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Metalorganic framework-based separator for lithiumsulfur batteries

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946	A review of recent developments in rechargeable lithium-sulfur batteries. 2016 , 8, 16541-16588		269
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944	Nanostructured energy materials for electrochemical energy conversion and storage: A review. 2016 , 25, 967-984		316
943	A review on separators for lithiumsulfur battery: Progress and prospects. 2016 , 331, 132-155		188
942	Effective Polysulfide Rejection by Dipole-Aligned BaTiO3 Coated Separator in LithiumBulfur Batteries. 2016 , 26, 7817-7823		129
941	In Situ Reactive Synthesis of Polypyrrole-MnO Coaxial Nanotubes as Sulfur Hosts for High-Performance Lithium-Sulfur Battery. 2016 , 16, 7276-7281		236
940	Batteries: Sieving the ions. <i>Nature Energy</i> , 2016 , 1,	62.3	2
939	Cobalt oxide and N-doped carbon nanosheets derived from a single two-dimensional metal-organic framework precursor and their application in flexible asymmetric supercapacitors. 2017 , 2, 99-105		183
938	Metal-Organic Frameworks for Energy Applications. 2017 , 2, 52-80		737
937	Functionalized Boron Nitride Nanosheets/Graphene Interlayer for Fast and Long-Life LithiumBulfur Batteries. 2017 , 7, 1602380		155
936	Nanoparticle/MOF composites: preparations and applications. 2017 , 4, 557-569		174
935	Graphitic Nanocarbon-Selenium Cathode with Favorable Rate Capability for Li-Se Batteries. 2017 , 9, 87	59-876	 55 ₄₄
934	MetalBrganic frameworks with Lewis acidity: synthesis, characterization, and catalytic applications. 2017 , 19, 4066-4081		154
933	Explore the influence of coverage percentage of sulfur electrode on the cycle performance of lithium-sulfur batteries. 2017 , 347, 238-246		12
932	Pyrrole as a promising electrolyte additive to trap polysulfides for lithium-sulfur batteries. 2017 , 348, 175-182		82

931	Recent innovative configurations in high-energy lithiumBulfur batteries. 2017 , 5, 5222-5234	104
930	A Conductive Molecular Framework Derived Li2S/N,P-Codoped Carbon Cathode for Advanced LithiumBulfur Batteries. 2017 , 7, 1602876	212
929	Facile Formation of a Solid Electrolyte Interface as a Smart Blocking Layer for High-Stability Sulfur Cathode. 2017 , 29, 1700273	76
928	Functional membrane separators for next-generation high-energy rechargeable batteries. 2017 , 4, 917-933	64
927	Functional metal-organic framework boosting lithium metal anode performance chemical interactions. 2017 , 8, 4285-4291	130
926	Graphene: a promising 2D material for electrochemical energy storage. 2017 , 62, 724-740	140
925	Porous Carbon Composites for Next Generation Rechargeable Lithium Batteries. 2017 , 7, 1700283	187
924	Tuning the Adsorption of Polysulfides in LithiumBulfur Batteries with MetalDrganic Frameworks. 2017 , 29, 4932-4939	83
923	Review on High-Loading and High-Energy LithiumBulfur Batteries. 2017 , 7, 1700260	1010
922	Three-dimensional bilayer garnet solid electrolyte based high energy density lithium metalBulfur batteries. 2017 , 10, 1568-1575	368
921	Permselective membranes in lithiumBulfur batteries. 2017, 16, 31-38	15
920	2D MOF Nanoflake-Assembled Spherical Microstructures for Enhanced Supercapacitor and Electrocatalysis Performances. 2017 , 9, 43	164
919	Materials Genomics Screens for Adaptive Ion Transport Behavior by Redox-Switchable Microporous Polymer Membranes in Lithium-Sulfur Batteries. 2017 , 3, 399-406	38
918	Sulfur Nanodots Stitched in 2D "Bubble-Like" Interconnected Carbon Fabric as Reversibility-Enhanced Cathodes for Lithium-Sulfur Batteries. 2017 , 11, 4694-4702	62
917	Research Progress toward the Practical Applications of Lithium-Sulfur Batteries. 2017, 9, 24407-24421	79
916	Cationic two-dimensional sheets for an ultralight electrostatic polysulfide trap toward high-performance lithium-sulfur batteries. 2017 , 9, 39-46	31
915	Anode Improvement in Rechargeable Lithium-Sulfur Batteries. 2017 , 29, 1700542	154
914	Double-oxide sulfur host for advanced lithium-sulfur batteries. 2017 , 38, 12-18	79

913	A bifunctional hierarchical porous carbon network integrated with an in situ formed ultrathin graphene shell for stable lithium ulfur batteries. 2017 , 5, 13674-13682	24
912	Activated graphene with tailored pore structure parameters for long cycle-life lithium ulfur batteries. 2017 , 10, 4305-4317	45
911	A Toolbox for LithiumBulfur Battery Research: Methods and Protocols. 2017 , 1, 1700134	160
910	More Reliable Lithium-Sulfur Batteries: Status, Solutions and Prospects. 2017 , 29, 1606823	1054
909	Metal-Organic Nanosheets Formed via Defect-Mediated Transformation of a Hafnium Metal-Organic Framework. 2017 , 139, 5397-5404	165
908	Ultrafine TiO Confined in Porous-Nitrogen-Doped Carbon from Metal-Organic Frameworks for High-Performance Lithium Sulfur Batteries. 2017 , 9, 12400-12407	80
907	Healing High-Loading Sulfur Electrodes with Unprecedented Long Cycling Life: Spatial Heterogeneity Control. 2017 , 139, 8458-8466	163
906	MoS /Celgard Separator as Efficient Polysulfide Barrier for Long-Life Lithium-Sulfur Batteries. 2017 , 29, 1606817	561
905	Inspired by the l ip effectla novel structural design strategy for the cathode in advanced lithium l ulfur batteries. 2017 , 5, 3140-3144	18
904	Harvesting polysulfides by sealing the sulfur electrode in a composite ion-selective net. 2017 , 368, 38-45	4
903	Two-dimensional vermiculite separator for lithium sulfur batteries. 2017 , 28, 2235-2238	36
902	Emerging crystalline porous materials as a multifunctional platform for electrochemical energy storage. 2017 , 46, 6927-6945	258
901	Green synthesis of a Se/HPCFEGO composite for LiBe batteries with excellent long-term cycling performance. 2017 , 5, 22997-23005	55
900	A lithiumBarbon nanotube composite for stable lithium anodes. 2017 , 5, 23434-23439	52
899	Heteroatoms-Doped Porous Carbon Derived from Tuna Bone for High Performance Li-S Batteries. 2017 , 258, 80-89	33
898	A flexible metal@rganic framework with a high density of sulfonic acid sites for proton conduction. Nature Energy, 2017 , 2, 877-883	377
897	Coaxial Carbon/MnO Hollow Nanofibers as Sulfur Hosts for High-Performance Lithium-Sulfur Batteries. 2017 , 12, 3128-3134	28
896	Interwoven NiCo2O4 Nanosheet/Carbon Nanotube Composites as Highly Efficient LithiumBulfur Cathode Hosts. 2017 , 4, 2959-2965	14

(2017-2017)

895	Theoretical prediction of the mechanical properties of zeolitic imidazolate frameworks (ZIFs). 2017 , 7, 41499-41503	12
894	Metal©rganic Framework-Based Separators for Enhancing LiB Battery Stability: Mechanism of Mitigating Polysulfide Diffusion. 2017 , 2, 2362-2367	160
893	Stabilizing the Garnet Solid-Electrolyte/Polysulfide Interface in LiB Batteries. 2017, 29, 8037-8041	67
892	Metal-Organic-Framework-Based Materials as Platforms for Renewable Energy and Environmental Applications. 2017 , 1, 77-107	524
891	In situ wrapping of the cathode material in lithium-sulfur batteries. 2017 , 8, 479	112
890	Fructose-Derived Hollow Carbon Nanospheres with Ultrathin and Ordered Mesoporous Shells as Cathodes in LithiumBulfur Batteries for Fast Energy Storage. 2017 , 1, 1700081	24
889	Advances in Lithium-Containing Anodes of Aprotic LiD2 Batteries: Challenges and Strategies for Improvements. 2017 , 1, 1700135	61
888	A carbon nanofiber@mesoporous EMnO2 nanosheet-coated separator for high-performance lithium-sulfur batteries. 2017 , 9, 179-187	74
887	A F-doped tree-like nanofiber structural poly-m-phenyleneisophthalamide separator for high-performance lithium-sulfur batteries. 2017 , 362, 243-249	45
886	Confined Sulfur in 3 D MXene/Reduced Graphene Oxide Hybrid Nanosheets for Lithium-Sulfur Battery. 2017 , 23, 12613-12619	133
885	Separator Decoration with Cobalt/Nitrogen Codoped Carbon for Highly Efficient Polysulfide Confinement in Lithium-Sulfur Batteries. 2017 , 10, 3557-3564	23
884	A modularly-assembled interlayer to entrap polysulfides and protect lithium metal anode for high areal capacity lithiumBulfur batteries. 2017 , 9, 126-133	40
883	A review on hexacyanoferrate-based materials for energy storage and smart windows: challenges and perspectives. 2017 , 5, 18919-18932	160
882	Atom-Thick Interlayer Made of CVD-Grown Graphene Film on Separator for Advanced Lithium-Sulfur Batteries. 2017 , 9, 43696-43703	62
881	A Supramolecular Capsule for Reversible Polysulfide Storage/Delivery in Lithium-Sulfur Batteries. 2017 , 56, 16223-16227	66
880	A Supramolecular Capsule for Reversible Polysulfide Storage/Delivery in Lithium-Sulfur Batteries. 2017 , 129, 16441-16445	18
879	An in-plane heterostructure of graphene and titanium carbide for efficient polysulfide confinement. 2017 , 39, 291-296	117
878	In Situ Observation and Electrochemical Study of Encapsulated Sulfur Nanoparticles by MoS Flakes. 2017 , 139, 10133-10141	106

877	Progress of rechargeable lithium metal batteries based on conversion reactions. 2017 , 4, 54-70	102
876	Chemical Adsorption and Physical Confinement of Polysulfides with the Janus-faced Interlayer for High-performance Lithium-Sulfur Batteries. 2017 , 7, 17703	22
875	Molecular understanding of polyelectrolyte binders that actively regulate ion transport in sulfur cathodes. 2017 , 8, 2277	100
874	Flexible Carbon Nanotube Modified Separator for High-Performance Lithium-Sulfur Batteries. 2017 , 7,	22
873	Macroporous Activated Carbon Derived from Rapeseed Shell for LithiumBulfur Batteries. 2017, 7, 1036	30
872	Recent progress in carbon-based nanoarchitectures for advanced supercapacitors. 2018 , 1, 32-55	73
871	Promoting sulfur adsorption using surface Cu sites in metal®rganic frameworks for lithium sulfur batteries. 2018 , 6, 4811-4821	57
870	Well-developed capacitive-capacity of metal-organic framework derived Co3O4 films in Li ion battery anodes. 2018 , 746, 277-284	19
869	Rational Design of Nanostructured Functional Interlayer/Separator for Advanced Liß Batteries. 2018 , 28, 1707411	196
868	Effective strategies for long-cycle life lithium ulfur batteries. 2018, 6, 6155-6182	125
868	Effective strategies for long-cycle life lithium ulfur batteries. 2018, 6, 6155-6182 Cabbage-like nitrogen-doped graphene/sulfur composite for lithium-sulfur batteries with enhanced rate performance. 2018, 753, 622-629	125 28
	Cabbage-like nitrogen-doped graphene/sulfur composite for lithium-sulfur batteries with	
867	Cabbage-like nitrogen-doped graphene/sulfur composite for lithium-sulfur batteries with enhanced rate performance. 2018, 753, 622-629 Lithium Sulfonate/Carboxylate-Anchored Polyvinyl Alcohol Separators for Lithium Sulfur Batteries.	28
867 866	Cabbage-like nitrogen-doped graphene/sulfur composite for lithium-sulfur batteries with enhanced rate performance. 2018, 753, 622-629 Lithium Sulfonate/Carboxylate-Anchored Polyvinyl Alcohol Separators for Lithium Sulfur Batteries. 2018, 10, 18310-18315 Suppressing the Polysulfide Shuttle Effect by Heteroatom-Doping for High-Performance	28
867 866 865	Cabbage-like nitrogen-doped graphene/sulfur composite for lithium-sulfur batteries with enhanced rate performance. 2018, 753, 622-629 Lithium Sulfonate/Carboxylate-Anchored Polyvinyl Alcohol Separators for Lithium Sulfur Batteries. 2018, 10, 18310-18315 Suppressing the Polysulfide Shuttle Effect by Heteroatom-Doping for High-Performance LithiumBulfur Batteries. 2018, 6, 7545-7557 Reversible calcium alloying enables a practical room-temperature rechargeable calcium-ion battery	28 25 46
867866865864	Cabbage-like nitrogen-doped graphene/sulfur composite for lithium-sulfur batteries with enhanced rate performance. 2018, 753, 622-629 Lithium Sulfonate/Carboxylate-Anchored Polyvinyl Alcohol Separators for Lithium Sulfur Batteries. 2018, 10, 18310-18315 Suppressing the Polysulfide Shuttle Effect by Heteroatom-Doping for High-Performance LithiumBulfur Batteries. 2018, 6, 7545-7557 Reversible calcium alloying enables a practical room-temperature rechargeable calcium-ion battery with a high discharge voltage. 2018, 10, 667-672 Solvent-modulation of the structure and dimensionality in lanthanoid-anilato coordination	28 25 46 477
867866865864863	Cabbage-like nitrogen-doped graphene/sulfur composite for lithium-sulfur batteries with enhanced rate performance. 2018, 753, 622-629 Lithium Sulfonate/Carboxylate-Anchored Polyvinyl Alcohol Separators for Lithium Sulfur Batteries. 2018, 10, 18310-18315 Suppressing the Polysulfide Shuttle Effect by Heteroatom-Doping for High-Performance LithiumBulfur Batteries. 2018, 6, 7545-7557 Reversible calcium alloying enables a practical room-temperature rechargeable calcium-ion battery with a high discharge voltage. 2018, 10, 667-672 Solvent-modulation of the structure and dimensionality in lanthanoid-anilato coordination polymers. 2018, 47, 6729-6741	28 25 46 477 17

(2018-2018)

859	A self-supported metal-organic framework derived Co3O4 film prepared by an in-situ electrochemically assistant process as Li ion battery anodes. 2018 , 389, 8-12	35
858	Mesoporous Hybrid Electrolyte for Simultaneously Inhibiting Lithium Dendrites and Polysulfide Shuttle in Liß Batteries. 2018 , 8, 1703124	29
857	High Lithium Ion Conductivity LiF/GO Solid Electrolyte Interphase Inhibiting the Shuttle of Lithium Polysulfides in Long-Life Liß Batteries. 2018 , 28, 1706513	83
856	Manipulating the Redox Kinetics of LiB Chemistry by Tellurium Doping for Improved LiB Batteries. 2018 , 3, 420-427	94
855	Shuttle Suppression by Polymer-Sealed Graphene-Coated Polypropylene Separator. 2018 , 10, 5534-5542	21
854	Direct Observation of Electrochemical LithiumBulfur Reaction inside Carbon Nanotubes. 2018, 1, 807-813	13
853	MOF-Based Separator in an LiD2 Battery: An Effective Strategy to Restrain the Shuttling of Dual Redox Mediators. 2018 , 3, 463-468	116
852	Effect of the lanthanoid-size on the structure of a series of lanthanoid-anilato 2-D lattices** With special thanks to Professor Juan Faus, a nice person, a brilliant researcher and, overall, an inspiring teacher.View all notes. 2018 , 71, 845-863	20
851	A Two-Dimensional Porous Carbon-Modified Separator for High-Energy-Density Li-S Batteries. 2018 , 2, 323-336	233
850	Multifunctional Sandwich-Structured Electrolyte for High-Performance Lithium-Sulfur Batteries. 2018 , 5, 1700503	82
849	Polysulfide Stabilization: A Pivotal Strategy to Achieve High Energy Density Liß Batteries with Long Cycle Life. 2018 , 28, 1704987	39
848	Design of structural and functional nanomaterials for lithium-sulfur batteries. 2018 , 18, 35-64	82
847	Pomegranate-Structured Silica/Sulfur Composite Cathodes for High-Performance Lithium-Sulfur Batteries. 2018 , 13, 568-576	5
846	Nitrogen-doped activated microporous carbon spheres as a sulfur matrix for advanced lithium-sulfur batteries. 2018 , 740, 687-694	27
845	Engineered Transport in Microporous Materials and Membranes for Clean Energy Technologies. 2018 , 30, 1704953	67
844	Hierarchically Porous Multilayered Carbon Barriers for High-Performance Li-S Batteries. 2018 , 24, 3768-3775	36
843	Confining Sulfur in Integrated Composite Scaffold with Highly Porous Carbon Fibers/Vanadium Nitride Arrays for High-Performance LithiumBulfur Batteries. 2018 , 28, 1706391	258
842	Functional Two-Dimensional Coordination Polymeric Layer as a Charge Barrier in Li-S Batteries. 2018 , 12, 836-843	63

