrolyte with improved bulk and interfacial conductivity. Journal of Power Sources, 2019, 412, 29-36.	4.0	67
75	Improved interfacial electronic contacts powering high sulfur utilization in all-solid-state lithiumâ€“sulfur batteries. Energy Storage Materials, 2020, 25, 436-442.	9.5	85
76	Lithiumâ€Schwefelâ€Batterien mit Magerelektrolyt: Herausforderungen und Perspektiven. Angewandte Chemie, 2020, 132, 12736-12753.	1.6	33
77	In Situ/Operando Spectroscopic Characterizations Guide the Compositional and Structural Design of Lithiumâ€“Sulfur Batteries. Small Methods, 2020, 4, 1900467.	4.6	42
78	Reduced graphene oxide modified with naphthoquinone for effective immobilization of polysulfides in high-performance Li-S batteries. Chemical Engineering Journal, 2020, 383, 123111.	6.6	20
79	Reduced shuttle effect by dual synergism of lithiumâ€“sulfur batteries with polydopamine-modified polyimide separators. Journal of Membrane Science, 2020, 595, 117581.	4.1	11
80	A Game Changer: Functional Nano/Micromaterials for Smart Rechargeable Batteries. Advanced Functional Materials, 2020, 30, 1902499.	7.8	41
81	Formulierung von Elektrolyten mit gemischten Lithiumsalzen fÃ¼r Lithiumâ€Batterien. Angewandte Chemie, 2020, 132, 3426-3442.	1.6	16
82	Formulation of Blendedâ€Lithiumâ€Salt Electrolytes for Lithium Batteries. Angewandte Chemie - International Edition, 2020, 59, 3400-3415.	7.2	129
83	Lithiumâ€“Sulfur Batteries under Lean Electrolyte Conditions: Challenges and Opportunities. Angewandte Chemie - International Edition, 2020, 59, 12636-12652.	7.2	425
84	Dendriteâ€Free Potassium Metal Anodes in a Carbonate Electrolyte. Advanced Materials, 2020, 32, e1906735.	11.1	107
85	Adsorptionâ€Catalysis Design in the Lithiumâ€Sulfur Battery. Advanced Energy Materials, 2020, 10, 1903008.	10.2	275
86	Recyclable Highâ€Performance Polymer Electrolyte Based on a Modified Methyl Celluloseâ€“Lithium Trifluoromethanesulfonate Salt Composite for Sustainable Energy Systems. ChemSusChem, 2020, 13, 376-384.	3.6	16
87	Electrolyte Regulation towards Stable Lithiumâ€Metal Anodes in Lithiumâ€“Sulfur Batteries with Sulfurized Polyacrylonitrile Cathodes. Angewandte Chemie - International Edition, 2020, 59, 10732-10745.	7.2	108
88	Enabling rapid polysulfide conversion kinetics by using functionalized carbon nanosheets as metal-free electrocatalysts in durable lithium-sulfur batteries. Chemical Engineering Journal, 2020, 385, 123840.	6.6	36
89	A sandwich-type composite polymer electrolyte for all-solid-state lithium metal batteries with high areal capacity and cycling stability. Journal of Membrane Science, 2020, 596, 117739.	4.1	77
90	A novel poly(vinyl carbonate-co-butyl acrylate) quasi-solid-state electrolyte as a strong catcher for lithium polysulfide in Liâ€“S batteries. Electrochimica Acta, 2020, 332, 135463.	2.6	13

#	Article	IF	Citations
91	Electrolyte Regulation towards Stable Lithiumâ€Metal Anodes in Lithiumâ€“Sulfur Batteries with Sulfurized Polyacrylonitrile Cathodes. Angewandte Chemie, 2020, 132, 10821-10834.	1.6	80
92	Longâ€Life, Highâ€Rate Lithiumâ€“Sulfur Cells with a Carbonâ€Free VN Host as an Efficient Polysulfide Adsorbent and Lithium Dendrite Inhibitor. Advanced Energy Materials, 2020, 10, 1903241.	10.2	120
93	Li2S@NC composite enable high active material loading and high Li2S utilization for all-solid-state lithium sulfur batteries. Journal of Power Sources, 2020, 479, 228792.	4.0	21
