

Balancing surface adsorption and diffusion of lithium-polyoxides for lithium-sulfur battery design

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Citation Report

#	ARTICLE	IF	CITATIONS
1	High performance Li ⁺ S battery based on amorphous NiS ₂ as the host material for the S cathode. <i>Journal of Materials Chemistry A</i> , 2016, 4, 13395-13399.	5.2	74
2	Stabilizing sulfur cathodes using nitrogen-doped graphene as a chemical immobilizer for Li S batteries. <i>Carbon</i> , 2016, 108, 120-126.	5.4	134
3	Rational designs and engineering of hollow micro-/nanostructures as sulfur hosts for advanced lithium ⁺ sulfur batteries. <i>Energy and Environmental Science</i> , 2016, 9, 3061-3070.	15.6	598
4	Enhanced performances of Li/polysulfide batteries with 3D reduced graphene oxide/carbon nanotube hybrid aerogel as the polysulfide host. <i>Nano Energy</i> , 2016, 30, 193-199.	8.2	55
5	Unique electrochemical behavior of heterocyclic selenium ⁺ sulfur cathode materials in ether-based electrolytes for rechargeable lithium batteries. <i>Energy Storage Materials</i> , 2016, 5, 171-179.	9.5	72
6	Enhanced Electrochemical Kinetics on Conductive Polar Mediators for Lithium ⁺ Sulfur Batteries. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 12990-12995.	7.2	560
7	Enhanced Electrochemical Kinetics on Conductive Polar Mediators for Lithium ⁺ Sulfur Batteries. <i>Angewandte Chemie</i> , 2016, 128, 13184-13189.	1.6	115
8	Kinetically-enhanced polysulfide redox reactions by Nb ₂ O ₅ nanocrystals for high-rate lithium ⁺ sulfur battery. <i>Energy and Environmental Science</i> , 2016, 9, 3230-3239.	15.6	328
9	A review of recent developments in rechargeable lithium ⁺ sulfur batteries. <i>Nanoscale</i> , 2016, 8, 16541-16588.	2.8	326
10	A lightweight multifunctional interlayer of sulfur ⁺ nitrogen dual-doped graphene for ultrafast, long-life lithium ⁺ sulfur batteries. <i>Journal of Materials Chemistry A</i> , 2016, 4, 15343-15352.	5.2	120
11	Soybean-derived hierarchical porous carbon with large sulfur loading and sulfur content for high-performance lithium ⁺ sulfur batteries. <i>Journal of Materials Chemistry A</i> , 2016, 4, 16507-16515.	5.2	91
12	Facile and scalable synthesis of nanosized core ⁺ shell Li ₂ S@C composite for high-performance lithium ⁺ sulfur batteries. <i>Journal of Materials Chemistry A</i> , 2016, 4, 16653-16660.	5.2	26
13	Chloride ⁺ Reinforced Carbon Nanofiber Host as Effective Polysulfide Traps in Lithium ⁺ Sulfur Batteries. <i>Advanced Science</i> , 2016, 3, 1600175.	5.6	68
14	Designing high-energy lithium ⁺ sulfur batteries. <i>Chemical Society Reviews</i> , 2016, 45, 5605-5634.	18.7	2,008
15	Sparingly Solvating Electrolytes for High Energy Density Lithium ⁺ Sulfur Batteries. <i>ACS Energy Letters</i> , 2016, 1, 503-509.	8.8	190
16	Ferrocene ⁺ Promoted Long ⁺ Cycle Lithium ⁺ Sulfur Batteries. <i>Angewandte Chemie</i> , 2016, 128, 15038-15042.	1.6	11
17	Ferrocene ⁺ Promoted Long ⁺ Cycle Lithium ⁺ Sulfur Batteries. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 14818-14822.	7.2	46
18	Catalytic oxidation of Li ₂ S on the surface of metal sulfides for Li ⁺ S batteries. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 840-845.	3.3	1,030