841	Highly efficient and green fabrication of a modified C nanofiber interlayer for high-performance LiB batteries. 2018 , 6, 2693-2699	47
840	A LiAlO/nitrogen-doped hollow carbon spheres (NdHCSs) modified separator for advanced lithium-sulfur batteries 2018 , 8, 1632-1637	9
839	A single ion conducting separator and dual mediator-based electrolyte for high-performance lithiumBxygen batteries with non-carbon cathodes. 2018 , 6, 9816-9822	33
838	Superior Performance of a LithiumBulfur Battery Enabled by a Dimethyl Trisulfide Containing Electrolyte. 2018 , 2, 1800038	28
837	Porous hybrid aerogels with ultrahigh sulfur loading for lithium ulfur batteries. 2018, 6, 9032-9040	28
836	Progress and Perspective of Solid-State LithiumBulfur Batteries. 2018 , 28, 1707570	138
835	Rechargeable Batteries Based on Stable Redox Reactions of Disulfide Included in a Metal D rganic Framework as Ligands. 2018 , 47, 678-681	3
834	Enabling Graphene-Oxide-Based Membranes for Large-Scale Energy Storage by Controlling Hydrophilic Microstructures. 2018 , 4, 1035-1046	50
833	Facile fabrication of permselective g-C 3 N 4 separator for improved lithium-sulfur batteries. 2018 , 272, 60-67	31
832	Micro/nano-structured FeS2 for high energy efficiency rechargeable Li-FeS2 battery. 2018 , 334, 725-731	30
831	The Role of Metal Disulfide Interlayer in LiB Batteries. 2018 , 122, 1014-1023	36
830	Mesoporous carbon spheres with tunable porosity prepared by a template-free method for advanced lithiumBulfur batteries. 2018 , 227, 9-15	23
829	Designing a High-Performance LithiumBulfur Batteries Based on Layered Double Hydroxides��arbon Nanotubes Composite Cathode and a Dual-Functional GrapheneBolypropylene��l2O3 Separator. 2018 , 28, 1704294	115
828	3D interconnected porous carbon nanosheets/carbon nanotubes as a polysulfide reservoir for high performance lithium-sulfur batteries. 2018 , 10, 816-824	126
827	Ion Speciation and Transport Properties of LiTFSI in 1,3-Dioxolane Solutions: A Case Study for Li-S Battery Applications. 2018 , 122, 267-274	20
826	Beyond lithium ion batteries: Higher energy density battery systems based on lithium metal anodes. 2018 , 12, 161-175	284
825	Pristine Metal-Organic Frameworks and their Composites for Energy Storage and Conversion. 2018 , 30, e1702891	399
824	Multifunctional second barrier layers for lithium aulfur batteries. 2018 , 2, 235-252	27

(2018-2018)

823	A 3D conductive network of porous carbon nanoparticles interconnected with carbon nanotubes as the sulfur host for long cycle life lithium-sulfur batteries. 2018 , 10, 22601-22611	49
822	Efficient polysulfide barrier of a graphene aerogeldarbon nanofibersNi network for high-energy-density lithiumBulfur batteries with ultrahigh sulfur content. 2018 , 6, 20926-20938	50
821	Micropores of pure nanographite spheres for long cycle life and high-rate lithium ulfur batteries. 2018 , 6, 23062-23070	70
820	A functional separator coated with sulfonated metalBrganic framework/Nafion hybrids for LiB batteries. 2018 , 6, 24971-24978	59
819	Ultrafine bimetallic phosphide nanoparticles embedded in carbon nanosheets: two-dimensional metal-organic framework-derived non-noble electrocatalysts for the highly efficient oxygen evolution reaction. 2018 , 10, 19774-19780	22
818	Metal-based nanostructured materials for advanced lithiumBulfur batteries. 2018, 6, 23127-23168	128
817	Construction of Soft Base Tongs on Separator to Grasp Polysulfides from Shuttling in Lithium-Sulfur Batteries. 2018 , 14, e1804277	28
816	New Insights into the Anchoring Mechanism of Polysulfides inside Nanoporous Covalent Organic Frameworks for Lithium-Sulfur Batteries. 2018 , 10, 43896-43903	27
815	Revisiting Scientific Issues for Industrial Applications of Lithium Bulfur Batteries. 2018, 1, 196-208	101
814	Metal-organic framework-derived structures for next-generation rechargeable batteries. 2018, 11, 1830006	16
813	Ultrasmall MoO Clusters as a Novel Cocatalyst for Photocatalytic Hydrogen Evolution. 2019 , 31, e1804883	82
812	Two Dimensional Magnetic Coordination Polymers Formed by Lanthanoids and Chlorocyananilato. 2018 , 4, 58	13
811	Effective Suppression of the Polysulfide Shuttle Effect in Lithium-Sulfur Batteries by Implementing rGO-PEDOT:PSS-Coated Separators via Air-Controlled Electrospray. 2018 , 3, 16465-16471	23
810	A lightweight and binder-free electrode enabled by lignin fibers@carbon-nanotubes and graphene for ultrastable lithiumBulfur batteries. 2018 , 6, 23486-23494	42
809	Graphene oxide-polypyrrole composite as sulfur hosts for high-performance lithium-sulfur batteries. 2018 , 11, 1840007	14
808	Constructing Universal Ionic Sieves via Alignment of Two-Dimensional Covalent Organic Frameworks (COFs). 2018 , 57, 16072-16076	81
807	3D Graphene Composites for Efficient Electrochemical Energy Storage. 2018 , 5, 1800468	34
806	Gradient-Distributed Metal©rganic FrameworkBased Porous Membranes for Nonaqueous Redox Flow Batteries. 2018 , 8, 1802533	47

805	Constructing Universal Ionic Sieves via Alignment of Two-Dimensional Covalent Organic Frameworks (COFs). 2018 , 130, 16304-16308	11
804	A Nonflammable and Thermotolerant Separator Suppresses Polysulfide Dissolution for Safe and Long-Cycle Lithium-Sulfur Batteries. 2018 , 8, 1802441	97
803	Polyoxometalates/Active Carbon Thin Separator for Improving Cycle Performance of Lithium-Sulfur Batteries. 2018 , 10, 35911-35918	22
802	Electrocatalysis in Lithium Sulfur Batteries under Lean Electrolyte Conditions. 2018 , 130, 15775-15778	55
801	An Integrated Strategy towards Enhanced Performance of the Lithium-Sulfur Battery and its Fading Mechanism. 2018 , 24, 18544-18550	11
800	High-Power Li-Metal Anode Enabled by Metal-Organic Framework Modified Electrolyte. 2018 , 2, 2117-2132	153
799	Conductive and Polar Titanium Boride as a Sulfur Host for Advanced LithiumBulfur Batteries. 2018 , 30, 6969-6977	75
798	A high performance lithium-ion-sulfur battery with a free-standing carbon matrix supported Li-rich alloy anode. 2018 , 9, 8829-8835	24
797	Electrocatalysis in Lithium Sulfur Batteries under Lean Electrolyte Conditions. 2018, 57, 15549-15552	130
796	A Polysulfide-Immobilizing Polymer Retards the Shuttling of Polysulfide Intermediates in Lithium-Sulfur Batteries. 2018 , 30, e1804581	168
795	Inhibiting Polysulfide Shuttling with a Graphene Composite Separator for Highly Robust Lithium-Sulfur Batteries. 2018 , 2, 2091-2104	226
794	Metal-Organic Frameworks for Batteries. 2018 , 2, 2235-2259	268
793	Ultralight Layer-by-Layer Self-Assembled MoS2-Polymer Modified Separator for Simultaneously Trapping Polysulfides and Suppressing Lithium Dendrites. 2018 , 8, 1802430	135
792	Synergistic stabilizing lithium sulfur battery via nanocoating polypyrrole on cobalt sulfide nanobox. 2018 , 405, 51-60	35
791	Simultaneously Inhibiting Lithium Dendrites Growth and Polysulfides Shuttle by a Flexible MOF-Based Membrane in Liß Batteries. 2018 , 8, 1802130	158
790	A Multifunctional Silly-Putty Nanocomposite Spontaneously Repairs Cathode Composite for Advanced Li B Batteries. 2018 , 28, 1804777	33
7 ⁸ 9	Multi-functional CoS2-N-C porous carbon composite derived from metal-organic frameworks for high performance lithium-sulfur batteries. 2018 , 289, 94-103	43
788	Large-Area Preparation of Crack-Free Crystalline Microporous Conductive Membrane to Upgrade High Energy LithiumBulfur Batteries. 2018 , 8, 1802052	112

(2018-2018)

787	Biotemplating Growth of Nepenthes-like N-Doped Graphene as a Bifunctional Polysulfide Scavenger for Li-S Batteries. 2018 , 12, 10240-10250	104
786	Enhanced Electrochemical Kinetics and Polysulfide Traps of Indium Nitride for Highly Stable Lithium-Sulfur Batteries. 2018 , 12, 9578-9586	146
785	Recent progress in metal <mark>0</mark> rganic frameworks for lithium8ulfur batteries. 2018 , 155, 464-484	48
7 ⁸ 4	Mesoporous, conductive molybdenum nitride as efficient sulfur hosts for high-performance lithium-sulfur batteries. 2018 , 395, 77-84	58
783	Solvent-Engineered Scalable Production of Polysulfide-Blocking Shields to Enhance Practical LithiumBulfur Batteries. 2018 , 2, 1800100	20
782	A Functional Separator Coated with Sulfonated Poly(Styrene-ethylene-butylene-styrene) to Synergistically Enhance the Electrochemical Performance and Anti-Self-Discharge Behavior of Liß Batteries. 2018 , 1, 2555-2564	15
781	A new polysulfide blocker - poly(acrylic acid) modified separator for improved performance of lithium-sulfur battery. 2018 , 563, 277-283	45
780	High-capacity rechargeable batteries based on deeply cyclable lithium metal anodes. 2018 , 115, 5676-5680	144
779	Ion-Selective Prussian-Blue-Modified Celgard Separator for High-Performance Lithium-Sulfur Battery. 2018 , 11, 3345-3351	52
778	Graphene and its derivatives in lithiumBulfur batteries. 2018 , 9, 319-335	96
777	A heterogenized Ni-doped zeolitic imidazolate framework to guide efficient trapping and catalytic conversion of polysulfides for greatly improved lithium ulfur batteries. 2018 , 6, 13593-13598	43
776	Single ion conducting lithium sulfur polymer batteries with improved safety and stability. 2018 , 6, 14330-143	38 ₃ 8
775	Entrapping polysulfides by using ultrathin hollow carbon sphere-functionalized separators in high-rate lithium-sulfur batteries. 2018 , 6, 16610-16616	55
774	Simultaneous Suppression of the Dendrite Formation and Shuttle Effect in a Lithium-Sulfur Battery by Bilateral Solid Electrolyte Interface. 2018 , 5, 1700934	46
773	An ultrafast rechargeable lithium metal battery. 2018 , 6, 15517-15522	28
772	Fabrication of MOF Thin Films at Miscible Liquid-Liquid Interface by Spray Method. 2018 , 10, 25960-25966	34
771	Metal-organic framework/carbon nanotube-coated polyethylene separator for improving the cycling performance of lithium-sulfur cells. 2018 , 283, 1291-1299	45
770	Separator Modification and Functionalization for Inhibiting the Shuttle Effect in Lithium-Sulfur Batteries. 2018 , 12, 1800249	26

769	Solgel asynchronous crystallization of ultra-selective metalorganic framework membranes for gas separation. 2018 , 6, 16333-16340	30
768	Metal Organic Framework Derived Materials: Progress and Prospects for the Energy Conversion and Storage. 2018 , 30, e1705146	237
767	CoO/Co-Activated Porous Carbon Cloth Cathode for High Performance Li-S Batteries. 2018 , 11, 2695-2702	43
766	MXene debris modified eggshell membrane as separator for high-performance lithium-sulfur batteries. 2018 , 352, 695-703	59
765	Tuning the Structure and Properties of Lanthanoid Coordination Polymers with an Asymmetric Anilato Ligand. 2018 , 4, 6	27
764	Highly Stable LithiumBulfur Batteries Based on Laponite Nanosheet-Coated Celgard Separators. 2018 , 8, 1801778	81
763	Hierarchical electrode architectures for high energy lithium-chalcogen rechargeable batteries. 2018 , 51, 668-679	8
762	In Situ Laminated Separator Using NitrogenBulfur Codoped Two-Dimensional Carbon Material to Anchor Polysulfides for High-Performance LiB Batteries. 2018 , 1, 3807-3816	14
761	Wood-inspired multi-channel tubular graphene network for high-performance lithium-sulfur batteries. 2018 , 139, 522-530	13
760	Rational Design of Hierarchical TiO2/Epitaxially Aligned MoS2©arbon Coupled Interface Nanosheets Core/Shell Architecture for Ultrastable Sodium-Ion and LithiumBulfur Batteries. 2018 , 2, 1800119	41
759	Tailored Reaction Route by Micropore Confinement for Liß Batteries Operating under Lean Electrolyte Conditions. 2018 , 8, 1800590	42
758	3D CNTs/Graphene-S-AlNi Cathodes for High-Sulfur-Loading and Long-Life Lithium-Sulfur Batteries. 2018 , 5, 1800026	41
757	Polyaniline@spherical ordered mesoporous carbon/sulfur nanocomposites for high-performance lithium-sulfur batteries. 2018 , 43, 10502-10510	31
756	Ultrafine and polar ZrO2-inlaid porous nitrogen-doped carbon nanofiber as efficient polysulfide absorbent for high-performance lithium-sulfur batteries with long lifespan. 2018 , 349, 376-387	62
755	Blocking Polysulfides and Facilitating Lithium-Ion Transport: Polystyrene Sulfonate@HKUST-1 Membrane for Lithium-Sulfur Batteries. 2018 , 10, 30451-30459	51
754	Zeolitic imidazolate framework-67 based separator for enhanced high thermal stability of lithium ion battery. 2018 , 400, 325-332	22
753	Metal-organic frameworks for direct electrochemical applications. 2018, 376, 292-318	294
75 ²	EMoO3 spheres as effective polysulfides adsorbent for high sulfur content cathode in lithium-sulfur batteries. 2018 , 400, 572-579	51

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751	Nanoparticles of Metal-Organic Frameworks: On the Road to in VIVO Efficacy in Biomedicine. 2018 , 30, e1707365	325
75°	Interfacing soluble polysulfides with a SnO2 functionalized separator: An efficient approach for improving performance of Li-S battery. 2018 , 563, 380-387	45
749	Metal-organic frameworks composites threaded on the CNT knitted separator for suppressing the shuttle effect of lithium sulfur batteries. 2018 , 14, 383-391	91
748	Sulfur Hosts against the Shuttle Effect. 2018 , 2, 1700345	95
747	Vertical Co9S8 hollow nanowall arrays grown on a Celgard separator as a multifunctional polysulfide barrier for high-performance LiB batteries. 2018 , 11, 2560-2568	365
746	Electrochemical process of sulfur in carbon materials from electrode thickness to interlayer. 2019 , 31, 119-124	34
745	LiNi0.8Co0.15Al0.05O2 as both a trapper and accelerator of polysulfides for lithium-sulfur batteries. 2019 , 17, 111-117	45
744	Honeycomb-like nitrogen and sulfur dual-doped hierarchical porous biomass carbon bifunctional interlayer for advanced lithium-sulfur batteries. 2019 , 355, 478-486	83
743	Nitrogen-Doped Porous Carbon Networks with Active Fe-N Sites to Enhance Catalytic Conversion of Polysulfides in Lithium-Sulfur Batteries. 2019 , 11, 31860-31868	29
742	In Situ Synthesis of Nano CuS-Embedded MOF Hierarchical Structures and Application in Dye Adsorption and Hydrogen Evolution Reaction. 2019 , 2, 5698-5706	13
741	Chelation-assisted formation of multi-yolk@hell Co4N@carbon nanoboxes for self-discharge-suppressed high-performance LiBeS2 batteries. 2019 , 7, 20302-20309	22
740	Carbonized regenerated silk nanofiber as multifunctional interlayer for high-performance lithium-sulfur batteries. 2019 , 592, 117349	29
739	Low volume change composite lithium metal anodes. 2019 , 64, 103910	45
738	Recent advances on separator membranes for lithium-ion battery applications: From porous membranes to solid electrolytes. 2019 , 22, 346-375	127
737	Bio-derived N-doped porous carbon as sulfur hosts for high performance lithium sulfur batteries. 2019 , 26, 1426-1434	3
736	A cation/anion-dually active metal-organic complex with 2D lamellar structure as anode material for Li/Na-ion batteries. 2019 , 13, 302-307	16
735	Robust Lithium Metal Anodes Realized by Lithiophilic 3D Porous Current Collectors for Constructing High-Energy Lithium-Sulfur Batteries. 2019 , 13, 8337-8346	94
734	A Janus nanofiber-based separator for trapping polysulfides and facilitating ion-transport in lithium-sulfur batteries. 2019 , 11, 18090-18098	20