94	Towards high energy density Liâ€“S batteries with high sulfur loading: From key issues to advanced strategies. Energy Storage Materials, 2020, 32, 320-355.	9.5	64
95	Catalytic and Dualâ€Conductive Matrix Regulating the Kinetic Behaviors of Polysulfides in Flexible Liâ€“S Batteries. Advanced Energy Materials, 2020, 10, 2001683.	10.2	42
96	Manufacturing Strategies for Solid Electrolyte in Batteries. Frontiers in Energy Research, 2020, 8, .	1.2	38
97	Diffusion of lithium ions in Lithium-argyrodite solid-state electrolytes. Npj Computational Materials, 2020, 6, .	3.5	30
98	Shaping Li Deposits from Wild Dendrites to Regular Crystals via the Ferroelectric Effect. Nano Letters, 2020, 20, 7680-7687.	4.5	29
99	Environmentally Friendly Binders for Lithiumâ€Sulfur Batteries. ChemElectroChem, 2020, 7, 4158-4176.	1.7	23
100	A Rational Reconfiguration of Electrolyte for Highâ€Energy and Longâ€Life Lithiumâ€“Chalcogen Batteries. Advanced Materials, 2020, 32, e2000302.	11.1	88
101	High performance potassiumâ€“sulfur batteries and their reaction mechanism. Journal of Materials Chemistry A, 2020, 8, 10875-10884.	5.2	40
102	Efficient polysulfide anchor: brain coral-like WS2 nanosheets. Journal of Materials Science, 2020, 55, 12031-12040.	1.7	14
103	Effect of Electrolyte Concentration on the Solvation Structure of Gold/LITFSIâ€“DMSO Solution Interface. Journal of Physical Chemistry C, 2020, 124, 12381-12389.	1.5	25
104	A review on energy chemistry of fast-charging anodes. Chemical Society Reviews, 2020, 49, 3806-3833.	18.7	323
105	Comprehensive evaluation of safety performance and failure mechanism analysis for lithium sulfur pouch cells. Energy Storage Materials, 2020, 30, 87-97.	9.5	65
106	Double Morphology of Co9S8 Coated by N, S Co-doped Carbon as Efficient Anode Materials for Sodium-Ion Batteries. Nanoscale Research Letters, 2020, 15, 19.	3.1	8
107	12 years roadmap of the sulfur cathode for lithium sulfur batteries (2009â€“2020). Energy Storage Materials, 2020, 30, 346-366.	9.5	189
108	Interfacial redox behaviors of sulfide electrolytes in fast-charging all-solid-state lithium metal batteries. Energy Storage Materials, 2020, 31, 267-273.	9.5	45

#	Article	IF	Citations
109	Strategies toward Highâ€Loading Lithiumâ€“Sulfur Battery. Advanced Energy Materials, 2020, 10, 2000082.	10.2	272
110	Electrode Design for Lithiumâ€“Sulfur Batteries: Problems and Solutions. Advanced Functional Materials, 2020, 30, 1910375.	7.8	206
111	N/S-Co-doped Porous Carbon Nanoparticles Serving the Dual Function of Sulfur Host and Separator Coating in Lithiumâ€“Sulfur Batteries. ACS Applied Energy Materials, 2020, 3, 3397-3407.	2.5	28
112	Designing an intrinsically safe organic electrolyte for rechargeable batteries. Energy Storage Materials, 2020, 31, 382-400.	9.5	74
113	An enhanced polyethylene/polyetherimide composite separator for high-performance lithium-sulfur battery. Ionics, 2020, 26, 4825-4833.	1.2	7
114	Nanoengineering to achieve high efficiency practical lithiumâ€“sulfur batteries. Nanoscale Horizons, 2020, 5, 808-831.	4.1	53
115	Reduced graphene oxide/TiO₂(B) nanocomposite-modified separator as an efficient inhibitor of polysulfide shuttling in Liâ€“S batteries. RSC Advances, 2020, 10, 4538-4544.	1.7	12
116	Recent advances in anodic interface engineering for solid-state lithium-metal batteries. Materials Horizons, 2020, 7, 1667-1696.	6.4	60