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20	Freestanding and Sandwich-Structured Electrode Material with High Areal Mass Loading for Long-Life Lithium-Sulfur Batteries. <i>Advanced Energy Materials</i> , 2017, 7, 1602347.	10.2	159
21	High power rechargeable magnesium/iodine battery chemistry. <i>Nature Communications</i> , 2017, 8, 14083.	5.8	251
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26	Core-Shell Structure and Interaction Mechanism of MnO_2 Coated Sulfur for Improved Lithium-Sulfur Batteries. <i>Small</i> , 2017, 13, 1603466.	5.2	145
27	Scalable Approach To Construct Free-Standing and Flexible Carbon Networks for Lithium-Sulfur Battery. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 8047-8054.	4.0	78
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74	A Compact Nanoconfined Sulfur Cathode for High-Performance Lithium-Sulfur Batteries. <i>Joule</i> , 2017, 1, 576-587.	11.7	255
75	Reduced Polysulfide Shuttle Effect by Using Polyimide Separators with Ionic Liquid-based Electrolytes in Lithium-Sulfur Battery. <i>Electrochimica Acta</i> , 2017, 255, 109-117.	2.6	26
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831	Recent Advances and Strategies toward Polysulfides Shuttle Inhibition for High-Performance Li-S Batteries. <i>Advanced Science</i> , 2022, 9, e2106004.	5.6	161
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842	Boron Nitride Nanotube-Based Separator for High-Performance Lithium-Sulfur Batteries. <i>Nanomaterials</i> , 2022, 12, 11.	1.9	21
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844	MXene-supported NiMn-LDHs as efficient electrocatalysts towards enhanced oxygen evolution reactions. <i>Materials Advances</i> , 2022, 3, 4359-4368.	2.6	12
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977	Molybdenum-Based Catalytic Materials for Li-S Batteries: Strategies, Mechanisms, and Prospects. <i>Advanced Energy and Sustainability Research</i> , 2023, 4, .	2.8	5
978	Hotspots and Tendencies of Energy Optimization Based on Bibliometric Review. <i>Energies</i> , 2023, 16, 158.	1.6	1
979	Unraveling Polysulfide's Adsorption and Electrocatalytic Conversion on Metal Oxides for Li-S Batteries. <i>Advanced Science</i> , 2023, 10, .	5.6	29
980	Multifunctional binder capable of promoting the reaction dynamics of wide temperature operable lithium-sulfur battery. <i>Chemical Engineering Journal</i> , 2023, 455, 140706.	6.6	9
981	Enhanced Li-S Battery Performance Boosted by a Large Surface Area Mesoporous Alumina-Based Interlayer. <i>ACS Applied Energy Materials</i> , 2022, 5, 15615-15623.	2.5	2
982	Oxygen-modulated metal nitride clusters with moderate binding ability to insoluble Li_2S for reversible polysulfide electrocatalysis. <i>Information Materials</i> , 2023, 5, .	8.5	18
983	Surface reconstruction on $\text{Ni}_2\text{P}@CC$ to form an ultrathin layer of $\text{Ni}(\text{OH})_2$ for enhancing the capture and catalytic conversion of polysulfides in lithium-sulfur batteries. <i>Journal of Materials Chemistry A</i> , 2023, 11, 3504-3513.	5.2	5
984	Nickel Foam Coated by Ni Nanoparticle-Decorated 3D Nanocarbons as a Freestanding Host for High-Performance Lithium-Sulfur Batteries. <i>ACS Applied Materials & Interfaces</i> , 2023, 15, 3037-3046.	4.0	7
985	Electrocatalysts in lithium-sulfur batteries. <i>Nano Research</i> , 2023, 16, 4438-4467.	5.8	26
986	Layered double hydroxides used as the sulfur hosts for lithium-sulfur batteries and the influence of metal composition on their performance. <i>Journal of Solid State Electrochemistry</i> , 2023, 27, 797-807.	1.2	7
987	d-p Hybridization-Induced π -Trapping-Coupling-Conversion-Enables High-Efficiency Nb Single-Atom Catalysis for Li-S Batteries. <i>Journal of the American Chemical Society</i> , 2023, 145, 1728-1739.	6.6	62
988	Optimization on transport of charge carriers in cathode of sulfide electrolyte-based solid-state lithium-sulfur batteries. <i>Nano Research</i> , 2023, 16, 8139-8158.	5.8	4
989	Highly active rare earth sulfur oxides used for membrane modification of lithium sulfur batteries. <i>Chemical Engineering Journal</i> , 2023, 457, 141240.	6.6	8
990	1D/3D rambutan-like Mott-Schottky porous carbon polyhedrons for efficient tri-iodide reduction and hydrogen evolution reaction. <i>Chemical Engineering Journal</i> , 2023, 458, 141301.	6.6	19
991	Polymer Electrolyte/Sulfur Double-Shell Anisotropic Reduced Graphene Oxide Lamellar Scaffold Enables Stable and High-Loading Cathode for Quasi-Solid-State Lithium-Sulfur Batteries. <i>Advanced Science</i> , 2023, 10, .	5.6	4
992	In Situ Non-Topotactic Reconstruction-Induced Synergistic Active Centers for Polysulfide Cascade Catalysis. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	9
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994	Co-Co ₉ S ₈ -NC particles anchored on 3D hyperfine carbon nanofiber networks with a hierarchical structure as a catalyst promoting polysulfide conversion for lithium-sulfur batteries. Journal of Materials Chemistry A, 2023, 11, 5212-5221.	5.2	8
995	A COF-coated ordered porous framework as multifunctional polysulfide barrier towards high-performance lithium-sulfur batteries. Journal of Colloid and Interface Science, 2023, 638, 542-551.	5.0	2
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997	CoO nanoparticles loaded on carbon spheres with synergistic effects for effective inhibition of shuttle effect in Li-S batteries. Nanoscale, 2023, 15, 5327-5336.	2.8	4
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999	Redox Promotion by Prelithiation Modification of the Separator in Lithium-Sulfur Batteries. Journal of Physical Chemistry C, 2023, 127, 4006-4014.	1.5	0
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1001	Multifunctional Polymeric Phthalocyanine-Coated Carbon Nanotubes for Efficient Redox Mediators of Lithium-Sulfur Batteries. Advanced Energy Materials, 2023, 13, .	10.2	10
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1004	Deciphering the electrocatalysis essence of cobalt diselenide in lithium-sulfur electrochemistry from crystal-phase engineering. Chemical Engineering Journal, 2023, 463, 142416.	6.6	3
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1008	Simultaneous dual-defect engineering as a booster for polysulfide adsorption and conversion in Li-S battery. Chemical Engineering Journal, 2023, 460, 141723.	6.6	4
1009	Single-atomic tungsten-doped Co ₃ O ₄ nanosheets for enhanced electrochemical kinetics in lithium-sulfur batteries. , 2023, 5, .		15
1010	Dual Single-Atom Moieties Anchored on N-Doped Multilayer Graphene As a Catalytic Host for Lithium-Sulfur Batteries. ACS Applied Materials & Interfaces, 2023, 15, 9439-9446.	4.0	13
1011	Interface Engineering Toward Expedited Li ₂ S Deposition in Lithium-Sulfur Batteries: A Critical Review. Advanced Materials, 2023, 35, .	11.1	29