733	Duplex trapping and charge transfer with polysulfides by a diketopyrrolopyrrole-based organic framework for high-performance lithium ulfur batteries. 2019 , 7, 18100-18108	41
732	Metal-organic framework functionalization and design strategies for advanced electrochemical energy storage devices. 2019 , 2,	289
731	sp-sp hybrid-conjugated microporous polymer-derived Pd-encapsulated porous carbon materials for lithium-sulfur batteries. 2019 , 55, 10084-10087	4
730	Boosting LithiumBulfur Battery Performance by Integrating a Redox-Active Covalent Organic Framework in the Separator. 2019 , 2, 5793-5798	38
729	The application of metal-organic frameworks in electrode materials for lithium-ion and lithium-sulfur batteries. 2019 , 6, 190634	20
728	Interfacial Charge Field in Hierarchical YolkBhell Nanocapsule Enables Efficient Immobilization and Catalysis of Polysulfides Conversion. 2019 , 9, 1901667	47
727	Stable and Fast LithiumBulfur Battery Achieved by Rational Design of Multifunctional Separator. 2019 , 2, 216-224	21
726	Conformal Ultrathin Film Metal-Organic Framework Analogues: Characterization of Growth, Porosity, and Electronic Transport. 2019 , 31, 8977-8986	5
725	A Review: Electrospun Nanofiber Materials for Lithium-Sulfur Batteries. 2019 , 29, 1905467	83
724	Implanting Atomic Cobalt within Mesoporous Carbon toward Highly Stable Lithium-Sulfur Batteries. 2019 , 31, e1903813	215
724 723		215
	Batteries. 2019 , 31, e1903813 An Efficient Separator with Low Li-Ion Diffusion Energy Barrier Resolving Feeble Conductivity for	
723	Batteries. 2019, 31, e1903813 An Efficient Separator with Low Li-Ion Diffusion Energy Barrier Resolving Feeble Conductivity for Practical LithiumBulfur Batteries. 2019, 9, 1901800 Physical Inhibition and Chemical Confinement of Lithium Polysulfides by Designing a Double-Layer	33
723 722	An Efficient Separator with Low Li-Ion Diffusion Energy Barrier Resolving Feeble Conductivity for Practical LithiumBulfur Batteries. 2019, 9, 1901800 Physical Inhibition and Chemical Confinement of Lithium Polysulfides by Designing a Double-Layer Composite Separator for Lithium-Sulfur Battery. 2019, 6, 4817-4830 Solid/Solid Interfacial Architecturing of Solid Polymer Electrolyte-Based All-Solid-State	33
723 722 721	An Efficient Separator with Low Li-Ion Diffusion Energy Barrier Resolving Feeble Conductivity for Practical LithiumBulfur Batteries. 2019, 9, 1901800 Physical Inhibition and Chemical Confinement of Lithium Polysulfides by Designing a Double-Layer Composite Separator for Lithium-Sulfur Battery. 2019, 6, 4817-4830 Solid/Solid Interfacial Architecturing of Solid Polymer Electrolyte-Based All-Solid-State Lithium-Sulfur Batteries by Atomic Layer Deposition. 2019, 15, e1903952 In situ-grown compressed NiCo2S4 barrier layer for efficient and durable polysulfide entrapment.	33 3 35
723 722 721 720	An Efficient Separator with Low Li-Ion Diffusion Energy Barrier Resolving Feeble Conductivity for Practical LithiumBulfur Batteries. 2019, 9, 1901800 Physical Inhibition and Chemical Confinement of Lithium Polysulfides by Designing a Double-Layer Composite Separator for Lithium-Sulfur Battery. 2019, 6, 4817-4830 Solid/Solid Interfacial Architecturing of Solid Polymer Electrolyte-Based All-Solid-State Lithium-Sulfur Batteries by Atomic Layer Deposition. 2019, 15, e1903952 In situ-grown compressed NiCo2S4 barrier layer for efficient and durable polysulfide entrapment. 2019, 11, Fabricating efficient polysulfide barrier via ultrathin tantalum pentoxide grown on separator for	3333514
723 722 721 720 719	An Efficient Separator with Low Li-Ion Diffusion Energy Barrier Resolving Feeble Conductivity for Practical LithiumBulfur Batteries. 2019, 9, 1901800 Physical Inhibition and Chemical Confinement of Lithium Polysulfides by Designing a Double-Layer Composite Separator for Lithium-Sulfur Battery. 2019, 6, 4817-4830 Solid/Solid Interfacial Architecturing of Solid Polymer Electrolyte-Based All-Solid-State Lithium-Sulfur Batteries by Atomic Layer Deposition. 2019, 15, e1903952 In situ-grown compressed NiCo2S4 barrier layer for efficient and durable polysulfide entrapment. 2019, 11, Fabricating efficient polysulfide barrier via ultrathin tantalum pentoxide grown on separator for lithiumBulfur batteries. 2019, 854, 113539 Elevated polysulfide regulation by an ultralight all-CVD-built ReS2@N-Doped graphene	33335142

715	A MetalDrganic Framework Thin Film for Selective Mg2+ Transport. 2019 , 131, 15457-15461	1
7 1 4	An Effective Porous Activated Carbon Derived from Puffed Corn Employed as the Separator Coating in a LithiumBulfur Battery. 2019 , 7, 1900752	10
713	Manipulating Sulfur Mobility Enables Advanced Li-S Batteries. 2019 , 1, 1047-1060	42
712	Designing of a Phosphorus, Nitrogen, and Sulfur Three-Flame Retardant Applied in a Gel Polyphenyleneisophthalamide Nanofiber Membrane for Advanced Safety Lithium-Sulfur Batteries. 2019 , 11, 36705-36716	10
711	An Blectronegative bifunctional coating layer: simultaneous regulation of polysulfide and Li-ion adsorption sites for long-cycling and Bendrite-free LiB batteries. 2019, 7, 22463-22474	31
710	Tb post-functionalized La (III) metal organic framework hybrid probe for simple and highly sensitive detection of acetaldehyde. 2019 , 300, 126985	20
709	Metal®rganic Frameworks Enabled High-Performance Separators for Safety-Reinforced Lithium Ion Battery. 2019 , 7, 16612-16619	23
708	On the potential for nanoscale metalBrganic frameworks for energy applications. 2019 , 7, 21545-21576	61
707	Boosting the electrochemical performance of lithium/sulfur batteries with the carbon nanotube/Fe3O4 coated by carbon modified separator. 2019 , 327, 134843	28
706	Constructing a sandwich-structured interlayer with strong polysulfides adsorption ability for high-performance lithium-sulfur batteries. 2019 , 14, 100339	7
7 ⁰ 5	Recent advances in nanostructured electrode-electrolyte design for safe and next-generation electrochemical energy storage. 2019 , 8, 100057	23
704	Design Principles for Covalent Organic Frameworks to Achieve Strong Heteroatom-Synergistic Effect on Anchoring Polysulfides for Lithium-Sulfur Batteries. 2019 , 10, 7445-7451	12
703	Li Alginate-Based Artificial SEI Layer for Stable Lithium Metal Anodes. 2019 , 11, 37726-37731	36
702	Electrospun PVDF/PSSLi ionomer films as a functional separator for lithium-sulfur batteries. 2019 , 785, 627-633	13
701	In situ extracted poly(acrylic acid) contributing to electrospun nanofiber separators with precisely tuned pore structures for ultra-stable lithiumBulfur batteries. 2019 , 7, 3253-3263	43
700	Free-standing protective films for enhancing the cyclability of organic batteries. 2019 , 3, 142-147	10
699	Metal B rganic frameworks for lithium B ulfur batteries. 2019 , 7, 3469-3491	175
698	Ni@N-doped graphene nanosheets and CNTs hybrids modified separator as efficient polysulfide barrier for high-performance lithium sulfur batteries. 2019 , 12, 829-836	37

697	Oxygenated Nitrogen-Doped Microporous Nanocarbon as a Permselective Interlayer for Ultrastable Lithium-Sulfur Batteries. 2019 , 6, 1094-1100	21
696	Recent progress in metalBrganic polymers as promising electrodes for lithium/sodium rechargeable batteries. 2019 , 7, 4259-4290	186
695	Polyethylenimine Expanded Graphite Oxide Enables High Sulfur Loading and Long-Term Stability of Lithium-Sulfur Batteries. 2019 , 15, e1804578	22
694	P-doped BN nanosheets decorated graphene as the functional interlayer for LiB batteries. 2019 , 39, 54-60	51
693	Synthesis of Graphene Oxide/Metal-Organic Frameworks Composite Materials for Removal of Congo Red from Wastewater. 2019 , 4, 5755-5762	12
692	In-operando imaging of polysulfide catholytes for LiB batteries and implications for kinetics and mechanical stability. 2019 , 434, 226727	7
691	Developing A B olysulfide-Phobic E trategy to Restrain Shuttle Effect in Lithium B ulfur Batteries. 2019 , 131, 11900-11904	18
690	Developing A "Polysulfide-Phobic" Strategy to Restrain Shuttle Effect in Lithium-Sulfur Batteries. 2019 , 58, 11774-11778	58
689	2D Meso/Microporous Platelet Carbon Derived from Metal-Organic frameworks and Its Application in High-Performance Li-S Batteries. 2019 , 6, 3091-3100	4
688	Slow relaxation in doped coordination polymers and dimers based on lanthanoids and anilato ligands. 2019 , 170, 476-485	10
687	Metal-Organic Frameworks/Conducting Polymer Hydrogel Integrated Three-Dimensional Free-Standing Monoliths as Ultrahigh Loading Li-S Battery Electrodes. 2019 , 19, 4391-4399	84
686	Blocking Polysulfide with CoB@CNT via "Synergetic Adsorptive Effect" toward Ultrahigh-Rate Capability and Robust Lithium-Sulfur Battery. 2019 , 13, 6742-6750	69
685	Ultrathin metal/covalent-organic framework membranes towards ultimate separation. 2019, 48, 3811-3841	182
684	Single-Atom Coated Separator for Robust Lithium-Sulfur Batteries. 2019 , 11, 25147-25154	95
683	Suppressing the Shuttle Effect in Lithium-Sulfur Batteries by a UiO-66-Modified Polypropylene Separator. 2019 , 4, 10328-10335	33
682	Sulfur in Mesoporous Tungsten Nitride Foam Blocks: A Rational Lithium Polysulfide Confinement Experimental Design Strategy Augmented by Theoretical Predictions. 2019 , 11, 20013-20021	6
681	Enhancing Catalytic Activity of Titanium Oxide in LithiumBulfur Batteries by Band Engineering. 2019 , 9, 1900953	210
680	A Liūrine battery based on organic/aqueous hybrid electrolytes. 2019 , 6, 1654-1659	

679 Nanostructures and Nanomaterials for Lithium Metal Batteries. **2019**, 159-214

678	Metal-Organic-Framework-Based Gel Polymer Electrolyte with Immobilized Anions To Stabilize a Lithium Anode for a Quasi-Solid-State Lithium-Sulfur Battery. 2019 , 11, 18427-18435	65
677	2D Laminar Membranes for Selective Water and Ion Transport. 2019 , 29, 1902014	121
676	Functional mechanism analysis and customized structure design of interlayers for high performance Li-S battery. 2019 , 23, 314-349	58
675	Engineering stable electrode-separator interfaces with ultrathin conductive polymer layer for high-energy-density Li-S batteries. 2019 , 23, 261-268	99
674	Current Status and Future Prospects of Metal-Sulfur Batteries. 2019 , 31, e1901125	237
673	Interlayers for lithium-based batteries. 2019 , 23, 112-136	22
672	Mesoporous boron carbon nitride/graphene modified separators as efficient polysulfides barrier for highly stable lithium-sulfur batteries. 2019 , 842, 34-40	14
671	MXene based self-assembled cathode and antifouling separator for high-rate and dendrite-inhibited Liß battery. 2019 , 61, 478-485	85
670	The potential of electrolyte filled MOF membranes as ionic sieves in rechargeable batteries. 2019 , 12, 2327-2344	76
669	Hierarchical High-Porosity Graphene Oxide-Porous Carbon/Sulfur Composite with Sodium Chloride as Temporary Space Holders for High-Performance Lithium-Sulfur Batteries. 2019 , 6, 2667-2674	3
668	Polysulfide Trapping in Carbon Nanofiber Cloth/S Cathode with a Bifunctional Separator for High-Performance Li-S Batteries. 2019 , 12, 2447-2456	6
667	Synergistic suppression of the shuttle effect and absorption of electrolytes using a functional rich amine porous organic polymer/acetylene black-polypropylene separator in Li-S batteries. 2019 , 306, 229-237	18
666	Hand-in-Hand Reinforced rGO Film Used as an Auxiliary Functional Layer for High-Performance Li-S Batteries. 2019 , 11, 12544-12553	27
665	High electrical conductivity of 3D mesporous carbon nanocage as an efficient polysulfide buffer layer for high sulfur utilization in lithium-sulfur batteries. 2019 , 789, 71-79	22
664	Multifunctional Ion-Sieve Constructed by 2D Materials as an Interlayer for Li-S Batteries. 2019 , 11, 11474-114	18 0 3
663	Lithium Dendrites Inhibition via Diffusion Enhancement. 2019 , 9, 1900019	33
662	SiO2@MoS2 coreBhell nanocomposite layers with high lithium ion diffusion as a triple polysulfide shield for high performance lithiumBulfur batteries. 2019 , 7, 7644-7653	47

661	Intercalation-conversion hybrid cathodes enabling LiB full-cell architectures with jointly superior gravimetric and volumetric energy densities. <i>Nature Energy</i> , 2019 , 4, 374-382	62.3	282
660	Metal D rganic Frameworks for High-Energy Lithium Batteries with Enhanced Safety: Recent Progress and Future Perspectives. 2019 , 2, 591-626		29
659	Separators. 2019 , 133-140		
658	CoS-interposed and Ketjen black-embedded carbon nanofiber framework as a separator modulation for high performance Li-S batteries. 2019 , 369, 77-86		48
657	MetalBrganic framework composites and their electrochemical applications. 2019, 7, 7301-7327		186
656	Nonsiliceous Mesoporous Materials: Design and Applications in Energy Conversion and Storage. 2019 , 15, e1805277		10
655	Rational design of multi-functional CoS@rGO composite for performance enhanced Li-S cathode. 2019 , 421, 132-138		35
654	Ultradispersed titanium dioxide nanoparticles embedded in a three-dimensional graphene aerogel for high performance sulfur cathodes 2019 , 9, 6568-6575		4
653	Repelling Polysulfide Ions by Boron Nitride Nanosheet Coated Separators in LithiumBulfur Batteries. 2019 , 2, 2620-2628		26
652	ZIF-67 derived Co3O4/carbon aerogel composite for supercapacitor electrodes. 2019 , 43, 5666-5669		22
651	High energy density lithium-selenium batteries enabled by a covalent organic framework-coated separator. 2019 , 246, 144-148		18
650	Mesoporous silica nanoplates facilitating fast Li+ diffusion as effective polysulfide-trapping materials for lithiumBulfur batteries. 2019 , 7, 9110-9119		17
649	Deciphering the Reaction Mechanism of LithiumBulfur Batteries by In Situ/Operando Synchrotron-Based Characterization Techniques. 2019 , 9, 1900148		60
648	Anion-Sorbent Composite Separators for High-Rate Lithium-Ion Batteries. 2019 , 31, e1808338		103
647	Nanostructures of solid electrolyte interphases and their consequences for microsized Sn anodes in sodium ion batteries. 2019 , 12, 1550-1557		103
646	Inhibition of polysulfide diffusion in lithiumBulfur batteries: mechanism and improvement strategies. 2019 , 7, 12381-12413		96
645	CoS /C hierarchical hollow nanocages from a metal-organic framework as a positive electrode with enhancing performance for aqueous supercapacitors 2019 , 9, 11253-11262		11
644	Boosting redox activity on MXene-induced multifunctional collaborative interface in high Li2S loading cathode for high-energy Li-S and metallic Li-free rechargeable batteries. 2019 , 37, 183-191		59

(2019-2019)

643	Conductive MOF-Modified Separator for Mitigating the Shuttle Effect of Lithium-Sulfur Battery through a Filtration Method. 2019 , 11, 11459-11465	82
642	Recent advances in separators to mitigate technical challenges associated with re-chargeable lithium sulfur batteries. 2019 , 7, 6596-6615	115
641	Enhanced Sulfur Transformation by Multifunctional FeS/FeS/S Composites for High-Volumetric Capacity Cathodes in Lithium-Sulfur Batteries. 2019 , 6, 1800815	133
640	Interlayer Material Selection for Lithium-Sulfur Batteries. 2019 , 3, 361-386	246
639	Dual Lithiophilic Structure for Uniform Li Deposition. 2019 , 11, 10616-10623	29
638	Recent advances in shuttle effect inhibition for lithium sulfur batteries. 2019 , 23, 707-732	123
637	Pyridinic and pyrrolic nitrogen-enriched carbon as a polysulfide blocker for high-performance lithiumBulfur batteries. 2019 , 6, 955-960	15
636	Strong Surface Bonding of Polysulfides by Teflonized Carbon Matrix for Enhanced Performance in Room Temperature Sodium-Sulfur Battery. 2019 , 6, 1801873	24
635	Constructing metal-free and cost-effective multifunctional separator for high-performance lithium-sulfur batteries. 2019 , 59, 390-398	71
634	Cerium Based Metal-Organic Frameworks as an Efficient Separator Coating Catalyzing the Conversion of Polysulfides for High Performance Lithium-Sulfur Batteries. 2019 , 13, 1923-1931	138
633	Templated growth of vertically aligned 2D metalorganic framework nanosheets. 2019, 7, 5811-5818	24
632	Suppression of Polysulfide Dissolution and Shuttling with Glutamate Electrolyte for Lithium Sulfur Batteries. 2019 , 13, 14172-14181	28
631	A new cathode material synthesized by a thiol-modified metalorganic framework (MOF) covalently connecting sulfur for superior long-cycling stability in lithium ulfur batteries. 2019 , 7, 24515-24523	29
630	2020 roadmap on pore materials for energy and environmental applications. 2019 , 30, 2110-2122	69
629	Enhancement in Electrochemical Performance of Lithium-Sulfur Cells through Sulfur Encapsulation in Hollow Carbon Nanospheres Coated with Ultra-Thin Aluminum Fluoride Layer. 2019 , 4, 12622-12629	6
628	Lignin Nanoparticle-Coated Celgard Separator for High-Performance Lithium-Sulfur Batteries. 2019 , 11,	13
627	Multifunctional flexible composite aerogels constructed through in-situ growth of metal-organic framework nanoparticles on bacterial cellulose. 2019 , 356, 227-235	112
626	Ultrathin MOF nanosheet assembled highly oriented microporous membrane as an interlayer for lithium-sulfur batteries. 2019 , 21, 14-21	101