117	A Novel Zwitterionic Ionic Liquid-Based Electrolyte for More Efficient and Safer Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2020, 12, 11635-11642.	4.0	22
118	Cerium oxide embedded bilayer separator enabling fast polysulfide conversion for high-performance lithium-sulfur batteries. Chemical Engineering Journal, 2020, 388, 124120.	6.6	51
119	Effectively suppressing lithium dendrite growth via an es-LiSPCE single-ion conducting nano fiber membrane. Journal of Materials Chemistry A, 2020, 8, 2518-2528.	5.2	33
120	Strategies for inhibiting anode dendrite growth in lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2020, 8, 4629-4646.	5.2	54
121	Revisiting the Role of Conductivity and Polarity of Host Materials for Longâ€Life Lithiumâ€“Sulfur Battery. Advanced Energy Materials, 2020, 10, 1903934.	10.2	52
122	Li₂Sâ€“Li₃PS₄ (LPS) Composite Synthesized by Liquidâ€Phase Shaking for Allâ€Solidâ€State Lithiumâ€“Sulfur Batteries with High Performance. Energy Technology, 2020, 8, 2000023.	1.8	16
123	100th Anniversary of Macromolecular Science Viewpoint: Recent Advances and Opportunities for Mixed Ion and Charge Conducting Polymers. ACS Macro Letters, 2020, 9, 646-655.	2.3	49
124	Reaction Mechanism Optimization of Solidâ€State Liâ€“S Batteries with a PEOâ€Based Electrolyte. Advanced Functional Materials, 2021, 31, 2001812.	7.8	116
125	Stabilization Perspective on Metal Anodes for Aqueous Batteries. Advanced Energy Materials, 2021, 11, 2000962.	10.2	106
126	Inhibition of Polysulfide Shuttles in Liâ€“S Batteries: Modified Separators and Solidâ€State Electrolytes. Advanced Energy Materials, 2021, 11, 2000779.	10.2	188

#	Article	IF	Citations
127	Host Materials Anchoring Polysulfides in Liâ€“S Batteries Reviewed. Advanced Energy Materials, 2021, 11, 2001304.	10.2	254
128	Combustion chemistry of COS and occurrence of intersystem crossing. Fuel, 2021, 283, 119257.	3.4	15
129	Controllable magnetic field aligned sepiolite nanowires for high ionic conductivity and high safety PEO solid polymer electrolytes. Journal of Colloid and Interface Science, 2021, 585, 596-604.	5.0	33
130	Research progress on gel polymer electrolytes for lithium-sulfur batteries. Journal of Energy Chemistry, 2021, 56, 420-437.	7.1	59
131	An effective sulfur conversion catalyst based on MnCo₂O_{4.5} modified graphitized carbon nitride nanosheets for high-performance Liâ€“S batteries. Journal of Materials Chemistry A, 2021, 9, 21184-21196.	5.2	13
132	Stateâ€Ofâ€Theâ€Art and Future Challenges in High Energy Lithiumâ€“Selenium Batteries. Advanced Materials, 2021, 33, e2003845.	11.1	75
133	Strong Chemical Interaction between Lithium Polysulfides and Flameâ€Retardant Polyphosphazene for Lithiumâ€“Sulfur Batteries with Enhanced Safety and Electrochemical Performance. Advanced Materials, 2021, 33, e2007549.	11.1	93
134	Fundamental air stability in solid-state electrolytes: principles and solutions. Materials Chemistry Frontiers, 2021, 5, 7452-7466.	3.2	22
135	Poly(2â€ethylâ€2â€oxazoline) as a Gel Additive to Improve the Performance of Sulfur Cathodes in Lithiumâ€Sulfur Batteries. ChemElectroChem, 2021, 8, 411-417.	1.7	4
136	High-Performance All-Solid-State Lithiumâ€“Sulfur Batteries Enabled by Slurry-Coated Li6PS5Cl/S/C Composite Electrodes. Frontiers in Energy Research, 2021, 8, .	1.2	15
137	Separator Design Variables and Recommended Characterization Methods for Viable Lithiumâ€“Sulfur Batteries. Advanced Materials Technologies, 2021, 6, 2001136.	3.0	26