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1012	A Two-in-one host for High-loading cathode and Dendrite-free anode realized by activating metallic nitrides heterostructures toward Li-S full batteries. <i>Chemical Engineering Journal</i> , 2023, 460, 141862.	6.6	6
1013	Advanced two-dimensional materials toward polysulfides regulation of metal-sulfur batteries. <i>SmartMat</i> , 2023, 4, .	6.4	6
1014	Poly(acrylic acid) locally enriched in slurry enhances the electrochemical performance of the SiO ₂ lithium-ion battery anode. <i>Journal of Materials Chemistry A</i> , 2023, 11, 6205-6216.	5.2	6
1015	The Integration of Biopolymer-Based Materials for Energy Storage Applications: A Review. <i>International Journal of Molecular Sciences</i> , 2023, 24, 3975.	1.8	6
1016	A separator modified by barium titanate with macroscopic polarization electric field for high-performance lithium-sulfur batteries. <i>Nanoscale</i> , 2023, 15, 5899-5908.	2.8	7
1017	Conductive metal-metal phase and built-in electric field of 1T-VSe ₂ -MXene hetero-structure to accelerate dual-directional sulfur conversion for high-performance Li-S batteries. <i>Chemical Engineering Journal</i> , 2023, 461, 142100.	6.6	5
1018	Dual-Conductive CoSe ₂ @TiSe ₂ Heterostructures Promoting Overall Sulfur Redox Kinetics under High Sulfur Loading and Lean Electrolyte. <i>Small</i> , 2023, 19, .	5.2	8
1019	The Polysulfide Cathode Binding Energy Landscape for Lithium Sulfide Growth in Lithium-Sulfur Batteries. <i>Advanced Science</i> , 0, , 2206057.	5.6	5
1020	Ion-Conducting Cross-Linked Polyphosphazene Binders for High-Performance Silicon Anodes in Lithium-Ion Batteries. <i>ACS Applied Polymer Materials</i> , 2023, 5, 2617-2627.	2.0	5
1021	Co-Fe phosphide/graphitic carbon nitride nanosheet modified separator for high-performance lithium-sulfur batteries. <i>Journal of Alloys and Compounds</i> , 2023, 949, 169873.	2.8	7
1022	Super-assembled compressible carbon frameworks featuring enriched heteroatom defect sites for flexible Zn-air batteries. <i>NPG Asia Materials</i> , 2023, 15, .	3.8	2
1023	Developing a MXene quantum dot-based separator for Li-S batteries. <i>Journal of Materials Chemistry A</i> , 2023, 11, 10425-10434.	5.2	9
1024	Electrolyte Wettability Issues and Challenges of Electrode Materials in Electrochemical Energy Storage, Energy Conversion, and Beyond. <i>Advanced Science</i> , 2023, 10, .	5.6	16
1046	Engineering Triple-Phase Interfaces Enabled by Layered Double Perovskite Oxide for Boosting Polysulfide Redox Conversion. <i>Nano Letters</i> , 2023, 23, 4908-4915.	4.5	3
1049	Scalable SPAN Membrane Cathode with High Conductivity and Hierarchically Porous Framework for Enhanced Ion Transfer and Cycling Stability in Li-S Batteries. , 2023, 5, 2047-2057.		3
1059	From material properties to device metrics: a data-driven guide to battery design. <i>Energy Advances</i> , 2023, 2, 1326-1350.	1.4	1
1091	Hollow Mo ₂ C Nanofibers Improve the Electrochemical Performance of Cathode for Lithium-Sulfur Battery. , 2023, , .		0
1112	Interface engineering toward stable lithium-sulfur batteries. <i>Energy and Environmental Science</i> , 2024, 17, 1330-1367.	15.6	2

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1115	Speciation, Mobilization, and Toxicity of Cadmium in Soil-Microbe-Plant System: An Overview. , 2024, , 31-61.		0
1120	A Review on Engineering Transition Metal Compound Catalysts to Accelerate the Redox Kinetics of Sulfur Cathodes for Lithium-Sulfur Batteries. Nano-Micro Letters, 2024, 16, .	14.4	0