625	Polydopamine-based redox-active separators for lithium-ion batteries. 2019 , 5, 204-213	12
624	An electrochemical sensor on the hierarchically porous Cu-BTC MOF platform for glyphosate determination. 2019 , 283, 487-494	87
623	Operando Evaluation of Selectivity and Transference Number of Lithium-Conductive Membranes. 2019 , 6, 1678-1682	1
622	Review on areal capacities and long-term cycling performances of lithium sulfur battery at high sulfur loading. 2019 , 18, 289-310	159
621	Enhanced Cycling Performance for Lithium-Sulfur Batteries by a Laminated 2D g-C N /Graphene Cathode Interlayer. 2019 , 12, 213-223	56
620	A compact 3D interconnected sulfur cathode for high-energy, high-power and long-life lithium-sulfur batteries. 2019 , 20, 14-23	25
619	Metal®rganic Frameworks (MOFs) and MOF-Derived Materials for Energy Storage and Conversion. 2019 , 2, 29-104	152
618	Redox-Mediator-Enhanced Electrochemical Capacitors: Recent Advances and Future Perspectives. 2019 , 12, 1118-1132	40
617	Recent Progress on Molybdenum Oxides for Rechargeable Batteries. 2019 , 12, 755-771	17
616	Entrapment of polysulfides by a Ketjen Black & mesoporous TiO2 modified glass fiber separator for high performance lithium-sulfur batteries. 2019 , 779, 412-419	16
615	Ultralight carbon flakes modified separator as an effective polysulfide barrier for lithium-sulfur batteries. 2019 , 295, 910-917	40
614	Nano-sized Titanium Nitride Functionalized Separator Improves Cycling Performance of Lithium Sulfur Batteries. 2019 , 4, 698-704	15
613	Separator Membranes for LithiumBulfur Batteries: Design Principles, Structure, and Performance. 2019 , 7, 1800819	13
612	Cyclic Voltammetry in LithiumBulfur Batteries@hallenges and Opportunities. 2019 , 7, 1801001	51
611	Unraveling the Interfacial Structure-Performance Correlation of Flexible Metal-Organic Framework Membranes on Polymeric Substrates. 2019 , 11, 5570-5577	20
610	A robust and low-cost biomass carbon fiber@SiO2 interlayer for reliable lithium-sulfur batteries. 2019 , 295, 684-692	42
609	Vanadium nitride-decorated lotus root-like NCNFs as 3D current collector for Li-S batteries. 2019 , 236, 240-243	8
608	Efficient synergism of electrocatalysis and physical confinement leading to durable high-power lithium-sulfur batteries. 2019 , 57, 34-40	73

(2020-2019)

607	Accelerating polysulfide redox conversion on bifunctional electrocatalytic electrode for stable Li-S batteries. 2019 , 20, 98-107	50
606	Tin sulfide modified separator as an efficient polysulfide trapper for stable cycling performance in Li-S batteries. 2019 , 4, 214-222	59
605	MetalBrganic framework membranes: Production, modification, and applications. 2019 , 100, 21-63	101
604	The role of functional materials to produce high areal capacity lithium sulfur battery. 2020 , 42, 195-209	50
603	Functional double-layer membrane as separator for lithium-sulfur battery with strong catalytic conversion and excellent polysulfide-blocking. 2020 , 382, 122918	25
602	Bifunctional separator with sandwich structure for high-performance lithium-sulfur batteries. 2020 , 559, 13-20	15
601	Fabricating better metal-organic frameworks separators for LiB batteries: Pore sizes effects inspired channel modification strategy. 2020 , 25, 164-171	46
600	In Situ/Operando Spectroscopic Characterizations Guide the Compositional and Structural Design of LithiumBulfur Batteries. 2020 , 4, 1900467	18
599	Green Synthesis and Engineering Applications of Metal Drganic Frameworks. 2020, 139-162	2
598	New redox-mediating polymer binder for enhancing performance of Li-S batteries. 2020 , 44, 154-161	17
597	A Game Changer: Functional Nano/Micromaterials for Smart Rechargeable Batteries. 2020 , 30, 1902499	28
596	Long cycle performance folium cycas biochar/S composite material for lithium-sulfur batteries. 2020 , 26, 183-189	7
595	2 D Materials for Inhibiting the Shuttle Effect in Advanced Lithium-Sulfur Batteries. 2020 , 13, 1447-1479	30
594	A faster lithium ion diffusion pathway constructed by uniform distribution of sulfur using simple one step spray drying method. 2020 , 379, 122353	9
593	Separator coatings as efficient physical and chemical hosts of polysulfides for high-sulfur-loaded rechargeable lithiumBulfur batteries. 2020 , 44, 51-60	30
592	Prospect of Sulfurized Pyrolyzed Poly(acrylonitrile) (S@pPAN) Cathode Materials for Rechargeable Lithium Batteries. 2020 , 59, 7306-7318	54
591	2D Materials as Ionic Sieves for Inhibiting the Shuttle Effect in Batteries. 2020 , 15, 2294-2302	13
590	Low-Bandgap Se-Deficient Antimony Selenide as a Multifunctional Polysulfide Barrier toward High-Performance Lithium-Sulfur Batteries. 2020 , 32, e1904876	120

589	Asymmetric cathode membrane with tunable positive charge networks for highly stable LiB batteries. 2020 , 25, 33-40	7
588	MOFs and COFs for Batteries and Supercapacitors. 2020 , 3, 81-126	57
587	Facile and reversible digestion and regeneration of zirconium-based metal-organic frameworks. 2020 , 3,	11
586	Rational design of two-dimensional nanomaterials for lithium ulfur batteries. 2020 , 13, 1049-1075	156
585	Genetic engineering of porous sulfur species with molecular target prevents host passivation in lithium sulfur batteries. 2020 , 26, 65-72	24
584	Synergetic Effect of Nitrogen/Sulfur Dual-Doped Hierarchically Porous Carbon Networks for LiB Batteries. 2020 , 8, 749-758	18
583	Prospect of Sulfurized Pyrolyzed Poly(acrylonitrile) (S@pPAN) Cathode Materials for Rechargeable Lithium Batteries. 2020 , 132, 7374-7386	14
582	An atomic-confined-space separator for high performance lithium ulfur batteries. 2020, 8, 1896-1903	25
581	Trapping of Polysulfides with Sulfur-Rich Poly Ionic Liquid Cathode Materials for Ultralong-Life Lithium-Sulfur Batteries. 2020 , 13, 715-723	12
580	One-Pot Synthesis of a Copolymer Micelle Crosslinked Binder with Multiple Lithium-Ion Diffusion Pathways for Lithium-Sulfur Batteries. 2020 , 13, 819-826	9
579	Donor dominated triazine-based microporous polymer as a polysulfide immobilizer and catalyst for high-performance lithium-sulfur batteries. 2020 , 392, 123694	46
578	Hydrophilic microporous membranes for selective ion separation and flow-battery energy storage. 2020 , 19, 195-202	108
577	A bipolar modified separator using TiO2 nanosheets anchored on N-doped carbon scaffold for high-performance LiB batteries. 2020 , 55, 152-158	16
576	Two-Dimensional Material-Functionalized Separators for High-Energy-Density Metal-Sulfur and Metal-Based Batteries. 2020 , 13, 1366-1378	14
575	Expansion-tolerant architectures for stable cycling of ultrahigh-loading sulfur cathodes in lithium-sulfur batteries. 2020 , 6, eaay2757	91
574	Application of organic-inorganic hybrids in lithium batteries. 2020 , 15, 100289	8
573	Electrospun Nanofibers for New Generation Flexible Energy Storage. 2020,	13
572	A Review of Functional Separators for Lithium Metal Battery Applications. 2020 , 13,	27

(2020-2020)

571	batteries and fuel cells. 2020 , 33, 360-381	17
570	Functionalized separator for next-generation batteries. 2020 , 41, 143-155	27
569	Highly dispersed MoP encapsulated in P-doped porous carbon boosts polysulfide redox kinetics of lithium-sulfur batteries. 2020 , 18, 100531	15
568	Self-assembled materials for electrochemical energy storage. 2020 , 45, 815-822	5
567	Multifunctional Cathodic Interlayer with Polysulfide Immobilization Mechanism for High-Performance Li-S Batteries. 2020 , 5, 12009-12019	4
566	Ultra-fast and high-energy density polysulfide-eight ion batteries. 2020 , 477, 229018	4
565	A Multifunctional Inorganic Composite Separator for Stable High-Safety LithiumBulfur Batteries. 2020 , 3, 10139-10146	3
564	Ion-Transport-Rectifying Layer Enables Li-Metal Batteries with High Energy Density. 2020 , 3, 1685-1700	33
563	Single-Atom Electrocatalysts for Lithium Sulfur Batteries: Progress, Opportunities, and Challenges. 2020 , 2, 1450-1463	44
562	Applications of transition-metal sulfides in the cathodes of lithium ulfur batteries. 2020 , 2, 134-146	44
561	CNTs anchored on defective bimetal oxide NiCoO2-x microspheres for high-performance lithium-ion battery anode. 2020 , 354, 136760	8
560	Fluorinated co-solvent promises Li-S batteries under lean-electrolyte conditions. 2020 , 40, 63-71	30
559	Dynamic single-site polysulfide immobilization in long-range disorder Cu-MOFs. 2020 , 56, 10074-10077	O
558	Electroactive Materials for Next-Generation Redox Flow Batteries: From Inorganic to Organic. 2020 , 1-47	4
557	Functionally Modified Polyolefin-Based Separators for Lithium-Sulfur Batteries: Progress and Prospects. 2020 , 8,	2
556	Electropolymerized Conjugated Microporous Nanoskin Regulating Polysulfide and Electrolyte for High-Energy Li-S Batteries. 2020 ,	31
555	Construction of high-nuclear 4plf heterometallic {Ln11Ge12} cluster-organic frameworks with high-sensitivity luminescence sensing of Fe3+ in aqueous solution. 2020 , 22, 8343-8352	1
554	Hierarchical Metal-Organic Framework Films with Controllable Meso/Macroporosity. 2020 , 7, 2002368	13

553	Fe3C composite carbon nanofiber interlayer for efficient trapping and conversion of polysulfides in lithium-sulfur batteries. 2020 , 847, 156443	18
552	Suppression of polysulfide shuttling with a separator modified using spontaneously polarized bismuth ferrite for high performance lithiumBulfur batteries. 2020 , 8, 16429-16436	6
551	Exploring and Understanding the Roles of Li2Sn and the Strategies to beyond Present Li-S Batteries. 2020 , 6, 2533-2557	62
550	A Liquid Electrolyte with De-Solvated Lithium Ions for Lithium-Metal Battery. 2020 , 4, 1776-1789	62
549	Introduce Tortuosity to Retain Polysulfides and Suppress Li Dendrites. 2020 , 2, 1363-1365	2
548	Ultrafast Absorption of Polysulfides through Electrostatic Confinement by Protonated Molecules for Highly Efficient Li-S Batteries. 2020 , 12, 36220-36227	2
547	Reverse shape selectivity of hexane isomer in ligand inserted MOF-74 2020 , 10, 22601-22605	3
546	Mitigation of Polysulfide Shuttling by Interlayer/Permselective Separators in LithiumBulfur Batteries. 2020 , 3, 8095-8129	26
545	Titanium-Containing Metal®rganic Framework Modified Separator for Advanced LithiumBulfur Batteries. 2020 , 8, 12968-12975	28
544	Cationic Covalent-Organic Framework as Efficient Redox Motor for High-Performance Lithium-Sulfur Batteries. 2020 , 16, e2002932	39
543	A writable lithium metal ink. 2020 , 63, 1483-1489	30
542	A Metal-Organic Framework as a Multifunctional Ionic Sieve Membrane for Long-Life Aqueous Zinc-Iodide Batteries. 2020 , 32, e2004240	82
541	Designer Self-Assembled Polyelectrolyte Complex Nanoparticle Membrane for a Stable LithiumBulfur Battery at Lean Electrolyte Conditions. 2020 , 3, 7908-7919	8
540	Single-sulfur atom discrimination of polysulfides with a protein nanopore for improved batteries. 2020 , 1,	20
539	Solid-state lithium Bulfur batteries: Advances, challenges and perspectives. 2020, 40, 114-131	33
538	Enhanced Catalytic Conversion of Polysulfides Using Bimetallic CoFe for High-Performance Lithium-Sulfur Batteries. 2020 , 14, 11558-11569	62
537	Janus Conductive/Insulating Microporous Ion-Sieving Membranes for Stable Li-S Batteries. 2020 , 14, 13852-13864	38
536	A Trifunctional Separator Based on a Blockage-Adsorption-Catalysis Synergistic Effect for Li-S Batteries. 2020 , 12, 47599-47611	10

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535	Beyond the concentrated electrolyte: further depleting solvent molecules within a Li+ solvation sheath to stabilize high-energy-density lithium metal batteries. 2020 , 13, 4122-4131	48
534	Hollow multishelled structural NiO as a Shelter For high-performance LiB batteries. 2020 , 4, 2971-2975	5
533	Direct Intermediate Regulation Enabled by Sulfur Containers in Working LithiumBulfur Batteries. 2020 , 132, 22334-22339	6
532	Nanostructured Sulfur and Sulfides for Advanced Lithium/Sulfur Cells. 2020 , 7, 3927-3942	4
531	Sustained-Release Nanocapsules Enable Long-Lasting Stabilization of Li Anode for Practical Li-Metal Batteries. 2020 , 12, 176	20
530	A Perspective on interfacial engineering of lithium metal anodes and beyond. 2020 , 117, 080504	9
529	Inverse Fabrication of Li2S-Nanocrystals@Doped-Carbon Loaded on Woven Carbon Fibers to Spatial Structure Cathodes for High-Stable LithiumBulfur Batteries. 2020 , 4, 2000463	6
528	Iron Carbide Dispersed on Nitrogen-Doped Graphene-like Carbon Nanosheets for Fast Conversion of Polysulfides in LiB Batteries. 2020 , 3, 9686-9693	12
527	The Toxicity of Secondary Lithium-Sulfur Batteries Components. 2020 , 6, 45	2
526	Metal-organic framework composites for energy conversion and storage. 2020 , 41, 091707	9
525	Recyclable cobalt-molybdenum bimetallic carbide modified separator boosts the polysulfide adsorption-catalysis of lithium sulfur battery. 2020 , 63, 2443-2455	28
524	Direct Intermediate Regulation Enabled by Sulfur Containers in Working Lithium-Sulfur Batteries. 2020 , 59, 22150-22155	25
523	Metal-Tellurium Batteries: A Rising Energy Storage System. 2020 , 1, 2000005	18
522	Stop Four Gaps with One Bush: Versatile Hierarchical Polybenzimidazole Nanoporous Membrane for Highly Durable Li-S Battery. 2020 , 12, 55809-55819	3
521	Rapid Production of Metal-Organic Frameworks Based Separators in Industrial-Level Efficiency. 2020 , 7, 2002190	17
520	Bimetallic MOF-derived CNTs-grafted carbon nanocages as sulfur host for high-performance lithiumBulfur batteries. 2020 , 349, 136378	22
519	Effect of intermolecular interactions on the performance of UiO-66-laden solid composite polymer electrolytes. 2020 , 845, 155179	2
518	Dual Functional Ni3S2@Ni CoreBhell Nanoparticles Decorating Nanoporous Carbon as Cathode Scaffolds for LithiumBulfur Battery with Lean Electrolytes. 2020 , 3, 4173-4179	6

517	Inducing rapid polysulfide transformation through enhanced interfacial electronic interaction for lithium-sulfur batteries. 2020 , 12, 13980-13986	8
516	Mesoporous carbon host material for stable lithium metal anode. 2020 , 12, 11818-11824	28
515	Nanochannels regulating ionic transport for boosting electrochemical energy storage and conversion: a review. 2020 , 12, 15923-15943	19
514	Rechargeable Aqueous Zinc-Ion Batteries with Mild Electrolytes: A Comprehensive Review. 2020 , 3, 966-1005	24
513	Oriented nanoporous MOFs to mitigate polysulfides migration in lithium-sulfur batteries. 2020 , 75, 105009	11
512	A porous organic polymer-coated permselective separator mitigating self-discharge of lithiumBulfur batteries. 2020 , 1, 648-657	8
511	Recent Progress in High Donor Electrolytes for Lithium Bulfur Batteries. 2020, 10, 2001456	51
510	12 years roadmap of the sulfur cathode for lithium sulfur batteries (2009\(\mathbb{\pi}\)020). 2020 , 30, 346-366	98
509	Mesoporous Nitrogen-Doped Carbon Nanospheres as Sulfur Matrix and a Novel Chelate-Modified Separator for High-Performance Room-Temperature Na-S Batteries. 2020 , 16, e1907464	24
508	Pristine MOF and COF materials for advanced batteries. 2020 , 31, 115-134	65
507	A Metal Organic Framework Derived Solid Electrolyte for Lithium Bulfur Batteries. 2020, 10, 2001285	37
506	Incorporating the Nanoscale Encapsulation Concept from Liquid Electrolytes into Solid-State Lithium-Sulfur Batteries. 2020 , 20, 5496-5503	15
505	Coupled Electrical Conduction in Coordination Polymers: From Electrons/Ions to Mixed Charge Carriers. 2020 , 15, 1202-1213	4
504	Deciphering pitting behavior of lithium metal anodes in lithium sulfur batteries. 2020 , 49, 257-261	9
503	Mechanistic understanding of the role separators playing in advanced lithium-sulfur batteries. 2020 , 2, 483-508	121
502	Three-dimensionally ordered macro-microporous metal organic frameworks with strong sulfur immobilization and catalyzation for high-performance lithium-sulfur batteries. 2020 , 72, 104685	83
501	Facet engineering in metal organic frameworks to improve their electrochemical activity for water oxidation. 2020 , 56, 4316-4319	14
500	A MoO3/MoO2-CP self-supporting heterostructure for modification of lithium ulfur batteries. 2020 , 8, 15816-15821	21

(2020-2020)