138	Improving Cyclability of Lithium Metal Anode via Constructing Atomic Interlamellar Ion Channel for Lithium Sulfur Battery. Nanoscale Research Letters, 2021, 16, 52.	3.1	13
139	Anchoring Polysulfides and Accelerating Redox Reaction Enabled by Feâ€Based Compounds in Lithiumâ€“Sulfur Batteries. Advanced Functional Materials, 2021, 31, 2100970.	7.8	94
140	3-D Edge-Oriented Electrocatalytic NiCo ₂ S ₄ Nanoflakes on Vertical Graphene for Li-S Batteries. Energy Material Advances, 2021, 2021, .	4.7	24
141	Reasonably Introduced ZnIn₂S₄@C to Mediate Polysulfide Redox for Long-Life Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2021, 13, 14169-14180.	4.0	13
142	Nanosilverâ€Promoted Trimetallic Niâ€“Coâ€“Mn Perovskite Fluorides for Advanced Aqueous Supercabatteries with Pseudocapacitive Multielectrons Phase Conversion Mechanisms. Advanced Functional Materials, 2021, 31, 2101353.	7.8	28
143	Lithiumâ€“Sulfur Battery Cathode Design: Tailoring Metalâ€Based Nanostructures for Robust Polysulfide Adsorption and Catalytic Conversion. Advanced Materials, 2021, 33, e2008654.	11.1	217
144	Material design and structure optimization for rechargeable lithium-sulfur batteries. Matter, 2021, 4, 1142-1188.	5.0	116

#	Article	IF	Citations
145	Ultrasmall Li₂S-Carbon Nanotube Nanocomposites for High-Rate All-Solid-State Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2021, 13, 18666-18672.	4.0	33
146	Sulfonated covalent organic framework modified separators suppress the shuttle effect in lithium-sulfur batteries. Nanotechnology, 2021, 32, 275708.	1.3	15
147	The investigation for electrodeposition behavior of lithium metal in a crown ether/propylene carbonate electrolyte. Journal of Electroanalytical Chemistry, 2021, 887, 115156.	1.9	4
148	Topâ€“Down Coarse-Grained Framework for Characterizing Mixed Conducting Polymers. Macromolecules, 2021, 54, 4889-4901.	2.2	16
149	Carbonaceous and Polymer Materials for Liâ€“S Batteries with an Emphasis on Flexible Devices. Advanced Energy and Sustainability Research, 2021, 2, 2000096.	2.8	6
150	An Efficient and Reversible Battery Anode Electrode Derived from a Lead-Based Metalâ€“Organic Framework. Energy & Fuels, 2021, 35, 9669-9682.	2.5	13
151	Advances in Lithiumâ€“Sulfur Batteries: From Academic Research to Commercial Viability. Advanced Materials, 2021, 33, e2003666.	11.1	357
152	Progress in thermal stability of <scp>allâ€solidâ€stateâ€Liâ€ionâ€batteries</scp>. InformaÄnÃ-MateriÃ¡ly, 2021, 3, 827-853.	8.5	126
153	On processing structureâ€“conductivity relations in NASICON-type LiSn2(PO4)3. Bulletin of Materials Science, 2021, 44, 1.	0.8	0
154	Mechanism investigation of iron selenide as polysulfide mediator for long-life lithium-sulfur batteries. Chemical Engineering Journal, 2021, 416, 129166.	6.6	42
155	A Sandwich-Structure Composite Polymer Electrolyte Based on Poly(vinyl alcohol)/Poly(4-lithium) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 3 8016-8029.	2.5	9
156	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.	4.0	22
157	A new defect-rich and ultrathin ZnCo layered double hydroxide/carbon nanotubes architecture to facilitate catalytic conversion of polysulfides for high-performance Li-S batteries. Chemical Engineering Journal, 2021, 417, 129248.	6.6	26
158	High-Performance Self-Healing Polyurethane Binder Based on Aromatic Disulfide Bonds and Hydrogen Bonds for the Sulfur Cathode of Lithiumâ€“Sulfur Batteries. Industrial & Engineering Chemistry Research, 2021, 60, 12011-12020.	1.8	10
