A new class of Solvent-in-Salt electrolyte for high-energy rechargeable metallic lithium batteries

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#	Paper	IF	Citations
1791	Stable cycling of lithium sulfide cathodes through strong affinity with a bifunctional binder. **2013**, 4, 3673		366
1790	Towards sustainable and versatile energy storage devices: an overview of organic electrode materials. **2013**, 6, 2280		982
1789	A comprehensive study on the cell chemistry of the sodium superoxide (NaO2) battery. **2013**, 15, 11661-72		225
1788	Room-temperature stationary sodium-ion batteries for large-scale electric energy storage. **2013**, 6, 2338		2419
1787	A zero-strain layered metal oxide as the negative electrode for long-life sodium-ion batteries. *Nature Communications*, **2013**, 4, 2365	17.4	468
1786	Controlled Ag-driven superior rate-capability of Li4Ti5O12 anodes for lithium rechargeable batteries. **2013**, 6, 365-372		67
1785	Why PEO as a binder or polymer coating increases capacity in the Li-S system. **2013**, 49, 8531-3		92
1784	Low-cost synthesis of hierarchical V2O5 microspheres as high-performance cathode for lithium-ion batteries. **2013**, 5, 7671-5		81
1783	Surface-driven sodium ion energy storage in nanocellular carbon foams. **2013**, 13, 3909-14		202
1782	A long-life, high-rate lithium/sulfur cell: a multifaceted approach to enhancing cell performance. **2013**, 13, 5891-9		373
1781	In situ formed lithium sulfide/microporous carbon cathodes for lithium-ion batteries. **2013**, 7, 10995-1003		187
1780	Lithium-sulfur batteries: electrochemistry, materials, and prospects. **2013**, 52, 13186-200		1989
1779	Sulfur/graphitic hollow carbon sphere nano-composite as a cathode material for high-power lithium-sulfur battery. **2013**, 8, 343		25
1778	Sulfur-infiltrated micro- and mesoporous silicon carbide-derived carbon cathode for high-performance lithium sulfur batteries. **2013**, 25, 4573-9		284
1777	Selenium@mesoporous carbon composite with superior lithium and sodium storage capacity. **2013**, 7, 8003-10		335
1776	A new catalyst-embedded hierarchical air electrode for high-performance LiO_2 batteries. **2013**, 6, 3570		134
1775	Anionic Effects on Solvate Ionic Liquid Electrolytes in Rechargeable Lithium–Sulfur Batteries. **2013**, 117, 20509-20516		145

1774	Highly reversible Li/dissolved polysulfide batteries with binder-free carbon nanofiber electrodes. **2013**, 1, 10362		122
1773	Highly dispersed sulfur in a porous aromatic framework as a cathode for lithium-sulfur batteries. **2013**, 49, 4905-7		99
1772	Sodium Storage and Transport Properties in Layered Na2Ti3O7 for Room-Temperature Sodium-Ion Batteries. **2013**, 3, 1186-1194		401
1771	The Role of Charge Reactions in Cyclability of Lithium□Oxygen Batteries. **2013**, 3, 1413-1416		37
1770	A strategic approach to recharging lithium-sulphur batteries for long cycle life. *Nature Communications*, **2013**, 4, 2985	17.4	330
1769	Encapsulated monoclinic sulfur for stable cycling of li-s rechargeable batteries. **2013**, 25, 6547-53		295
1768	How to Obtain Reproducible Results for Lithium Sulfur Batteries?. **2013**, 160, A2288-A2292		136
1767	An advanced selenium-carbon cathode for rechargeable lithium-selenium batteries. **2013**, 52, 8363-7		330
1766	An Advanced Selenium□Carbon Cathode for Rechargeable Lithium□Selenium Batteries. **2013**, 125, 8521-8525		47
1765	Lithium-Schwefel-Batterien: Elektrochemie, Materialien und Perspektiven. **2013**, 125, 13426-13441		163
1764	The effect of V2O5/C additive on the suppression of polysulfide dissolution in Li-sulfur batteries. **2014**, 33, 142-148		14
1763	Effect of cations in ionic liquids on the electrochemical performance of lithium-sulfur batteries. **2014**, 57, 1564-1569		44
1762	Lithium-sulfur batteries. **2014**, 39, 436-442		249
1761	Inorganic & organic materials for rechargeable Li batteries with multi-electron reaction. **2014**, 57, 42-58		68
1760	Ambient lithium-SO2 batteries with ionic liquids as electrolytes. **2014**, 53, 2099-103		57
1759	Ambient Lithium□SO2 Batteries with Ionic Liquids as Electrolytes. **2014**, 126, 2131-2135		18
1758	Peapod-like composite with nickel phosphide nanoparticles encapsulated in carbon fibers as enhanced anode for li-ion batteries. **2014**, 7, 2000-6		66
1757	New Desolvated Gel Electrolyte for Rechargeable Lithium Metal Sulfurized Polyacrylonitrile (S-PAN) Battery. **2014**, 118, 28369-28376		26

1756	Fabrication of Fully Fluorinated Graphene Nanosheets Towards High-Performance Lithium Storage. **2014**, 1, 1300149	40
1755	Engraving copper foil to give large-scale binder-free porous CuO arrays for a high-performance sodium-ion battery anode. **2014**, 26, 2273-9, 2284	395
1754	Perfluorinated ionomer-enveloped sulfur cathodes for lithium-sulfur batteries. **2014**, 7, 3341-6	24
1753	Synthesis and Characterization of Lithium Bis(fluoromalonato)borate for Lithium-Ion Battery Applications. **2014**, 4, 1301368	37
1752	Cereus-Shaped Mesoporous Rutile TiO2 Formed in Ionic Liquid: Synthesis and Li-Storage Properties. **2014**, 1, 549-553	12
1751	Ionic shield for polysulfides towards highly-stable lithium□sulfur batteries. **2014**, 7, 347-353	547
1750	Lithium dendrite and solid electrolyte interphase investigation using OsO4. **2014**, 266, 198-207	52
1749	All fluorine-free lithium battery electrolytes. **2014**, 251, 451-458	24
1748	A natural carbonized leaf as polysulfide diffusion inhibitor for high-performance lithium-sulfur battery cells. **2014**, 7, 1655-61	111
1747	A review of electrolytes for lithium□sulphur batteries. **2014**, 255, 204-218	338
1746	Preparation of three-dimensional hybrid nanostructure-encapsulated sulfur cathode for high-rate lithium sulfur batteries. **2014**, 253, 55-63	68
1745	Analysis of the solid electrolyte interphase formed with an ionic liquid electrolyte for lithium-sulfur batteries. **2014**, 252, 150-155	93
1744	Harnessing Steric Separation of Freshly Nucleated Li2S Nanoparticles for Bottom-Up Assembly of High-Performance Cathodes for Lithium-Sulfur and Lithium-Ion Batteries. **2014**, 4, 1400196	122
1743	Superior rechargeability and efficiency of lithium-oxygen batteries: hierarchical air electrode architecture combined with a soluble catalyst. **2014**, 53, 3926-31	360
1742	Mesoporous carbon/sulfur composite with polyaniline coating for lithium sulfur batteries. **2014**, 262, 170-173	32
1741	Core-shell-structured CNT@RuO(2) composite as a high-performance cathode catalyst for rechargeable Li-O(2) batteries. **2014**, 53, 442-6	453
1740	Cathode materials based on carbon nanotubes for high-energy-density lithium□sulfur batteries. **2014**, 75, 161-168	72
1739	Durable carbon-coated Li2(S) core-shell spheres for high performance lithium/sulfur cells. **2014**, 136, 4659-63	228

1738	Nanoarchitectured Graphene/CNT@Porous Carbon with Extraordinary Electrical Conductivity and Interconnected Micro/Mesopores for Lithium-Sulfur Batteries. **2014**, 24, 2772-2781		452
1737	A graphene-pure-sulfur sandwich structure for ultrafast, long-life lithium-sulfur batteries. **2014**, 26, 625-31, 664		842
1736	Nano-Copper-Assisted Immobilization of Sulfur in High-Surface-Area Mesoporous Carbon Cathodes for Room Temperature Na-S Batteries. **2014**, 4, 1400226		105
1735	Unique behaviour of nonsolvents for polysulphides in lithium–sulphur batteries. **2014**, 7, 2697-2705		280
1734	Effective Separation of Lithium Anode and Sulfur Cathode in Lithium–Sulfur Batteries. **2014**, 1, 1040-1045		61
1733	An aqueous electrolyte rechargeable Li-ion/polysulfide battery. **2014**, 2, 9025-9029		32
1732	A dual coaxial nanocable sulfur composite for high-rate lithium-sulfur batteries. **2014**, 6, 1653-60		79
1731	In situ sulfur deposition route to obtain sulfur–carbon composite cathodes for lithium–sulfur batteries. **2014**, 2, 4316-4323		81
1730	Sulfur-infiltrated graphene-based layered porous carbon cathodes for high-performance lithium-sulfur batteries. **2014**, 8, 5208-15		334
1729	Sulfur-Impregnated, Sandwich-Type, Hybrid Carbon Nanosheets with Hierarchical Porous Structure for High-Performance Lithium-Sulfur Batteries. **2014**, 4, 1301988		117
1728	Nitrogen-Doped Mesoporous Carbon Promoted Chemical Adsorption of Sulfur and Fabrication of High-Areal-Capacity Sulfur Cathode with Exceptional Cycling Stability for Lithium-Sulfur Batteries. **2014**, 24, 1243-1250		820
1727	Functionalized N-Doped Porous Carbon Nanofiber Webs for a Lithium–Sulfur Battery with High Capacity and Rate Performance. **2014**, 118, 1800-1807		164
1726	Facile synthesis of Li2S–polypyrrole composite structures for high-performance Li2S cathodes. **2014**, 7, 672		237
1725	Polysulfide shuttle control: Towards a lithium-sulfur battery with superior capacity performance up to 1000 cycles by matching the sulfur/electrolyte loading. **2014**, 253, 263-268		113
1724	Lithium metal anodes for rechargeable batteries. **2014**, 7, 513-537		2793
1723	Manipulating surface reactions in lithium-sulphur batteries using hybrid anode structures. *Nature Communications*, **2014**, 5, 3015	17.4	267
1722	Oxygen electrocatalysts in metal-air batteries: from aqueous to nonaqueous electrolytes. **2014**, 43, 7746-86		1073
1721	Activated Li2S as a High-Performance Cathode for Rechargeable Lithium-Sulfur Batteries. **2014**, 5, 3986-91		86

1720	High electrochemical selectivity of edge versus terrace sites in two-dimensional layered MoS2 materials. **2014**, 14, 7138-44		220
1719	Sulfur-impregnated core-shell hierarchical porous carbon for lithium-sulfur batteries. **2014**, 20, 17523-9		39
1718	Solution-Based Processing of Graphene□Li2S Composite Cathodes for Lithium-Ion and Lithium□Sulfur Batteries. **2014**, 31, 639-644		89
1717	A LiFSI-LiTFSI binary-salt electrolyte to achieve high capacity and cycle stability for a Li-S battery. **2014**, 50, 14647-50		83
1716	Electrolytes and interphases in Li-ion batteries and beyond. **2014**, 114, 11503-618		2847
1715	Copper-Stabilized Sulfur-Microporous Carbon Cathodes for Li□S Batteries. **2014**, 24, 4156-4163		183
1714	Micro- and mesoporous carbide-derived carbon prepared by a sacrificial template method in high performance lithium sulfur battery cathodes. **2014**, 2, 17649-17654		51
1713	Nanoporous Li2S and MWCNT-linked Li2S powder cathodes for lithium-sulfur and lithium-ion battery chemistries. **2014**, 2, 6064-6070		114
1712	High performance lithium□sulfur batteries: advances and challenges. **2014**, 2, 12662-12676		235
1711	Two-dimensional layered transition metal disulphides for effective encapsulation of high-capacity lithium sulphide cathodes. *Nature Communications*, **2014**, 5, 5017	17.4	461
1710	Application of in operando UV/Vis spectroscopy in lithium-sulfur batteries. **2014**, 7, 2167-75		101
1709	A novel ionic liquid for Li ion batteries □uniting the advantages of guanidinium and piperidinium cations. **2014**, 4, 1996-2003		14
1708	Performance-improved Li□O2 battery with Ru nanoparticles supported on binder-free multi-walled carbon nanotube paper as cathode. **2014**, 7, 1648-1652		140
1707	Atomic layer deposited coatings to significantly stabilize anodes for Li ion batteries: effects of coating thickness and the size of anode particles. **2014**, 2, 2306		63
1706	A selenium-confined microporous carbon cathode for ultrastable lithium□selenium batteries. **2014**, 2, 17735-17739		97
1705	Confined selenium within porous carbon nanospheres as cathode for advanced Li□Se batteries. **2014**, 9, 229-236		183
1704	A lithium/polysulfide semi-solid rechargeable flow battery with high output performance. **2014**, 4, 47517-47520		21
1703	The effects of counterion composition on the rheological and conductive properties of mono- and diphosphonium ionic liquids. **2014**, 16, 20608-17		13

1702	Flexible freestanding sandwich-structured sulfur cathode with superior performance for lithium–sulfur batteries. **2014**, 2, 8623-8627	82
1701	Hollow polyaniline sphere@sulfur composites for prolonged cycling stability of lithium–sulfur batteries. **2014**, 2, 10350-10354	101
1700	A stable high performance Li–S battery with a polysulfide ion blocking layer. **2014**, 2, 5602	16
1699	Tailoring interactions of carbon and sulfur in Li–S battery cathodes: significant effects of carbon–heteroatom bonds. **2014**, 2, 12866	65
1698	A mild route to mesoporous Mo2C-C hybrid nanospheres for high performance lithium-ion batteries. **2014**, 6, 6151-7	161
1697	Scalable synthesis of a sulfur nanosponge cathode for a lithium–sulfur battery with improved cyclability. **2014**, 2, 19788-19796	10
1696	Stabilized Lithium-Metal Surface in a Polysulfide-Rich Environment of Lithium-Sulfur Batteries. **2014**, 5, 2522-7	135
1695	Novel dual-salts electrolyte solution for dendrite-free lithium-metal based rechargeable batteries with high cycle reversibility. **2014**, 271, 291-297	260
1694	Lithium–sulfur batteries—the solution is in the electrolyte, but is the electrolyte a solution?. **2014**, 7, 3902-3920	250
1693	High performance batteries based on hybrid magnesium and lithium chemistry. **2014**, 50, 9644-6	132
1692	The Buried Carbon/Solid Electrolyte Interphase in Li-ion Batteries Studied by Hard X-ray Photoelectron Spectroscopy. **2014**, 138, 430-436	51
1691	Nickel and nitrogen co-doped tin dioxide nano-composite as a potential anode material for lithium-ion batteries. **2014**, 143, 257-264	26
1690	Improved lithium–sulfur batteries with a conductive coating on the separator to prevent the accumulation of inactive S-related species at the cathode–separator interface. **2014**, 7, 3381-3390	425
1689	Enhancement of long stability of Li–S battery by thin wall hollow spherical structured polypyrrole based sulfur cathode. **2014**, 4, 21612-21618	45
1688	Sulfur cathodes with hydrogen reduced titanium dioxide inverse opal structure. **2014**, 8, 5249-56	273
1687	Sulfur/polyacrylonitrile/carbon multi-composites as cathode materials for lithium/sulfur battery in the concentrated electrolyte. **2014**, 2, 4652-4659	85
1686	Hierarchical Free-Standing Carbon-Nanotube Paper Electrodes with Ultrahigh Sulfur-Loading for Lithium–Sulfur Batteries. **2014**, 24, 6105-6112	432
1685	Direct Observation of Active Material Concentration Gradients and Crystallinity Breakdown in LiFePO Electrodes During Charge/Discharge Cycling of Lithium Batteries. **2014**, 118, 6548-6557	34

