

# Tuning Transition Metal Oxide–Sulfur Interactions for The “Goldilocks” Principle

Advanced Energy Materials

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Graphene-Based Nanocomposites for Energy Storage. <i>Advanced Energy Materials</i> , 2016, 6, 1502159.	10.2	306
2	High-Energy-Density Lithium-Sulfur Batteries Based on Blade-Cast Pure Sulfur Electrodes. <i>ACS Energy Letters</i> , 2016, 1, 46-51.	8.8	109
3	Hollow porous SiO <sub>2</sub> nanobelts containing sulfur for long-life lithium-sulfur batteries. <i>RSC Advances</i> , 2016, 6, 91179-91184.	1.7	12
4	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
5	Transport Properties of Polysulfide Species in Lithium-Sulfur Battery Electrolytes: Coupling of Experiment and Theory. <i>ACS Central Science</i> , 2016, 2, 560-568.	5.3	71
6	Uniform Li <sub>2</sub> S precipitation on N,O-codoped porous hollow carbon fibers for high-energy-density lithium-sulfur batteries with superior stability. <i>Chemical Communications</i> , 2016, 52, 10964-10967.	2.2	42
7	Challenges and current development of sulfur cathode in lithium-sulfur battery. <i>Current Opinion in Chemical Engineering</i> , 2016, 13, 53-62.	3.8	23
8	Ultrafine TiO <sub>2</sub> Decorated Carbon Nanofibers as Multifunctional Interlayer for High-Performance Lithium-Sulfur Battery. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 23105-23113.	4.0	200
9	A Cooperative Interface for Highly Efficient Lithium-Sulfur Batteries. <i>Advanced Materials</i> , 2016, 28, 9551-9558.	11.1	514
10	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
11	Designing high-energy lithium-sulfur batteries. <i>Chemical Society Reviews</i> , 2016, 45, 5605-5634.	18.7	2,008
12	3D Carbonaceous Current Collectors: The Origin of Enhanced Cycling Stability for High-Sulfur-Loading Lithium-Sulfur Batteries. <i>Advanced Functional Materials</i> , 2016, 26, 6351-6358.	7.8	216
13	In Situ Reactive Synthesis of Polypyrrole-MnO <sub>2</sub> Coaxial Nanotubes as Sulfur Hosts for High-Performance Lithium-Sulfur Battery. <i>Nano Letters</i> , 2016, 16, 7276-7281.	4.5	271
14	Advanced Lithium-Sulfur Batteries Enabled by a Bio-Inspired Polysulfide Adsorptive Brush. <i>Advanced Functional Materials</i> , 2016, 26, 8418-8426.	7.8	120
15	Advances in lithium-sulfur batteries based on multifunctional cathodes and electrolytes. <i>Nature Energy</i> , 2016, 1, .	19.8	1,710
16	<i>In Situ</i> Reactive Assembly of Scalable Core-Shell Sulfur-MnO <sub>2</sub> Composite Cathodes. <i>ACS Nano</i> , 2016, 10, 4192-4198.	7.3	351
17	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
18	A Mixed Microporous/Low-range Mesoporous Composite with High Sulfur Loading from Hierarchically-structured Carbon for Lithium Sulfur Batteries. <i>Electrochimica Acta</i> , 2017, 230, 181-188.	2.6	36

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19	Nanostructured Metal Oxides and Sulfides for Lithium-Sulfur Batteries. <i>Advanced Materials</i> , 2017, 29, 1601759.	11.1	1,197
20	Suppressing Self-Discharge and Shuttle Effect of Lithium-Sulfur Batteries with $V_2O_5$ -Decorated Carbon Nanofiber Interlayer. <i>Small</i> , 2017, 13, 1602539.	5.2	190
21	A High-Efficiency Sulfur/Carbon Composite Based on 3D Graphene Nanosheet@Carbon Nanotube Matrix as Cathode for Lithium-Sulfur Battery. <i>Advanced Energy Materials</i> , 2017, 7, 1602543.	10.2	363
22	Core-Shell Structure and Interaction Mechanism of $\text{MnO}_2$ Coated Sulfur for Improved Lithium-Sulfur Batteries. <i>Small</i> , 2017, 13, 1603466.	5.2	145
23	Carbon nano-composites for lithium-sulfur batteries. <i>Current Opinion in Green and Sustainable Chemistry</i> , 2017, 4, 64-71.	3.2	22
24	Honeycomb-like Nitrogen and Sulfur Dual-Doped Hierarchical Porous Biomass-Derived Carbon for Lithium-Sulfur Batteries. <i>ChemSusChem</i> , 2017, 10, 1803-1812.	3.6	143
25	Conductive porous vanadium nitride/graphene composite as chemical anchor of polysulfides for lithium-sulfur batteries. <i>Nature Communications</i> , 2017, 8, 14627.	5.8	912
26	Recent innovative configurations in high-energy lithium-sulfur batteries. <i>Journal of Materials Chemistry A</i> , 2017, 5, 5222-5234.	5.2	115
27	Interaction of $\text{TiS}_2$ and Sulfur in Li-S Battery System. <i>Journal of the Electrochemical Society</i> , 2017, 164, A1291-A1297.	1.3	60
28	A Quinonoid-Mine-Enriched Nanostructured Polymer Mediator for Lithium-Sulfur Batteries. <i>Advanced Materials</i> , 2017, 29, 1606802.	11.1	127
29	Mechanism on the Improved Performance of Lithium Sulfur Batteries with MXene-Based Additives. <i>Journal of Physical Chemistry C</i> , 2017, 121, 11047-11054.	1.5	118
30	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.	5.2	87
31	Review on High-Loading and High-Energy Lithium-Sulfur Batteries. <i>Advanced Energy Materials</i> , 2017, 7, 1700260.	10.2	1,307
32	Ultrafine $\text{Nd}_2\text{O}_3$ nanoparticles doped carbon aerogel to immobilize sulfur for high performance lithium-sulfur batteries. <i>Journal of Electroanalytical Chemistry</i> , 2017, 799, 617-624.	1.9	35
33	Mechanistic Insights into Surface Chemical Interactions between Lithium Polysulfides and Transition Metal Oxides. <i>Journal of Physical Chemistry C</i> , 2017, 121, 14222-14227.	1.5	86
34	Double-oxide sulfur host for advanced lithium-sulfur batteries. <i>Nano Energy</i> , 2017, 38, 12-18.	8.2	93
35	Balancing the chemisorption and charge transport properties of the interlayer in lithium-sulfur batteries. <i>Journal of Materials Chemistry A</i> , 2017, 5, 12506-12512.	5.2	62
36	Cathode materials for lithium-sulfur batteries: a practical perspective. <i>Journal of Materials Chemistry A</i> , 2017, 5, 17734-17776.	5.2	226