499	Batteries. 2020 , 59, 9377-9381	234
498	A Janus protein-based nanofabric for trapping polysulfides and stabilizing lithium metal in lithiumBulfur batteries. 2020 , 8, 7377-7389	25
497	Constructing a Super-Saturated Electrolyte Front Surface for Stable Rechargeable Aqueous Zinc Batteries. 2020 , 132, 9463-9467	31
496	MIL-88A Metal-Organic Framework as a Stable Sulfur-host Cathode for Long-cycle Li-S Batteries. 2020 , 10,	15
495	TMDs beyond MoS for Electrochemical Energy Storage. 2020 , 26, 6320-6341	20
494	Initiating a Reversible Aqueous Zn/Sulfur Battery through a "Liquid Film". 2020 , 32, e2003070	47
493	Celgard-supported LiX zeolite membrane as ion-permselective separator in lithium sulfur battery. 2020 , 611, 118386	18
492	Bonding VSe2 ultrafine nanocrystals on graphene toward advanced lithium-sulfur batteries. 2020 , 13, 2673-2682	33
491	Cobalt nitride nanoparticle coated hollow carbon spheres with nitrogen vacancies as an electrocatalyst for lithiumBulfur batteries. 2020 , 8, 14498-14505	33
490	Coral-like interconnected carbon aerogel modified separator for advanced lithium-sulfur batteries. 2020 , 354, 136637	6
489	Suppressing the Shuttle Effect and Dendrite Growth in Lithium-Sulfur Batteries. 2020, 14, 9819-9831	97
488	Dense and high loading sulfurized pyrolyzed poly (acrylonitrile)(S@pPAN) cathode for rechargeable lithium batteries. 2020 , 31, 187-194	12
487	Designing an intrinsically safe organic electrolyte for rechargeable batteries. 2020 , 31, 382-400	29
486	Engineering Bifunctional Host Materials of Sulfur and Lithium-Metal Based on Nitrogen-Enriched Polyacrylonitrile for Li-S Batteries. 2020 , 26, 8784-8793	6
485	Hydrophobic Organic-Electrolyte-Protected Zinc Anodes for Aqueous Zinc Batteries. 2020 , 132, 19454-19458	13
484	Ultrasensitive Detection of Electrolyte Leakage from Lithium-Ion Batteries by Ionically Conductive Metal-Organic Frameworks. 2020 , 3, 904-919	17
483	Hydrophobic Organic-Electrolyte-Protected Zinc Anodes for Aqueous Zinc Batteries. 2020 , 59, 19292-19296	120
482	Rational design of perfluorinated sulfonic acid ionic sieve modified separator for high-performance Li-S battery. 2020 , 24, 771-779	2

481	Improve redox activity and cycling stability of the lithium-sulfur batteries via in situ formation of a sponge-like separator modification layer. 2020 , 44, 4933-4943	7
480	Size tailored bimetallic metal-organic framework (MOF) on graphene oxide with sandwich-like structure as functional nano-hybrids for improving fire safety of epoxy. 2020 , 188, 107881	36
479	Ti3C2Tx/Graphene Oxide Free-Standing Membranes as Modified Separators for LithiumBulfur Batteries with Enhanced Rate Performance. 2020 , 3, 2708-2718	18
478	Multi-ion Modulated Single-Step Synthesis of a Nanocarbon Embedded with a Defect-Rich Nanoparticle Catalyst for a High Loading Sulfur Cathode. 2020 , 12, 12727-12735	14
477	A stable high-voltage lithium-ion battery realized by an in-built water scavenger. 2020 , 13, 1197-1204	31
476	Facile synthesis of sulfurized polyacrylonitrile composite as cathode for high-rate lithium-sulfur batteries. 2020 , 49, 161-165	16
475	An ultra-durable gel electrolyte stabilizing ion deposition and trapping polysulfides for lithium-sulfur batteries. 2020 , 27, 25-34	15
474	MetalBrganic frameworks as a platform for clean energy applications. 2020 , 2, 100027	377
473	Engineering Oxygen Vacancies in a Polysulfide-Blocking Layer with Enhanced Catalytic Ability. 2020 , 32, e1907444	85
472	Porous Metal-Organic Frameworks Containing Reversible Disulfide Linkages as Cathode Materials for Lithium-Ion Batteries. 2020 , 13, 2256-2263	14
471	Dendrite-like carbon nanotube-confined polymeric sulfur as cathode materials for lithiumBulfur battery. 2020 , 30, 521-526	1
470	Stable cycling of LiB batteries by simultaneously suppressing Li-dendrite growth and polysulfide shuttling enabled by a bioinspired separator. 2020 , 8, 3692-3700	38
469	Single Atom Array Mimic on Ultrathin MOF Nanosheets Boosts the Safety and Life of Lithium-Sulfur Batteries. 2020 , 32, e1906722	104
468	Mitigating the polysulfides Ehuttling Ewith TiO2 nanowires/nanosheets hybrid modified separators for robust lithium-sulfur batteries. 2020 , 387, 124080	19
467	Lithiation of covalent organic framework nanosheets facilitating lithium-ion transport in lithium-sulfur batteries. 2020 , 29, 207-215	39
466	2D/1D VO Nanoplates Anchored Carbon Nanofibers as Efficient Separator Interlayer for Highly Stable Lithium-Sulfur Battery. 2020 , 10,	10
465	Electropolymerization growth of an ultrathin, compact, conductive and microporous (UCCM) polycarbazole membrane for high energy LiB batteries. 2020 , 73, 104769	15
464	Microporous Metal-Organic Framework (MOF)-Based Composite Polymer Electrolyte (CPE) Mitigating Lithium Dendrite Formation in All-Solid-State-Lithium Batteries. 2020 , 5, 7885-7894	30

(2021-2020)

463	Controlling the morphology of metal-organic frameworks and porous carbon materials: metal oxides as primary architecture-directing agents. 2020 , 49, 3348-3422	104
462	Advances in metal-organic framework coatings: versatile synthesis and broad applications. 2020 , 49, 3142-3186	167
461	A review of electrochemical energy storage behaviors based on pristine metal b rganic frameworks and their composites. 2020 , 416, 213341	94
460	An Anionic-MOF-Based Bifunctional Separator for Regulating Lithium Deposition and Suppressing Polysulfides Shuttle in Liß Batteries. 2020 , 4, 2000082	61
459	An in situ decorated cathode with LiF and F@C for performance enhanced Li-S batteries. 2020 , 56, 6444-6447	4
458	Multifunctional interlayer with simultaneously capturing and catalytically converting polysulfides for boosting safety and performance of lithium-sulfur batteries at high-low temperatures. 2020 , 50, 248-259	15
457	Balancing the Seesaw: Investigation of a Separator to Grasp Polysulfides with Diatomic Chemisorption. 2020 , 12, 20596-20604	8
456	Integration of Binary Active Sites: Co V O as Polysulfide Traps and Catalysts for Lithium-Sulfur Battery with Superior Cycling Stability. 2020 , 16, e1907153	18
455	Hybrid co-based MOF nanoboxes/CNFs interlayer as microreactors for polysulfides-trapping in lithium-sulfur batteries. 2021 , 57, 469-476	16
454	Loading Fe3O4 nanoparticles on paper-derived carbon scaffold toward advanced lithiumBulfur batteries. 2021 , 52, 1-11	23
453	A gelatin-based artificial SEI for lithium deposition regulation and polysulfide shuttle suppression in lithium-sulfur batteries. 2021 , 52, 310-317	20
452	Polyacrylonitrile-based gel polymer electrolyte filled with Prussian blue forhigh-performance lithium polymer batteries. 2021 , 32, 890-894	8
451	Host Materials Anchoring Polysulfides in Liß Batteries Reviewed. 2021, 11, 2001304	91
450	Progress and Perspective of Metal- and Covalent-Organic Frameworks and their Derivatives for Lithium-Ion Batteries. 2021 , 4, 72-97	14
449	Recent advances of organometallic complexes for rechargeable batteries. 2021 , 429, 213650	13
448	Sulfophilic and lithophilic sites in bimetal nickel-zinc carbide with fast conversion of polysulfides for high-rate Li-S battery. 2021 , 404, 126566	16
447	Graphene oxide: An emerging electromaterial for energy storage and conversion. 2021 , 55, 323-344	56
446	Understanding the high-performance Fe(OH)3@GO nanoarchitecture as effective sulfur hosts for the high capacity of lithium-sulfur batteries. 2021 , 538, 148032	10

445	Recent advances in interlayer and separator engineering for lithium-sulfur batteries. 2021 , 57, 41-60	18
444	Advanced electrolyte design for stable lithium metal anode: From liquid to solid. 2021 , 80, 105516	34
443	Efficient separators with fast Li-ion transfer and high polysulfide entrapment for superior lithium-sulfur batteries. 2021 , 408, 127348	11
442	Theoretical investigation on lithium polysulfide adsorption and conversion for high-performance Li-S batteries. 2021 , 13, 15-35	15
441	Cation-Selective Separators for Addressing the Lithium-Sulfur Battery Challenges. 2021 , 14, 792-807	14
440	Upcycling of paper waste for high-performance lithium-sulfur batteries. 2021 , 19, 100591	8
439	Design principles of MOF-related materials for highly stable metal anodes in secondary metal-based batteries. 2021 , 19, 100608	14
438	Theoretical understanding for anchoring effect of MOFs for lithium-sulfur batteries. 2021 , 1196, 113110	О
437	A defect-free MOF composite membrane prepared via in-situ binder-controlled restrained second-growth method for energy storage device. 2021 , 35, 687-694	10
436	Recent advances of electrically conductive metal-organic frameworks in electrochemical applications. 2021 , 13, 100105	17
435	Stable performance of Li-S battery: Engineering of Li2S smart cathode by reduction of multilayer graphene-embedded 2D-MoS2. 2021 , 862, 158031	2
434	Metal B rganic framework microdomains in 3D conductive host as polysulfide inhibitor for fast, long-cycle Li B batteries. 2021 , 535, 147680	6
433	Applications of reticular diversity in metalBrganic frameworks: An ever-evolving state of the art. 2021 , 430, 213655	17
432	Metal-organic frameworks containing solid-state electrolytes for lithium metal batteries and beyond. 2021 , 5, 1771-1794	10
431	A water-soluble, adhesive and 3D cross-linked polyelectrolyte binder for high-performance lithium Bulfur batteries. 2021 , 9, 2375-2384	4
430	Phosphonium Bromides Regulating Solid Electrolyte Interphase Components and Optimizing Solvation Sheath Structure for Suppressing Lithium Dendrite Growth. 2021 , 31, 2009013	40
429	TitaniumBxo cluster reinforced gel polymer electrolyte enabling lithiumBulfur batteries with high gravimetric energy densities. 2021 , 14, 975-985	17
428	Metal chelation based supramolecular self-assembly enables a high-performance organic anode for lithium ion batteries. 2021 , 413, 127525	3

(2021-2021)

427	Permselective metal-organic framework gel membrane enables long-life cycling of rechargeable organic batteries. 2021 , 16, 77-84	43
426	MOF-derived fluorine and nitrogen co-doped porous carbon for an integrated membrane in lithiumBulfur batteries. 2021 , 45, 2361-2365	5
425	Ultrathin and Bifunctional Polymer-Nanolayer-Embedded Separator to Simultaneously Alleviate Li Dendrite Growth and Polysulfide Crossover in LiB Batteries. 2021 , 4, 611-622	8
424	Role of Framework@arrier Interactions in Proton-Conducting Crystalline Porous Materials. 2021 , 21, 1378-1388	7
423	Enhanced Performance of LithiumBulfur Batteries with Co-Doped g-C3N4 Nanosheet-Based Separator. 2021 , 60, 1231-1240	4
422	The Potential of MOFs in the Field of Electrochemical Energy Storage. 2021 , 111-154	O
421	Applications of Metal-organic Frameworks (MOFs) Materials in Lithium-ion Battery/Lithium-metal Battery Electrolytes. 2021 , 79, 139	3
420	Batteries. 2021 , 79-141	
419	Rationally designed polyhedral carbon framework from solid to hollow for long cycle life secondary batteries. 2021 , 9, 6284-6297	8
418	Construction of Metal-Organic Frameworks (MOFs) B ased Membranes and Their Ion Transport Applications. 2021 , 1, 2000035	12
417	A biopolymer-based functional separator for stable Li metal batteries with an additive-free commercial electrolyte. 2021 , 9, 7774-7781	7
416	Constructing high gravimetric and volumetric capacity sulfur cathode with LiCoO2 nanofibers as carbon-free sulfur host for lithium-sulfur battery. 2021 , 64, 1343-1354	8
415	Strong Chemical Interaction between Lithium Polysulfides and Flame-Retardant Polyphosphazene for Lithium-Sulfur Batteries with Enhanced Safety and Electrochemical Performance. 2021 , 33, e2007549	39
414	Functional and structural insight into lignocellulosic fibers for high-areal-capacity lithiumBulfur batteries. 2021 , 9, 18260-18271	2
413	Electrochemical aspects of metal-organic frameworks. 2021 , 65-109	1
412	Template-Free Self-Caging Nanochemistry for Large-Scale Synthesis of Sulfonated-Graphene@Sulfur Nanocage for Long-Life Lithium-Sulfur Batteries. 2021 , 31, 2008652	17
411	MetalBrganic frameworks as separators and electrolytes for lithiumBulfur batteries. 2021, 9, 7301-7316	11
410	Oxygen Vacancy-Rich Mixed-Valence Cerium MOF: An Efficient Separator Coating to High-Performance Lithium-Sulfur Batteries. 2021 , 13, 3899-3910	22

409	Separator Design Variables and Recommended Characterization Methods for Viable LithiumBulfur Batteries. 2021 , 6, 2001136	10
408	A strategy of using temporary space-holders to increase the capacity for Li S batteries. 2021 , 882, 115008	O
407	Tortuosity Modulation toward High-Energy and High-Power Lithium Metal Batteries. 2021, 11, 2003663	13
406	Multifunctional MOF-Based Separator Materials for Advanced LithiumBulfur Batteries. 2021, 8, 2001941	8
405	Alleviating the polysulfides Ehuttling and improving the sulfur utilization ably by the micropores of MOFs materials. 2021 , 45, 10304-10316	1
404	Rational Construction of Sulfur-Deficient NiCo2S4N Hollow Microspheres as an Effective Polysulfide Immobilizer toward High-Performance Lithium/Sulfur Batteries. 2021 , 4, 1687-1695	13
403	Encapsulating Sulfur Into Nickel Decorated Hollow Carbon Fibers for High-Performance Lithium-Sulfur Batteries. 2021 , 8,	1
402	Surface/Interface Structure and Chemistry of LithiumBulfur Batteries: From Density Functional Theory Calculations Perspective. 2021 , 2, 2100007	9
401	Metal©rganic Framework-Based Sulfur-Loaded Materials.	3
400	Enhanced catalytic conversion of polysulfides using high-percentage 1T-phase metallic WS2 nanosheets for LiB batteries. 2021 ,	2
399	Stepped Channels Integrated Lithium-Sulfur Separator via Photoinduced Multidimensional Fabrication of Metal-Organic Frameworks. 2021 , 60, 10147-10154	29
398	Ion Selective Covalent Organic Framework Enabling Enhanced Electrochemical Performance of Lithium-Sulfur Batteries. 2021 , 21, 2997-3006	37
397	Stepped Channels Integrated LithiumBulfur Separator via Photoinduced Multidimensional Fabrication of MetalDrganic Frameworks. 2021 , 133, 10235-10242	2
396	Catalytic Co-N-C hollow nanocages as separator coating layer for lithium-sulfur batterys. 2021 , 316, 110927	6
395	Polyoxometalate Modified Separator for Performance Enhancement of Magnesium Bulfur Batteries. 2021 , 31, 2100868	10
394	Phosphorus-Doped Metal-Organic Framework-Derived CoS Nanoboxes with Improved Adsorption-Catalysis Effect for Li-S Batteries. 2021 , 13, 15226-15236	9
393	Ordered structure of interlayer constructed with metal-organic frameworks improves the performance of lithium-sulfur batteries. 1	7
392	Tunable Interaction between Metal-Organic Frameworks and Electroactive Components in Lithium Bulfur Batteries: Status and Perspectives. 2021 , 11, 2100387	26

391	Micro/Nano-Scaled Metal-Organic Frameworks and Their Derivatives for Energy Applications. 2003970	12
390	Metal-Organic Frameworks Nanocomposites with Different Dimensionalities for Energy Conversion and Storage. 2100346	25
389	Dense-Stacking Porous Conjugated Polymer as Reactive-Type Host for High-Performance Lithium Sulfur Batteries. 2021 , 133, 11460-11470	4
388	Metal-organic frameworks enable broad strategies for lithium-sulfur batteries 2021 , 8, nwab055	6
387	The use of graphene and its composites to suppress the shuttle effect in lithium-sulfur batteries. 2021 , 36, 336-349	5
386	A Review of Nanostructured Ion-Exchange Membranes. 2021 , 6, 2001171	7
385	Material design and structure optimization for rechargeable lithium-sulfur batteries. 2021, 4, 1142-1188	30
384	Polysulfides shuttling remedies by interface-catalytic effect of Mn3O4-MnPx heterostructure. 2021 , 36, 496-503	13
383	Structural and Dynamic Insights into the Conduction of Lithium-Ionic-Liquid Mixtures in Nanoporous Metal-Organic Frameworks as Solid-State Electrolytes. 2021 , 13, 21166-21174	6
382	2D Zr-Fc metal-organic frameworks with highly efficient anchoring and catalytic conversion ability towards polysulfides for advanced Li-S battery. 2021 , 36, 466-477	34
381	Dense-Stacking Porous Conjugated Polymer as Reactive-Type Host for High-Performance Lithium Sulfur Batteries. 2021 , 60, 11359-11369	17
380	Hybridization of Emerging Crystalline Porous Materials: Synthesis Dimensionality and Electrochemical Energy Storage Application. 2100321	11
379	A high-safety and multifunctional MOFs modified aramid nanofiber separator for lithium-sulfur batteries. 2021 , 411, 128540	44
378	Challenges and promises of lithium metal anode by soluble polysulfides in practical lithium ulfur batteries. 2021 , 45, 62-76	40
377	Advanced Li-S Batteries Enabled by a Biomimetic Polysulfide-Engulfing Net. 2021 , 13, 23811-23821	O
376	Two-dimensional Conducting Metal-Organic Frameworks Enabled Energy Storage Devices. 2021 , 37, 396-416	21
375	Carbonaceous and Polymer Materials for Liß Batteries with an Emphasis on Flexible Devices. 2021 , 2, 2000096	2
374	An effective dual-channel strategy for preparation of polybenzimidazole separator for advanced-safety and high-performance lithium-ion batteries. 2021 , 626, 119190	9