1684	Prussian blue-derived Fe2O3/sulfur composite cathode for lithium–sulfur batteries. **2014**, 137, 52-55	57
1683	Novel approach for a high-energy-density Li–air battery: tri-dimensional growth of Li2O2 crystals tailored by electrolyte Li+ ion concentrations. **2014**, 2, 9020	37
1682	Remarkably Improved Electrode Performance of Bulk MnS by Forming a Solid Solution with FeS – Understanding the Li Storage Mechanism. **2014**, 24, 5557-5566	45
1681	Strongly Coupled Interfaces between a Heterogeneous Carbon Host and a Sulfur-Containing Guest for Highly Stable Lithium-Sulfur Batteries: Mechanistic Insight into Capacity Degradation. **2014**, 1, 1400227	311
1680	An aqueous dissolved polysulfide cathode for lithium–sulfur batteries. **2014**, 7, 3307-3312	113
1679	Lewis acid-base interactions between polysulfides and metal organic framework in lithium sulfur batteries. **2014**, 14, 2345-52	529
1678	High-capacity Li2S–graphene oxide composite cathodes with stable cycling performance. **2014**, 5, 1396	99
1677	A Nanocomposite Polymer Electrolyte with High-Temperature Stability for Rechargeable Lithium Batteries. **2014**, 39, 6651-6657	5
1676	Superior Rechargeability and Efficiency of Lithium–Oxygen Batteries: Hierarchical Air Electrode Architecture Combined with a Soluble Catalyst. **2014**, 126, 4007-4012	80
1675	Molecular structure and stability of dissolved lithium polysulfide species. **2014**, 16, 10923-32	177
1674	Formation of Large Polysulfide Complexes during the Lithium-Sulfur Battery Discharge. **2014**, 2,	89
1673	In Situ Sulfur Reduction and Intercalation of Graphite Oxides for Li-S Battery Cathodes. **2014**, 4, 1400482	110
1672	Sacrificial Anion Reduction Mechanism for Electrochemical Stability Improvement in Highly Concentrated Li-Salt Electrolyte. **2014**, 118, 14091-14097	141
1671	Rechargeable lithium-sulfur batteries. **2014**, 114, 11751-87	3074
1670	An effective approach to protect lithium anode and improve cycle performance for Li-S batteries. **2014**, 6, 15542-9	143
1669	Toward a Molecular Understanding of Energetics in Li–S Batteries Using Nonaqueous Electrolytes: A High-Level Quantum Chemical Study. **2014**, 118, 11545-11558	120
1668	Sulfur infiltrated activated carbon cathodes for lithium sulfur cells: The combined effects of pore size distribution and electrolyte molarity. **2014**, 248, 752-761	69
1667	Lithium insertion/desertion properties of LiFePO4 cathode in a low temperature electrolyte modified with sodium chloride additive. **2014**, 260, 8-14	10

1666	Favorable binding effect for improving the electrochemical performance of cobalt oxide anode for lithium ion batteries. **2014**, 288, 742-746	8
1665	Chelate effects in glyme/lithium bis(trifluoromethanesulfonyl)amide solvate ionic liquids. I. Stability of solvate cations and correlation with electrolyte properties. **2014**, 118, 5144-53	162
1664	A long-life lithium-ion battery with a highly porous TiNb2O7 anode for large-scale electrical energy storage. **2014**, 7, 2220-2226	257
1663	"Ionic liquids-in-salt"--a promising electrolyte concept for high-temperature lithium batteries?. **2014**, 16, 12341-9	59
1662	Rational design of a metal–organic framework host for sulfur storage in fast, long-cycle Li–S batteries. **2014**, 7, 2715	376
1661	Preparation of mesohollow and microporous carbon nanofiber and its application in cathode material for lithium–sulfur batteries. **2014**, 608, 220-228	107
1660	Nano-sized carboxylates as anode materials for rechargeable lithium-ion batteries. **2014**, 23, 269-273	18
1659	Self-assembled organic nanowires for high power density lithium ion batteries. **2014**, 14, 1596-602	163
1658	The enhanced performance of Li–S battery with P14YRTFSI-modified electrolyte. **2014**, 262, 174-178	34
1657	Core–Shell-Structured CNT@RuO2 Composite as a High-Performance Cathode Catalyst for Rechargeable Li–O2 Batteries. **2014**, 126, 452-456	49
1656	Air-Stable Copper-Based P2-NaCuFeMnO as a New Positive Electrode Material for Sodium-Ion Batteries. **2015**, 2, 1500031	218
1655	Leaf-Like Graphene-Oxide-Wrapped Sulfur for High-Performance Lithium-Sulfur Battery. **2015**, 2, 1500071	93
1654	3D coral-like nitrogen-sulfur co-doped carbon-sulfur composite for high performance lithium-sulfur batteries. **2015**, 5, 13340	96
1653	Ionomer-Liquid Electrolyte Hybrid Ionic Conductor for High Cycling Stability of Lithium Metal Electrodes. **2015**, 5, 14458	67
1652	Towards Stable Lithium-Sulfur Batteries with a Low Self-Discharge Rate: Ion Diffusion Modulation and Anode Protection. **2015**, 8, 2892-901	59
1651	Progress in Mechanistic Understanding and Characterization Techniques of Li-S Batteries. **2015**, 5, 1500408	321
1650	Excellent Compatibility of Solvate Ionic Liquids with Sulfide Solid Electrolytes: Toward Favorable Ionic Contacts in Bulk-Type All-Solid-State Lithium-Ion Batteries. **2015**, 5, 1500865	92
1649	Safety-Reinforced Poly(Propylene Carbonate)-Based All-Solid-State Polymer Electrolyte for Ambient-Temperature Solid Polymer Lithium Batteries. **2015**, 5, 1501082	391

1648	An Aligned and Laminated Nanostructured Carbon Hybrid Cathode for High-Performance Lithium–Sulfur Batteries. **2015**, 127, 10685-10690	32
1647	A Solvate Ionic Liquid as the Anolyte for Aqueous Rechargeable Li–O2 Batteries. **2015**, 2, 1144-1151	23
1646	Alkali-Ion Storage Behaviour in Spinel Lithium Titanate Electrodes. **2015**, 2, 1678-1681	3
1645	Confined Sulfur in Microporous Carbon Renders Superior Cycling Stability in Li/S Batteries. **2015**, 25, 4312-4320	232
1644	A Hierarchical Particle-Shell Architecture for Long-Term Cycle Stability of Li2S Cathodes. **2015**, 27, 5579-86	101
1643	An Advanced Lithium-Ion Sulfur Battery for High Energy Storage. **2015**, 5, 1500481	84
1642	Poreless Separator and Electrolyte Additive for Lithium–Sulfur Batteries with High Areal Energy Densities. **2015**, 1, 240-245	39
1641	A Novel High Capacity Positive Electrode Material with Tunnel-Type Structure for Aqueous Sodium-Ion Batteries. **2015**, 5, 1501005	127
1640	Fe-Based Tunnel-Type Na0.61[Mn0.27Fe0.34Ti0.39]O2 Designed by a New Strategy as a Cathode Material for Sodium-Ion Batteries. **2015**, 5, 1501156	100
1639	An Aligned and Laminated Nanostructured Carbon Hybrid Cathode for High-Performance Lithium-Sulfur Batteries. **2015**, 54, 10539-44	83
1638	From lithium to sodium: cell chemistry of room temperature sodium-air and sodium-sulfur batteries. **2015**, 6, 1016-55	307
1637	Improved rate ability of low cost sulfur cathodes by using ultrathin graphite sheets with self-wrapped function as cheap conductive agent. **2015**, 3, 8015-8021	16
1636	Dendrite-free lithium metal anodes: stable solid electrolyte interphases for high-efficiency batteries. **2015**, 3, 7207-7209	132
1635	Dual-Phase Lithium Metal Anode Containing a Polysulfide-Induced Solid Electrolyte Interphase and Nanostructured Graphene Framework for Lithium-Sulfur Batteries. **2015**, 9, 6373-82	261
1634	A graphene-oxide-based thin coating on the separator: an efficient barrier towards high-stable lithium–sulfur batteries. **2015**, 2, 024013	37
1633	Characterization of the Mass-Transport Phenomena in a Superconcentrated LiTFSI:Acetonitrile Electrolyte. **2015**, 162, A1334-A1340	28
1632	Electrochemical and physicochemical properties of small phosphonium cation ionic liquid electrolytes with high lithium salt content. **2015**, 17, 8706-13	100
1631	High-performance sodium batteries with the 9,10-anthraquinone/CMK-3 cathode and an ether-based electrolyte. **2015**, 51, 10244-7	96

1630	Lithium salts for advanced lithium batteries: Li metal, Li 2, and Li . **2015**, 8, 1905-1922	353
1629	Dispersible percolating carbon nano-electrodes for improvement of polysulfide utilization in Li batteries. **2015**, 93, 161-168	19
1628	Binding energy referencing for XPS in alkali metal-based battery materials research (I): Basic model investigations. **2015**, 351, 492-503	47
1627	Dendrite-Free Polygonal Sodium Deposition with Excellent Interfacial Stability in a NaAlCl 2SO Inorganic Electrolyte. **2015**, 7, 27206-14	57
1626	Wheat straw carbon matrix wrapped sulfur composites as a superior cathode for Li batteries. **2015**, 5, 100089-100096	29
1625	Nanoscale Polysulfides Reactors Achieved by Chemical Au-S Interaction: Improving the Performance of Li-S Batteries on the Electrode Level. **2015**, 7, 27959-67	55
1624	Elemental Selenium for Electrochemical Energy Storage. **2015**, 6, 256-66	187
1623	Ambient temperature sodium-sulfur batteries. **2015**, 11, 2108-14	233
1622	Ultrasmall Li2S nanoparticles anchored in graphene nanosheets for high-energy lithium-ion batteries. **2014**, 4, 6467	113
1621	Solvent Activity in Electrolyte Solutions Controls Electrochemical Reactions in Li-Ion and Li-Sulfur Batteries. **2015**, 119, 3957-3970	101
1620	Mesoporous Carbon Interlayers with Tailored Pore Volume as Polysulfide Reservoir for High-Energy Lithium Sulfur Batteries. **2015**, 119, 4580-4587	110
1619	Surface modification of sulfur electrodes by chemically anchored cross-linked polymer coating for lithium-sulfur batteries. **2015**, 7, 1401-5	41
1618	Synthesis of a ternary polyaniline@acetylene black-sulfur material by continuous two-step liquid phase for lithium sulfur batteries. **2015**, 158, 143-151	47
1617	A novel sulfur/carbon hollow microsphere yolk shell composite as a high-performance cathode for lithium sulfur batteries. **2015**, 19, 1143-1149	27
1616	Permselective graphene oxide membrane for highly stable and anti-self-discharge lithium-sulfur batteries. **2015**, 9, 3002-11	605
1615	Synergetic role of Li(+) during Mg electrodeposition/dissolution in borohydride diglyme electrolyte solution: voltammetric stripping behaviors on a Pt microelectrode indicative of Mg-Li alloying and facilitated dissolution. **2015**, 7, 2494-502	41
1614	A novel three-dimensional sulfur/graphene/carbon nanotube composite prepared by a hydrothermal co-assembling route as binder-free cathode for lithium sulfur batteries. **2015**, 17, 1	23
1613	Sustainable, heat-resistant and flame-retardant cellulose-based composite separator for high-performance lithium ion battery. **2014**, 4, 3935	173

1612	Hierarchically micro/mesoporous activated graphene with a large surface area for high sulfur loading in Li–S batteries. **2015**, 3, 4799-4802		114
1611	Enhanced electrochemical performance of sulfur cathodes with a water-soluble binder. **2015**, 5, 13709-13714		49
1610	Control of emergent properties at a correlated oxide interface with graphene. **2015**, 15, 1627-34		38
1609	Direct Observation of Sulfur Radicals as Reaction Media in Lithium Sulfur Batteries. **2015**, 162, A474-A478		155
1608	Soluble polysulphide sorption using carbon nanotube forest for enhancing cycle performance in a lithium–sulphur battery. **2015**, 12, 538-546		85
1607	Tellurium@Ordered Macroporous Carbon Composite and Free-Standing Tellurium Nanowire Mat as Cathode Materials for Rechargeable Lithium–Tellurium Batteries. **2015**, 5, 1401999		65
1606	High rate and stable cycling of lithium metal anode. *Nature Communications*, **2015**, 6, 6362	17.4	1485
1605	Sulfur/carbon nanocomposite-filled polyacrylonitrile nanofibers as a long life and high capacity cathode for lithium–sulfur batteries. **2015**, 3, 7406-7412		115
1604	Expandable-graphite-derived graphene for next-generation battery chemistries. **2015**, 284, 60-67		21
1603	Carbon cage encapsulating nano-cluster Li2S by ionic liquid polymerization and pyrolysis for high performance Li–S batteries. **2015**, 13, 467-473		67
1602	A novel non-aqueous aluminum sulfur battery. **2015**, 283, 416-422		153
1601	The formation of strong-couple interactions between nitrogen-doped graphene and sulfur/lithium (poly)sulfides in lithium-sulfur batteries. **2015**, 2, 014011		83
1600	A scalable hybrid separator for a high performance lithium-sulfur battery. **2015**, 51, 6996-9		43
1599	Novel Large-Scale Synthesis of a C/S Nanocomposite with Mixed Conducting Networks through a Spray Drying Approach for Li–S Batteries. **2015**, 5, 1500046		92
1598	Polyphenylene Wrapped Sulfur/Multi-Walled Carbon Nano-Tubes via Spontaneous Grafting of Diazonium Salt for Improved Electrochemical Performance of Lithium-Sulfur Battery. **2015**, 165, 136-141		27
1597	Co3S4 porous nanosheets embedded in graphene sheets as high-performance anode materials for lithium and sodium storage. **2015**, 3, 6787-6791		214
1596	A high performance lithium-ion sulfur battery based on a Li2S cathode using a dual-phase electrolyte. **2015**, 8, 1551-1558		197
1595	An in situ self-developed graphite as high capacity anode of lithium-ion batteries. **2015**, 51, 12118-21		16

1594	Analytical Detection of Polysulfides in the Presence of Adsorption Additives by Operando X-ray Absorption Spectroscopy. **2015**, 119, 19001-19010	58
1593	Orange Peels Derived Activated Carbon as Sulfur Cathode Supporter for Lithium/Sulfur Batteries. **2015**, 1120-1121, 493-497	
1592	Structural and aggregate analyses of (Li salt + glyme) mixtures: the complex nature of solvate ionic liquids. **2015**, 17, 22321-35	57
1591	One-dimensional porous nanofibers of Co3O4 on the carbon matrix from human hair with superior lithium ion storage performance. **2015**, 5, 12382	60
1590	Multi-chambered micro/mesoporous carbon nanocubes as new polysulfides reserviors for lithium–sulfur batteries with long cycle life. **2015**, 16, 268-280	124
1589	Long-Life, High-Efficiency Lithium–Sulfur Battery from a Nanoassembled Cathode. **2015**, 27, 5080-5087	54
1588	Perspectives in Lithium Batteries. **2015**, 191-232	3
1587	Improving the Anode Performance of WS2 through a Self-Assembled Double Carbon Coating. **2015**, 119, 15874-15881	80
1586	Engineering of Hollow Core-Shell Interlinked Carbon Spheres for Highly Stable Lithium-Sulfur Batteries. **2015**, 9, 8504-13	215
1585	Ionic liquid-based electrolyte with binary lithium salts for high performance lithium–sulfur batteries. **2015**, 296, 10-17	49
1584	One-pot self-assembly of graphene/carbon nanotube/sulfur hybrid with three dimensionally interconnected structure for lithium–sulfur batteries. **2015**, 295, 182-189	115
1583	High performance Li-ion sulfur batteries enabled by intercalation chemistry. **2015**, 51, 13454-7	45
1582	Microscale characterization of coupled degradation mechanism of graded materials in lithium batteries of electric vehicles. **2015**, 50, 1445-1461	16
1581	Effects of electrolyte concentration and synthesis methods of sulfur/carbon composites on the electrochemical performance in lithium–sulfur batteries. **2015**, 5, 54293-54300	8
1580	Enhanced electrochemical performance of a crosslinked polyaniline-coated graphene oxide-sulfur composite for rechargeable lithium–sulfur batteries. **2015**, 294, 386-392	58
1579	In situ observation of electrolyte-concentration-dependent solid electrolyte interphase on graphite in dimethyl sulfoxide. **2015**, 7, 9573-80	55
1578	Electrolytes for Li-ion transport – Review. **2015**, 276, 107-126	159
1577	On the Way Toward Understanding Solution Chemistry of Lithium Polysulfides for High Energy Li–S Redox Flow Batteries. **2015**, 5, 1500113	103