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37	Encapsulating sulfur in $\gamma$ -MnO <sub>2</sub> at room temperature for Li-S battery cathode. <i>Energy Storage Materials</i> , 2017, 9, 78-84.	9.5	97
38	A self-stabilized suspension catholyte to enable long-term stable Li-S flow batteries. <i>Journal of Materials Chemistry A</i> , 2017, 5, 12904-12913.	5.2	27
39	Paper-Based Electrodes for Flexible Energy Storage Devices. <i>Advanced Science</i> , 2017, 4, 1700107.	5.6	361
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42	A Toolbox for Lithium-Sulfur Battery Research: Methods and Protocols. <i>Small Methods</i> , 2017, 1, 1700134.	4.6	230
43	More Reliable Lithium-Sulfur Batteries: Status, Solutions and Prospects. <i>Advanced Materials</i> , 2017, 29, 1606823.	11.1	1,414
44	A Facile Synthesis of Mesoporous TiO <sub>2</sub> Sub-Microsphere Host for Long Life Lithium-Sulfur Battery Cathodes. <i>Electrochimica Acta</i> , 2017, 239, 56-64.	2.6	33
45	Inspired by the "tip effect" a novel structural design strategy for the cathode in advanced lithium-sulfur batteries. <i>Journal of Materials Chemistry A</i> , 2017, 5, 3140-3144.	5.2	23
46	Application of diatomite as an effective polysulfides adsorbent for lithium-sulfur batteries. <i>Journal of Energy Chemistry</i> , 2017, 26, 1267-1275.	7.1	26
47	Coaxial Carbon/MnO <sub>2</sub> Hollow Nanofibers as Sulfur Hosts for High-Performance Lithium-Sulfur Batteries. <i>Chemistry - an Asian Journal</i> , 2017, 12, 3128-3134.	1.7	46
48	Self-Templated Formation of Interlaced Carbon Nanotubes Threaded Hollow Co <sub>3</sub> S <sub>4</sub> Nanoboxes for High-Rate and Heat-Resistant Lithium-Sulfur Batteries. <i>Journal of the American Chemical Society</i> , 2017, 139, 12710-12715.	6.6	456
49	Interwoven NiCo <sub>2</sub> O <sub>4</sub> Nanosheet/Carbon Nanotube Composites as Highly Efficient Lithium-Sulfur Cathode Hosts. <i>ChemElectroChem</i> , 2017, 4, 2959-2965.	1.7	18
50	A Praline-Like Flexible Interlayer with Highly Mounted Polysulfide Anchors for Lithium-Sulfur Batteries. <i>Small</i> , 2017, 13, 1700357.	5.2	37
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52	Rational design of yolk-shell silicon dioxide@hollow carbon spheres as advanced Li-S cathode hosts. <i>Nanoscale</i> , 2017, 9, 14881-14887.	2.8	38
53	Perovskite La <sub>0.6</sub> Sr <sub>0.4</sub> CoO <sub>3-<math>\delta</math></sub> as a new polysulfide immobilizer for high-energy lithium-sulfur batteries. <i>Nano Energy</i> , 2017, 40, 360-368.	8.2	69
54	Porous hollow carbon nanospheres embedded with well-dispersed cobalt monoxide nanocrystals as effective polysulfide reservoirs for high-rate and long-cycle lithium-sulfur batteries. <i>Journal of Materials Chemistry A</i> , 2017, 5, 17352-17359.	5.2	31

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55	Revealing the Electrochemical Charging Mechanism of Nanosized Li <sub>2</sub> S by in Situ and Operando X-ray Absorption Spectroscopy. <i>Nano Letters</i> , 2017, 17, 5084-5091.	4.5	89
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57	Reactivity and Diffusivity of Li Polysulfides: A Fundamental Study Using Impedance Spectroscopy. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 29760-29770.	4.0	61
58	A sulfur host based on cobalt-graphitic carbon nanocages for high performance lithium-sulfur batteries. <i>Journal of Materials Chemistry A</i> , 2017, 5, 24901-24908.	5.2	75
59	Construction of S@TiO <sub>2</sub> @rGO Composites for High-Performance Lithium-Sulfur Batteries. <i>European Journal of Inorganic Chemistry</i> , 2017, 2017, 3248-3252.	1.0	12
60	Cerium Oxide Nanocrystal Embedded Bimodal Microporous Nitrogen-Rich Carbon Nanospheres as Effective Sulfur Host for Lithium-Sulfur Batteries. <i>ACS Nano</i> , 2017, 11, 7274-7283.	7.3	213
61	Borophene as Efficient Sulfur Hosts for Lithium-Sulfur Batteries: Suppressing Shuttle Effect and Improving Conductivity. <i>Journal of Physical Chemistry C</i> , 2017, 121, 15549-15555.	1.5	97
62	Chemical Bonding and Physical Trapping of Sulfur in Mesoporous Magn@li Ti <sub>4</sub> O <sub>7</sub> Microspheres for High-Performance Li-S Battery. <i>Advanced Energy Materials</i> , 2017, 7, 1601616.	10.2	130
63	Interwoven MXene Nanosheet/Carbon-Nanotube Composites as Li-S Cathode Hosts. <i>Advanced Materials</i> , 2017, 29, 1603040.	11.1	606
64	Prussian Blue: A Potential Material to Improve the Electrochemical Performance of Lithium-Sulfur Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 4397-4403.	4.0	38
65	Interaction of FeS <sub>2</sub> and Sulfur in Li-S Battery System. <i>Journal of the Electrochemical Society</i> , 2017, 164, A6039-A6046.	1.3	46
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69	Progress of the Interface Design in All-Solid-State Li-S Batteries. <i>Advanced Functional Materials</i> , 2018, 28, 1707533.	7.8	182
70	Rational Design of Nanostructured Functional Interlayer/Separator for Advanced Li-S Batteries. <i>Advanced Functional Materials</i> , 2018, 28, 1707411.	7.8	272
71	Designing Realizable and Scalable Techniques for Practical Lithium Sulfur Batteries: A Perspective. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 1398-1414.	2.1	50
72	MnO <sub>2</sub> -graphene nanosheets wrapped mesoporous carbon/sulfur composite for lithium-sulfur batteries. <i>Royal Society Open Science</i> , 2018, 5, 171824.	1.1	8