159	Recent Advances and Applications Toward Emerging Lithiumâ€“Sulfur Batteries: Working Principles and Opportunities. Energy and Environmental Materials, 2022, 5, 777-799.	7.3	106
160	Recent applications of black phosphorus and its related composites in electrochemistry and bioelectrochemistry: A mini review. Electrochemistry Communications, 2021, 129, 107095.	2.3	15
161	Rotten albumen derived layered carbon modified separator for enhancing performance of Li-S batteries. Journal of Electroanalytical Chemistry, 2021, 895, 115511.	1.9	3
162	Nano-Confinement of Insulating Sulfur in the Cathode Composite of All-Solid-State Liâ€“S Batteries Using Flexible Carbon Materials with Large Pore Volumes. ACS Applied Materials & Interfaces, 2021, 13, 38613-38622.	4.0	16

#	Article	IF	Citations
163	Investigation on Cycling and Calendar Aging Processes of 3.4 Ah Lithium-Sulfur Pouch Cells. Sustainability, 2021, 13, 9473.	1.6	8
164	Electrochemically-Matched and Nonflammable Janus Solid Electrolyte for Lithiumâ€“Metal Batteries. ACS Applied Materials & Interfaces, 2021, 13, 39271-39281.	4.0	16
165	Hierarchical nMOF-867/MXene Nanocomposite for Chemical Adsorption of Polysulfides in Lithiumâ€“Sulfur Batteries. ACS Applied Energy Materials, 2021, 4, 8231-8241.	2.5	20
166	Flame-Retardant and Polysulfide-Suppressed Ether-Based Electrolytes for High-Temperature Liâ€“S Batteries. ACS Applied Materials & Interfaces, 2021, 13, 38296-38304.	4.0	21
167	Strategies to Solve Lithium Battery Thermal Runaway: From Mechanism to Modification. Electrochemical Energy Reviews, 2021, 4, 633-679.	13.1	85
168	Review of the Iâ^'/I3â^' redox chemistry in Zn-iodine redox flow batteries. Materials Research Bulletin, 2021, 141, 111347.	2.7	24
169	Halogenâ€Free Polyphosphazeneâ€Based Flame Retardant Cathode Materials for Liâ€“S Batteries. Energy Technology, 2021, 9, 2100563.	1.8	9
170	Mo₂C Electrocatalysts for Kinetically Boosting Polysulfide Conversion in Quasi-Solid-State Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2021, 13, 45651-45660.	4.0	7
171	Electrolyte solutions design for lithium-sulfur batteries. Joule, 2021, 5, 2323-2364.	11.7	199
172	Wide Working Temperature Range Rechargeable Lithiumâ€“Sulfur Batteries: A Critical Review. Advanced Functional Materials, 2021, 31, 2107136.	7.8	43
173	Towards high-performance lithium-sulfur battery: Investigation on the capability of metalloid to regulate polysulfides. Chemical Engineering Journal, 2022, 430, 132677.	6.6	32
174	Synthesis of porous N deficient graphitic carbon nitride and utilization in lithium-sulfur battery. Applied Surface Science, 2021, 569, 151058.	3.1	15
175	Phosphorus-modified Fe₄N@N,P co-doped graphene as an efficient sulfur host for high-performance lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2021, 9, 6538-6546.	5.2	37
176	Nitrogen-doped multi-channel carbon nanofibers incorporated with nickel nanoparticles as a multifunctional modification layer of the separator for ultra stable Liâ€“S batteries. New Journal of Chemistry, 2021, 45, 9472-9477.	1.4	3
177	History and recent developments in divergent electrolytes towards high-efficiency lithiumâ€“sulfur batteries â€“ a review. Materials Advances, 2021, 2, 4115-4139.	2.6	12
178	Metalâ€“organic framework based electrode materials for lithium-ion batteries: a review. RSC Advances, 2021, 11, 29247-29266.	1.7	50