1576	Recent Advances in Electrolytes for Lithium–Sulfur Batteries. **2015**, 5, 1500117		426
1575	Critical Link between Materials Chemistry and Cell-Level Design for High Energy Density and Low Cost Lithium-Sulfur Transportation Battery. **2015**, 162, A982-A990		181
1574	Study of ageing effects in polymer-in-salt electrolytes based on poly(acrylonitrile-co-butyl acrylate) and lithium salts. **2015**, 169, 61-72		37
1573	Progress Towards Commercially Viable Li–S Battery Cells. **2015**, 5, 1500118		300
1572	High-Performance Organic Lithium Batteries with an Ether-Based Electrolyte and 9,10-Anthraquinone (AQ)/CMK-3 Cathode. **2015**, 2, 1500018		126
1571	Preparation and lithium storage properties of active carbon–CNT/sulfur composite. **2015**, 21, 1241-1246		10
1570	Flexible cathodes and multifunctional interlayers based on carbonized bacterial cellulose for high-performance lithium–sulfur batteries. **2015**, 3, 10910-10918		124
1569	Highly Conductive Electrolytes Derived from Nitrile Solvents. **2015**, 162, A1276-A1281		6
1568	Ti-substituted tunnel-type $Na_{0.44}MnO_2$ oxide as a negative electrode for aqueous sodium-ion batteries. *Nature Communications*, **2015**, 6, 6401	17.4	265
1567	Following the transient reactions in lithium-sulfur batteries using an in situ nuclear magnetic resonance technique. **2015**, 15, 3309-16		88
1566	Gelatin-derived sustainable carbon-based functional materials for energy conversion and storage with controllability of structure and component. **2015**, 1, e1400035		130
1565	Superior Performance of a Li–O2 Battery with Metallic RuO2 Hollow Spheres as the Carbon-Free Cathode. **2015**, 5, 1500294		122
1564	A Sulfur Cathode with Pomegranate-Like Cluster Structure. **2015**, 5, 1500211		108
1563	Trapping Polysulfides Catholyte in Carbon Nanofiber Sponges for Improving the Performances of Sulfur Batteries. **2015**, 162, A1396-A1400		19
1562	Direct Observation of the Redistribution of Sulfur and Polysufides in Li–S Batteries During the First Cycle by In Situ X-Ray Fluorescence Microscopy. **2015**, 5, 1500072		74
1561	High areal capacity hybrid magnesium-lithium-ion battery with 99.9% Coulombic efficiency for large-scale energy storage. **2015**, 7, 7001-7		103
1560	Status and prospects in sulfur–carbon composites as cathode materials for rechargeable lithium–sulfur batteries. **2015**, 92, 41-63		328
1559	Dual protection of sulfur by interconnected porous carbon nanorods and graphene sheets for lithium–sulfur batteries. **2015**, 747, 59-67		18

1558	Long-life, high-efficiency lithium/sulfur batteries from sulfurized carbon nanotube cathodes. **2015**, 3, 10127-10133	50
1557	Recent Advances in Lithium Sulfide Cathode Materials and Their Use in Lithium Sulfur Batteries. **2015**, 5, 1500110	194
1556	Superior Conductive Solid-like Electrolytes: Nanoconfining Liquids within the Hollow Structures. **2015**, 15, 3398-402	104
1555	Highly Cyclable Lithium-Sulfur Batteries with a Dual-Type Sulfur Cathode and a Lithiated Si/SiOx Nanosphere Anode. **2015**, 15, 2863-8	102
1554	Anodes for Rechargeable Lithium-Sulfur Batteries. **2015**, 5, 1402273	362
1553	Vertically-aligned carbon nanotubes on aluminum as a light-weight positive electrode for lithium-polysulfide batteries. **2015**, 51, 7749-52	17
1552	Materials and technologies for rechargeable lithium–sulfur batteries. **2015**, 117-147	6
1551	Structural Design of Cathodes for Li-S Batteries. **2015**, 5, 1500124	342
1550	All solid state lithium batteries based on lamellar garnet-type ceramic electrolytes. **2015**, 300, 24-28	161
1549	Polyethylene glycol dimethyl ether (PEGDME)-based electrolyte for lithium metal battery. **2015**, 299, 460-464	33
1548	A Highly Reversible Room-Temperature Sodium Metal Anode. **2015**, 1, 449-55	516
1547	Modeling of nano-structured cathodes for improved lithium-sulfur batteries. **2015**, 184, 124-133	37
1546	A polypyrrole-supported carbon paper acting as a polysulfide trap for lithium–sulfur batteries. **2015**, 5, 94479-94485	18
1545	Electrode-electrolyte interface in Li-ion batteries: current understanding and new insights. **2015**, 6, 4653-72	623
1544	Review—Superconcentrated Electrolytes for Lithium Batteries. **2015**, 162, A2406-A2423	430
1543	A rechargeable aluminum-ion battery utilizing a copper hexacyanoferrate cathode in an organic electrolyte. **2015**, 51, 14397-400	108
1542	Core@shell sulfur@polypyrrole nanoparticles sandwiched in graphene sheets as cathode for lithium–sulfur batteries. **2015**, 24, 448-455	63
1541	Novel Slurry Electrolyte Containing Lithium Metasilicate for High Electrochemical Performance of a 5 V Cathode. **2015**, 7, 22898-906	6

1540	A stable graphite negative electrode for the lithium-sulfur battery. **2015**, 51, 17100-3		37
1539	Review□Development of Advanced Rechargeable Batteries: A Continuous Challenge in the Choice of Suitable Electrolyte Solutions. **2015**, 162, A2424-A2438		114
1538	2D Electrides as Promising Anode Materials for Na-Ion Batteries from First-Principles Study. **2015**, 7, 24016-22		126
1537	Complexation dynamics of CH3SCN and Li(+) in acetonitrile studied by two-dimensional infrared spectroscopy. **2015**, 17, 24193-200		7
1536	Metal-Sulfur Battery Cathodes Based on PAN-Sulfur Composites. **2015**, 137, 12143-52		376
1535	Pie-like electrode design for high-energy density lithium-sulfur batteries. *Nature Communications*, **2015**, 6, 8850	17.4	391
1534	"Water-in-salt" electrolyte enables high-voltage aqueous lithium-ion chemistries. **2015**, 350, 938-43		1717
1533	In-operando optical imaging of temporal and spatial distribution of polysulfides in lithium-sulfur batteries. **2015**, 11, 579-586		76
1532	Role of organic solvent addition to ionic liquid electrolytes for lithium□sulphur batteries. **2015**, 5, 2122-2128		19
1531	A revolution in electrodes: recent progress in rechargeable lithium-sulfur batteries. **2015**, 11, 1488-511		261
1530	In Situ Formation of Protective Coatings on Sulfur Cathodes in Lithium Batteries with LiFSI-Based Organic Electrolytes. **2015**, 5, 1401792		165
1529	A facile strategy to achieve high conduction and excellent chemical stability of lithium solid electrolytes. **2015**, 5, 6588-6594		19
1528	Synergistic effects of mixing sulfone and ionic liquid as safe electrolytes for lithium sulfur batteries. **2015**, 8, 353-60		24
1527	Taichi-inspired rigid-flexible coupling cellulose-supported solid polymer electrolyte for high-performance lithium batteries. **2014**, 4, 6272		108
1526	Dendrite-separator interactions in lithium-based batteries. **2015**, 275, 912-921		103
1525	Sulfur/bamboo charcoal composites cathode for lithium□sulfur batteries. **2015**, 5, 68-74		24
1524	Manganese modified zeolite silicalite-1 as polysulphide sorbent in lithium sulphur batteries. **2015**, 274, 1239-1248		33
1523	Li-ion battery materials: present and future. **2015**, 18, 252-264		3812

1522	From a historic review to horizons beyond: lithium-sulphur batteries run on the wheels. **2015**, 51, 18-33	147
1521	A highly reversible lithium metal anode. **2014**, 4, 3815	209
1520	Solution processible hyperbranched inverse-vulcanized polymers as new cathode materials in Li–S batteries. **2015**, 6, 973-982	45
1519	Lithium–sulfur batteries: from liquid to solid cells. **2015**, 3, 936-958	300
1518	Direct Measurement of Polysulfide Shuttle Current: A Window into Understanding the Performance of Lithium-Sulfur Cells. **2015**, 162, A1-A7	184
1517	Amorphous monodispersed hard carbon micro-spherules derived from biomass as a high performance negative electrode material for sodium-ion batteries. **2015**, 3, 71-77	347
1516	Modified secondary lithium metal batteries with the polyaniline-carbon nanotube composite buffer layer. **2015**, 51, 322-5	34
1515	Micro-nano structure composite cathode material with high sulfur loading for advanced lithium–sulfur batteries. **2015**, 152, 53-60	36
1514	Comparison of the growth of lithium filaments and dendrites under different conditions. **2015**, 50, 11-14	83
1513	High performance C/S composite cathodes with conventional carbonate-based electrolytes in Li-S battery. **2014**, 4, 4842	79
1512	In situ formed carbon bonded and encapsulated selenium composites for Li–Se and Na–Se batteries. **2015**, 3, 555-561	98
1511	Micro- and Mesoporous Carbide-Derived Carbon–Selenium Cathodes for High-Performance Lithium Selenium Batteries. **2015**, 5, 1400981	118
1510	Sulfur-based composite cathode materials for high-energy rechargeable lithium batteries. **2015**, 27, 569-75	247
1509	Enhanced performance of lithium sulfur battery with self-assembly polypyrrole nanotube film as the functional interlayer. **2015**, 273, 511-516	139
1508	Recent Development of Carbonaceous Materials for Lithium–Sulphur Batteries. **2016**, 2, 33	15
1507	High performance Li–S battery based on amorphous NiS2 as the host material for the S cathode. **2016**, 4, 13395-13399	60
1506	Restricting the Solubility of Polysulfides in Li-S Batteries Via Electrolyte Salt Selection. **2016**, 6, 1600160	57
1505	Advanced High-Voltage Aqueous Lithium-Ion Battery Enabled by "Water-in-Bisalt" Electrolyte. **2016**, 128, 7252-7257	80

1504	Sulfur Confined in Sub-Nanometer-Sized 2 D Graphene Interlayers and Its Electrochemical Behavior in Lithium-Sulfur Batteries. **2016**, 11, 2690-2694	21
1503	Improved Cycling Stability of Lithium-Metal Anode with Concentrated Electrolytes Based on Lithium (Fluorosulfonyl)(trifluoromethanesulfonyl)imide. **2016**, 3, 531-536	60
1502	Atomic Layer Deposition of LixAlyS Solid-State Electrolytes for Stabilizing Lithium-Metal Anodes. **2016**, 3, 858-863	82
1501	Carbon Materials for Lithium Sulfur Batteries-Ten Critical Questions. **2016**, 22, 7324-51	274
1500	Layer-by-Layer Na3V2(PO4)3 Embedded in Reduced Graphene Oxide as Superior Rate and Ultralong-Life Sodium-Ion Battery Cathode. **2016**, 6, 1600389	225
1499	Design Principles for Heteroatom-Doped Nanocarbon to Achieve Strong Anchoring of Polysulfides for Lithium-Sulfur Batteries. **2016**, 12, 3283-91	515
1498	Built-in Carbon Nanotube Network inside a Biomass-Derived Hierarchically Porous Carbon to Enhance the Performance of the Sulfur Cathode in a Li-S Battery. **2016**, 2, 712-718	47
1497	Enhanced Cycling Stability of Rechargeable Li□2 Batteries Using High-Concentration Electrolytes. **2016**, 26, 605-613	91
1496	Graphene-Supported Nitrogen and Boron Rich Carbon Layer for Improved Performance of Lithium□Sulfur Batteries Due to Enhanced Chemisorption of Lithium Polysulfides. **2016**, 6, 1501733	140
1495	Highly Stable Operation of Lithium Metal Batteries Enabled by the Formation of a Transient High-Concentration Electrolyte Layer. **2016**, 6, 1502151	165
1494	Double-Shelled Nanocages with Cobalt Hydroxide Inner Shell and Layered Double Hydroxides Outer Shell as High-Efficiency Polysulfide Mediator for Lithium-Sulfur Batteries. **2016**, 55, 3982-6	447
1493	First-principles Study on the Charge Transport Mechanism of Lithium Sulfide (Li2 S) in Lithium-Sulfur Batteries. **2016**, 11, 1288-92	22
1492	Enhancing the Stability of Sulfur Cathodes in Li□S Cells via in Situ Formation of a Solid Electrolyte Layer. **2016**, 1, 373-379	51
1491	Dendrite-Free Lithium Deposition Induced by Uniformly Distributed Lithium Ions for Efficient Lithium Metal Batteries. **2016**, 28, 2888-95	699
1490	Functional Organosulfide Electrolyte Promotes an Alternate Reaction Pathway to Achieve High Performance in Lithium-Sulfur Batteries. **2016**, 55, 4231-5	132
1489	Effect of the Anion Activity on the Stability of Li Metal Anodes in Lithium-Sulfur Batteries. **2016**, 26, 3059-3066	89
1488	Breaking Down the Crystallinity: The Path for Advanced Lithium Batteries. **2016**, 6, 1501933	61
1487	A High-Energy-Density Multiple Redox Semi-Solid-Liquid Flow Battery. **2016**, 6, 1502183	75

1486	Lithium Dendrite Formation on a Lithium Metal Anode from Liquid, Polymer and Solid Electrolytes. **2016**, 84, 210-218	101
1485	Analytical Multimode Scanning and Transmission Electron Imaging and Tomography of Multiscale Structural Architectures of Sulfur Copolymer-Based Composite Cathodes for Next-Generation High-Energy Density Li-S Batteries. **2016**, 22, 1198-1221	10
1484	Rechargeable Mg–Li hybrid batteries: status and challenges. **2016**, 31, 3125-3141	75
1483	A brief review: Past, present and future of lithium ion batteries. **2016**, 52, 1095-1121	97
1482	High performance lithium-sulfur batteries with a facile and effective dual functional separator. **2016**, 200, 197-203	63
1481	Improved Electrochemical Performance of Biomass-Derived Nanoporous Carbon/Sulfur Composites Cathode for Lithium-Sulfur Batteries by Nitrogen Doping. **2016**, 202, 131-139	43
1480	Solvent-Dictated Lithium Sulfur Redox Reactions: An Operando UV-vis Spectroscopic Study. **2016**, 7, 1518-25	210
1479	A hierarchical micro/mesoporous carbon fiber/sulfur composite for high-performance lithium–sulfur batteries. **2016**, 6, 37443-37451	39
1478	Understanding the Redox Obstacles in High Sulfur-Loading Li-S Batteries and Design of an Advanced Gel Cathode. **2016**, 7, 1392-9	21
1477	Progress in electrolytes for rechargeable Li-based batteries and beyond. **2016**, 1, 18-42	265
1476	High rate and stable cycling of lithium-sulfur batteries with carbon fiber cloth interlayer. **2016**, 209, 691-699	59
1475	Concentrated LiPF6/PC electrolyte solutions for 5-V LiNi0.5Mn1.5O4 positive electrode in lithium-ion batteries. **2016**, 209, 219-224	56
1474	Nanostructured lithium sulfide materials for lithium-sulfur batteries. **2016**, 323, 174-188	64
1473	Suppression of lithium dendrite growth by introducing a low reduction potential complex cation in the electrolyte. **2016**, 6, 51738-51746	18
1472	Performance and Degradation of A Lithium-Bromine Rechargeable Fuel Cell Using Highly Concentrated Catholytes. **2016**, 202, 216-223	14
1471	Pitfalls in Li–S Rate-Capability Evaluation. **2016**, 163, A1139-A1145	19
1470	Enhanced charging capability of lithium metal batteries based on lithium bis(trifluoromethanesulfonyl)imide-lithium bis(oxalato)borate dual-salt electrolytes. **2016**, 318, 170-177	156
1469	Toward pre-lithiatied high areal capacity silicon anodes for Lithium-ion batteries. **2016**, 206, 99-107	43

1468	In-situ activated polycation as a multifunctional additive for Li-S batteries. **2016**, 26, 43-49	28
1467	An in situ confinement strategy to porous poly(3,4-ethylenedioxythiophene)/sulfur composites for lithium–sulfur batteries. **2016**, 6, 47858-47863	8
1466	Rechargeable Lithium Batteries with Electrodes of Small Organic Carbonyl Salts and Advanced Electrolytes. **2016**, 55, 5795-5804	74
1465	Encapsulation of selenium sulfide in double-layered hollow carbon spheres as advanced electrode material for lithium storage. **2016**, 9, 3725-3734	37
1464	Optimization of Pore Structure of Cathodic Carbon Supports for Solvate Ionic Liquid Electrolytes Based Lithium-Sulfur Batteries. **2016**, 8, 27803-27813	16
1463	Excellent Performance of Lithium-Sulfur batteries with Carbonized Porous Aromatic Framework Nanobeads as Support. **2016**, 219, 143-151	17
1462	Ionic liquid electrolytes with high sodium ion fraction for high-rate and long-life sodium secondary batteries. **2016**, 332, 51-59	58
1461	High Concentration Lithium Nitrate/Dimethylacetamide Electrolytes for Lithium/Oxygen Cells. **2016**, 163, A2673-A2678	13
1460	Novel Li[(CFSO)(n-CFSO)N]-Based Polymer Electrolytes for Solid-State Lithium Batteries with Superior Electrochemical Performance. **2016**, 8, 29705-29712	67
1459	Layer-by-Layer Assembled Architecture of Polyelectrolyte Multilayers and Graphene Sheets on Hollow Carbon Spheres/Sulfur Composite for High-Performance Lithium-Sulfur Batteries. **2016**, 16, 5488-94	88
1458	Structural and Electrochemical Properties of Li Ion Solvation Complexes in the Salt-Concentrated Electrolytes Using an Aprotic Donor Solvent, N,N-Dimethylformamide. **2016**, 120, 17196-17204	51
1457	Excellent rate capability and cycle life of Li metal batteries with ZrO2/POSS multilayer-assembled PE separators. **2016**, 28, 1-11	85
1456	Biomimetic Ant-Nest Electrode Structures for High Sulfur Ratio Lithium-Sulfur Batteries. **2016**, 16, 5365-72	55
1455	LiBF4-Based Concentrated Electrolyte Solutions for Suppression of Electrolyte Decomposition and Rapid Lithium-Ion Transfer at LiNi0.5Mn1.5O4/Electrolyte Interface. **2016**, 163, A2211-A2215	39
1454	Graphene-Based Sulfur Composites for Energy Storage and Conversion in Li-S Batteries. **2016**, 34, 13-31	25
1453	Facile Synthesis of Ni Zn Fe O (x=0, 0.25, 0.5, 0.75, 1) as Anode Materials for Lithium Storage. **2016**, 81, 1174-1181	10
1452	Performance of "Polymer-in-Salt" Electrolyte PAN-LiTFSI Enhanced by Graphene Oxide Filler. **2016**, 163, A2248-A2252	37
1451	Cellulose-Based Porous Membrane for Suppressing Li Dendrite Formation in Lithium–Sulfur Battery. **2016**, 1, 633-637	136