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73	Vanadium Dioxide-Graphene Composite with Ultrafast Anchoring Behavior of Polysulfides for Lithium-Sulfur Batteries. ACS Applied Materials & Interfaces, 2018, 10, 15733-15741.	4.0	92
74	In Situ Assembly of 2D Conductive Vanadium Disulfide with Graphene as a High-Sulfur Loading Host for Lithium-Sulfur Batteries. Advanced Energy Materials, 2018, 8, 1800201.	10.2	188
75	A three-dimensional self-assembled SnS <sub>2</sub> -nano-dots@graphene hybrid aerogel as an efficient polysulfide reservoir for high-performance lithium-sulfur batteries. Journal of Materials Chemistry A, 2018, 6, 7659-7667.	5.2	95
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92	Coordination effect of network NiO nanosheet and a carbon layer on the cathode side in constructing a high-performance lithium-sulfur battery. <i>Journal of Materials Chemistry A</i> , 2018, 6, 6503-6509.	5.2	58
93	Recent development of metal compound applications in lithium-sulphur batteries. <i>Journal of Materials Research</i> , 2018, 33, 16-31.	1.2	41
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95	Quaternary ammonium cationic polymer as a superior bifunctional binder for lithium-sulfur batteries and effects of counter anion. <i>Electrochimica Acta</i> , 2018, 259, 626-636.	2.6	49
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101	Multifunctional second barrier layers for lithium-sulfur batteries. <i>Materials Chemistry Frontiers</i> , 2018, 2, 235-252.	3.2	34
102	Polysulfide immobilization and conversion on a conductive polar MoC@MoO <sub>x</sub> material for lithium-sulfur batteries. <i>Energy Storage Materials</i> , 2018, 10, 56-61.	9.5	157
103	A Bifunctional Perovskite Promoter for Polysulfide Regulation toward Stable Lithium-Sulfur Batteries. <i>Advanced Materials</i> , 2018, 30, 1705219.	11.1	276
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110	Nickel-Cobalt Double Hydroxide as a Multifunctional Mediator for Ultrahigh-Rate and Ultralong-Life Li-S Batteries. Advanced Energy Materials, 2018, 8, 1802431.	10.2	76
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112	Double-Shelled Phosphorus and Nitrogen Codoped Carbon Nanospheres as Efficient Polysulfide Mediator for High-Performance Lithium-Sulfur Batteries. Advanced Science, 2018, 5, 1800621.	5.6	83
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125	Novel Non-Carbon Sulfur Hosts Based on Strong Chemisorption for Lithium-Sulfur Batteries. Small, 2018, 14, e1801987.	5.2	68
126	Cation-Directed Selective Polysulfide Stabilization in Alkali Metal-Sulfur Batteries. Journal of the American Chemical Society, 2018, 140, 10740-10748.	6.6	68