373	Rechargeable PotassiumBelenium Batteries. 2021 , 31, 2102326	9
372	Rational cooperativity of nanospace confinement and rapid catalysis via hollow carbon nanospheres@Nb-based inorganics for high-rate Li-S batteries. 2021 , 411, 128504	15
371	Metal-Organic-Framework-Derived Nanostructures as Multifaceted Electrodes in Metal-Sulfur Batteries. 2021 , 33, e2008784	21
370	Integrating Conductive Metal©rganic Framework with Graphene Oxide to Highly Sensitive Platform for Electrochemical Sensing. 2021 , 8, 2100586	3
369	Advances in Lithium-Sulfur Batteries: From Academic Research to Commercial Viability. 2021 , 33, e2003666	77
368	Covalent Organic Frameworks for Batteries. 2021 , 31, 2100505	35
367	Recent Advances on MOF Derivatives for Non-Noble Metal Oxygen Electrocatalysts in Zinc-Air Batteries. 2021 , 13, 137	22
366	Implanting nickel and cobalt phosphide into well-defined carbon nanocages: A synergistic adsorption-electrocatalysis separator mediator for durable high-power Li-S batteries. 2021 , 38, 381-388	37
365	Etched ion-track membranes as tailored separators in Li-S batteries. 2021 , 32,	2
364	Engineering Two-Dimensional Metal-Organic Framework on Molecular Basis for Fast Li Conduction. 2021 , 21, 5805-5812	9
363	Electrolyte Issues in LithiumBulfur Batteries: Development, Prospect, and Challenges. 2021 , 35, 10405-10427	17
362	Functional Separators Regulating Ion Transport Enabled by Metal-Organic Frameworks for Dendrite-Free Lithium Metal Anodes. 2021 , 31, 2102938	32
361	Recent progress of functional separators with catalytic effects for high-performance lithium-sulfur batteries. 2021 , 84, 105928	32
360	Sub-nanometer confinement enables facile condensation of gas electrolyte for low-temperature batteries. 2021 , 12, 3395	16
359	Design of a Metal Drganic Framework-Derived Co9S8/S Material for Achieving High Durability and High Performance of Lithium Bulfur Batteries. 2021 , 8, 3040-3048	2
358	Bimetallic Metal-Organic Framework with High-Adsorption Capacity toward Lithium Polysulfides for Lithium Bulfur Batteries.	15
357	Multifunctional separators for high-performance lithium ion batteries. 2021 , 499, 229973	10
356	Enhanced electrochemical performance of lithium-sulfur batteries using a V2O5/graphene interlayer. 2021 , 868, 159131	8

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355	The Electrocatalyst based on LiVPO4F/CNT to enhance the electrochemical kinetics for high performance Li-S batteries. 2021 , 415, 129053	5
354	Cobalt sulfide quantum dot embedded in nitrogen/sulfur-doped carbon nanosheets as a polysulfide barrier in Li-S batteries. 2021 , 870, 159341	16
353	Designing CationBolvent Fully Coordinated Electrolyte for High-Energy-Density LithiumBulfur Full Cell Based On SolidBolid Conversion. 2021 , 133, 17867-17875	3
352	Functional Gel Poly-m-phenyleneisophthalamide Nanofiber Separator Modified by Starch to Suppress Lithium Polysulfides and Facilitate Transportation of Lithium Ions for High-Performance Lithium-Sulfur Battery. 2021 , 168, 070505	1
351	Metal-Organic Framework-Based Hierarchically Porous Materials: Synthesis and Applications. 2021 , 121, 12278-12326	110
350	Metal-Organic Framework-Supported Poly(ethylene oxide) Composite Gel Polymer Electrolytes for High-Performance Lithium/Sodium Metal Batteries. 2021 , 13, 37262-37272	9
349	Atomic-scale regulation of anionic and cationic migration in alkali metal batteries. 2021, 12, 4184	12
348	Machine Learning Derived Blueprint for Rational Design of the Effective Single-Atom Cathode Catalyst of the Lithium-Sulfur Battery. 2021 , 12, 7053-7059	4
347	Design principles and direct applications of cobalt-based metal-organic frameworks for electrochemical energy storage. 2021 , 438, 213872	20
346	Metal-organic framework derived FeS/MoS2 composite as a high performance anode for sodium-ion batteries. 2021 , 869, 159348	7
345	Designing Cation-Solvent Fully Coordinated Electrolyte for High-Energy-Density Lithium-Sulfur Full Cell Based On Solid-Solid Conversion. 2021 , 60, 17726-17734	16
344	Progress and Prospect of Organic Electrocatalysts in Lithium-Sulfur Batteries. 2021 , 9, 703354	О
343	Recent advances in the development of electronically and ionically conductive metal-organic frameworks. 2021 , 439, 213915	40
342	Fabricating a Carbon Microtube Interlayer by a Sustainable Green Process as a Polysulfide-Trapping Shield for Lithium-Sulfur Batteries. 2021 , 35, 14140-14147	3
341	Selective Catalysis Remedies Polysulfide Shuttling in Lithium-Sulfur Batteries. 2021 , 33, e2101006	55
340	Metal/covalent-organic frameworks for electrochemical energy storage applications. 2021 , 3, e12133	8
339	Preparation and performance of SPEI/PEI blending separator for enhanced lithium-sulfur battery. 1	1
338	Mo2C/C Hierarchical Double-Shelled Hollow Spheres as Sulfur Host for Advanced Li-S Batteries. 2021 , 133, 21682-21690	6

337	Engineering zirconium-based metal-organic framework-801 films on carbon cloth as shuttle-inhibiting interlayers for lithium-sulfur batteries. 1	0
336	Defects Engineering of Lightweight Metal-Organic Frameworks-Based Electrocatalytic Membrane for High-Loading Lithium-Sulfur Batteries. 2021 ,	9
335	Metal Drganic Framework Decorated Polymer Nanofiber Composite Separator for Physiochemically Shielding Polysulfides in Stable Lithium Bulfur Batteries.	4
334	Mn-N-C Nanostructure Derived from MnO2-x/PANI as Highly Performing Cathode Additive in Li-S Battery. 2021 , 2, 275-286	
333	Mo C/C Hierarchical Double-Shelled Hollow Spheres as Sulfur Host for Advanced Li-S Batteries. 2021 , 60, 21512-21520	17
332	Liquid-Based Janus Electrolyte for Sustainable Redox Mediation in Lithium Dxygen Batteries. 2021 , 11, 2102096	2
331	Polypyrrole-enveloped Prussian blue nanocubes with multi-metal synergistic adsorption toward lithium polysulfides: high-performance lithium-sulfur batteries. 2021 , 420, 130518	13
330	Tow-dimensional metal organic framework decorated porous carbon fiber as efficient interlayer for lithium-sulfur battery. 2021 , 897, 115564	1
329	Rational design and superfast production of biomimetic, calendering-compatible, catalytic, sulfur-rich secondary particles for advanced lithium-sulfur batteries. 2021 , 40, 415-425	9
328	Mechanochemical optimization of ZIF-8/Carbon/S8 composites for lithium-sulfur batteries positive electrodes. 2021 , 896, 115459	1
327	Recent progress of separators in lithium-sulfur batteries. 2021 , 40, 439-460	30
326	A saccharide-based binder for efficient polysulfide regulations in Li-S batteries. 2021 , 12, 5375	16
325	Sifting weakly-coordinated solvents within solvation sheath through an electrolyte filter for high-voltage lithium-metal batteries. 2021 ,	3
324	Tailoring Layered-Double-Hydroxide Nanostructures toward Long-Lifespan and Fast Kinetics LithiumBulfur Batteries.	O
323	Single crystal metal-organic framework constructed by vertically self-pillared nanosheets and its derivative for oriented lithium plating. 2021 , 42, 1553-1560	4
322	Increasing sulfur utilization in lithium-sulfur batteries by a Co-MOF-74@MWCNT interlayer. 2021 , 60, 186-193	7
321	Defect-engineered bilayer MOFs separator for high stability lithium-sulfur batteries. 2021 , 874, 159917	6
320	Bismuth-based Nanomaterials for Aqueous Alkaline Batteries: Recent Progress and Perspectives. 2021 , 7, 1188	1

319	Molecular Perturbation of 2D Organic Modifiers on Porous Carbon Interlayer: Promoted Redox Kinetics of Polysulfides in Lithium-Sulfur Batteries. 2021 , 40, 312-319	9
318	Polymer Interface-Dependent Morphological Transition toward Two-Dimensional Porous Inorganic Nanocoins as an Ultrathin Multifunctional Layer for Stable Lithium-Sulfur Batteries. 2021 , 143, 15644-15652	6
317	In situ implanting fine ZnSe nanoparticles into N-doped porous carbon nanosheets as an exposed highly active and long-life anode for lithium-ion batteries. 2021 , 876, 160135	6
316	Ion shielding functional separator using halloysite containing a negative functional moiety for stability improvement of LiB batteries. 2021 , 60, 334-340	9
315	Ultra-lightweight Ion-Sieving Membranes for High-Rate Lithium Sulfur Batteries. 2021 , 430, 132698	2
314	Defective graphene coating-induced exposed interfaces on CoS nanosheets for high redox electrocatalysis in lithium-sulfur batteries. 2021 , 40, 358-367	21
313	Catalyzing polysulfide redox conversion for promoting the electrochemical performance of lithium-sulfur batteries by CoFe alloy. 2021 , 421, 129997	15
312	CoSe2@C-N/CNT-modified separator for highly efficient lithium-sulphur battery. 2021 , 879, 160368	6
311	Gradient sulfur fixing separator with catalytic ability for stable lithium sulfur battery. 2021 , 422, 130107	18
310	Rechargeable metal (Li, Na, Mg, Al)-sulfur batteries: Materials and advances. 2021 , 61, 104-134	22
309	High-efficient multifunctional electrochemical membrane for lithium polysulfide redox flow batteries. 2021 , 636, 119539	1
308	New Mn(II) coordination polymer constructed from a semi-rigid tricarboxylate acid ligand: Synthesis, structure, and fluorescence recognition of acetylacetone and dichromate anion. 2021 , 526, 120512	1
307	A calcium fluoride composite reduction graphene oxide functional separator for lithium-sulfur batteries to inhibit polysulfide shuttling and mitigate lithium dendrites. 2021 , 601, 305-316	6
306	Enhanced chemical trapping and catalytic conversion of polysulfides by diatomite/MXene hybrid interlayer for stable Li-S batteries. 2021 , 62, 590-598	13
305	ZIF-67/Super P modified separator as an efficient polysulfide barrier for high-performance lithium-sulfur batteries. 2021 , 371, 115750	3
304	Multifunctional cation-vacancy-rich ZnCo2O4 polysulfide-blocking layer for ultrahigh-loading Li-S battery. 2021 , 89, 106331	16
303	Improved electrochemical behavior of Liß battery with functional WS2@PBPPyThodified separator. 2021 , 8, 100145	2
302	Appreciating the role of polysulfides in lithium-sulfur batteries and regulation strategies by electrolytes engineering. 2021 , 42, 645-678	5

301	High-performance lithium-sulfur battery enabled by jointing cobalt decorated interlayer and polyethyleneimine functionalized separator. 2021 , 888, 161459	1
300	Hollow urchin-like MnO microspheres as an advanced sulfur host for enabling Li-S batteries with high gravimetric energy density. 2022 , 606, 1111-1119	6
299	Dual-regulation strategy to enhance electrochemical catalysis ability of NiCo2O4-x for polysulfides conversion in Li-S batteries. 2022 , 428, 131109	2
298	Interfacial design of thick sulfur cathodes to achieve high energy density and stability. 2021 , 9, 17129-17142	3
297	Recent progress in metal-organic framework/graphene-derived materials for energy storage and conversion: design, preparation, and application. 2021 , 12, 5737-5766	22
296	Two-dimensional metalBrganic framework with perpendicular one-dimensional nano-channel as precise polysulfide sieves for highly efficient lithiumBulfur batteries. 2021 , 9, 4870-4879	5
295	Biomass-based materials for green lithium secondary batteries. 2021 , 14, 1326-1379	55
294	The rise of metalorganic frameworks for electrolyte applications. 2021 , 9, 20837-20856	3
293	Recent progress on pristine metal/covalent-organic frameworks and their composites for lithiumBulfur batteries. 2021 , 14, 1835-1853	54
292	Strategy of Enhancing the Volumetric Energy Density for Lithium-Sulfur Batteries. 2021 , 33, e2003955	66
291	Nano Polymorphism-Enabled Redox Electrodes for Rechargeable Batteries. 2021 , 33, e2004920	13
290	Boosting Polysulfide Redox Kinetics by Graphene-Supported Ni Nanoparticles with Carbon Coating. 2020 , 10, 2000907	46
289	Revisiting the HKUST-1/S Composite as an Electrode for Li-S Batteries: Inherent Problems That Hinder Its Performance. 2021 , 2021, 177-185	3
288	A rational VO2 nanotube/graphene binary sulfur host for superior lithium-sulfur batteries. 2020 , 838, 155504	11
287	Functional separators prepared via in-situ growth of hollow CoSO4 hydrate arrays on pristine polypropylene membrane for high performance lithium-Sulfur batteries. 2020 , 838, 155618	12
286	A separator based on natural illite/smectite clay for highly stable lithium-sulfur batteries. 2020 , 576, 404-411	9
285	A polypyrrole-coated acetylene black/sulfur composite cathode material for lithiumBulfur batteries. 2018 , 27, 813-819	41
284	Enhanced Sulfur Redox and Polysulfide Regulation via Porous VN-Modified Separator for Li-S Batteries. 2019 , 11, 5687-5694	80

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283	Perovskite Lithium Lanthanum Titanate-Modified Separator as Both Adsorbent and Converter of Soluble Polysulfides toward High-Performance Li-S Battery. 2020 , 8, 16477-16492	6
282	Revisiting the positive roles of liquid polysulfides in alkali metal-sulfur electrochemistry: from electrolyte additives to active catholyte. 2019 , 11, 21595-21621	4
281	Complete encapsulation of sulfur through interfacial energy control of sulfur solutions for high-performance Li-S batteries. 2020 , 117, 12686-12692	46
280	Selective Adsorption and Electrocatalysis of Polysulfides through Hexatomic Nickel Clusters Embedded in N-Doped Graphene toward High-Performance Li-S Batteries. 2020 , 2020, 5714349	11
279	Accelerated Li-ion transport through a zwitterion-anchored separator for high-performance LiB batteries.	3
278	The molecular sieving mechanism of a polysulfide-blocking metal ö rganic framework separator for lithium B ulfur batteries. 2021 , 9, 23929-23940	3
277	Synthesis of the Metal-Organic Framework UiO-66 in the Form of Nanoparticles with a Modified Surface. 2021 , 15, 920-926	
276	Categorizing wearable batteries: Unidirectional and omnidirectional deformable batteries. 2021 , 4, 3146-3160	0 11
275	Natural Lepidolite Enables Fast Polysulfide Redox for High-Rate Lithium Sulfur Batteries. 2021 , 11, 2102058	6
274	Nafion-threaded MOF laminar membrane with efficient and stable transfer channels towards highly enhanced proton conduction. 1	Ο
273	Endoplasmic-reticulum-like catalyst coating on separator to enhance polysulfides conversion for lithium-sulfur batteries. 2021 ,	2
272	Towards High Performance Li-S Batteries via Sulfonate-Rich COF-Modified Separator. 2021 , e2105178	34
271	Separator Wettability Enhanced by Electrolyte Additive to Boost the Electrochemical Performance of Lithium Metal Batteries. 2021 , 13, 210	1
270	Comparing Internal and Interparticle Space Effects of Metal-Organic Frameworks on Polysulfide Migration in Lithium-Sulfur Batteries. 2021 , 11,	Ο
269	Lightweight Shield to Stabilize Li Metal Anodes at High Current Rates. 2021 , 4, 11878-11885	1
268	Rational Design of MOF-Based Materials for Next-Generation Rechargeable Batteries. 2021 , 13, 203	20
267	Molecular Cleavage of Metal-Organic Frameworks and Application to Energy Storage and Conversion. 2021 , e2104341	17
266	Progress in Composite Polymer Membrane for Application as Separator in Lithium Ion Battery. 2020 , 30, 228-241	1

 265 Anthraquinone Covalent Organic Framework Hollow Tubes as Binder Microadditives in LiB Batteries.

264	Atomically Thin Materials for Next-Generation Rechargeable Batteries. 2021,	14
263	Anthraquinone Covalent Organic Framework Hollow Tubes as Binder Microadditives in Li-S Batteries. 2021 ,	7
262	A review on graphene oxide effect in energy storage devices. 2021 , 106, 20-20	2
261	Rational Design of Metal@rganic Framework-Based Materials for Advanced Li?S Batteries. 2021 , 42, 148-158	5
260	The application of Cr-MOF@MWCNT modified separator in high-performance lithium-sulfur batteries. 619, 012064	1
259	Rational design of Ni3(HITP)2@GO composite for lithium-sulfur cathode. 2022 , 572, 151479	0
258	Two-dimensional materials towards separator functionalization in advanced Li-S batteries. 2021 , 13, 18883-18911	1
257	Pore-Space-Partitioned MOF Separator Promotes High-Sulfur-Loading Li-S Batteries with Intensified Rate Capability and Cycling Life.	4
256	VOPO4 as effective long-chain polysulfides adsorbent for lithium-sulfur batteries. 1	O
255	MOF drived MnO/NII/CNT composite and its modified separator for advanced LiB battery. 2022 , 329, 111558	2
254	Eliminating anion depletion region and promoting Li+ solvation via anionphilic metal organic framework for dendrite-free lithium deposition. 2022 , 92, 106708	5
253	Ultrafine NbN nanoparticle decorated nitrogen-doped carbon nanosheets with efficient polysulfide catalytic conversion for superior LiB batteries. 2022 , 520, 230764	1
252	Metal-organic framework-based materials for flexible supercapacitor application. 2022 , 452, 214300	21
251	Defect-Free Metal-Organic Framework Membrane for Precise Ion/Solvent Separation toward Highly Stable Magnesium Metal Anode. 2021 , e2108114	11
250	Metal�Drganic Framework Separator as a Polyselenide Filter for High-Performance LithiumBelenium Batteries.	O
249	MOF-Derived MnS/N[email[protected] Composites as Separator Coating Materials for Long-Cycling LiB Batteries. 2021 , 9, 15469-15477	4
248	Enhanced chemisorption and catalytic conversion of polysulfides via CoFe@NC nanocubes modified separator for superior LiB batteries. 2021 , 433, 133792	4