1450	Transition of lithium growth mechanisms in liquid electrolytes. **2016**, 9, 3221-3229	704
1449	Challenges and current development of sulfur cathode in lithium–sulfur battery. **2016**, 13, 53-62	21
1448	A review of recent developments in rechargeable lithium-sulfur batteries. **2016**, 8, 16541-16588	269
1447	Water in Ionic Liquid for Electrochemical Li Cycling. **2016**, 1, 542-547	23
1446	Electrochemical Double Layers in Ionic Liquids Investigated by Broadband Impedance Spectroscopy and Other Complementary Experimental Techniques. **2016**, 157-192	
1445	Ternary mixtures of ionic liquids for better salt solubility, conductivity and cation transference number improvement. **2016**, 6, 35587	15
1444	Effect of Hydrofluoroether Cosolvent Addition on Li Solvation in Acetonitrile-Based Solvate Electrolytes and Its Influence on S Reduction in a Li-S Battery. **2016**, 8, 34360-34371	40
1443	Nanostructured energy materials for electrochemical energy conversion and storage: A review. **2016**, 25, 967-984	316
1442	Cation-Deficient Spinel ZnMnO Cathode in Zn(CFSO) Electrolyte for Rechargeable Aqueous Zn-Ion Battery. **2016**, 138, 12894-12901	1011
1441	An Electrochemical and Photoelectron Spectroscopy Study of a Low Temperature Liquid Metal Battery Based on an Ionic Liquid Electrolyte. **2016**, 163, A2488-A2493	9
1440	A Cooperative Interface for Highly Efficient Lithium-Sulfur Batteries. **2016**, 28, 9551-9558	431
1439	Toward Dendrite-Free Lithium Deposition via Structural and Interfacial Synergistic Effects of 3D Graphene@Ni Scaffold. **2016**, 8, 26091-26097	121
1438	Effective Polysulfide Rejection by Dipole-Aligned BaTiO3 Coated Separator in Lithium–Sulfur Batteries. **2016**, 26, 7817-7823	129
1437	Highly concentrated polycarbonate-based solid polymer electrolytes having extraordinary electrochemical stability. **2016**, 54, 2442-2447	35
1436	Structural Evolution of Electrochemically Lithiated MoS Nanosheets and the Role of Carbon Additive in Li-Ion Batteries. **2016**, 28, 7304-7310	71
1435	Electrochemical Properties of Anthraquinone-based Polyimides as Cathodes for Lithium Secondary Batteries. **2016**, 45, 271-273	12
1434	Recent Developments of the Lithium Metal Anode for Rechargeable Non-Aqueous Batteries. **2016**, 6, 1600811	259
1433	Concentrated dual-salt electrolytes for improving the cycling stability of lithium metal anodes. **2016**, 25, 078203	22

1432	Enhanced Performance of a Lithium–Sulfur Battery Using a Carbonate-Based Electrolyte. **2016**, 128, 10528-10531		27
1431	Enhanced Performance of a Lithium-Sulfur Battery Using a Carbonate-Based Electrolyte. **2016**, 55, 10372-5		94
1430	Lithium metal protection through in-situ formed solid electrolyte interphase in lithium-sulfur batteries: The role of polysulfides on lithium anode. **2016**, 327, 212-220		201
1429	Designing high-energy lithium-sulfur batteries. **2016**, 45, 5605-5634		1475
1428	Structural model, size effect and nano-energy system design for more sustainable energy of solid state automotive battery. **2016**, 65, 685-697		7
1427	A Review of Solid Electrolyte Interphases on Lithium Metal Anode. **2016**, 3, 1500213		962
1426	Recent Advances in Non-Aqueous Electrolyte for Rechargeable Li–O2 Batteries. **2016**, 6, 1600751		116
1425	Nanostructured Li2Se cathodes for high performance lithium-selenium batteries. **2016**, 27, 238-246		39
1424	Sparingly Solvating Electrolytes for High Energy Density Lithium–Sulfur Batteries. **2016**, 1, 503-509		146
1423	Lithium–Iron Fluoride Battery with In Situ Surface Protection. **2016**, 26, 1507-1516		51
1422	3D Carbonaceous Current Collectors: The Origin of Enhanced Cycling Stability for High-Sulfur-Loading Lithium–Sulfur Batteries. **2016**, 26, 6351-6358		191
1421	Effective sulfur-salt composite cathode containing lithium bis(trifluoromethane) sulfonamide for lithium sulfur batteries. **2016**, 220, 130-136		5
1420	Ionic liquids and their solid-state analogues as materials for energy generation and storage. **2016**, 1,		391
1419	Unusual Li-Ion Transfer Mechanism in Liquid Electrolytes: A First-Principles Study. **2016**, 7, 4795-4801		27
1418	A novel quasi-solid state electrolyte with highly effective polysulfide diffusion inhibition for lithium-sulfur batteries. **2016**, 6, 25484		32
1417	High-Performance Lithium Metal Negative Electrode with a Soft and Flowable Polymer Coating. **2016**, 1, 1247-1255		218
1416	Lithium-coated polymeric matrix as a minimum volume-change and dendrite-free lithium metal anode. *Nature Communications*, **2016**, 7, 10992	17.4	641
1415	A new ether-based electrolyte for dendrite-free lithium-metal based rechargeable batteries. **2016**, 6, 21771		131

1414	Superconcentrated electrolytes for a high-voltage lithium-ion battery. *Nature Communications*, **2016**, 7, 12032	17.4	501
1413	Advances in lithium–sulfur batteries based on multifunctional cathodes and electrolytes. **2016**, 1,		1317
1412	Promises and challenges of nanomaterials for lithium-based rechargeable batteries. **2016**, 1,		1080
1411	Conductive framework of inverse opal structure for sulfur cathode in lithium-sulfur batteries. **2016**, 6, 32800		15
1410	A sulfur host based on titanium monoxide@carbon hollow spheres for advanced lithium-sulfur batteries. *Nature Communications*, **2016**, 7, 13065	17.4	511
1409	Dendrite Suppression by Shock Electrodeposition in Charged Porous Media. **2016**, 6, 28054		35
1408	Modeling of lithium-sulfur batteries incorporating the effect of Li2S precipitation. **2016**, 336, 115-125		65
1407	Balancing surface adsorption and diffusion of lithium-polysulfides on nonconductive oxides for lithium-sulfur battery design. *Nature Communications*, **2016**, 7, 11203	17.4	866
1406	Revealing structure and dynamics in host–guest supramolecular crystalline polymer electrolytes by solid-state NMR: Applications to β-CD-polyether/Li+ crystal. **2016**, 105, 310-317		17
1405	Porous Carbon Paper as Interlayer to Stabilize the Lithium Anode for Lithium-Sulfur Battery. **2016**, 8, 31684-31694		65
1404	Activation of Oxygen-Stabilized Sulfur for Li and Na Batteries. **2016**, 26, 745-752		66
1403	Macroporous Interconnected Hollow Carbon Nanofibers Inspired by Golden-Toad Eggs toward a Binder-Free, High-Rate, and Flexible Electrode. **2016**, 28, 7494-500		145
1402	Double-Shelled Nanocages with Cobalt Hydroxide Inner Shell and Layered Double Hydroxides Outer Shell as High-Efficiency Polysulfide Mediator for Lithium–Sulfur Batteries. **2016**, 128, 4050-4054		51
1401	An Artificial Solid Electrolyte Interphase Layer for Stable Lithium Metal Anodes. **2016**, 28, 1853-8		1021
1400	Advanced High-Voltage Aqueous Lithium-Ion Battery Enabled by "Water-in-Bisalt" Electrolyte. **2016**, 55, 7136-41		435
1399	Ionic Liquid-Organic Carbonate Electrolyte Blends To Stabilize Silicon Electrodes for Extending Lithium Ion Battery Operability to 100 °C. **2016**, 8, 15242-9		40
1398	High-Performance All-Solid-State Lithium-Sulfur Battery Enabled by a Mixed-Conductive Li2S Nanocomposite. **2016**, 16, 4521-7		258
1397	Impact of Anionic Structure of Lithium Salt on the Cycling Stability of Lithium-Metal Anode in Li-S Batteries. **2016**, 163, A1776-A1783		31

1396	SnO2 as a high-efficiency polysulfide trap in lithium-sulfur batteries. **2016**, 8, 13638-45	115
1395	Transient existence of crystalline lithium disulfide Li2S2 in a lithium-sulfur battery. **2016**, 325, 641-645	48
1394	Correlation between Solvation Structure and Ion-Conductive Behavior of Concentrated Poly(ethylene carbonate)-Based Electrolytes. **2016**, 120, 12385-12391	95
1393	A Graphite-Polysulfide Full Cell with DME-Based Electrolyte. **2016**, 163, A1543-A1549	17
1392	Free-Standing Copper Nanowire Network Current Collector for Improving Lithium Anode Performance. **2016**, 16, 4431-7	481
1391	Nitrogen-doped graphene nanosheets/sulfur composite as lithium–sulfur batteries cathode. **2016**, 213, 83-89	18
1390	Rational Integration of Polypropylene/Graphene Oxide/Nafion as Ternary-Layered Separator to Retard the Shuttle of Polysulfides for Lithium-Sulfur Batteries. **2016**, 12, 381-9	267
1389	Graphene-Analogues Boron Nitride Nanosheets Confining Ionic Liquids: A High-Performance Quasi-Liquid Solid Electrolyte. **2016**, 12, 3535-42	45
1388	Conductive Nanostructured Scaffolds Render Low Local Current Density to Inhibit Lithium Dendrite Growth. **2016**, 28, 2155-62	498
1387	Functional Organosulfide Electrolyte Promotes an Alternate Reaction Pathway to Achieve High Performance in Lithium–Sulfur Batteries. **2016**, 128, 4303-4307	33
1386	Synthesis, Crystal Structure, and Electrochemical Properties of a Simple Magnesium Electrolyte for Magnesium/Sulfur Batteries. **2016**, 128, 6516-6520	33
1385	Synthesis, Crystal Structure, and Electrochemical Properties of a Simple Magnesium Electrolyte for Magnesium/Sulfur Batteries. **2016**, 55, 6406-10	87
1384	Scientific and technological challenges toward application of lithium–sulfur batteries. **2016**, 25, 018801	9
1383	Performance Enhancement and Mechanistic Studies of Room-Temperature Sodium–Sulfur Batteries with a Carbon-Coated Functional Nafion Separator and a Na2S/Activated Carbon Nanofiber Cathode. **2016**, 28, 896-905	136
1382	Enhancement of electrochemical properties by polysulfide trapping in a graphene-coated sulfur cathode on patterned current collector. **2016**, 52, 3203-6	14
1381	Graphene-Li2S-Carbon Nanocomposite for Lithium-Sulfur Batteries. **2016**, 10, 1333-40	130
1380	Lanthanum Nitrate As Electrolyte Additive To Stabilize the Surface Morphology of Lithium Anode for Lithium-Sulfur Battery. **2016**, 8, 7783-9	109
1379	Effects of non-equimolar lithium salt glyme solvate ionic liquid on the control of interfacial degradation in lithium secondary batteries. **2016**, 6, 33043-33047	15

1378	FT-Raman spectroscopy study of solvent-in-salt electrolytes. **2016**, 25, 016101	34
1377	Solvate ionic liquid electrolyte with 1,1,2,2-tetrafluoroethyl 2,2,2-trifluoroethyl ether as a support solvent for advanced lithium–sulfur batteries. **2016**, 6, 18186-18190	24
1376	Novel gel polymer electrolyte for high-performance lithium–sulfur batteries. **2016**, 22, 278-289	289
1375	Li2S5-based ternary-salt electrolyte for robust lithium metal anode. **2016**, 3, 77-84	215
1374	A ternary sulphonium composite Cu3BiS3/S as cathode materials for lithium–sulfur batteries. **2016**, 51, 5139-5145	17
1373	Atomic layer deposited TiO2 on a nitrogen-doped graphene/sulfur electrode for high performance lithium–sulfur batteries. **2016**, 9, 1495-1503	270
1372	A highly-concentrated poly(ethylene carbonate)-based electrolyte for all-solid-state Li battery working at room temperature. **2016**, 66, 46-48	122
1371	Electrochemical and Transport Properties of Ions in Mixtures of Electroactive Ionic Liquid and Propylene Carbonate with a Lithium Salt for Lithium-Ion Batteries. **2016**, 120, 5315-5325	14
1370	Investigation of Electrolyte Concentration Effects on the Performance of Lithium–Oxygen Batteries. **2016**, 120, 5949-5957	20
1369	Powering Lithium-Sulfur Battery Performance by Propelling Polysulfide Redox at Sulfiphilic Hosts. **2016**, 16, 519-27	1055
1368	The Li–S battery: an investigation of redox shuttle and self-discharge behaviour with LiNO3-containing electrolytes. **2016**, 6, 3632-3641	56
1367	Li+ Solvation and Ionic Transport in Lithium Solvate Ionic Liquids Diluted by Molecular Solvents. **2016**, 120, 15792-15802	91
1366	Electrospun FeS2@Carbon Fiber Electrode as a High Energy Density Cathode for Rechargeable Lithium Batteries. **2016**, 10, 1529-38	171
1365	In situ 7Li and 133Cs nuclear magnetic resonance investigations on the role of Cs+ additive in lithium-metal deposition process. **2016**, 304, 51-59	17
1364	MWCNT porous microspheres with an efficient 3D conductive network for high performance lithium–sulfur batteries. **2016**, 4, 775-780	74
1363	To mitigate self-discharge of lithium–sulfur batteries by optimizing ionic liquid electrolytes. **2016**, 9, 224-231	159
1362	A superior low-cost amorphous carbon anode made from pitch and lignin for sodium-ion batteries. **2016**, 4, 96-104	250
1361	Nano-energy system coupling model and failure characterization of lithium ion battery electrode in electric energy vehicles. **2016**, 54, 1250-1261	16

1360	Pitch-derived amorphous carbon as high performance anode for sodium-ion batteries. **2016**, 2, 139-145		203
1359	Ion transport properties of magnesium bromide/dimethyl sulfoxide non-aqueous liquid electrolyte. **2016**, 7, 29-36		6
1358	Novel Concentrated Li[(FSO)(n-CFSO)N]-Based Ether Electrolyte for Superior Stability of Metallic Lithium Anode. **2017**, 9, 4282-4289		49
1357	Towards stable lithium-sulfur batteries: Mechanistic insights into electrolyte decomposition on lithium metal anode. **2017**, 8, 194-201		133
1356	Electrocatalytic activity of lithium polysulfides adsorbed into porous TiO coated MWCNTs hybrid structure for lithium-sulfur batteries. **2017**, 7, 40679		23
1355	Fluoroethylene Carbonate Additives to Render Uniform Li Deposits in Lithium Metal Batteries. **2017**, 27, 1605989		878
1354	Nanoporous Hybrid Electrolytes for High-Energy Batteries Based on Reactive Metal Anodes. **2017**, 7, 1602367		95
1353	Ultraconcentrated Sodium Bis(fluorosulfonyl)imide-Based Electrolytes for High-Performance Sodium Metal Batteries. **2017**, 9, 3723-3732		126
1352	High power rechargeable magnesium/iodine battery chemistry. *Nature Communications*, **2017**, 8, 14083	17.4	177
1351	Mixed Conduction Membranes Suppress the Polysulfide Shuttle in Lithium-Sulfur Batteries. **2017**, 164, A560-A566		28
1350	High-voltage and free-standing poly(propylene carbonate)/Li6.75La3Zr1.75Ta0.25O12 composite solid electrolyte for wide temperature range and flexible solid lithium ion battery. **2017**, 5, 4940-4948		284
1349	Octahedral magnesium manganese oxide molecular sieves as the cathode material of aqueous rechargeable magnesium-ion battery. **2017**, 229, 371-379		39
1348	Nanostructured Metal Oxides and Sulfides for Lithium-Sulfur Batteries. **2017**, 29, 1601759		911
1347	A Fluorinated Ether Electrolyte Enabled High Performance Prelithiated Graphite/Sulfur Batteries. **2017**, 9, 6959-6966		51
1346	Application of Ionic Liquids to Energy Storage and Conversion Materials and Devices. **2017**, 117, 7190-7239		858
1345	Dual Functionalities of Carbon Nanotube Films for Dendrite-Free and High Energy-High Power Lithium-Sulfur Batteries. **2017**, 9, 4605-4613		58
1344	Liquid-Phase Electrochemical Scanning Electron Microscopy for In Situ Investigation of Lithium Dendrite Growth and Dissolution. **2017**, 29, 1606187		91
1343	Thermodynamic stability of driven open systems and control of phase separation by electro-autocatalysis. **2017**, 199, 423-463		52