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128	Electrocatalysis of polysulfide conversion by conductive RuO <sub>2</sub> nano dots for lithium-sulfur batteries. Nanoscale, 2018, 10, 16730-16737.	2.8	25
129	Heterogeneous/Homogeneous Mediators for High-Energy-Density Lithium-Sulfur Batteries: Progress and Prospects. Advanced Functional Materials, 2018, 28, 1707536.	7.8	251
130	The Importance of Chemical Reactions in the Charging Process of Lithium-Sulfur Batteries. Journal of the Electrochemical Society, 2018, 165, A1288-A1296.	1.3	22
131	Dynamic Hosts for High-Performance Li-S Batteries Studied by Cryogenic Transmission Electron Microscopy and in Situ X-ray Diffraction. ACS Energy Letters, 2018, 3, 1325-1330.	8.8	47
132	All-in-one lithium-sulfur battery enabled by a porous-dense-porous garnet architecture. Energy Storage Materials, 2018, 15, 458-464.	9.5	108
133	Multifunctionality of Carbon-based Frameworks in Lithium Sulfur Batteries. Electrochemical Energy Reviews, 2018, 1, 403-432.	13.1	42
134	Mechanism Investigation of High-Performance Li-Polysulfide Batteries Enabled by Tungsten Disulfide Nanopetals. ACS Nano, 2018, 12, 9504-9512.	7.3	89
135	Trapping and Redistribution of Hydrophobic Sulfur Sols in Graphene-Polyethyleneimine Networks for Stable Li-S Cathodes. Advanced Energy Materials, 2018, 8, 1801979.	10.2	30
136	Interwoven V <sub>2</sub> O <sub>5</sub> nanowire/graphene nanoscroll hybrid assembled as efficient polysulfide-trapping-conversion interlayer for long-life lithium-sulfur batteries. Journal of Materials Chemistry A, 2018, 6, 19358-19370.	5.2	86
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272	Functionalization of Nitrogen-Doped Carbon Nanofibers with Polyamidoamine Dendrimer as a Freestanding Electrode with High Sulfur Loading for Lithium Polysulfides Batteries. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 7815-7824.	3.2	65
273	High Volumetric Energy Density Sulfur Cathode with Heavy and Catalytic Metal Oxide Host for Lithium Sulfur Battery. <i>Advanced Science</i> , 2020, 7, 1903693.	5.6	96
274	Conversion of Co Nanoparticles to CoS in Metal-Organic Framework-Derived Porous Carbon during Cycling Facilitates Na <sub>2</sub> S Reactivity in a Na-S Battery. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 29285-29295.	4.0	3
275	Dual-Regulation Strategy to Improve Anchoring and Conversion of Polysulfides in Lithium Sulfur Batteries. <i>ACS Nano</i> , 2020, 14, 7538-7551.	7.3	80
276	Rational Design of CoNiSe <sub>2</sub> @N-Doped Carbon Hollow Structure for Enhanced Li-S Battery Performance. <i>Energy Technology</i> , 2020, 8, 2000302.	1.8	14
277	12 years roadmap of the sulfur cathode for lithium sulfur batteries (2009-2020). <i>Energy Storage Materials</i> , 2020, 30, 346-366.	9.5	189
278	Rational Design of a Ni <sub>3</sub> N <sub>0.85</sub> Electrocatalyst to Accelerate Polysulfide Conversion in Lithium Sulfur Batteries. <i>ACS Nano</i> , 2020, 14, 6673-6682.	7.3	212
279	A three-dimensional nitrogen-doped graphene framework decorated with an atomic layer deposited ultrathin V <sub>2</sub> O <sub>5</sub> layer for lithium sulfur batteries with high sulfur loading. <i>Journal of Materials Chemistry A</i> , 2020, 8, 12106-12113.	5.2	28
280	Enhanced Polysulfide Regulation via Porous Catalytic V <sub>2</sub> O <sub>3</sub> /V <sub>8</sub> C <sub>7</sub> Heterostructures Derived from Metal-Organic Frameworks toward High-Performance Li-S Batteries. <i>ACS Nano</i> , 2020, 14, 8495-8507.	7.3	192
281	Rational structure designs of 2D materials and their applications toward advanced lithium-sulfur battery and lithium-selenium battery. <i>Chemical Engineering Journal</i> , 2020, 401, 125976.	6.6	42
282	Multifunctional MoSe <sub>2</sub> @rGO coating on the cathode versus the separator as an efficient polysulfide barrier for high-performance lithium-sulfur battery. <i>Applied Surface Science</i> , 2020, 527, 146785.	3.1	49
283	Three-dimensional graphene network-supported Co, N-codoped porous carbon nanocages as free-standing polysulfides mediator for lithium-sulfur batteries. <i>Chemical Engineering Journal</i> , 2020, 399, 125686.	6.6	44
284	A rGO-Based Fe <sub>2</sub> O <sub>3</sub> and Mn <sub>3</sub> O <sub>4</sub> binary crystals nanocomposite additive for high performance Li-S battery. <i>Electrochimica Acta</i> , 2020, 343, 136079.	2.6	13
285	Core-Shell Cathode Design with Molybdenum Trioxide as the Electrocatalytic Trapping Layer for High-Energy Density Room-Temperature Sodium Sulfur Batteries. <i>Journal of Physical Chemistry C</i> , 2020, 124, 7615-7623.	1.5	20
286	Three-dimensional Covalent Organic Frameworks as Host Materials for Lithium-Sulfur Batteries. <i>Chinese Journal of Polymer Science (English Edition)</i> , 2020, 38, 550-557.	2.0	35
287	Octopus-Inspired Design of Apical NiS <sub>2</sub> Nanoparticles Supported on Hierarchical Carbon Composites as an Efficient Host for Lithium Sulfur Batteries with High Sulfur Loading. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 17528-17537.	4.0	12
288	Ultrafine Co <sub>3</sub> Se <sub>4</sub> Nanoparticles in Nitrogen-Doped 3D Carbon Matrix for High-Stable and Long-Cycle-Life Lithium Sulfur Batteries. <i>Advanced Energy Materials</i> , 2020, 10, 1904273.	10.2	141

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289	Dual-confined sulfur cathodes based on SnO <sub>2</sub> -decorated MoS <sub>2</sub> microboxes for long-life lithium-sulfur batteries. <i>Electrochimica Acta</i> , 2020, 340, 135991.	2.6	17
290	A multifunctional separator based on scandium oxide nanocrystal decorated carbon nanotubes for high performance lithium-sulfur batteries. <i>Nanoscale</i> , 2020, 12, 6832-6843.	2.8	34
291	Mulberry-like hollow rGO microspheres decorated with CoO nanoparticles as efficient polysulfides anchoring for Li-S batteries. <i>Journal of Electroanalytical Chemistry</i> , 2020, 873, 114375.	1.9	6
292	Spatial and Kinetic Regulation of Sulfur Electrochemistry on Semi-immobilized Redox Mediators in Working Batteries. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 17670-17675.	7.2	54
293	Strongly Anchoring Polysulfides by Hierarchical Fe <sub>3</sub> O <sub>4</sub> /C <sub>3</sub> N <sub>4</sub> Nanostructures for Advanced Lithium-Sulfur Batteries. <i>Nano-Micro Letters</i> , 2020, 12, 139.	14.4	40
294	Electrodeposited Sulfur and CoS Electrocatalyst on Buckypaper as High-Performance Cathode for Li-S Batteries. <i>Nano-Micro Letters</i> , 2020, 12, 141.	14.4	18
295	Curtailling Carbon Usage with Addition of Functionalized NiFe <sub>2</sub> O <sub>4</sub> Quantum Dots: Toward More Practical S Cathodes for Li-S Cells. <i>Nano-Micro Letters</i> , 2020, 12, 145.	14.4	27
296	Spatial and Kinetic Regulation of Sulfur Electrochemistry on Semi-immobilized Redox Mediators in Working Batteries. <i>Angewandte Chemie</i> , 2020, 132, 17823-17828.	1.6	5
297	Selenium or Tellurium as Eutectic Accelerators for High-Performance Lithium/Sodium-Sulfur Batteries. <i>Electrochemical Energy Reviews</i> , 2020, 3, 613-642.	13.1	75
298	Rational design of perfluorinated sulfonic acid ionic sieve modified separator for high-performance Li-S battery. <i>Journal of Solid State Electrochemistry</i> , 2020, 24, 771-779.	1.2	2
299	Vanadium oxide nanorods embed in porous graphene aerogel as high-efficiency polysulfide-trapping-conversion mediator for high performance lithium-sulfur batteries. <i>Chemical Engineering Journal</i> , 2020, 393, 124570.	6.6	47
300	Nanoengineering to achieve high efficiency practical lithium-sulfur batteries. <i>Nanoscale Horizons</i> , 2020, 5, 808-831.	4.1	53
301	Attapulgite nanorods assisted surface engineering for separator to achieve high-performance lithium-sulfur batteries. <i>Journal of Energy Chemistry</i> , 2020, 48, 364-374.	7.1	27
302	Theoretical and Experimental Strategies for New Heterostructures with Improved Stability for Rechargeable Lithium Sulfur Batteries. <i>Journal of the Electrochemical Society</i> , 2020, 167, 040513.	1.3	3
303	Electron-State Confinement of Polysulfides for Highly Stable Sodium-Sulfur Batteries. <i>Advanced Materials</i> , 2020, 32, e1907557.	11.1	150
304	Solid Additives for Improving the Performance of Sulfur Cathodes in Lithium-Sulfur Batteries—Adsorbents, Mediators, and Catalysts. <i>Small Methods</i> , 2020, 4, 1900864.	4.6	60
305	Defect-Rich Multishelled Fe-Doped Co <sub>3</sub> O <sub>4</sub> Hollow Microspheres with Multiple Spatial Confinements to Facilitate Catalytic Conversion of Polysulfides for High-Performance Li-S Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 12763-12773.	4.0	129
306	Graphene-Modified Mesoporous Iron Phosphate as Superior Binary Sulfur Host for Lithium-Sulfur Batteries. <i>Energy Technology</i> , 2020, 8, 1901462.	1.8	4