(2021-2021)

247	Interface engineering of metal phosphide on hollow carbons by Dual-template method for High-performance Lithium-sulfur batteries. 2021 , 433, 133549	1
246	Cellulose nanofiber separator for suppressing shuttle effect and Li dendrite formation in lithium-sulfur batteries. 2021 , 67, 736-736	5
245	Microporous cyclodextrin film with funnel-type channel polymerized on electrospun cellulose acetate membrane as separators for strong trapping polysulfides and boosting charging in lithium-sulfur batteries.	2
244	In-situ construction of g-C3N4/carbon heterostructure on graphene nanosheet: An efficient polysulfide barrier for advanced lithium-sulfur batteries. 2021 , 578, 152022	2
243	An optimized combination inspired by the wooden-barrel effect for Li-S pouch cells. 2021 , 2, 100659	0
242	Lithium-Sulfur Batteries Meet Electrospinning: Recent Advances and the Key Parameters for High Gravimetric and Volume Energy Density. 2021 , e2103879	23
241	Fibrous cathode materials for advanced sodium-chalcogen batteries. 2021,	6
240	Construction of KB@ZIF-8/PP Composite Separator for Lithium-Sulfur Batteries with Enhanced Electrochemical Performance. 2021 , 13,	1
239	An overview of MOF-based separators for lithium-sulfur batteries. 2022 , 31, e00374	1
238	Fe3C@NCNT as a promoter for the sulfur cathode toward high-performance lithium-sulfur batteries. 2022 , 899, 163245	4
237	Template-directed growth of ordered metal-organic frameworks array and derived nickel-cobalt double hydroxide electrode for hybrid supercapacitor and aqueous NiCo-Zn battery. 2022 , 900, 163532	3
236	Porous membrane host-derived in-situ polymer electrolytes with double-stabilized electrode interface enable long cycling lithium metal batteries. 2022 , 433, 134471	5
235	Advanced metalorganic framework-based membranes with ion selectivity for boosting electrochemical energy storage and conversion. 2021 , 9, 25325-25340	3
234	Multifactorial engineering of biomimetic membranes for batteries with multiple high-performance parameters 2022 , 13, 278	4
233	Fabrication of a Covalent Triazine Framework Functional Interlayer for High-Performance Lithium-Sulfur Batteries 2022 , 12,	1
232	Highly safe and stable lithiumthetal batteries based on a quasi-solid-state electrolyte. 2022 , 10, 651-663	3
231	Designing a Functional CNT+PB@MXene-Coated Separator for High-Capacity and Long-Life Lithium-Sulfur Batteries 2022 , 12,	2
230	State of the art developments and prospects of metal-organic frameworks for energy applications 2021 ,	4

229	Chlorophyll derivative intercalation into Nb2C MXene for lithium-ion energy storage. 1	2
228	Single-dispersed polyoxometalate clusters embedded on multilayer graphene as a bifunctional electrocatalyst for efficient Li-S batteries 2022 , 13, 202	16
227	Dual-Ion Flux Management for Stable High Areal Capacity Lithium Bulfur Batteries. 2103444	1
226	Catalytic Conversion of Polysulfides in Liß Batteries. 2022 , 165-223	
225	Hybrid covalent organic-framework-based electrolytes for optimizing interface resistance in solid-state lithium-ion batteries. 2022 , 100731	1
224	LithiumBulfur battery. 2022 , 309-328	
223	Exceptional lithium diffusion through porous aromatic framework (PAF) interlayers delivers high capacity and long-life lithiumBulfur batteries. 2022 , 10, 902-911	2
222	A one-step deposition method to prepare separators with carbon soot loading for lithium-sulfur battery. 1	
221	TiH Nanodots Exfoliated via Facile Sonication as Bifunctional Electrocatalysts for Li-S Batteries 2022 ,	1
220	Atomic Structure Modification of Fe-N-C Catalysts via Morphology Engineering of Graphene for Enhanced Conversion Kinetics of LithiumBulfur Batteries. 2110857	5
219	Green Reduction of Cobalt Ferrocyanide with Excellent Electrocatalytic Activity toward the Oxygen Evolution Reaction. 2022 , 36, 1654-1664	6
218	Sandwich-like strontium fluoride graphene-modified separator inhibits polysulfide shuttling and lithium dendrite growth in lithium Bulfur batteries.	2
217	A High Conductivity One-Dimensional 전 Conjugated Metal-Organic Framework with Efficient Polysulfide Trapping-Diffusion-Catalysis in Lithium-Sulfur Batteries 2022 , e2108835	12
216	LaMoO as an Effective Catalyst for the Cathode Reactions of Lithium-Sulfur Batteries 2022,	1
215	Application of Ni-MOF derived Ni-C composite on separator modification for Li-S batteries. 2022 , 907, 116029	1
214	Hydrogen bonds to balance mechanical and adhesive properties of pectin/polyacrylic acid blends as efficient binders for cathode in lithium-sulfur battery. 2022 , 31, 103211	О
213	Vanadium-based metal-organic frameworks and their derivatives for electrochemical energy conversion and storage.	6
212	Lithium dendritic growth inhibitor enabling high capacity, dendrite-free, and high current operation for rechargeable lithium batteries. 2022 , 46, 76-89	4

211	Plasma and magnetron sputtering constructed dual-functional polysulfides barrier separator for high-performance lithium-sulfur batteries 2022 , 613, 636-643	1
210	Defect-rich porous tubular graphitic carbon nitride with strong adsorption towards lithium polysulfides for high-performance lithium-sulfur batteries. 2022 , 115, 140-147	О
209	Design of advanced separators for high performance Li-S batteries using natural minerals with 1D to 3D microstructures 2022 , 614, 593-602	1
208	Integration of porous graphitic carbon and carbon fiber framework for ultrahigh sulfur-loading lithium-sulfur battery 2022 ,	2
207	Sucrose Derived Hierarchical Porous Carbon as Sulfur Encapsulation Host for Durable Cycled Lithium-Sulfur Batteries.	
206	Nitrogen and Sulfur Co-doped Two-Dimensional Highly Porous Carbon Nanosheets for High-Performance LithiumBulfur Batteries.	3
205	Constructing MIL-101(Cr) membranes on carbon nanotube films as ion-selective interlayers for lithium-sulfur batteries 2022 ,	О
204	Energy-Saving Synthesis of Functional CoS/rGO Interlayer With Enhanced Conversion Kinetics for High-Performance Lithium-Sulfur Batteries 2021 , 9, 830485	2
203	Interfacial Assembly of Functional Mesoporous Carbon-Based Materials into Films for Batteries and Electrocatalysis. 2101998	4
202	Unlocking Failure Mechanisms and Improvement of Practical Liß Pouch Cells through In Operando Pressure Study. 2022 , 12, 2103048	6
201	Outstanding long-cycling lithiumBulfur batteries by core-shell structure of S@Pt composite with ultrahigh sulfur content. 2021 , 100006	20
200	Tailored porous framework materials for advancing lithium-sulfur batteries 2022,	O
199	Understanding the interactions between lithium polysulfides and anchoring materials in advanced lithium-sulfur batteries using density functional theory 2022 ,	3
198	An Ultrathin Functional Layer Based on Porous Organic Cages for Selective Ion Sieving and Lithium-Sulfur Batteries 2022 ,	О
197	Nitrogen doped hollow carbon nanospheres as efficient polysulfide restricted layer on commercial separators for high-performance lithium-sulfur batteries. 2022 ,	О
196	Catalytic Boosting Bidirectional Polysulfide Redox using Co 0.85 Se/C Hollow Structure for High-Performance Lithium-Sulfur Batteries. 2022 , 9,	О
195	Review of Multifunctional Separators: Stabilizing the Cathode and the Anode for Alkali (Li, Na, and K) Metal-Sulfur and Selenium Batteries 2022 ,	13
194	Defect Engineering in a Multiple Confined Geometry for Robust LithiumBulfur Batteries. 2103981	6

193	Enhanced Polysulfide Conversion with Highly Conductive and Electrocatalytic Iodine-Doped Bismuth Selenide Nanosheets in LithiumBulfur Batteries. 2200529	5
192	Nanofibers Comprising Interconnected Chain-Like Hollow N-Doped C Nanocages as 3D Free-Standing Cathodes for Li-S Batteries with Super-High Sulfur Content and Lean Electrolyte/Sulfur Ratio 2022 , e2200049	5
191	Cerium-Based MOF as a Separator Coating for High-Performance Lithium-Sulfur Batteries. 2022 , 169, 030528	4
190	Kinetics of redox-mediated catalysis in batteries. 2022 , 5, 173-174	1
189	A COF-coated MOF framework polysulfide barrier design for enhanced performance in lithium-sulfur batteries. 2022 , 412, 140156	6
188	Configurational and structural design of separators toward shuttling-free and dendrite-free lithium-sulfur batteries: A review. 2022 , 47, 629-648	7
187	Selective ion transport of catalytic hybrid aerofilm interlayer for long-stable Li-S batteries. 2022 , 47, 472-481	4
186	Chemical vapor deposition of guest-host dual metal-organic framework heterosystems for high-performance mixed matrix membranes. 2022 , 27, 101462	Ο
185	CeO2 composite metal organic framework is used to construct high-performance lithium-sulfur batteries. 2022 , 906, 164341	3
184	Facilitating catalytic activity of indium oxide in lithium-sulfur batteries by controlling oxygen vacancies. 2022 , 48, 133-144	2
183	Synergistic Adsorption-Electrocatalysis of 2D/2D heterostructure toward high performance Li-S batteries. 2022 , 439, 135535	8
182	Beyond powders: Monoliths on the basis of metal-organic frameworks (MOFs). 2022 , 441, 135953	3
181	An ion sieving conjugated microporous thermoset ultrathin membrane for high-performance Li-S battery. 2022 , 49, 1-10	0
180	Carbon-Based Conductive Frameworks and Metal Catalytic Sites Derived from Cross-Linked Porous Porphyrin-Based Polyimides for Enhanced Conversion of Lithium Polysulfides in Liß Batteries. 2021 , 4, 14497-14507	O
179	Ionic-Liquid-Assisted Synthesis of N, F, and B Co-Doped CoFe 2 O 4lk on Multiwalled Carbon Nanotubes with Enriched Oxygen Vacancies for LiB Batteries. 2022 , 32, 2111084	6
178	Prussian Blue Nanolayer-Embedded Separator for Selective Segregation of Nickel Dissolution in High Nickel Cathodes 2021 ,	1
177	MXene chemistry, electrochemistry and energy storage applications.	35
176	CoP@C with chemisorption-catalysis effect toward lithium polysulfides as multifunctional interlayer for high-performance lithium-sulfur batteries. 2022 , 140391	1

175	Pushing lithium-sulfur batteries towards practical working conditions through cathode-electrolyte synergy 2022 ,	1
174	Progress on separators for high-performance lithiumBulfur batteries. 2022 , 157-177	
173	Promoting Polysulfide Redox Kinetics by Tuning Non-metallic p-Band of Mo-based compounds.	0
172	MOF-based electrolytes for battery applications. 2022 , 341-362	
171	MOFs-based nanomaterials for metal-sulfur batteries. 2022 , 269-292	
170	Separators for lithiumBulfur batteries. 2022 , 121-156	1
169	Recent developments in lithiumBulfur batteries. 2022 , 11-36	
168	Catalysing the Performance of Li-Sulfur Batteries with Two-Dimensional Conductive Metal Organic Frameworks.	1
167	Electrolyte measures to prevent polysulfide shuttle in Li-S batteries.	4
166	Atomic surface modification strategy of MXene materials for high-performance metal sulfur batteries.	o
165	Regulating Polysulfide Diffusion and Deposition via Rational Design of Core-Shell Active Materials in Li-S Batteries 2022 ,	3
164	Pushing LithiumBulfur Batteries towards Practical Working Conditions through a CathodeElectrolyte Synergy.	
163	Understanding the Accelerated Sodium-Ion-Transport Mechanism of an Interfacial Modified Polyacrylonitrile Separator.	О
162	Low temperature synthesis of hierarchically porous carbon host for durable lithium-sulfur batteries. 2022 , 337, 111946	1
161	The continuous efficient conversion and directional deposition of lithium (poly)sulfides enabled by bimetallic site regulation. 2022 , 98, 107332	5
160	Effects of catalysis and separator functionalization on high energy lithium sulfur batteries: A complete review.	1
159	A multi-functional separator for Li-S batteries: WS2@C nanoflowers catalyze the rapid recycling of lithium polysulfides by polar attraction.	
158	Research Progress and Perspective on Lithium/Sodium Metal Anode for Next-Generation Rechargeable Batteries: a Review 2022 ,	1

157	Continuous zirconium-based MOF-808 membranes for polysulfide shuttle suppression in lithium-sulfur batteries. 2022 , 153628	1
156	Nanotechnology and reusing battery. 2022, 53-78	О
155	In Situ Synthesis of Organopolysulfides Enabling Spatial and Kinetic Co-Mediation of Sulfur Chemistry.	О
154	Preparation of Porous YolkBhell S@Poly(vinyl alcohol) (PVA) Particles for a LithiumBulfur Battery Cathode with High Cycling and Rate Performances via a Self-Emulsification Process.	1
153	Polydopamine-assisted in-situ formation of dense MOF layer on polyolefin separator for synergistic enhancement of lithium-sulfur battery.	5
152	Stable Cycling of Room-Temperature Sodium-Sulfur Batteries Based on an In Situ Crosslinked Gel Polymer Electrolyte. 2201191	O
151	Effective polysulfide adsorption and catalysis by polyoxometalate contributing to high performance Li-S batteries. 2022 , 100231	2
150	Iron (Fe, Ni, Co)-based transition metal compounds for lithium-sulfur batteries: mechanism, progress and prospects. 2022 ,	2
149	Recent Progresses of Metal-Organic Framework-Based Materials in Electrochemical Energy Storage. 2022 , 100174	0
148	Bifunctional design of cerium-based metal-organic framework-808 membrane modified separator for polysulfide shuttling and dendrite growth inhibition in lithium-sulfur batteries. 2022 , 52, 104981	1
147	Electrochemical polymerization of nonflammable electrolyte enabling fast-charging lithium-sulfur battery. 2022 , 50, 387-394	4
146	In situ grown MOFs and PVDF-HFP co-modified aramid gel nanofiber separator for high-safety lithiumBulfur batteries.	4
145	Promise and reality of organic electrodes from materials design and charge storage perspective.	2
144	Function-directed design of battery separators based on microporous polyolefin membranes.	4
143	Engineering Fe and V Coordinated Bimetallic Oxide Nanocatalyst Enables Enhanced Polysulfides Mediation for High Energy Density Li-S Battery. 2202557	2
142	Anion Concentration Gradient-Assisted Construction of a SolidElectrolyte Interphase for a Stable Zinc Metal Anode at High Rates.	11
141	Electrocatalyst Modulation toward Bidirectional Sulfur Redox in LiB Batteries: From Strategic Probing to Mechanistic Understanding. 2201056	8
140	Tuning the Metal Ions of Prussian Blue Analogues in Separators to Enable High-Power Lithium Metal Batteries. 2022 , 22, 4861-4869	1

139	Versatile Asymmetric Separator with Dendrite-Free Alloy Anode Enables High-Performance Liß Batteries. 2202204	1
138	A Dual-Functional Interlayer for Li-S Batteries by using Carbon Fiber Film Cladded Electronic-Deficiency Li2B4O7.	1
137	Applications of metal-organic frameworks for lithium-sulfur batteries. 2022 , 49-119	
136	A Novel Flame-Resistant Separator for high performance Lithium-Sulfur Battery.	1
135	A Single Potassium-Ion Conducting Metal®rganic Framework.	1
134	-MOF-based ions regulator enabling fast-charging and dendrite-free lithium metal anode. 2022,	1
133	Phase Engineering of Defective Copper Selenide toward Robust LithiumBulfur Batteries.	6
132	Recent Advances in Cu-Based Metal Organic Frameworks and Their Derivatives for Battery Applications. 2022 , 5, 7842-7873	O
131	Ion sieve membrane: Homogenizing Li+ flux and restricting polysulfides migration enables long life and highly stable Li-S battery. 2022 ,	2
130	Dawson-Type Polyoxometalate Modified Separator for Anchoring/Catalyzing Polysulfides in High-Performance Lithium-Sulfur Batteries. 2022 , 140868	2
129	Hierarchical pore enhanced adsorption and photocatalytic performance of graphene oxide/Ti-based metal-organic framework hybrid for toluene removal. 2022 , 121751	0
128	Recent progress of sulfur cathodes and other components for flexible lithiumBulfur batteries. 2022 , 100181	
127	Metal-organic framework (MOF) composites as promising materials for energy storage applications. 2022 , 102732	6
126	Engineering MOFs-Derived Nanoarchitectures with Efficient Polysulfides Catalytic Sites for Advanced Liß Batteries. 2200238	2
125	Construction of Diversified Ion Channels in Lithium-Ion Battery Separator Using Polybenzimidazole and Ion-Modified Metal Drganic Framework.	1
124	Metal-Organic Frameworks Functionalized Separators for Lithium-Sulfur Batteries.	1
123	MoP@NC/S cathode with multiple synergistic effect contributes to Li-S battery. 2022 , 121684	0
122	Selective Ion Transport in Assembled Graphene Oxide-Modified Separator and the Novel Intra-Series Architecture for Improved Aqueous Batteries. 2022 , 138061	O

Mixed metal-organic frameworks as efficient semi-solid electrolytes for Mg-ion batteries.