1342	Catalytic reduction of TFSI-containing ionic liquid in the presence of lithium cations. **2017**, 77, 128-132	33
1341	Implantable Solid Electrolyte Interphase in Lithium-Metal Batteries. **2017**, 2, 258-270	411
1340	Kinetics Tuning the Electrochemistry of Lithium Dendrites Formation in Lithium Batteries through Electrolytes. **2017**, 9, 7003-7008	56
1339	Improvement of photoluminescence properties of Eu3+ doped SrNb2O6 phosphor by charge compensation. **2017**, 66, 220-229	38
1338	Impedance Spectroscopy on Electrode | Ionic Liquid Interfaces. **2017**, 373-399	
1337	Investigation of the reaction mechanism of lithium sulfur batteries in different electrolyte systems by in situ Raman spectroscopy and in situ X-ray diffraction. **2017**, 1, 737-747	72
1336	Solvation structure in dilute to highly concentrated electrolytes for lithium-ion and sodium-ion batteries. **2017**, 233, 134-141	44
1335	Understanding mechanical behavior and reliability of organic electronic materials. **2017**, 42, 115-123	31
1334	Ionic Liquids in Lithium-Ion Batteries. **2017**, 375, 20	69
1333	Formation of Reversible Solid Electrolyte Interface on Graphite Surface from Concentrated Electrolytes. **2017**, 17, 1602-1609	64
1332	Effective Suppression of Polysulfide Dissolution by Uniformly Transfer-Printed Conducting Polymer on Sulfur Cathode for Li-S Batteries. **2017**, 164, A6417-A6421	21
1331	Reviving the lithium metal anode for high-energy batteries. **2017**, 12, 194-206	3302
1330	Introduction. **2017**, 1-22	
1329	Graphene□Pure Sulfur Sandwich Structure for Ultrafast, Long-Life Lithium-Sulfur Batteries. **2017**, 75-94	1
1328	Oxygen solubility and transport in Li□ir battery electrolytes: establishing criteria and strategies for electrolyte design. **2017**, 10, 1167-1179	84
1327	Oxygen Reduction Reaction in Highly Concentrated Electrolyte Solutions of Lithium Bis(trifluoromethanesulfonyl)amide/Dimethyl Sulfoxide. **2017**, 121, 9162-9172	60
1326	Improved Rate Performance of Lithium Sulfur Batteries by In-Situ Anchoring of Lithium Iodide in Carbon/Sulfur Cathode. **2017**, 238, 257-262	19
1325	Carbon coated sodium-titanate nanotube as an advanced intercalation anode material for sodium-ion batteries. **2017**, 712, 365-372	32

1324	Atomic-Layer-Deposition Functionalized Carbonized Mesoporous Wood Fiber for High Sulfur Loading Lithium Sulfur Batteries. **2017**, 9, 14801-14807	57
1323	In Situ Construction of Stable Tissue-Directed/Reinforced Bifunctional Separator/Protection Film on Lithium Anode for Lithium-Oxygen Batteries. **2017**, 29, 1606552	148
1322	Prussian blue nanocubes as cathode materials for aqueous Na-Zn hybrid batteries. **2017**, 355, 18-22	79
1321	A first-principles study of NbSe2monolayer as anode materials for rechargeable lithium-ion and sodium-ion batteries. **2017**, 50, 235501	51
1320	Interface-modulated fabrication of hierarchical yolk–shell Co3O4/C dodecahedrons as stable anodes for lithium and sodium storage. **2017**, 10, 2364-2376	91
1319	A Flexible Solid Composite Electrolyte with Vertically Aligned and Connected Ion-Conducting Nanoparticles for Lithium Batteries. **2017**, 17, 3182-3187	278
1318	Caterpillar-like graphene confining sulfur by restacking effect for high performance lithium sulfur batteries. **2017**, 322, 454-462	27
1317	Superconcentrated Electrolytes to Create New Interfacial Chemistry in Non-aqueous and Aqueous Rechargeable Batteries. **2017**, 46, 1056-1064	74
1316	Functional metal-organic framework boosting lithium metal anode performance chemical interactions. **2017**, 8, 4285-4291	130
1315	Review Article: Flow battery systems with solid electroactive materials. **2017**, 35, 040801	26
1314	Tuning the Adsorption of Polysulfides in Lithium–Sulfur Batteries with Metal–Organic Frameworks. **2017**, 29, 4932-4939	83
1313	Review on High-Loading and High-Energy Lithium–Sulfur Batteries. **2017**, 7, 1700260	1010
1312	Multi-electron redox phenazine for ready-to-charge organic batteries. **2017**, 19, 2980-2985	84
1311	Reversible multi-electron redox chemistry of π-conjugated N-containing heteroaromatic molecule-based organic cathodes. **2017**, 2,	292
1310	Three-dimensional bilayer garnet solid electrolyte based high energy density lithium metal–sulfur batteries. **2017**, 10, 1568-1575	368
1309	Recent advances in cathode materials for Li–S battery: structure and performance. **2017**, 36, 365-380	19
1308	Permselective membranes in lithium–sulfur batteries. **2017**, 16, 31-38	15
1307	Inhibiting Polysulfide Shuttle in Lithium-Sulfur Batteries through Low-Ion-Pairing Salts and a Triflamide Solvent. **2017**, 56, 6192-6197	86

1306	Lithiophilic Sites in Doped Graphene Guide Uniform Lithium Nucleation for Dendrite-Free Lithium Metal Anodes. **2017**, 56, 7764-7768		760
1305	High performance multi-functional trilayer membranes as permselective separators for lithium–sulfur batteries. **2017**, 4, 1013-1021		19
1304	Inhibiting Polysulfide Shuttle in Lithium–Sulfur Batteries through Low-Ion-Pairing Salts and a Triflamide Solvent. **2017**, 129, 6288-6293		19
1303	Lithiophilic Sites in Doped Graphene Guide Uniform Lithium Nucleation for Dendrite-Free Lithium Metal Anodes. **2017**, 129, 7872-7876		127
1302	VO Nanoflakes as the Cathode Material of Hybrid Magnesium-Lithium-Ion Batteries with High Energy Density. **2017**, 9, 17060-17066		82
1301	A nitrogen-doped 3D hierarchical carbon/sulfur composite for advanced lithium sulfur batteries. **2017**, 355, 211-218		45
1300	Relevant Features of a Triethylene Glycol Dimethyl Ether-Based Electrolyte for Application in Lithium Battery. **2017**, 9, 17085-17095		19
1299	A reversible dendrite-free high-areal-capacity lithium metal electrode. *Nature Communications*, **2017**, 8, 15106	17.4	121
1298	High-voltage positive electrode materials for lithium-ion batteries. **2017**, 46, 3006-3059		700
1297	A Nanophase-Separated, Quasi-Solid-State Polymeric Single-Ion Conductor: Polysulfide Exclusion for Lithium–Sulfur Batteries. **2017**, 2, 1232-1239		35
1296	Effect of Current Collector on Performance of Li-S Batteries. **2017**, 4, 1600811		12
1295	High capacity of lithium-sulfur batteries at low electrolyte/sulfur ratio enabled by an organosulfide containing electrolyte. **2017**, 31, 418-423		70
1294	Conductive graphene oxide-polyacrylic acid (GOPAA) binder for lithium-sulfur battery. **2017**, 31, 568-574		124
1293	A Multifunction Lithium–Carbon Battery System Using a Dual Electrolyte. **2017**, 2, 36-44		23
1292	Structure-Property Relationships of Organic Electrolytes and Their Effects on Li/S Battery Performance. **2017**, 29, 1700449		67
1291	A highly flexible semi-tubular carbon film for stable lithium metal anodes in high-performance batteries. **2017**, 38, 504-509		61
1290	Towards flexible lithium-sulfur battery from natural cotton textile. **2017**, 246, 507-516		113
1289	Hybrid Nanostructured Materials for Advanced Lithium Batteries. **2017**, 1-78		

1288	Techniques for realizing practical application of sulfur cathodes in future Li-ion batteries. **2017**, 21, 1925-1937	14
1287	A Robust, Water-Based, Functional Binder Framework for High-Energy Lithium-Sulfur Batteries. **2017**, 10, 2758-2766	32
1286	Low-Viscosity γ-Butyrolactone-Based Concentrated Electrolyte Solutions for LiNi0.5Mn1.5O4 Positive Electrodes in Lithium-Ion Batteries. **2017**, 4, 2398-2403	17
1285	How to make inert boron nitride nanosheets active for the immobilization of polysulfides for lithium-sulfur batteries: a computational study. **2017**, 19, 18208-18216	28
1284	The Importance of Confined Sulfur Nanodomains and Adjoining Electron Conductive Pathways in Subreaction Regimes of Li-S Batteries. **2017**, 7, 1700074	75
1283	Directing the Lithium-Sulfur Reaction Pathway via Sparingly Solvating Electrolytes for High Energy Density Batteries. **2017**, 3, 605-613	125
1282	Robust LiTi2(PO4)3 microflowers as high-rate and long-life cathodes for Mg-based hybrid-ion batteries. **2017**, 5, 13950-13956	24
1281	Nanosized Li2S-based cathodes derived from MoS2 for high-energy density Li–S cells and Si–Li2S full cells in carbonate-based electrolyte. **2017**, 8, 209-216	41
1280	A Sandwich PVDF/HEC/PVDF Gel Polymer Electrolyte for Lithium Ion Battery. **2017**, 245, 752-759	100
1279	Metallic and polar Co 9 S 8 inlaid carbon hollow nanopolyhedra as efficient polysulfide mediator for lithium–sulfur batteries. **2017**, 38, 239-248	241
1278	Activated graphene with tailored pore structure parameters for long cycle-life lithium–sulfur batteries. **2017**, 10, 4305-4317	45
1277	A hybrid electrolyte for long-life semi-solid-state lithium sulfur batteries. **2017**, 5, 13971-13975	37
1276	More Reliable Lithium-Sulfur Batteries: Status, Solutions and Prospects. **2017**, 29, 1606823	1054
1275	Sc C as a Promising Anode Material with High Mobility and Capacity: A First-Principles Study. **2017**, 18, 1627-1634	64
1274	Visualization of Lithium Plating and Stripping via in Operando Transmission X-ray Microscopy. **2017**, 121, 7761-7766	90
1273	Polysulfide-Breathing/Dual-Conductive, Heterolayered Battery Separator Membranes Based on 0D/1D Mingled Nanomaterial Composite Mats. **2017**, 17, 2220-2228	33
1272	Effect of fibrous separators on the performance of lithium-sulfur batteries. **2017**, 19, 11239-11248	17
1271	Enhanced Lithium Ion Storage Performance of Tannic Acid in LiTFSI Electrolyte. **2017**, 2, 1273-1278	24

1270	Rational Method for Improving the Performance of Lithium-Sulfur Batteries: Coating the Separator with Lithium Fluoride. **2017**, 4, 1535-1543		16
1269	Research Progress towards Understanding the Unique Interfaces between Concentrated Electrolytes and Electrodes for Energy Storage Applications. **2017**, 4, 1700032		245
1268	Coaxial Three-Layered Carbon/Sulfur/Polymer Nanofibers with High Sulfur Content and High Utilization for Lithium-Sulfur Batteries. **2017**, 9, 11626-11633		22
1267	A new energy storage system: Rechargeable potassium-selenium battery. **2017**, 35, 36-43		138
1266	MoS-Based Nanocomposites for Electrochemical Energy Storage. **2017**, 4, 1600289		278
1265	Decoupling effective Li+ ion conductivity from electrolyte viscosity for improved room-temperature cell performance. **2017**, 342, 335-341		32
1264	Metal Sulfide-Blended Sulfur Cathodes in High Energy Lithium-Sulfur Cells. **2017**, 164, A265-A276		35
1263	Design principles and energy system scale analysis technologies of new lithium-ion and aluminum-ion batteries for sustainable energy electric vehicles. **2017**, 71, 645-651		30
1262	The Solvation Structure of Lithium Ions in an Ether Based Electrolyte Solution from First-Principles Molecular Dynamics. **2017**, 121, 180-188		30
1261	Ammonium Additives to Dissolve Lithium Sulfide through Hydrogen Binding for High-Energy Lithium-Sulfur Batteries. **2017**, 9, 4290-4295		51
1260	Electrolytes for electrochemical energy storage. **2017**, 1, 584-618		148
1259	Nanostructured cathode materials for lithium–sulfur batteries: progress, challenges and perspectives. **2017**, 5, 3014-3038		147
1258	A stable lithiated silicon-chalcogen battery via synergetic chemical coupling between silicon and selenium. *Nature Communications*, **2017**, 8, 13888	17.4	43
1257	Effects of High and Low Salt Concentration in Electrolytes at Lithium–Metal Anode Surfaces. **2017**, 121, 182-194		99
1256	Spinel LiNi0.5Mn1.5O4 Cathode for High-Energy Aqueous Lithium-Ion Batteries. **2017**, 7, 1600922		80
1255	Improving the electrochemical behavior of lithium-sulfur batteries through silica-coated nickel-foam cathode collector. **2017**, 341, 366-372		18
1254	Space-confinement and chemisorption co-involved in encapsulation of sulfur for lithium–sulfur batteries with exceptional cycling stability. **2017**, 5, 24602-24611		23
1253	Theoretical Studies of the Reduction of Cyclic Esters on the Anode Interface of Lithium Batteries. **2017**, 164, A3144-A3153		7

1252	A Compact Nanoconfined Sulfur Cathode for High-Performance Lithium-Sulfur Batteries. **2017**, 1, 576-587		194
1251	Harvesting polysulfides by sealing the sulfur electrode in a composite ion-selective net. **2017**, 368, 38-45		4
1250	Role of Li Concentration and the SEI Layer in Enabling High Performance Li Metal Electrodes Using a Phosphonium Bis(fluorosulfonyl)imide Ionic Liquid. **2017**, 121, 21087-21095		60
1249	Precipitation–Microstructure Interactions in the Li-Sulfur Battery Electrode. **2017**, 121, 26256-26264		32
1248	Promising Routes to a High Li+ Transference Number Electrolyte for Lithium Ion Batteries. **2017**, 2, 2563-2575		347
1247	Interfacial Chemistry Regulation via a Skin-Grafting Strategy Enables High-Performance Lithium-Metal Batteries. **2017**, 139, 15288-15291		203
1246	Liquid Structure with Nano-Heterogeneity Promotes Cationic Transport in Concentrated Electrolytes. **2017**, 11, 10462-10471		193
1245	Organosulfide-plasticized solid-electrolyte interphase layer enables stable lithium metal anodes for long-cycle lithium-sulfur batteries. *Nature Communications*, **2017**, 8, 850	17.4	192
1244	A highly elastic and flexible solid-state polymer electrolyte based on ionic liquid-decorated PMMA nanoparticles for lithium batteries. **2017**, 41, 13096-13103		16
1243	Favorable Carbon Conductive Additives in Li3PS4Composite Positive Electrode Prepared by Ball-Milling for All-Solid-State Lithium Batteries. **2017**, 164, A2804-A2811		17
1242	A Design of Solid-State Li-S Cell with Evaporated Lithium Anode To Eliminate Shuttle Effects. **2017**, 9, 33735-33739		32
1241	Porous ZrNb24O62 nanowires with pseudocapacitive behavior achieve high-performance lithium-ion storage. **2017**, 5, 22297-22304		64
1240	Dual functional MoS2/graphene interlayer as an efficient polysulfide barrier for advanced lithium-sulfur batteries. **2017**, 256, 28-36		82
1239	The suppression of lithium dendrite growth in lithium sulfur batteries: A review. **2017**, 13, 387-400		40
1238	Ion aggregation in high salt solutions. VII. The effect of cations on the structures of ion aggregates and water hydrogen-bonding network. **2017**, 147, 154107		22
1237	Effect of the Hydrofluoroether Cosolvent Structure in Acetonitrile-Based Solvate Electrolytes on the Li Solvation Structure and Li-S Battery Performance. **2017**, 9, 39357-39370		39
1236	Recent progress in solid-state electrolytes for alkali-ion batteries. **2017**, 62, 1473-1490		51
1235	High Areal Capacity and Lithium Utilization in Anodes Made of Covalently Connected Graphite Microtubes. **2017**, 29, 1700783		123