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307	Cerium oxide embedded bilayer separator enabling fast polysulfide conversion for high-performance lithium-sulfur batteries. <i>Chemical Engineering Journal</i> , 2020, 388, 124120.	6.6	51
308	Co-Fe bimetallic sulfide with robust chemical adsorption and catalytic activity for polysulfides in lithium-sulfur batteries. <i>Chemical Engineering Journal</i> , 2020, 387, 124122.	6.6	65
309	Iron single-atom catalyst anchored on nitrogen-rich MOF-derived carbon nanocage to accelerate polysulfide redox conversion for lithium sulfur batteries. <i>Journal of Materials Chemistry A</i> , 2020, 8, 3421-3430.	5.2	151
310	An ultra-durable gel electrolyte stabilizing ion deposition and trapping polysulfides for lithium-sulfur batteries. <i>Energy Storage Materials</i> , 2020, 27, 25-34.	9.5	27
311	Spherical Metal Oxides with High Tap Density as Sulfur Host to Enhance Cathode Volumetric Capacity for Lithium-Sulfur Battery. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 5909-5919.	4.0	76
312	Graphene-Like Matrix Composites with Fe <sub>2</sub> O <sub>3</sub> and Co <sub>3</sub> O <sub>4</sub> as Cathode Materials for Lithium-Sulfur Batteries. <i>ACS Applied Nano Materials</i> , 2020, 3, 1382-1390.	2.4	21
313	Conductive RuO <sub>2</sub> stacking microspheres as an effective sulfur immobilizer for lithium-sulfur battery. <i>Electrochimica Acta</i> , 2020, 337, 135772.	2.6	36
314	Mo <sub>2</sub> C-Embedded Carambola-like N,S-Rich Carbon Framework as the Interlayer Material for High-Rate Lithium-Sulfur Batteries in a Wide Temperature Range. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 22971-22980.	4.0	56
315	Brief Overview of Next-Generation Batteries. <i>SpringerBriefs in Materials</i> , 2020, , 35-51.	0.1	0
316	One-Pot Fabrication of Crumpled N-Doped Graphene Anchored with Cobalt for High-Performance Lithium-Sulfur Batteries. <i>ChemElectroChem</i> , 2020, 7, 1733-1738.	1.7	5
317	Rational design of MoNi sulfide yolk-shell heterostructure nanospheres as the efficient sulfur hosts for high-performance lithium-sulfur batteries. <i>Chemical Engineering Journal</i> , 2020, 394, 124983.	6.6	31
318	2D/1D V <sub>2</sub> O <sub>5</sub> Nanoplates Anchored Carbon Nanofibers as Efficient Separator Interlayer for Highly Stable Lithium-Sulfur Battery. <i>Nanomaterials</i> , 2020, 10, 705.	1.9	20
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320	Probing the interaction mechanism of heterostructured VO <sub>x</sub> N <sub>y</sub> nanoparticles supported in nitrogen-doped reduced graphene oxide aerogel as an efficient polysulfide electrocatalyst for stable sulfur cathodes. <i>Journal of Power Sources</i> , 2020, 461, 228144.	4.0	16
321	Effective accommodation and conversion of polysulfides using organic-inorganic hybrid frameworks for long-life lithium-sulfur batteries. <i>Nanoscale</i> , 2020, 12, 13377-13387.	2.8	3
322	Sandwich-Like Catalyst-Carbon-Catalyst Trilayer Structure as a Compact 2D Host for Highly Stable Lithium-Sulfur Batteries. <i>Angewandte Chemie</i> , 2020, 132, 12227-12236.	1.6	3
323	Revisiting the Role of Conductivity and Polarity of Host Materials for Long-Life Lithium-Sulfur Battery. <i>Advanced Energy Materials</i> , 2020, 10, 1903934.	10.2	52
324	Molecular-Level Design of Pyrrhotite Electrocatalyst Decorated Hierarchical Porous Carbon Spheres as Nanoreactors for Lithium-Sulfur Batteries. <i>Advanced Energy Materials</i> , 2020, 10, 2000651.	10.2	101