179	Emerging Catalysts to Promote Kinetics of Lithiumâ€“Sulfur Batteries. Advanced Energy Materials, 2021, 11, 2002893.	10.2	228
180	Tailored Solid Polymer Electrolytes by Montmorillonite with High Ionic Conductivity for Lithium-Ion Batteries. Nanoscale Research Letters, 2019, 14, 366.	3.1	18

#	Article	IF	Citations
181	MXene for aqueous zinc-based energy storage devices. Functional Materials Letters, 2021, 14, .	0.7	15
182	Hypercrosslinked Polymerization Enabled Nâ€Doped Carbon Confined Fe₂O₃ Facilitating Li Polysulfides Interface Conversion for Liâ€“S Batteries. Advanced Energy Materials, 2021, 11, 2101780.	10.2	77
183	Ultrafine NbN nanoparticle decorated nitrogen-doped carbon nanosheets with efficient polysulfide catalytic conversion for superior Liâ€“S batteries. Journal of Power Sources, 2022, 520, 230764.	4.0	13
184	In-situ construction of g-C3N4/carbon heterostructure on graphene nanosheet: An efficient polysulfide barrier for advanced lithium-sulfur batteries. Applied Surface Science, 2022, 578, 152022.	3.1	15
185	In Situ Grown 1Tâ€²â€MoTe₂ Nanosheets on Carbon Nanotubes as an Efficient Electrocatalyst and Lithium Regulator for Stable Lithiumâ€“Sulfur Full Cells. Advanced Energy Materials, 2022, 12, .	10.2	40
186	Characterization of Sulfur/Graphitized Mesocarbon Microbeads Composite Cathodes for Li-S Batteries. Advanced Engineering Forum, 0, 44, 87-94.	0.3	0
187	Glyme-based electrolytes: suitable solutions for next-generation lithium batteries. Green Chemistry, 2022, 24, 1021-1048.	4.6	28
188	New insights into designation of single-ion conducting gel polymer electrolyte for high-performance lithium metal batteries. Journal of Membrane Science, 2022, 647, 120287.	4.1	17
189	A Squaraine-Linked Zwitterionic Covalent Organic Framework Nanosheets Enhanced Poly(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5 Materials, 2022, 5, 2495-2504.	2.5	19
190	Promoted redox chemistry of high sulfur content cathode via endowing fast Li-ion diffusion. Ionics, 2022, 28, 1473-1481.	1.2	0
191	Spherical Polyelectrolyte Brushes Templated Hollow C@MnO Nanospheres as Sulfur Host Materials for Liâ^'S Batteries. ChemNanoMat, 2022, 8, .	1.5	2
192	Unlocking Failure Mechanisms and Improvement of Practical Liâ€“S Pouch Cells through In Operando Pressure Study. Advanced Energy Materials, 2022, 12, .	10.2	12
193	Cathode host engineering for non-lithium (Na, K and Mg) sulfur/selenium batteries: A state-of-the-art review. Nano Materials Science, 2023, 5, 119-140.	3.9	16
194	Roomâ€temperature metalâ€“sulfur batteries: What can we learn from <scp>lithiumâ€“sulfur</scp>?. InformaÄnÃ-MateriÃ¡ly, 2022, 4, .	8.5	45
195	Stable Twoâ€dimensional Nanoconfined Ionic Liquids with Highly Efficient Ionic Conductivity. Small, 2022, 18, e2108026.	5.2	18
196	A Better Zn-Ion Storage Device: Recent Progress for Zn-Ion Hybrid Supercapacitors. Nano-Micro Letters, 2022, 14, 64.	14.4	65
197	Sputtered MoN nanolayer as a multifunctional polysulfide catalyst for high-performance lithiumâ€“sulfur batteries. EScience, 2022, 2, 329-338.	25.0	70
198	Designing a durable high-rate K0.45Ni0.1Fe0.1Mn0.8O2 cathode for K-ion batteries: A joint study of theory and experiment. Science China Materials, 2022, 65, 1741-1750.	3.5	3

#	Article	IF	Citations
199	Design Strategies of Flame-Retardant Additives for Lithium Ion Electrolyte. Journal of Electrochemical Energy Conversion and Storage, 2022, 19, .	1.1	7