1234	Facile Fabrication of ZnFe2O4-MWCNTs Composite as an Anode Material for Rechargeable Lithium-Ion Batteries. **2017**, 2, 7194-7201		8
1233	Gas treatment protection of metallic lithium anode. **2017**, 26, 088202		3
1232	Electrochemical Cycling Behavior of Pyrrolidinium Ionic Liquid Tethered TiO2Nanoparticle-Hybrid Electrolytes: Influence of Grafting Density. **2017**, 164, H788-H797		7
1231	Efficient sulfur host based on NiCo 2 O 4 hollow microtubes for advanced Li-S batteries. **2017**, 256, 189-195		14
1230	Stabilizing the Garnet Solid-Electrolyte/Polysulfide Interface in Li–S Batteries. **2017**, 29, 8037-8041		67
1229	Rational design of self-supporting graphene - Polypyrrole/sulfur - Graphene sandwich as structural paper electrode for lithium sulfur batteries. **2017**, 728, 376-382		20
1228	Ultrahigh-current density anodes with interconnected Li metal reservoir through overlithiation of mesoporous AlF framework. **2017**, 3, e1701301		158
1227	Crystal Structure Modification Enhanced FeNb11O29 Anodes for Lithium-Ion Batteries. **2017**, 4, 3171-3180		130
1226	Electrolyte-cathode interactions in 5-V lithium-ion cells. **2017**, 21, 3389-3401		1
1225	The physicochemical properties of a [DEME][TFSI] ionic liquid-based electrolyte and their influence on the performance of lithium–sulfur batteries. **2017**, 252, 147-153		24
1224	A Newly Designed Composite Gel Polymer Electrolyte Based on Poly(Vinylidene Fluoride-Hexafluoropropylene) (PVDF-HFP) for Enhanced Solid-State Lithium-Sulfur Batteries. **2017** , 23, 15203-15209		82
1223	Reactivation of dead sulfide species in lithium polysulfide flow battery for grid scale energy storage. *Nature Communications*, **2017**, 8, 462	17.4	38
1222	Stabilizing the Performance of High-Capacity Sulfur Composite Electrodes by a New Gel Polymer Electrolyte Configuration. **2017**, 10, 3490-3496		17
1221	Protected Lithium-Metal Anodes in Batteries: From Liquid to Solid. **2017**, 29, 1701169		452
1220	Understanding the role of lithium polysulfide solubility in limiting lithium-sulfur cell capacity. **2017**, 248, 90-97		48
1219	Utilizing Co/Co Redox Couple in P2-Layered NaCoMnTiO Cathode for Sodium-Ion Batteries. **2017**, 4, 1700219		76
1218	A stable graphite electrode in superconcentrated LiTFSI-DME/DOL electrolyte and its application in lithium-sulfur full battery. **2017**, 95, 61-70		40
1217	TiO Feather Duster as Effective Polysulfides Restrictor for Enhanced Electrochemical Kinetics in Lithium-Sulfur Batteries. **2017**, 13, 1701013		126

1216	In-situ synthesized ZnFe 2 O 4 firmly anchored to the surface of MWCNTs as a long-life anode material with high lithium storage performance. **2017**, 425, 978-987	26
1215	Toward Safe Lithium Metal Anode in Rechargeable Batteries: A Review. **2017**, 117, 10403-10473	2918
1214	A sulfur□FePO4□ nanocomposite cathode for stable and anti-self-discharge lithium□sulfur batteries. **2017**, 5, 17926-17932	13
1213	Lithium malonatoborate additives enabled stable cycling of 5 V lithium metal and lithium ion batteries. **2017**, 40, 9-19	52
1212	An Insoluble Benzoquinone-Based Organic Cathode for Use in Rechargeable Lithium-Ion Batteries. **2017**, 129, 12735-12739	27
1211	Surface graphited carbon scaffold enables simple and scalable fabrication of 3D composite lithium metal anode. **2017**, 5, 19168-19174	47
1210	Ultrafine Silver Nanoparticles for Seeded Lithium Deposition toward Stable Lithium Metal Anode. **2017**, 29, 1702714	374
1209	Toward in-situ protected sulfur cathodes by using lithium bromide and pre-charge. **2017**, 40, 170-179	42
1208	Role of Solvent Bulkiness on Lithium-Ion Solvation in Fluorinated Alkyl Phosphate-Based Electrolytes: Structural Study for Designing Nonflammable Lithium-Ion Batteries. **2017**, 121, 19112-19119	22
1207	In situ monitoring the viscosity change of an electrolyte in a Li-S battery. **2017**, 53, 10152-10155	20
1206	Unusual Passivation Ability of Superconcentrated Electrolytes toward Hard Carbon Negative Electrodes in Sodium-Ion Batteries. **2017**, 9, 33802-33809	62
1205	A review of flexible lithium-sulfur and analogous alkali metal-chalcogen rechargeable batteries. **2017**, 46, 5237-5288	461
1204	An Insoluble Benzoquinone-Based Organic Cathode for Use in Rechargeable Lithium-Ion Batteries. **2017**, 56, 12561-12565	117
1203	Intrinsic Shuttle Suppression in Lithium-Sulfur Batteries for Pouch Cell Application. **2017**, 164, A3766-A3771	69
1202	Room-Temperature Performance of Poly(Ethylene Ether Carbonate)-Based Solid Polymer Electrolytes for All-Solid-State Lithium Batteries. **2017**, 7, 17482	46
1201	Decomposition of Ionic Liquids at Lithium Interfaces. 1.Ab InitioMolecular Dynamics Simulations. **2017**, 121, 28214-28234	54
1200	Atom-Thick Interlayer Made of CVD-Grown Graphene Film on Separator for Advanced Lithium-Sulfur Batteries. **2017**, 9, 43696-43703	62
1199	Catholyte Formulations for High-Energy Li-S Batteries. **2017**, 8, 5907-5914	11

1198	Electrochemical performance and interfacial properties of Li-metal in lithium bis(fluorosulfonyl)imide based electrolytes. **2017**, 7, 15925	8
1197	New Class of LAGP-Based Solid Polymer Composite Electrolyte for Efficient and Safe Solid-State Lithium Batteries. **2017**, 9, 41837-41844	80
1196	Improved performance through tight coupling of redox cycles of sulfur and 2,6-polyanthraquinone in lithium–sulfur batteries. **2017**, 5, 24103-24109	4
1195	The synthesis of 1 □1 magnesium octahedral molecular sieve with controllable size and shape for aqueous magnesium ion battery cathode material. **2017**, 807, 37-44	13
1194	Electrode-Electrolyte Interfaces in Lithium-Sulfur Batteries with Liquid or Inorganic Solid Electrolytes. **2017**, 50, 2653-2660	122
1193	Degradation Mechanisms of Magnesium Metal Anodes in Electrolytes Based on (CFSO)N at High Current Densities. **2017**, 33, 9398-9406	41
1192	Reviving Lithium-Metal Anodes for Next-Generation High-Energy Batteries. **2017**, 29, 1700007	641
1191	Communication—Effect of Lithium Polysulfide Solubility on Capacity of Lithium-Sulfur Cells. **2017**, 164, A1220-A1222	15
1190	A nickel-foam@carbon-shell with a pie-like architecture as an efficient polysulfide trap for high-energy Li–S batteries. **2017**, 5, 15002-15007	37
1189	Phosphorus-based materials for high-performance rechargeable batteries. **2017**, 4, 1424-1444	28
1188	High-Performance Li-Se Batteries Enabled by Selenium Storage in Bottom-Up Synthesized Nitrogen-Doped Carbon Scaffolds. **2017**, 9, 25232-25238	33
1187	Insight on lithium polysulfide intermediates in a Li/S battery by density functional theory. **2017**, 7, 33373-33377	18
1186	High-Capacity Retention of Si Anodes Using a Mixed Lithium/Phosphonium Bis(fluorosulfonyl)imide Ionic Liquid Electrolyte. **2017**, 2, 1804-1809	26
1185	LiNO3-free electrolyte for Li-S battery: A solvent of choice with low Ksp of polysulfide and low dendrite of lithium. **2017**, 39, 262-272	73
1184	Review of nanostructured current collectors in lithium–sulfur batteries. **2017**, 10, 4027-4054	74
1183	Clew-like N-doped multiwalled carbon nanotube aggregates derived from metal-organic complexes for lithium-sulfur batteries. **2017**, 122, 635-642	33
1182	In Situ Observation and Electrochemical Study of Encapsulated Sulfur Nanoparticles by MoS Flakes. **2017**, 139, 10133-10141	106
1181	Biomass-derived renewable carbon materials for electrochemical energy storage. **2017**, 5, 69-88	299

1180	Li$_2$S and Li$_2$O$_2$ Batteries with High Specific Energy. **2017**, 1-48		3
1179	A Comprehensive Approach toward Stable Lithium–Sulfur Batteries with High Volumetric Energy Density. **2017**, 7, 1601630		240
1178	An Electrolyte for Reversible Cycling of Sodium Metal and Intercalation Compounds. **2017**, 10, 401-408		67
1177	Conversion cathodes for rechargeable lithium and lithium-ion batteries. **2017**, 10, 435-459		380
1176	Progress of rechargeable lithium metal batteries based on conversion reactions. **2017**, 4, 54-70		102
1175	A Novel Lithiated Silicon-Sulfur Battery Exploiting an Optimized Solid-Like Electrolyte to Enhance Safety and Cycle Life. **2017**, 13, 1602015		25
1174	Long life anode material sodium titanate synthesized by a moderate method. **2017**, 186, 326-329		3
1173	Passivation of Lithium Metal Anode via Hybrid Ionic Liquid Electrolyte toward Stable Li Plating/Stripping. **2017**, 4, 1600400		176
1172	Preparation of Mg$_{1.1}$Mn$_6$O$_{12}$·4.5H$_2$O with nanobelt structure and its application in aqueous magnesium-ion battery. **2017**, 338, 136-144		51
1171	Dielectric relaxation and ionic transport in poly(ethylene carbonate)-based electrolytes. **2017**, 28, 362-366		8
1170	A Design Approach to Lithium-Ion Battery Electrolyte Based on Diluted Solvate Ionic Liquids. **2017**, 164, A6088-A6094		32
1169	High Coulombic Efficiency of Lithium Plating/Stripping and Lithium Dendrite Prevention. **2017**, 45-152		2
1168	Application of Lithium Metal Anodes. **2017**, 153-188		1
1167	Towards High-Safe Lithium Metal Anodes: Suppressing Lithium Dendrites via Tuning Surface Energy. **2017**, 4, 1600168		298
1166	The gap between long lifespan Li-S coin and pouch cells: The importance of lithium metal anode protection. **2017**, 6, 18-25		240
1165	Molecular understanding of polyelectrolyte binders that actively regulate ion transport in sulfur cathodes. *Nature Communications*, **2017**, 8, 2277	17.4	100
1164	Developing New Functionalities of Superconcentrated Electrolytes for Lithium-ion Batteries. **2017**, 85, 559-565		28
1163	An alternative route to single ion conductivity using multi-ionic salts. **2018**, 5, 461-473		19

1162	Review of Electrolytes in Nonaqueous Lithium–Oxygen Batteries. **2018**, 2, 1700183	30
1161	High performance porous Si@C anodes synthesized by low temperature aluminothermic reaction. **2018**, 269, 509-516	38
1160	Carbon nanomaterials for advanced lithium sulfur batteries. **2018**, 19, 84-107	267
1159	Tai Chi–philosophy driven rigid-flexible hybrid ionogel electrolyte for high-performance lithium battery. **2018**, 47, 35-42	51
1158	The effect of SiO additives on solid hydroxide ion-conducting polymer electrolytes: a Raman microscopy study. **2018**, 20, 7148-7155	7
1157	"Water-in-Salt" for Supercapacitors: A Compromise between Voltage, Power Density, Energy Density and Stability. **2018**, 165, A657-A663	83
1156	Recent progress and perspective on lithium metal anode protection. **2018**, 14, 199-221	140
1155	Effective strategies for long-cycle life lithium–sulfur batteries. **2018**, 6, 6155-6182	125
1154	Suppressing Dendritic Lithium Formation Using Porous Media in Lithium Metal-Based Batteries. **2018**, 18, 2067-2073	126
1153	Graphene-decorated sphere Li2S composite prepared by spray drying method as cathode for lithium-sulfur full cell. **2018**, 24, 3385-3392	8
1152	Lithium Sulfonate/Carboxylate-Anchored Polyvinyl Alcohol Separators for Lithium Sulfur Batteries. **2018**, 10, 18310-18315	25
1151	Effect of LiFSI Concentrations To Form Thickness- and Modulus-Controlled SEI Layers on Lithium Metal Anodes. **2018**, 122, 9825-9834	93
1150	Lithium–Sulfur Batteries: State of the Art and Future Directions. **2018**, 1, 1783-1814	74
1149	The Electrochemical Performance of Silicon Nanoparticles in Concentrated Electrolyte. **2018**, 11, 1787-1796	21
1148	A review on anode for lithium-sulfur batteries: Progress and prospects. **2018**, 347, 343-365	140
1147	Fluoroalkyl ether-diluted dimethyl carbonate-based electrolyte solutions for high-voltage operation of LiNi0.5Co0.2Mn0.3O2 electrodes in lithium ion batteries. **2018**, 2, 1197-1205	14
1146	Materials and Device Constructions for Aqueous Lithium–Sulfur Batteries. **2018**, 28, 1707593	24
1145	Toward High Performance Lithium–Sulfur Batteries Based on Li2S Cathodes and Beyond: Status, Challenges, and Perspectives. **2018**, 28, 1800154	81

1144	Revisiting the Role of Polysulfides in Lithium-Sulfur Batteries. **2018**, 30, e1705590		291
1143	Perspectives for restraining harsh lithium dendrite growth: Towards robust lithium metal anodes. **2018**, 15, 148-170		166
1142	Advancing Lithium Metal Batteries. **2018**, 2, 833-845		620
1141	Designable ultra-smooth ultra-thin solid-electrolyte interphases of three alkali metal anodes. *Nature Communications*, **2018**, 9, 1339	17.4	179
1140	Symmetric Lithium Sulfide–Sulfur Cells: A Method to Study Degradation Mechanisms of Cathode, Separator and Electrolyte Concepts for Lithium-Sulfur Batteries. **2018**, 165, A1084-A1091		12
1139	Ferromagnetic Nanoparticle-Assisted Polysulfide Trapping for Enhanced Lithium–Sulfur Batteries. **2018**, 28, 1800563		70
1138	Construction of a stable lithium sulfide membrane to greatly confine polysulfides for high performance lithium–sulfur batteries. **2018**, 6, 8655-8661		8
1137	Theoretical Analysis of Carrier Ion Diffusion in Superconcentrated Electrolyte Solutions for Sodium-Ion Batteries. **2018**, 122, 2600-2609		46
1136	Role of perfluoropolyether-based electrolytes in lithium metal batteries: Implication for suppressed Al current collector corrosion and the stability of Li metal/electrolytes interfaces. **2018**, 380, 115-125		22
1135	Mechanically Robust, Highly Ionic Conductive Gels Based on Random Copolymers for Bending Durable Electrochemical Devices. **2018**, 28, 1706948		53
1134	Modulating the hydration number of calcium ions by varying the electrolyte concentration: Electrochemical performance in a Prussian blue electrode/aqueous electrolyte system for calcium-ion batteries. **2018**, 265, 430-436		30
1133	"Solvent-in-salt" systems for design of new materials in chemistry, biology and energy research. **2018**, 47, 1250-1284		101
1132	Recent progress in organic redox flow batteries: Active materials, electrolytes and membranes. **2018**, 27, 1304-1325		127
1131	Recent Progress of the Solid-State Electrolytes for High-Energy Metal-Based Batteries. **2018**, 8, 1702657		577
1130	Snapshots of the Hydrolysis of Lithium 4,5-Dicyanoimidazolate–Glyme Solvates. Impact of Water Molecules on Aggregation Processes in Lithium-Ion Battery Electrolytes. **2018**, 122, 3201-3210		3
1129	Self-Formed Hybrid Interphase Layer on Lithium Metal for High-Performance Lithium-Sulfur Batteries. **2018**, 12, 1500-1507		114
1128	Spectroscopic Characterization of the SEI Layer Formed on Lithium Metal Electrodes in Phosphonium Bis(fluorosulfonyl)imide Ionic Liquid Electrolytes. **2018**, 10, 6719-6729		52
1127	Directly Formed Alucone on Lithium Metal for High-Performance Li Batteries and Li-S Batteries with High Sulfur Mass Loading. **2018**, 10, 7043-7051		52