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325	Sandwich-like Catalyst-Carbon-Catalyst Trilayer Structure as a Compact 2D Host for Highly Stable Lithium-Sulfur Batteries. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 12129-12138.	7.2	130
326	Ni <sub>12</sub> P <sub>5</sub> nanoparticles bound on graphene sheets for advanced lithium-sulfur batteries. <i>Nanoscale</i> , 2020, 12, 10760-10770.	2.8	40
327	Catalyzing the polysulfide conversion for promoting lithium sulfur battery performances: A review. <i>Journal of Energy Chemistry</i> , 2021, 54, 434-451.	7.1	136
328	Single-atom catalysts for metal-sulfur batteries: Current progress and future perspectives. <i>Journal of Energy Chemistry</i> , 2021, 54, 452-466.	7.1	63
329	Host Materials Anchoring Polysulfides in Li-S Batteries Reviewed. <i>Advanced Energy Materials</i> , 2021, 11, 2001304.	10.2	254
330	Manganese and graphene oxide composite as highly effective sulfur host for enlightening electrochemical kinetics of lithium-sulfur batteries. <i>International Journal of Energy Research</i> , 2021, 45, 5214-5223.	2.2	2
331	Stabilizing Effect of Polysulfides on Lithium Metal Anodes in Sparingly Solvating Solvents. <i>Batteries and Supercaps</i> , 2021, 4, 347-358.	2.4	10
332	Unraveling Shuttle Effect and Suppression Strategy in Lithium/Sulfur Cells by In Situ/Operando X-ray Absorption Spectroscopic Characterization. <i>Energy and Environmental Materials</i> , 2021, 4, 222-228.	7.3	31
333	Recent advances of metal phosphides for Li-S chemistry. <i>Journal of Energy Chemistry</i> , 2021, 55, 533-548.	7.1	103
334	Facile and low-temperature strategy to prepare hollow ZIF-8/CNT polyhedrons as high-performance lithium-sulfur cathodes. <i>Chemical Engineering Journal</i> , 2021, 404, 126579.	6.6	63
335	Facile in situ nitrogen-doped carbon coated iron sulfide as green and efficient adsorbent for stable lithium-sulfur batteries. <i>Chemical Engineering Journal</i> , 2021, 404, 126462.	6.6	31
336	Recent advances in interlayer and separator engineering for lithium-sulfur batteries. <i>Journal of Energy Chemistry</i> , 2021, 57, 41-60.	7.1	68
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338	Efficient separators with fast Li-ion transfer and high polysulfide entrapment for superior lithium-sulfur batteries. <i>Chemical Engineering Journal</i> , 2021, 408, 127348.	6.6	25
339	Revealing the Origin of Highly Efficient Polysulfide Anchoring and Transformation on Anion-Substituted Vanadium Nitride Host. <i>Advanced Functional Materials</i> , 2021, 31, 2008034.	7.8	39
340	In-situ anchoring sulfiphilic silica nanoparticles onto macro-mesoporous carbon framework for cost-effective Li-S cathodes. <i>Chemical Engineering Journal</i> , 2021, 406, 126781.	6.6	6
341	A high conductive Ti-C-TiO <sub>2</sub> /SWCNT/S composite with effective polysulfides adsorption for high performance Li-S batteries. <i>Journal of Alloys and Compounds</i> , 2021, 851, 156793.	2.8	14
342	Exploring lithium ion storage ability and cycling performance of the Cu <sub>2</sub> SnSe <sub>4</sub> nanoparticles encapsulated with nitrogen-doped carbon. <i>Applied Surface Science</i> , 2021, 540, 148435.	3.1	5

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344	Yolk-Shell Nano ZnO@Co-Doped NiO with Efficient Polarization Adsorption and Catalysis Performance for Superior Lithium-Sulfur Batteries. <i>Small</i> , 2021, 17, e2005227.	5.2	37
345	Rational design of 3D hierarchical MXene@AlF <sub>3</sub> /Ni(OH) <sub>2</sub> nanohybrid for high-performance lithium-sulfur batteries. <i>Chemical Engineering Journal</i> , 2021, 409, 128102.	6.6	43
346	WO <sub>3</sub> Nanowire/Carbon Nanotube Interlayer as a Chemical Adsorption Mediator for High-Performance Lithium-Sulfur Batteries. <i>Molecules</i> , 2021, 26, 377.	1.7	12
347	Single atom catalysts supported on N-doped graphene toward fast kinetics in Li-S batteries: a theoretical study. <i>Journal of Materials Chemistry A</i> , 2021, 9, 12225-12235.	5.2	62
348	Multicore closely packed ultrathin-MnO <sub>2</sub> @N-doped carbon-gear yolk-shell micro-nanostructures as highly efficient sulfur hosts for Li-S batteries. <i>Journal of Materials Chemistry A</i> , 2021, 9, 2276-2283.	5.2	20
349	Boosting Energy Storage via Confining Soluble Redox Species onto Solid-Liquid Interface. <i>Advanced Energy Materials</i> , 2021, 11, 2003599.	10.2	35
350	Fabrication of NiO-carbon nanotube/sulfur composites for lithium-sulfur battery application. <i>RSC Advances</i> , 2021, 11, 10753-10759.	1.7	15
351	Functional and structural insight into lignocellulosic fibers for high-areal-capacity lithium-sulfur batteries. <i>Journal of Materials Chemistry A</i> , 2021, 9, 18260-18271.	5.2	13
352	Engineering nanoreactors for metal-chalcogen batteries. <i>Energy and Environmental Science</i> , 2021, 14, 540-575.	15.6	70
353	Separator Design Variables and Recommended Characterization Methods for Viable Lithium-Sulfur Batteries. <i>Advanced Materials Technologies</i> , 2021, 6, 2001136.	3.0	26
354	Recent Advances in Molybdenum-Based Materials for Lithium-Sulfur Batteries. <i>Research</i> , 2021, 2021, 5130420.	2.8	31
355	Tailoring 3D Carbon Foam using CNTs and MnO <sub>2</sub> to Fabricate Stable Lithium/Dissolved Lithium Polysulfide Batteries. <i>Langmuir</i> , 2021, 37, 4016-4024.	1.6	8
356	Demystifying the catalysis in lithium-sulfur batteries: Characterization methods and techniques. <i>SusMat</i> , 2021, 1, 51-65.	7.8	68
357	Crystalline Multi-Metallic Compounds as Host Materials in Cathode for Lithium-Sulfur Batteries. <i>Small</i> , 2021, 17, e2005332.	5.2	33
358	Yolk@Shell Structured MnS@Nitrogen-Doped Carbon as a Sulfur Host and Polysulfide Conversion Booster for Lithium/Sodium Sulfur Batteries. <i>ACS Applied Energy Materials</i> , 2021, 4, 3487-3494.	2.5	16
359	Double role of CoO Co <sub>4</sub> N hetero-nanocages as sulfur host for lithium-sulfur batteries. <i>Journal of Materiomics</i> , 2021, 7, 1301-1308.	2.8	3
360	Activated carbon from pyrolysis of peanut shells as cathode for lithium-sulfur batteries. <i>Biomass and Bioenergy</i> , 2021, 146, 105971.	2.9	25