120	An ultralight electroconductive metal-organic framework membrane for multistep catalytic conversion and molecular sieving in lithium-sulfur batteries. 2022 ,	2
119	Multiple structure integrations of embedded-Co and coated-TiO2 nanoparticles in N, Co-codoped carbon nanotubes for high efficiency lithium-sulfur batteries. 2022 , 600, 154154	
118	A bidirectional electrocatalyst for enhancing Li2S nucleation and decomposition kinetics in lithiumBulfur batteries.	O
117	Tree Trunk Design for Flexible Quasi Solid-State Electrolyte with Hierarchical Ion-Channels Enabling Ultralong-Life Lithium Metal Batteries. 2203417	2
116	Holistic Design Consideration of Metal©rganic Framework-Based Composite Membranes for LithiumBulfur Batteries. 2022 , 14, 34742-34749	1
115	High-Performance Flexible Sulfur Cathodes with Robust Electrode Skeletons Built by a Hierarchical Self-Assembling Slurry. 2201881	1
114	Synergistic Restriction to Polysulfides by a Carbon Nanotube/Manganese Sulfide-Decorated Separator for Advanced LithiumBulfur Batteries. 2022 , 36, 8460-8470	1
113	Ultrahigh-Content Co?P Cluster as a Dual-Atom-Site Electrocatalyst for Accelerating Polysulfides Conversion in Liß Batteries. 2207579	4
112	Selective sulfur conversion with surface engineering of electrocatalysts in a lithiumBulfur battery.	O
111	Development of high-energy non-aqueous lithium-sulfur batteries via redox-active interlayer strategy. 2022 , 13,	3
110	Will lithium-sulfur batteries be the next beyond-lithium ion batteries and even much better?.	1
109	Targeted Catalysis of the Sulfur Evolution Reaction for High-Performance Lithium-Sulfur Batteries. 2202232	3
108	Modulating Bond Interactions and Interface Microenvironments between Polysulfide and Catalysts toward Advanced MetalBulfur Batteries. 2207021	2
107	Molecular engineering of sulfur-providing materials for optimized sulfur conversion in Li-S chemistry.	О
106	A review of synthesis, fabrication, and emerging biomedical applications of metal-organic frameworks. 2022 , 140, 213049	O
105	Bifunctional Al2O3/polyacrylonitrile membrane to suppress the growth of lithium dendrites and shuttling of polysulfides in lithium-sulfur batteries. 2022 , 428, 140955	1
104	A review of Li-ion batteries for autonomous mobile robots: Perspectives and outlook for the future. 2022 , 545, 231943	О

103	Robust potassium metal anodes realized by ferroelectricity and high conductivity separator. 2022 , 151, 107001	0
102	An integrated strategy for upgrading Li-CO2 batteries: Redox mediator and separator modification. 2022 , 450, 138400	О
101	Anionic metal-organic framework modified separator boosting efficient Li-ion transport. 2023 , 451, 138536	5
100	Integrating LiF-rich solid electrolyte interphase and in-situ formed gel blocking layer for LiB battery. 2022 , 548, 232035	Ο
99	MetalBrganic framework-derived heteroatom-doped nanoarchitectures for electrochemical energy storage: Recent advances and future perspectives. 2022 , 52, 685-735	2
98	Multistage self-assembly engineered mesoporous conjugated polymer with isomeric nanoarchitecture towards superior performance Li-S batteries. 2022 , 53, 183-191	O
97	Tailored ZnO-ZnS heterostructure enables a rational balancing of strong adsorption and high catalytic activity of polysulfides for Li-S batteries. 2022 , 53, 404-414	3
96	Graphene-supported polyoxometalate entrapped in a MIL-88A network with highly efficient conversion of polysulfides in LiB batteries. 2022 , 51, 12876-12882	O
95	MetalBrganic frameworks and their derivatives for metal-ion (Li, Na, K and Zn) hybrid capacitors.	1
94	Post-synthetically modified metalporphyrin framework GaTCPP for carbon dioxide adsorption and energy storage in LiB batteries. 2022 , 12, 23989-24002	O
93	ZnS-Nanoparticle-Coated Carbon Cloth as an Efficient Interlayer for High-Performance Liß Batteries.	1
92	Metal-organic framework derived porous structures towards lithium rechargeable batteries.	O
91	A Review of Nonaqueous Electrolytes, Binders, and Separators for Lithium-Ion Batteries. 2022, 5,	1
90	Metal-Organic Framework Enabling Poly(vinylidene fluoride)-Based Polymer Electrolyte for Dendrite-Free and Long-Lifespan Sodium Metal Batteries.	O
89	Crystallinity Regulated Functional Separator Based on Bimetallic Ni x Fe y Alloy Nanoparticles for Facilitated Redox Kinetics of LithiumBulfur Batteries. 2207094	O
88	Sulfur Reduction Reaction in LithiumBulfur Batteries: Mechanisms, Catalysts, and Characterization. 2202094	1
87	Sulfur Cathodes with Self-Organized Cellulose Nanofibers in Stable Ah-Level, >300[Wh[kg [] LithiumBulfur Cells. 2202474	1
86	A Novel Approach Towards Controlled Growth of Metal-Organic Framework ZIF-8 Thin Film on Steel with Excellent Corrosion Protection. 2022 ,	O

85	Multiple boosting Janus membranes synergized with Li-rich PAF-6 and carbon nanoparticles for high performance lithiumBulfur batteries.	O
84	Electrostatic potential-derived charge: a universal OER performance descriptor for MOFs.	O
83	Hierarchical Porous and Three-Dimensional MXene/SiO2 Hybrid Aerogel through a Sol-Gel Approach for LithiumBulfur Batteries. 2022 , 27, 7073	O
82	The Multi-Functional Effects of CuS as Modifier to Fabricate Efficient Interlayer for Li-S Batteries. 2204561	O
81	In Situ Separator Modification with an N-Rich Conjugated Microporous Polymer for the Effective Suppression of Polysulfide Shuttle and Li Dendrite Growth. 2022 , 14, 49224-49232	О
80	Rational design of a well-aligned metal-organic framework nanopillar array for superior lithium-sulfur batteries. 2022 , 140043	O
79	Melamine-Sacrificed Pyrolytic Synthesis of Spiderweb-like Nanocages Encapsulated with Catalytic Co Atoms as Cathode for Advanced Li-S Batteries. 2022 , 8, 161	1
78	Decoupled Solar Energy Storage and Dark Photocatalysis in a 3D Metal-organic Framework. 2207280	1
77	Organics-MXene composites as electrode materials for energy storage.	O
76	Boosting Adsorption and Catalysis of Polysulfides by Multifunctional Separator for LithiumBulfur Batteries. 4190-4197	O
75	Designing polysulfides adsorption-conversion on g-C 3 N 4 -based separator via doping heteroatoms boron and phosphorus toward high-performance lithium-sulfur batteries.	0
74	CeO2-C nanorods obtained by high-temperature carbonization of Ce-MOF as separator coating for Li-S battery. 2022 , 130443	O
73	Post lithium-sulfur battery era: challenges and opportunities towards practical application.	O
7 ²	Polyoxometalate embedded in metalBrganic framework surface building strong polysulfides barrier for high-performance LiB batteries.	O
71	Metal-organic framework-based catalysts for lithium-sulfur batteries. 2023 , 475, 214879	0
70	A water-stable, light-weight, MOF-based membrane for mitigating polysulfides shuttling in Li-S batteries.	O
69	A Thermoregulating Separator Based on Black Phosphorus/MOFs Heterostructure for Thermo-stable Lithium-Sulfur Batteries. 2022 , 140250	0
68	Coordination Supramolecular Network Synergized with Reduced Graphene Oxide Accelerating Redox Kinetics of LithiumBulfur Batteries.	O

67	An improved 9 micron thick separator for a 350 Wh/kg lithium metal rechargeable pouch cell. 2022 , 13,	1
66	Hierarchically porous carbon derived from delignified biomass for high sulfur-loading room-temperature sodium-sulfur batteries. 2022 , 201, 832-840	Ο
65	Water based adsorption thermal battery: Sorption mechanisms and applications. 2023, 54, 794-821	O
64	Flexible one-dimensional yarn-like Ni-Zn battery: micron-nano hierarchical-structure array, high energy density and excellent capacity retention. 2023 , 456, 141048	O
63	Tuning Fe-spin state of FeN4 structure by axial bonds as efficient catalyst in Li-S batteries. 2023 , 55, 490-497	О
62	A triple-functional carbon molecular sieve (CMS) that addresses the performance trilemma in practical lithium sulfur batteries. 2023 , 203, 856-864	O
61	Metal-Organic Frameworks for Advanced Battery Chemistries. 2022,	0
60	Functional CNTs@EMIM + -Br Œlectrode Enabling Polysulfides Confining and Deposition Regulating for Solid-State Li-Sulfur Battery. 2205809	O
59	Mitigating Polysulfide Shuttles with Upcycled Alkali Metal Terephthalate Decorated Separators. 2022 , 8, 253	0
58	Ni Single Atoms on MoS 2 Nanosheets Enabling Enhanced Kinetics of Li-S Batteries. 2205855	0
57	Restraining Shuttle Effect in Rechargeable Batteries by Multifunctional Zeolite Coated Separator. 2211774	0
56	Mimicking a cell plasma membrane to regulate dynamic polysulfide chemistry for a practical lithium-sulfur battery. 2022 , 3, 101186	Ο
55	Free-Standing Sulfur Cathodes Enabled by a Cationic Polymer for Lean Electrolyte LithiumBulfur Batteries. 619-627	0
54	Ion Selective Bifunctional Metal © rganic Framework-Based Membrane for Lithium Metal-Based Nonaqueous Redox Flow Battery.	O
53	LiTFSI salt concentration effect to digest lithium polysulfides for high-loading sulfur electrodes. 2022 ,	О
52	High sulfur loading and shuttle inhibition of advanced sulfur cathode enabled by graphene network skin and N, P, F-doped mesoporous carbon interfaces for ultra-stable lithium sulfur battery. 2022 ,	1
51	Multiple Dimensional Engineering of MOF-Related Materials in Separators for Lithium-Sulfur Batteries: A Review. 2022 , 169, 120519	0
50	Present and future of functionalized Cu current collectors for stabilizing lithium metal anodes. 2022 ,	1

49	Toward Safe and High-Performance LithiumBulfur Batteries via Polyimide Nanosheets-Modified Separator.	О
48	Polymeric Separator in Modern Metal-ion Batteries. 2023 , 119-146	o
47	Sulphur vacancy induced Co3S4@CoMo2S4 nanocomposite as functional electrode for high performance supercapacitor.	0
46	ZIF-8/ZIF-67 derived ZnS@Co-N-C hollow core-shell composite and its application in lithium-sulfur battery. 2023 , e00571	O
45	N-doped porous carbon coated g-C3N4/ g-C3N4 heterojunction for polysulfide restriction and catalytic conversion towards enhanced lithium-sulfur batteries. 2023 , 940, 168772	0
44	Toward High-Performance Mg-S Batteries via a Copper Phosphide Modified Separator.	1
43	Recent Advances on Modification of Separator for Li/S Batteries.	1
42	Building Better Lithium-Sulfur BatteriesA Reassessment of the Working Mechanism.	O
41	Bifunctional Separator with Ultra-Lightweight MnO2 Coating for Highly Stable LithiumBulfur Batteries. 2023 , 15, 6877-6887	0
40	Co-Co9S8-NC particles anchored on 3D hyperfine carbon nanofiber networks with a hierarchical structure as a catalyst promoting polysulfide conversion for lithium fulfur batteries.	0
39	Efficient Regulation of Polysulfides by MoS 2 /MoO 3 Heterostructures for High-Performance Li-S Batteries. 2206083	0
38	Flower-Like NiS 2 /WS 2 Heterojunction as Polysulfide/sulfide Bidirectional Catalytic Layer for High-Performance LithiumBulfur Batteries. 2206926	O
37	Covalent Organic Framework Based LithiumBulfur Batteries: Materials, Interfaces, and Solid-State Electrolytes. 2203540	О
36	Defect engineering of two-dimensional materials for advanced energy conversion and storage. 2023 , 52, 1723-1772	1
35	Designing a Stable Solid Electrolyte Interphase on Lithium Metal Anodes by Tailoring a Mg Atom Center and the Inner Helmholtz Plane for Lithium Bulfur Batteries. 2023 , 15, 17893-17903	0
34	Ir-doped Co-BDC MOF as efficient bifunctional catalyst for overall electrochemical water splitting.	0
33	Single and multilayer composite electrolytes for enhanced Li-ion conductivity with restricted polysulfide diffusion for lithiumBulfur battery. 2023 , 33, 101274	0
32	Highly aligned and low tortuosity nanoarray engineering for fast Li-S batteries. 2023 , 450, 142268	0

31	Ion diffusion, and hysteresis of magnesium hydride conversion electrode materials. 2023 , 155, 47-53	1
30	Recent advances in two-dimensional metal-organic frameworks as an exotic candidate for the evaluation of redox-active sites in energy storage devices. 2023 , 64, 107142	0
29	Sustainable metal-organic framework co-engineered glass fiber separators for safer and longer cycle life of Li-S batteries. 2023 , 941, 168962	0
28	Nickel vacancy tuning to tame polysulfide for LiB batteries. 2023, 47, 4313-4320	O
27	Metal®rganic Framework-Derived Magnesium Oxide@Carbon Interlayer for Stable LithiumBulfur Batteries. 2023 , 11, 1344-1354	0
26	Recent Development in Novel Lithium-Sulfur Nanofiber Separators: A Review of the Latest Fabrication and Performance Optimizations. 2023 , 13, 183	o
25	Electrolytes in Organic Batteries. 2023, 123, 1712-1773	O
24	Stabilizing cathodes and interphases for next-generation Li-ion batteries. 2023 , 561, 232738	0
23	Hollow cubic ZnS-SnS2 heterostructures as sulfur hosts to enhance chemisorption and catalytic conversion of polysulfides for lithium sulfur batteries. 2023 , 932, 117252	0
22	A short review of the recent developments in functional separators for lithium-sulfur batteries. 2023 , 40, 473-487	o
21	Engineering strategies of metal-organic frameworks toward advanced batteries. 20220064	0
20	Fluorinated Multi-Walled Carbon Nanotubes Coated Separator Mitigates Polysulfide Shuttle in Lithium-Sulfur Batteries. 2023 , 16, 1804	0
19	Metal-organic frameworks for nanoconfinement of chlorine in rechargeable lithium-chlorine batteries. 2023 , 7, 515-528	0
18	In Situ Grown ZIF67 Particles on a Glass Fiber Separator: The Performance Booster and Anode Defender for LithiumBulfurized Polyacrylonitrile (SPAN) Batteries. 2023 , 6, 3549-3565	0
17	Defect-Rich W/Mo-Doped V2O5 Microspheres as a Catalytic Host To Boost Sulfur Redox Kinetics for LithiumBulfur Batteries. 2023 , 62, 5219-5228	0
16	Wide application of metal-organic frameworks in lithium ulfur battery. 2023, 22, 100392	0
15	In Situ Grown Heterostructure Based on MOF-Derived Carbon Containing n-Type Zn [hB and Dry-Oxidative p-Type CuO as Pseudocapacitive Electrode Materials. 2023 , 8, 1887-1895	0
14	In Situ Generation of AlF3 in Nanoporous Carbon to Enable Cathode E lectrolyte Interface Construction for Stable LiBe Batteries. 2023 , 6, 5414-5421	О

13	Co-Fe phosphide@graphitic carbon nitride nanosheet modified separator for high-performance lithium-sulfur batteries. 2023 , 949, 169873	Ο
12	Nitrogen-doped hollow carbon@tin disulfide as a bipolar dynamic host for lithium-sulfur batteries with enhanced kinetics and cyclability. 2023 ,	О
11	Flexible Cobalt-Embedded Carbon Nanosheet/Carbon Nanofiber Composites for Enhanced Electromagnetic Wave Absorption Performance. 2023 , 6, 5404-5413	О
10	A High-Rate Li [10 2 Battery Enabled by 2D Medium-Entropy Catalyst.	Ο
9	An overview of atmospheric water harvesting methods, the inevitable path of the future in water supply. 2023 , 13, 10273-10307	О
8	The Rise and Development of MOF-Based Materials for Metal-Chalcogen Batteries: Current Status, Challenges, and Prospects.	О
7	Watermelon Flesh-Like Ni 3 S 2 @C Composite Separator with Polysulfide Shuttle Inhibition for High-Performance Lithium-Sulfur Batteries.	O
6	Asymmetrically Coordinated CuN 1 C 2 Single-Atom Catalyst Immobilized on Ti 3 C 2 T x MXene as Separator Coating for LithiumBulfur Batteries.	O
5	Anchoring and boosting: Ferrocene-based separators used to eliminate the polysulfide shuttle effect for LiB batteries. 2023 , 678, 121660	Ο
4	Synergistic Effects of FeCo Bimetallic Single-Atom Catalysts: Accelerating the Redox Conversion of Polysulfides and Inhibiting the Growth of Lithium Dendrites in Lithium Bulfur Batteries. 2023, 6, 4671-4682	О
3	Conversion reaction lithium metal batteries.	О
2	Strategies for addressing the challenges of aqueous zinc batteries enabled by functional separators.	О
1	Furnishing Continuous Efficient Bidirectional Polysulfide Conversion for Long-Life and High-Loading Lithium Bulfur Batteries via the Built-In Electric Field.	О