1126	Cation effect on small phosphonium based ionic liquid electrolytes with high concentrations of lithium salt. **2018**, 148, 193813	12
1125	Designing Safe Electrolyte Systems for a High-Stability Lithium–Sulfur Battery. **2018**, 8, 1702348	210
1124	Carbonaceous catholyte for high energy density semi-solid Li/O2 flow battery. **2018**, 130, 749-757	13
1123	High Lithium Ion Conductivity LiF/GO Solid Electrolyte Interphase Inhibiting the Shuttle of Lithium Polysulfides in Long-Life Li–S Batteries. **2018**, 28, 1706513	83
1122	Lithiation-Derived Repellent toward Lithium Anode Safeguard in Quasi-solid Batteries. **2018**, 4, 298-307	51
1121	Investigation of Ion-Solvent Interactions in Nonaqueous Electrolytes Using in Situ Liquid SIMS. **2018**, 90, 3341-3348	19
1120	Superhierarchical Cobalt-Embedded Nitrogen-Doped Porous Carbon Nanosheets as Two-in-One Hosts for High-Performance Lithium-Sulfur Batteries. **2018**, 30, e1706895	235
1119	Revisiting the open-framework zinc hexacyanoferrate: The role of ternary electrolyte and sodium-ion intercalation mechanism. **2018**, 380, 135-141	17
1118	A Sulfur-Limonene-Based Electrode for Lithium-Sulfur Batteries: High-Performance by Self-Protection. **2018**, 30, e1706643	85
1117	1,3-Dioxolane: A Strategy to Improve Electrode Interfaces in Lithium Ion and Lithium-Sulfur Batteries. **2018**, 5, 1272-1278	13
1116	High Li+ Ionic Flux Separator Enhancing Cycling Stability of Lithium Metal Anode. **2018**, 6, 2961-2968	33
1115	Fluorine-donating electrolytes enable highly reversible 5-V-class Li metal batteries. **2018**, 115, 1156-1161	341
1114	Microscopic Formation Mechanism of Solid Electrolyte Interphase Film in Lithium-Ion Batteries with Highly Concentrated Electrolyte. **2018**, 122, 2564-2571	29
1113	Sustainable Interfaces between Si Anodes and Garnet Electrolytes for Room-Temperature Solid-State Batteries. **2018**, 10, 2185-2190	28
1112	Polysulfides Formation in Different Electrolytes from the Perspective of X-ray Absorption Spectroscopy. **2018**, 165, A5014-A5019	31
1111	Synergetic Protective Effect of the Ultralight MWCNTs/NCQDs Modified Separator for Highly Stable Lithium–Sulfur Batteries. **2018**, 8, 1702288	191
1110	High Conductivity Solvates with Unsymmetrical Glymes as New Electrolytes. **2018**, 30, 246-251	7
1109	Direct visualization of sulfur cathodes: new insights into Li-S batteries via X-ray based methods.. **2018**, 8, 202-210	67

1108	Poly (dimethylsiloxane) modified lithium anode for enhanced performance of lithium-sulfur batteries. **2018**, 13, 151-159	60
1107	Artificial Soft–Rigid Protective Layer for Dendrite-Free Lithium Metal Anode. **2018**, 28, 1705838	355
1106	Electrolyte Composition in Li/O2 Batteries with LiI Redox Mediators: Solvation Effects on Redox Potentials and Implications for Redox Shuttling. **2018**, 122, 1522-1534	38
1105	Water-in-Salt Electrolyte for Potassium-Ion Batteries. **2018**, 3, 373-374	175
1104	Extremely Stable Sodium Metal Batteries Enabled by Localized High-Concentration Electrolytes. **2018**, 3, 315-321	241
1103	New Insights on Graphite Anode Stability in Rechargeable Batteries: Li Ion Coordination Structures Prevail over Solid Electrolyte Interphases. **2018**, 3, 335-340	134
1102	Insight into the effect of lithium-dendrite suppression by lithium bis(fluorosulfony)imide/1,2-dimethoxyethane electrolytes. **2018**, 277, 116-126	4
1101	Graphene nested porous carbon current collector for lithium metal anode with ultrahigh areal capacity. **2018**, 15, 266-273	52
1100	Stabilization of Lithium-Metal Batteries Based on the in Situ Formation of a Stable Solid Electrolyte Interphase Layer. **2018**, 10, 17985-17993	49
1099	Hybrid electrolytes incorporated with dandelion-like silane–Al2O3 nanoparticles for high-safety high-voltage lithium ion batteries. **2018**, 391, 113-119	9
1098	A new ether-based electrolyte for lithium sulfur batteries using a S@pPAN cathode. **2018**, 54, 5478-5481	31
1097	Effect of Salt Concentration on Properties of Lithium Ion Battery Electrolytes: A Molecular Dynamics Study. **2018**, 122, 8173-8181	47
1096	Progress and Perspective of Solid-State Lithium–Sulfur Batteries. **2018**, 28, 1707570	138
1095	Catching TFSI: A Computational-Experimental Approach to β-Cyclodextrin-Based Host-Guest Systems as electrolytes for Li-Ion Batteries. **2018**, 11, 1942-1949	2
1094	High-performance of sodium carboxylate-derived materials for electrochemical energy storage. **2018**, 61, 707-718	18
1093	Effectiveness of dioxolane/dimethoxyethane mixed solvent for the fabrication of lithium-sulfur semiflow batteries. **2018**, 317, 170-174	5
1092	A Review on the Features and Progress of Dual-Ion Batteries. **2018**, 8, 1703320	204
1091	A symmetrical ionic liquid/Li salt system for rapid ion transport and stable lithium electrochemistry. **2018**, 54, 3660-3663	17

1090	Continuous plating/stripping behavior of solid-state lithium metal anode in a 3D ion-conductive framework. **2018**, 115, 3770-3775	178
1089	High-Voltage Lithium-Metal Batteries Enabled by Localized High-Concentration Electrolytes. **2018**, 30, e1706102	452
1088	Li2CO3-free LiO2/CO2 battery with peroxide discharge product. **2018**, 11, 1211-1217	84
1087	A bifunctional electrolyte additive for separator wetting and dendrite suppression in lithium metal batteries. **2018**, 270, 62-69	20
1086	Advanced Na metal anodes. **2018**, 27, 1584-1596	67
1085	Self-standing sulfur cathodes enabled by 3D hierarchically porous titanium monoxide-graphene composite film for high-performance lithium-sulfur batteries. **2018**, 47, 331-339	87
1084	Crumpled Graphene Balls Stabilized Dendrite-free Lithium Metal Anodes. **2018**, 2, 184-193	241
1083	Ab Initio Force Fields for Organic Anions: Properties of [BMIM][TFSI], [BMIM][FSI], and [BMIM][OTf] Ionic Liquids. **2018**, 122, 4101-4114	29
1082	Sulfurized solid electrolyte interphases with a rapid Li+ diffusion on dendrite-free Li metal anodes. **2018**, 10, 199-205	165
1081	Lightweight, free-standing 3D interconnected carbon nanotube foam as a flexible sulfur host for high performance lithium-sulfur battery cathodes. **2018**, 10, 206-215	72
1080	Recent development of metal compound applications in lithium–sulphur batteries. **2018**, 33, 16-31	33
1079	Hybrids of MnO2 nanoparticles anchored on graphene sheets as efficient sulfur hosts for high-performance lithium sulfur batteries. **2018**, 22, 693-703	21
1078	Dielectric Investigation of NaLiS Nanoparticles Loaded on Alginate Polymer Matrix Synthesized by Single Pot Microwave Irradiation. **2018**, 28, 671-678	15
1077	TiCr0.5Nb10.5O29/CNTs nanocomposite as an advanced anode material for high-performance Li+-ion storage. **2018**, 732, 116-123	15
1076	Understanding the anchoring effect of Graphene, BN, C2N and C3N4 monolayers for lithium–polysulfides in Li–S batteries. **2018**, 434, 596-603	54
1075	Thermodynamics and Kinetics of Sulfur Cathode during Discharge in MgTFSI -DME Electrolyte. **2018**, 30, 1704313	90
1074	Advances in Interfaces between Li Metal Anode and Electrolyte. **2018**, 5, 1701097	144
1073	Molecular insights into ether-based electrolytes for Li-FeS2 batteries. **2018**, 12, 85-93	8

1072	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
1071	Enhancing metallic lithium battery performance by tuning the electrolyte solution structure. **2018**, 6, 1612-1620	38
1070	Facile fabrication of polyether sulfone (PES) protecting layer on Cu foil for stable Li metal anode. **2018**, 260, 407-412	15
1069	Lithium dendrite suppression and cycling efficiency of lithium anode. **2018**, 87, 27-30	32
1068	Suppression of Dendritic Lithium Growth by in Situ Formation of a Chemically Stable and Mechanically Strong Solid Electrolyte Interphase. **2018**, 10, 593-601	78
1067	Design and synthesis of novel sandwich-type C@TiO2@C hollow microspheres as efficient sulfur hosts for advanced lithium□sulfur batteries. **2018**, 6, 1630-1638	63
1066	3D Amorphous Carbon with Controlled Porous and Disordered Structures as a High-Rate Anode Material for Sodium-Ion Batteries. **2018**, 8, 1702434	343
1065	Beyond lithium ion batteries: Higher energy density battery systems based on lithium metal anodes. **2018**, 12, 161-175	284
1064	Unraveling the role of LiFSI electrolyte in the superior performance of graphite anodes for Li-ion batteries. **2018**, 259, 949-954	31
1063	New Separators in Lithium/Sulfur Cells with High-Capacity Cathodes. **2018**, 165, A6021-A6028	13
1062	Molecular simulations of electrolyte structure and dynamics in lithium□sulfur battery solvents. **2018**, 373, 70-78	43
1061	Improving the electrochemical performances of Li-rich Li1.20Ni0.13Co0.13Mn0.54O2 through a cooperative doping of Na+ and PO43□with Na3PO4. **2018**, 375, 1-10	71
1060	Bending-Tolerant Anodes for Lithium-Metal Batteries. **2018**, 30, 1703891	95
1059	Review□i Metal Anode in Working Lithium-Sulfur Batteries. **2018**, 165, A6058-A6072	172
1058	The Salt Matters: Enhanced Reversibility of Li-O Batteries with a Li[(CF SO)(n-C F SO)N]-Based Electrolyte. **2018**, 30, 1704841	58
1057	Long lifespan lithium metal anodes enabled by Al2O3 sputter coating. **2018**, 10, 16-23	124
1056	Organic materials for rechargeable sodium-ion batteries. **2018**, 21, 60-78	152
1055	Efficient Recovery of Silver from Crystalline Silicon Solar Cells by Controlling the Viscosity of Electrolyte Solvent in an Electrochemical Process. **2018**, 8, 2131	4

1054	Preparation of MoP2 nanoparticles as a novel anode material for sodium ion batteries. **2018**, 192, 88-93		2
1053	Building a cycle-stable sulphur cathode by tailoring its redox reaction into a solid-phase conversion mechanism. **2018**, 6, 23396-23407		28
1052	Designing solvate ionogel electrolytes with very high room-temperature conductivity and lithium transference number. **2018**, 6, 24100-24106		9
1051	Stable metal battery anodes enabled by polyethylenimine sponge hosts by way of electrokinetic effects. **2018**, 3, 1076-1083		212
1050	Recent Advances in Energy Chemical Engineering of Next-Generation Lithium Batteries. **2018**, 4, 831-847		116
1049	Elastic and Li-ion-percolating hybrid membrane stabilizes Li metal plating. **2018**, 115, 12389-12394		32
1048	Dual-Function Electrochromic Supercapacitors Displaying Real-Time Capacity in Color. **2018**, 10, 43993-43999		52
1047	Strategic Design of Highly Concentrated Electrolyte Solutions for Mg2+/Li+ Dual-Salt Hybrid Batteries. **2018**, 122, 27866-27874		5
1046	Tuning the Hydrogen Evolution Reaction on Metals by Lithium Salt. **2018**, 1, 7116-7122		7
1045	Recent Progress in Liquid Electrolyte-Based Li–S Batteries: Shuttle Problem and Solutions. **2018**, 1, 599-624		33
1044	Recognizing the Mechanism of Sulfurized Polyacrylonitrile Cathode Materials for Li–S Batteries and beyond in Al–S Batteries. **2018**, 3, 2899-2907		146
1043	Direct Evidence for Li Ion Hopping Conduction in Highly Concentrated Sulfolane-Based Liquid Electrolytes. **2018**, 122, 10736-10745		86
1042	Peering through the Stability Window. **2018**, 2, 2511-2512		4
1041	Fluorine-free water-in-ionomer electrolytes for sustainable lithium-ion batteries. *Nature Communications*, **2018**, 9, 5320	17.4	48
1040	Incorporating Flexibility into Stiffness: Self-Grown Carbon Nanotubes in Melamine Sponges Enable A Lithium-Metal-Anode Capacity of 15 mA h cm Cyclable at 15 mA cm. **2019**, 31, e1805654		41
1039	Uniform Nucleation of Lithium in 3D Current Collectors via Bromide Intermediates for Stable Cycling Lithium Metal Batteries. **2018**, 140, 18051-18057		96
1038	Tuning the Electron Density of Aromatic Solvent for Stable Solid-Electrolyte-Interphase Layer in Carbonate-Based Lithium Metal Batteries. **2018**, 8, 1802365		36
1037	Understanding Electrochemical Stability and Lithium Ion-Dominant Transport in Concentrated Poly(ethylene carbonate) Electrolyte. **2018**, 5, 4008-4014		22

1036	Poor Man's Atomic Layer Deposition of LiF for Additive-Free Growth of Lithium Columns. **2018**, 18, 7066-7074		22
1035	High-Power Li-Metal Anode Enabled by Metal-Organic Framework Modified Electrolyte. **2018**, 2, 2117-2132		153
1034	Upgrading traditional liquid electrolyte via in situ gelation for future lithium metal batteries. **2018**, 4, eaat5383		199
1033	A room-temperature sodium-sulfur battery with high capacity and stable cycling performance. *Nature Communications*, **2018**, 9, 3870	17.4	247
1032	Assessment on the Self-Discharge Behavior of Lithium-Sulfur Batteries with LiNO-Possessing Electrolytes. **2018**, 10, 35175-35183		32
1031	Approaches toward lithium metal stabilization. **2018**, 43, 752-758		10
1030	High Energy Density CNT/NaI Composite Cathodes for Sodium-Ion Batteries. **2018**, 5, 1801342		4
1029	Stabilization of Lithium-Metal Anode in Rechargeable Lithium□Air Batteries. **2018**, 11-40		1
1028	Highly Durable and Stable Sodium Superoxide in Concentrated Electrolytes for Sodium□Oxygen Batteries. **2018**, 8, 1801760		8
1027	2D Materials for Lithium/Sodium Metal Anodes. **2018**, 8, 1802833		72
1026	Li3BO3□i2CO3: Rationally Designed Buffering Phase for Sulfide All-Solid-State Li-Ion Batteries. **2018**, 30, 8190-8200		92
1025	Pseudocapacitance Induced Uniform Plating/Stripping of Li Metal Anode in Vertical Graphene Nanowalls. **2018**, 28, 1805638		46
1024	Pseudoconcentrated Electrolyte with High Ionic Conductivity and Stability Enables High-Voltage Lithium-Ion Battery Chemistry. **2018**,		9
1023	Recent Advances in Aqueous Zinc-Ion Batteries. **2018**, 3, 2480-2501		959
1022	Activating Aromatic Rings as Na-Ion Storage Sites to Achieve High Capacity. **2018**, 4, 2463-2478		56
1021	Theory of the Double Layer in Water-in-Salt Electrolytes. **2018**, 9, 5840-5846		94
1020	Dendrite-free lithium electrode cycling via controlled nucleation in low LiPF6 concentration electrolytes. **2018**, 21, 1010-1018		36
1019	Concentrated electrolytes based on dual salts of LiFSI and LiODFB for lithium-metal battery. **2018**, 289, 422-427		26