200	Enhanced Cycling Performance of Allâ€Solidâ€State Liâ€S Battery Enabled by PVPâ€Blended PEOâ€Based Doubleâ€Layer Electrolyte. Chemistry - A European Journal, 2022, 28, .	1.7	9
201	How <scp>sideâ€chain</scp> hydrophilicity modulates morphology and charge transport in mixed conducting polymers. Journal of Polymer Science, 2022, 60, 610-620.	2.0	14
202	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.	4.0	15
203	Highâ€Polarity Fluoroalkyl Ether Electrolyte Enables Solvationâ€Free Li⁺ Transfer for Highâ€Rate Lithium Metal Batteries. Advanced Science, 2022, 9, e2104699.	5.6	54
204	Engineering high conductive Li7P2S8I via Cl- doping for all-solid-state Li-S batteries workable at different operating temperatures. Chemical Engineering Journal, 2022, 442, 136346.	6.6	21
205	Atomic surface modification strategy of<scp>MXene</scp>materials for<scp>highâ€performance</scp>metal sulfur batteries. International Journal of Energy Research, 2022, 46, 11659-11675.	2.2	21
206	Regulating liquid and solid-state electrolytes for solid-phase conversion in Liâ€“S batteries. CheM, 2022, 8, 1201-1230.	5.8	59
207	All-solid-state lithium-sulfur batteries assembled by composite polymer electrolyte and amorphous sulfur/rGO composite cathode. Solid State Ionics, 2022, 380, 115926.	1.3	5
208	Tetrathiafulvalene as a multifunctional electrolyte additive for simultaneous interface amelioration, electron conduction, and polysulfide redox regulation in lithium-sulfur batteries. Journal of Power Sources, 2022, 536, 231482.	4.0	8
209	Dualâ€Atom Nickel Moieties of Ni(II)₂N₄(Âµ₂â€N)₂ Anchored on Alfalfaâ€Derived Developed Porous Nâ€Doped Carbon for Highâ€Performance Liâ€“S Battery. Small, 2022, 18, .	5.2	7
210	Methods and Techniques of Solid-State Batteries. ACS Symposium Series, 0, , 39-89.	0.5	0
211	A Review of Battery Thermal Management Methods for Electric Vehicles. Journal of Electrochemical Energy Conversion and Storage, 2023, 20, .	1.1	1
212	Thermal safety and thermal management of batteries. , 2022, 1, .		14
213	Realizing fast polysulfides conversion within yolk-shelled NiO@HCSs nanoreactor as cathode host for high-performance lithium-sulfur batteries. Journal of Materials Chemistry A, 2022, 10, 16309-16318.	5.2	23
214	Constructing Selfâ€Adapting Electrostatic Interface on Lithium Metal Anode for Stable 400ÂWhÂkg^{â^'1} Pouch Cells. Advanced Energy Materials, 2022, 12, .	10.2	37
215	<scp>Highâ€Energy</scp> Lithiumâ€Ion Batteries: Recent Progress and a Promising Future in Applications. Energy and Environmental Materials, 2023, 6, .	7.3	77
216	Recent progress of sulfur cathodes and other components for flexible lithiumâ€“sulfur batteries. Materials Today Sustainability, 2022, 19, 100181.	1.9	8

#	Article	IF	Citations
217	Self-Crosslinking Poly(Ethylene Glycol) Diglycidyl Ether in Water-in-Salt Electrolytes for Minimal Hydrogen Evolution Reactions and Extended LiTFSI Solubility. Journal of the Electrochemical Society, 2022, 169, 070533.	1.3	1
218	Electrolytes for Multivalent Metalâ€Ion Batteries: Current Status and Future Prospect. ChemSusChem, 2022, 15, .	3.6	7
219	MOF-derived MoP nanorods decorated with a N-doped thin carbon layer as a robust lithiophilic and sulfiphilic nanoreactor for high-performance Liâ€“S batteries. Sustainable Energy and Fuels, 2022, 6, 3989-4000.	2.5	2