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362	MoO <sub>3</sub> /MoO <sub>2</sub> @C Hollow Tubes as Polysulfide Filter for Lithium-Sulfur Batteries. <i>ChemistrySelect</i> , 2021, 6, 3969-3975.	0.7	1
363	Co-Nx bonds as bifunctional electrocatalytic sites to drive the reversible conversion of lithium polysulfides for long life lithium sulfur batteries. <i>Applied Surface Science</i> , 2021, 546, 148914.	3.1	17
364	Lithium-Sulfur Battery Cathode Design: Tailoring Metal-Based Nanostructures for Robust Polysulfide Adsorption and Catalytic Conversion. <i>Advanced Materials</i> , 2021, 33, e2008654.	11.1	217
365	Folic acid self-assembly synthesis of ultrathin N-doped carbon nanosheets with single-atom metal catalysts. <i>Energy Storage Materials</i> , 2021, 36, 409-416.	9.5	39
366	Designing of multifunctional and flame retardant separator towards safer high-performance lithium-sulfur batteries. <i>Nano Research</i> , 2021, 14, 4865-4877.	5.8	32
367	A Natural Polymer Captor for Immobilizing Polysulfide/Polyselenide in Working Li-SeS <sub>2</sub> Batteries. <i>Nano-Micro Letters</i> , 2021, 13, 104.	14.4	9
368	Dense Stacking Porous Conjugated Polymer as Reactive Type Host for High-Performance Lithium Sulfur Batteries. <i>Angewandte Chemie</i> , 2021, 133, 11460-11470.	1.6	11
369	The Positive Effect of ZnS in Waste Tire Carbon as Anode for Lithium-Ion Batteries. <i>Materials</i> , 2021, 14, 2178.	1.3	7
370	Material design and structure optimization for rechargeable lithium-sulfur batteries. <i>Matter</i> , 2021, 4, 1142-1188.	5.0	116
371	Function-convertible metal-organic crystal derived from liquid-solid interfacial reaction for lithium-sulfur batteries. <i>Journal of Power Sources</i> , 2021, 491, 229593.	4.0	7
372	MXene-Derived TiO <sub>2</sub> /TiO <sub>2</sub> -x Quantum Dots Distributed on Porous Carbon Nanosheets for Stable and Long-Life Li-S Batteries: Enhanced Polysulfide Mediation via Defect Engineering. <i>Advanced Materials</i> , 2021, 33, e2008447.	11.1	115
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374	Tailoring FeP with a Hollow Urchin Architecture for High-Performance Li-S Batteries. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 5315-5321.	3.2	22
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376	Amorphization-induced surface electronic states modulation of cobaltous oxide nanosheets for lithium-sulfur batteries. <i>Nature Communications</i> , 2021, 12, 3102.	5.8	103
377	Nanotechnology for Sulfur Cathodes. <i>ACS Nano</i> , 2021, 15, 8087-8094.	7.3	29
378	Combination of heterostructure with oxygen vacancies in Co@CoO <sub>1-x</sub> nanosheets array for high-performance lithium sulfur batteries. <i>Chemical Engineering Journal</i> , 2021, 411, 128546.	6.6	48



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380	Inhibition of Lithium Dendrite Formation in Lithium Metal Batteries via Regulated Cation Transport through Ultrathin Sub-Nanometer Porous Carbon Nanomembranes. <i>Advanced Energy Materials</i> , 2021, 11, 2100666.	10.2	45
381	Advances in Lithium-Sulfur Batteries: From Academic Research to Commercial Viability. <i>Advanced Materials</i> , 2021, 33, e2003666.	11.1	357
382	Insight into Lithium-Sulfur Batteries with Novel Modified Separators: Recent Progress and Perspectives. <i>Energy &amp; Fuels</i> , 2021, 35, 11089-11117.	2.5	27
383	Self-Assembled Polyoxometalate Nanodots as Bidirectional Cluster Catalysts for Polysulfide/Sulfide Redox Conversion in Lithium-Sulfur Batteries. <i>ACS Nano</i> , 2021, 15, 12222-12236.	7.3	77
384	Metal oxide-mediated differential chalcogen morphogenesis for Li-chalcogen battery application. <i>Nano Energy</i> , 2021, 84, 105842.	8.2	9
385	Boosting electrochemical kinetics of S cathodes for room temperature Na/S batteries. <i>Matter</i> , 2021, 4, 1768-1800.	5.0	39
386	Construction of multifunctional and flame retardant separator towards stable lithium-sulfur batteries with high safety. <i>Chemical Engineering Journal</i> , 2021, 416, 129087.	6.6	65
387	Enhanced electrochemical performance of lithium-sulfur batteries using a V <sub>2</sub> O <sub>5</sub> /graphene interlayer. <i>Journal of Alloys and Compounds</i> , 2021, 868, 159131.	2.8	21
388	The Electrocatalyst based on LiVPO <sub>4</sub> F/CNT to enhance the electrochemical kinetics for high performance Li-S batteries. <i>Chemical Engineering Journal</i> , 2021, 415, 129053.	6.6	17
389	Synthesis of pompon-like ZnO microspheres as host materials and the catalytic effects of nonconductive metal oxides for lithium-sulfur batteries. <i>Journal of Industrial and Engineering Chemistry</i> , 2021, 99, 309-316.	2.9	15
390	Hierarchically structured Ti <sub>3</sub> C <sub>2</sub> T MXene paper for Li-S batteries with high volumetric capacity. <i>Nano Energy</i> , 2021, 86, 106120.	8.2	67
391	Realizing High-Performance Li-S Batteries through Additive Manufactured and Chemically Enhanced Cathodes. <i>Small Methods</i> , 2021, 5, e2100176.	4.6	12
392	Role of Catalytic Materials on Conversion of Sulfur Species for Room Temperature Sodium-Sulfur Battery. <i>Energy and Environmental Materials</i> , 2022, 5, 693-710.	7.3	18
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394	Universal interface and defect engineering dual-strategy for graphene-oxide heterostructures toward promoted Li-S chemistry. <i>Chemical Engineering Journal</i> , 2021, 418, 129407.	6.6	24
395	Dual-heterostructures decorated interweaved carbon nanofibers sulfur host for high performance lithium-sulfur batteries. <i>Chemical Engineering Journal</i> , 2021, 418, 129388.	6.6	27
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544	Porous TiO <sub>2</sub> /C Nanofibers with Axially Aligned Tunnel Pores as Effective Sulfur Hosts for Stabilized Lithium-Sulfur Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 54725-54735.	4.0	11
545	In Situ Constructing a Catalytic Shell for Sulfur Cathode via Electrochemical Oxidative Polymerization. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 54830-54839.	4.0	2
546	Cooperative Catalysis of Polysulfides in Lithium-Sulfur Batteries through Adsorption Competition by Tuning Cationic Geometric Configuration of Dual-Active Sites in Spinel Oxides. <i>Angewandte Chemie</i> , 0, , .	1.6	0
547	Cooperative Catalysis of Polysulfides in Lithium-Sulfur Batteries through Adsorption Competition by Tuning Cationic Geometric Configuration of Dual-Active Sites in Spinel Oxides. <i>Angewandte Chemie - International Edition</i> , 2023, 62, .	7.2	27
548	Protecting lithium metal anodes in lithium-sulfur batteries: A review. <i>Energy Material Advances</i> , 2023, 4, .	4.7	51
549	Long-lasting, reinforced electrical networking in a high-loading Li <sub>2</sub> S cathode for high-performance lithium-sulfur batteries. , 2023, 5, .		5
550	Electrocatalysts in lithium-sulfur batteries. <i>Nano Research</i> , 2023, 16, 4438-4467.	5.8	26
551	A review on lithium-sulfur batteries: Challenge, development, and perspective. <i>Nano Research</i> , 2023, 16, 8097-8138.	5.8	36
552	Adsorption-catalysis design with cerium oxide nanorods supported nickel-cobalt-oxide with multifunctional reaction interfaces for anchoring polysulfides and accelerating redox reactions in lithium sulfur battery. <i>Journal of Colloid and Interface Science</i> , 2023, 635, 466-480.	5.0	10
553	Electrocatalytic and Conductive Vanadium Oxide on Carbonized Bacterial Cellulose Aerogel for the Sulfur Cathode in Li-S Batteries. <i>Batteries</i> , 2023, 9, 14.	2.1	2
555	Two-in-one separator capturing and reutilizing polysulfides for high performance lithium-sulfur batteries. <i>Chemical Engineering Journal</i> , 2023, 460, 141620.	6.6	11
556	Catalytic performance of binary transition metal sulfide FeCoS <sub>2</sub> /rGO for lithium-sulfur batteries. <i>Journal of Solid State Electrochemistry</i> , 2023, 27, 1045-1053.	1.2	2
557	Nanoscale transition metal catalysts anchored on perovskite oxide enabling enhanced kinetics of lithium polysulfide redox in lithium-sulfur batteries. <i>Journal of Energy Chemistry</i> , 2023, 81, 432-442.	7.1	1
558	Multiple Effects of High Surface Area Hollow Nanospheres Assembled by Nickel Cobaltate Nanosheets on Soluble Lithium Polysulfides. <i>Molecules</i> , 2023, 28, 1539.	1.7	1
559	MnO-Mo <sub>2</sub> C heterogeneous particles supported on porous carbon: Accelerating the catalytic conversion of polysulfides. <i>Chemical Engineering Journal</i> , 2023, 460, 141811.	6.6	6
560	Interface Engineering Toward Expedited Li <sub>2</sub> S Deposition in Lithium-Sulfur Batteries: A Critical Review. <i>Advanced Materials</i> , 2023, 35, .	11.1	29
561	High Entropy Oxide (CrMnFeNiMg) <sub>3</sub> O <sub>4</sub> with Large Compositional Space Shows Long-Term Stability as Cathode in Lithium-Sulfur Batteries. <i>ChemSusChem</i> , 2023, 16, .	3.6	7

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562	Defect-Rich W/Mo-Doped V <sub>2</sub> O <sub>5</sub> Microspheres as a Catalytic Host To Boost Sulfur Redox Kinetics for Lithium-Sulfur Batteries. <i>Inorganic Chemistry</i> , 2023, 62, 5219-5228.	1.9	9
563	Self-Assembled Macrocyclic Copper Complex Enables Homogeneous Catalysis for High-Loading Lithium-Sulfur Batteries. <i>Advanced Materials</i> , 2023, 35, .	11.1	7
594	From non-carbon host toward carbon-free lithium-sulfur batteries. <i>Nano Research</i> , 2024, 17, 1337-1365.	5.8	0
605	Structure engineering of cathode host materials for Li-S batteries. <i>Rare Metals</i> , 0, , .	3.6	0
611	Defective MnO <sub>2</sub> functional separator coating as effective polysulfide mediators for lithium-sulfur batteries. <i>Tungsten</i> , 0, , .	2.0	0
612	Interface engineering toward stable lithium-sulfur batteries. <i>Energy and Environmental Science</i> , 2024, 17, 1330-1367.	15.6	2
618	Metal organic frameworks-based cathode materials for advanced Li-S batteries: A comprehensive review. <i>Nano Research</i> , 2024, 17, 2592-2618.	5.8	0