220	Atomically Dispersed Fe-N4 Sites and Fe3C Particles Catalyzing Polysulfides Conversion in Li-S Batteries. Chemical Research in Chinese Universities, 2022, 38, 1232-1238.	1.3	7
221	Emerging Strategies for Gel Polymer Electrolytes with Improved Dualâ€Electrode Side Regulation Mechanisms for Lithiumâ€Sulfur Batteries. Chemistry - an Asian Journal, 2022, 17, .	1.7	5
222	Electrodeposition and Electrodissolution of Li Metal in Nanohole Arrays of Anodic Porous Alumina. Journal of the Electrochemical Society, 2022, 169, 092507.	1.3	0
223	Flameâ€Retardant Crosslinked Polymer Stabilizes Graphiteâ€“Silicon Composite Anode for Selfâ€Extinguishing Lithiumâ€Ion Batteries. Advanced Energy Materials, 2022, 12, .	10.2	6
224	Opportunities of Flexible and Portable Electrochemical Devices for Energy Storage: Expanding the Spotlight onto Semi-solid/Solid Electrolytes. Chemical Reviews, 2022, 122, 17155-17239.	23.0	67
225	Exploring the Superior Anchoring Performance of the Two-Dimensional Nanosheets B₂C₄P₂ and B₃C₂P₃ for Lithiumâ€“Sulfur Batteries. ACS Omega, 2022, 7, 38543-38549.	1.6	7
226	Synergy of an In Situ-Polymerized Electrolyte and a Li₃Nâ€“LiF-Reinforced Interface Enables Long-Term Operation of Li-Metal Batteries. ACS Applied Materials & Interfaces, 2022, 14, 49811-49819.	4.0	8
227	Controlling coordination environment and pore structure of Co/N-doped C host to enhance electrochemical performance of S cathode. Journal of Alloys and Compounds, 2023, 933, 167630.	2.8	1
228	Ni Single Atoms on MoS₂ Nanosheets Enabling Enhanced Kinetics of Liâ€S Batteries. Small, 2023, 19, .	5.2	34
229	Advanced Nanostructured Materials for Electrocatalysis in Lithiumâ€“Sulfur Batteries. Nanomaterials, 2022, 12, 4341.	1.9	12
230	Origin of the High Conductivity of the LiI-Doped Li₃PS₄ Electrolytes for All-Solid-State Lithiumâ€“Sulfur Batteries Working in Wide Temperature Ranges. Industrial & Engineering Chemistry Research, 2023, 62, 96-104.	1.8	5
231	Mechanistic Insights into the Cycling Behavior of Sulfur Dryâ€Film Cathodes. Advanced Sustainable Systems, 2023, 7, .	2.7	8
232	Latest progresses and the application of various electrolytes in high-performance solid-state lithium-sulfur batteries. Journal of Energy Chemistry, 2023, 82, 170-197.	7.1	2
233	Advanced twoâ€dimensional materials toward polysulfides regulation of metalâ€“sulfur batteries. SmartMat, 2023, 4, .	6.4	6
234	Construction of Lithium Metal Anode with High Lithium Utilization and its Application in Lithium-Sulfur Batteries. Hans Journal of Nanotechnology, 2023, 13, 7-28.	0.1	0

#	Article	IF	Citations
235	Towards safe lithium-sulfur batteries from liquid-state electrolyte to solid-state electrolyte. Frontiers of Materials Science, 2023, 17, .	1.1	2
236	Multiscale Structural Engineering of Sulfur/Carbon Cathodes Enables High Performance Allâ€Solidâ€State Liï£¿S Batteries. Small, 2023, 19, .	5.2	5
241	Kinetically Favorable Liâ€“S Battery Electrolytes. ACS Energy Letters, 2023, 8, 3054-3080.	8.8	9
242	Ion Migration Mechanism Study of Hydroborate/Carborate Electrolytes for All-Solid-State Batteries. Electrochemical Energy Reviews, 2023, 6, .	13.1	1
243	Practical challenges and future perspectives of solid polymer electrolytes: microscopic structure and interface design. Materials Chemistry Frontiers, 0, , .	3.2	0
247	From non-carbon host toward carbon-free lithium-sulfur batteries. Nano Research, 2024, 17, 1337-1365.	5.8	0
255	Introduction of Energy Materials. , 2024, , 1-8.		0