1018	Lithiophilic gel polymer electrolyte to stabilize the lithium anode for a quasi-solid-state lithium–sulfur battery. **2018**, 6, 18627-18634	51
1017	Homogeneous Interface Conductivity for Lithium Dendrite-Free Anode. **2018**, 3, 2259-2266	81
1016	A comprehensive review of lithium salts and beyond for rechargeable batteries: Progress and perspectives. **2018**, 134, 1-21	95
1015	New Class of 3.7 V Fe-Based Positive Electrode Materials for Na-Ion Battery Based on Cation-Disordered Polyanion Framework. **2018**, 30, 6346-6352	13
1014	Self-Stabilized Solid Electrolyte Interface on a Host-Free Li-Metal Anode toward High Areal Capacity and Rate Utilization. **2018**, 30, 4039-4047	70
1013	High-Efficiency Lithium Metal Batteries with Fire-Retardant Electrolytes. **2018**, 2, 1548-1558	257
1012	Manipulating electrolyte and solid electrolyte interphase to enable safe and efficient Li-S batteries. **2018**, 50, 431-440	84
1011	Hollow TiNb O @C Spheres with Superior Rate Capability and Excellent Cycle Performance as Anode Material for Lithium-Ion Batteries. **2018**, 24, 12932-12937	34
1010	Chemically polished lithium metal anode for high energy lithium metal batteries. **2018**, 14, 289-296	29
1009	Recent progress in carbon/lithium metal composite anode for safe lithium metal batteries. **2018**, 37, 449-458	65
1008	Electrolyte with Low Polysulfide Solubility for Li–S Batteries. **2018**, 1, 2608-2618	21
1007	Solid-Liquid Electrolyte as a Nanoion Modulator for Dendrite-Free Lithium Anodes. **2018**, 10, 20412-20421	15
1006	Composition dependence of the short range order structures in 0.2Na2O + 0.8[xBO3/2 + (1-x)GeO2] mixed glass formers. **2018**, 500, 61-69	6
1005	Insights into Cyclable Lithium Loss as a Key Factor in Accelerated Capacity Fade of Lithiated Silicon-Sulfur Full Cells. **2018**, 10, 18709-18716	8
1004	High-capacity rechargeable batteries based on deeply cyclable lithium metal anodes. **2018**, 115, 5676-5680	144
1003	Lithium Silicide Surface Enrichment: A Solution to Lithium Metal Battery. **2018**, 30, e1801745	119
1002	The effects of lithium salt and solvent on lithium metal anode performance. **2018**, 324, 144-149	15
1001	A Natural Biopolymer Film as a Robust Protective Layer to Effectively Stabilize Lithium-Metal Anodes. **2018**, 14, e1801054	49

1000	Non-flammable electrolytes with high salt-to-solvent ratios for Li-ion and Li-metal batteries. **2018**, 3, 674-681	357
999	Safe and high-rate supercapacitors based on an acetonitrile/water in salt hybrid electrolyte. **2018**, 11, 3212-3219	186
998	Stabilizing Lithium Plating by a Biphasic Surface Layer Formed In Situ. **2018**, 57, 9795-9798	98
997	Uniform metal-ion flux through interface-modified membrane for highly stable metal batteries. **2018**, 283, 517-527	20
996	Structural Design of Lithium Sulfur Batteries: From Fundamental Research to Practical Application. **2018**, 1, 239-293	197
995	Stabilizing Lithium Plating by a Biphasic Surface Layer Formed In Situ. **2018**, 130, 9943-9946	31
994	Incorporating Ionic Paths into 3D Conducting Scaffolds for High Volumetric and Areal Capacity, High Rate Lithium-Metal Anodes. **2018**, 30, e1801328	112
993	Enhanced Electrochemical Performance of High-Energy Lithium-Sulfur Batteries Using an Electrolyte with 1,1,2,2-Tetrafluoro-3-(1,1,2,2-tetrafluoroethoxy)propane. **2018**, 165, A1915-A1919	9
992	In Situ Polysulfide Detection in Lithium Sulfur Cells. **2018**, 9, 3751-3755	6
991	Promoting polysulfide redox reactions and improving electronic conductivity in lithium sulfur batteries via hierarchical cathode materials of graphene-wrapped porous TiO2 microspheres with exposed (001) facets. **2018**, 6, 16574-16582	40
990	Water-tolerant lithium metal cycling in high lithium concentration phosphonium-based ionic liquid electrolytes. **2018**, 2, 2276-2283	20
989	Aliphatic Polycarbonate-Based Solid-State Polymer Electrolytes for Advanced Lithium Batteries: Advances and Perspective. **2018**, 14, e1800821	79
988	Predicting Calendar Aging in Lithium Metal Secondary Batteries: The Impacts of Solid Electrolyte Interphase Composition and Stability. **2018**, 8, 1801427	21
987	Horizontal Centripetal Plating in the Patterned Voids of Li/Graphene Composites for Stable Lithium-Metal Anodes. **2018**, 4, 2192-2200	90
986	Ternary lithium-salt organic ionic plastic crystal polymer composite electrolytes for high voltage, all-solid-state batteries. **2018**, 15, 407-414	28
985	Tuning NaO2 Cube Sizes by Controlling Na+ and Solvent Activity in Na O2 Batteries. **2018**, 122, 18316-18328	22
984	Porous Hollow Superlattice NiMnO/NiCoO Mesocrystals as a Highly Reversible Anode Material for Lithium-Ion Batteries. **2018**, 6, 153	10
983	Realizing High-Performance Li-Polysulfide Full Cells by using a Lithium Bis(trifluoromethanesulfonyl)imide Salt Electrolyte for Stable Cyclability. **2018**, 11, 3402-3409	3

982	Developing a "Water-Defendable" and "Dendrite-Free" Lithium-Metal Anode Using a Simple and Promising GeCl Pretreatment Method. **2018**, 30, e1705711	142
981	Stabilizing Protic and Aprotic Liquid Electrolytes at High-Bandgap Oxide Interphases. **2018**, 30, 5655-5662	31
980	Toward Highly Reversible Magnesium–Sulfur Batteries with Efficient and Practical Mg[B(hfip)4]2Electrolyte. **2018**, 3, 2005-2013	149
979	Nanoflake Arrays of Lithiophilic Metal Oxides for the Ultra-Stable Anodes of Lithium-Metal Batteries. **2018**, 28, 1803023	102
978	Separator Modification and Functionalization for Inhibiting the Shuttle Effect in Lithium-Sulfur Batteries. **2018**, 12, 1800249	26
977	Soft template synthesis of acetylene black/manganese dioxide nanosheets composites as efficient sulfur hosts for lithium–sulfur batteries. **2018**, 53, 14608-14618	5
976	Theoretical and experimental analysis of precipitation and solubility effects in lithium-sulfur batteries. **2018**, 284, 469-484	27
975	Ionic liquid electrolyte with highly concentrated LiTFSI for lithium metal batteries. **2018**, 285, 78-85	55
974	Ultrahigh Performance All Solid-State Lithium Sulfur Batteries: Salt Anion's Chemistry-Induced Anomalous Synergistic Effect. **2018**, 140, 9921-9933	152
973	Al(TFSI)3 as a Conducting Salt for High-Voltage Electrochemical Double-Layer Capacitors. **2018**, 30, 4857-4863	29
972	2.20 Batteries. **2018**, 629-662	2
971	Wheat Straw-Derived N-, O-, and S-Tri-doped Porous Carbon with Ultrahigh Specific Surface Area for Lithium-Sulfur Batteries. **2018**, 11,	21
970	Concentrated mixed cation acetate "water-in-salt" solutions as green and low-cost high voltage electrolytes for aqueous batteries. **2018**, 11, 2876-2883	198
969	Porous carbon prepared from polyacrylonitrile for lithium-sulfur battery cathodes using phase inversion technique. **2018**, 151, 171-178	11
968	Ab Initio Calculations of the Redox Potentials of Additives for Lithium-Ion Batteries and Their Prediction through Machine Learning. **2018**, 3, 7868-7874	24
967	Understanding the critical chemistry to inhibit lithium consumption in lean lithium metal composite anodes. **2018**, 6, 16003-16011	12
966	Development and Challenges of Functional Electrolytes for High-Performance Lithium–Sulfur Batteries. **2018**, 28, 1800919	98
965	Novel ALD Chemistry Enabled Low-Temperature Synthesis of Lithium Fluoride Coatings for Durable Lithium Anodes. **2018**, 10, 26972-26981	66

964	Advanced Lithium-Ion Batteries for Practical Applications: Technology, Development, and Future Perspectives. **2018**, 3, 1700376	61
963	Rational Design of Hierarchical TiO2/Epitaxially Aligned MoS2–Carbon Coupled Interface Nanosheets Core/Shell Architecture for Ultrastable Sodium-Ion and Lithium–Sulfur Batteries. **2018**, 2, 1800119	41
962	Polyiodide-Shuttle Restricting Polymer Cathode for Rechargeable Lithium/Iodine Battery with Ultralong Cycle Life. **2018**, 10, 17933-17941	40
961	Gel polymer electrolyte based on polymethyl methacrylate matrix composited with methacrylisobutyl-polyhedral oligomeric silsesquioxane by phase inversion method. **2018**, 278, 1-12	37
960	Dynamic Hosts for High-Performance Li–S Batteries Studied by Cryogenic Transmission Electron Microscopy and in Situ X-ray Diffraction. **2018**, 3, 1325-1330	39
959	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
958	An Ultrahigh Capacity Graphite/LiS Battery with Holey-LiS Nanoarchitectures. **2018**, 5, 1800139	19
957	Machine Learning Enabled Computational Screening of Inorganic Solid Electrolytes for Suppression of Dendrite Formation in Lithium Metal Anodes. **2018**, 4, 996-1006	92
956	XPS on Li-Battery-Related Compounds: Analysis of Inorganic SEI Phases and a Methodology for Charge Correction. **2018**, 1, 4493-4504	141
955	Tuning the electrolyte network structure to invoke quasi-solid state sulfur conversion and suppress lithium dendrite formation in Li–S batteries. **2018**, 3, 783-791	282
954	A LiPO2F2/LiFSI dual-salt electrolyte enabled stable cycling of lithium metal batteries. **2018**, 400, 449-456	20
953	Water-in-Acid Gel Polymer Electrolyte Realized through a Phosphoric Acid-Enriched Polyelectrolyte Matrix toward Solid-State Supercapacitors. **2018**, 6, 12630-12640	14
952	Evaluation and Refinement of the General AMBER Force Field for Nineteen Pure Organic Electrolyte Solvents. **2018**, 63, 3488-3502	13
951	(CH3)3Si-N[(FSO2)(n-C4F9SO2)]: An additive for dendrite-free lithium metal anode. **2018**, 400, 225-231	23
950	Core–shell MoS2@graphene composite microspheres as stable anodes for Li-ion batteries. **2018**, 42, 15340-15345	10
949	Engineering Solid Electrolyte Interphase in Lithium Metal Batteries by Employing an Ionic Liquid Ether Double-Solvent Electrolyte with Li[(CF3SO2)(n-C4F9SO2)N] as the Salt. **2018**, 1, 4426-4431	18
948	Solid-Liquid Lithium Electrolyte Nanocomposites Derived from Porous Molecular Cages. **2018**, 140, 7504-7509	28
947	Recent research trends in Li–S batteries. **2018**, 6, 11582-11605	130

946	Improved Li-Ion Transport by DME Chelation in a Novel Ionic Liquid-Based Hybrid Electrolyte for Li S Battery Application. **2018**, 122, 14373-14382	20
945	Developing High-Performance Lithium Metal Anode in Liquid Electrolytes: Challenges and Progress. **2018**, 30, e1706375	241
944	Stable Metal Anode enabled by Porous Lithium Foam with Superior Ion Accessibility. **2018**, 30, e1802156	90
943	Interfacial Mechanism in Lithium-Sulfur Batteries: How Salts Mediate the Structure Evolution and Dynamics. **2018**, 140, 8147-8155	91
942	Over-potential induced Li/Na filtrated depositions using stacked graphene coating on copper scaffold. **2019**, 16, 364-373	22
941	CNTs C@TiO2 composites with 3D networks as anode material for lithium/sodium ion batteries. **2019**, 54, 592-604	17
940	Influence of Salt Concentration on the Properties of Sodium-Based Electrolytes. **2019**, 3, 1800208	27
939	Protection of Li metal anode by surface-coating of PVDF thin film to enhance the cycling performance of Li batteries. **2019**, 30, 525-528	19
938	Homogeneous Li deposition through the control of carbon dot-assisted Li-dendrite morphology for high-performance Li-metal batteries. **2019**, 7, 20325-20334	21
937	Highly Reversible Lithium-Metal Anode and Lithium-Sulfur Batteries Enabled by an Intrinsic Safe Electrolyte. **2019**, 11, 33419-33427	15
936	Physicochemical compatibility of highly-concentrated solvate ionic liquids and a low-viscosity solvent.. **2019**, 9, 24922-24927	2
935	Dendrite-Free and Stable Lithium Metal Anodes Enabled by an Antimony-Based Lithiophilic Interphase. **2019**, 31, 7565-7573	45
934	Highly stable performance of lithium-sulfurized polyacrylonitrile batteries using a lean ether-based electrolyte. **2019**, 55, 11271-11274	7
933	Carbonized regenerated silk nanofiber as multifunctional interlayer for high-performance lithium-sulfur batteries. **2019**, 592, 117349	29
932	A borate decorated anion-immobilized solid polymer electrolyte for dendrite-free, long-life Li metal batteries. **2019**, 7, 19970-19976	22
931	Fluoro-Ether as a Bifunctional Interphase Electrolyte Additive with Graphite/LiNi0.5Co0.2Mn0.3O2 Full Cell. **2019**, 2, 6404-6416	14
930	Encapsulating Metallic Lithium into Carbon Nanocages Which Enables a Low-Volume Effect and a Dendrite-Free Lithium Metal Anode. **2019**, 11, 30902-30910	18
929	Enhanced Cycling Performance of Ni-Rich Positive Electrodes (NMC) in Li-Ion Batteries by Reducing Electrolyte Free-Solvent Activity. **2019**, 11, 34973-34988	36

928	Lithiophilic Ag/Li composite anodes via a spontaneous reaction for Li nucleation with a reduced barrier. **2019**, 7, 20911-20918	30
927	A versatile single-ion electrolyte with a Grotthuss-like Li conduction mechanism for dendrite-free Li metal batteries. **2019**, 12, 2741-2750	49
926	Polysulfide Shuttle Suppression by Electrolytes with Low-Density for High-Energy Lithium□Sulfur Batteries. **2019**, 7, 1900625	34
925	Concentrated LiODFB Electrolyte for Lithium Metal Batteries. **2019**, 7, 494	9
924	Correlating Structure and Properties of Super-Concentrated Electrolyte Solutions: 17O NMR and Electrochemical Characterization. **2019**, 6, 4002-4009	6
923	3 V Cu□Al Rechargeable Battery Enabled by Highly Concentrated Aprotic Electrolyte. **2019**, 2, 4936-4942	7
922	Ion-Doping-Site-Variation-Induced Composite Cathode Adjustment: A Case Study of Layer-Tunnel NaMnO with Mg Doping at Na/Mn Site. **2019**, 11, 26938-26945	17
921	Joint Theoretical and Experimental Study on the Effects of the Salts in the Graphite-Based Dual-Ion Batteries. **2019**, 123, 18132-18141	4
920	Superior coulombic efficiency of lithium anodes for rechargeable batteries utilizing high-concentration ether electrolytes. **2019**, 319, 625-633	11
919	Robust Lithium Metal Anodes Realized by Lithiophilic 3D Porous Current Collectors for Constructing High-Energy Lithium-Sulfur Batteries. **2019**, 13, 8337-8346	94
918	Safety Issues in Lithium Ion Batteries: Materials and Cell Design. **2019**, 7,	74
917	Double-layered hollow carbon spheres embedded in 3D conductive network as an efficient Se0.4S0.6 host for advanced lithium batteries. **2019**, 806, 146-152	9
916	Recent advances in cathode materials for rechargeable lithium-sulfur batteries. **2019**, 11, 15418-15439	78
915	Patterned macroporous Fe3C/C membrane-induced high ionic conductivity for integrated Li□Sulfur battery cathodes. **2019**, 7, 20614-20623	31
914	Artificial solid electrolyte interphase based on polyacrylonitrile for homogenous and dendrite-free deposition of lithium metal. **2019**, 28, 078202	0
913	A New Type of Electrolyte System To Suppress Polysulfide Dissolution for Lithium-Sulfur Battery. **2019**, 13, 9067-9073	45
912	Uniform lithium deposition driven by vertical magnetic field for stable lithium anodes. **2019**, 341, 115033	12
911	Salt-controlled dissolution in pigment cathode for high-capacity and long-life magnesium organic batteries. **2019**, 65, 103902	30

910	In Situ Revealing the Electroactivity of P?O and P?C Bonds in Hard Carbon for High-Capacity and Long-Life Li/K-Ion Batteries. **2019**, 9, 1901676	114
909	Realizing an Applicable "Solid -fSolid" Cathode Process via a Transplantable Solid Electrolyte Interface for Lithium-Sulfur Batteries. **2019**, 11, 29830-29837	14
908	Interfacial design for lithiumSulfur batteries: From liquid to solid. **2019**, 1, 100002	80
907	Electrode Materials and Electrolytes for High-Rate Electrochemical Energy Systems: A Review. **2019**, 55, 73-95	7
906	Designer Anion Enabling Solid-State Lithium-Sulfur Batteries. **2019**, 3, 1689-1702	70
905	Synthesis and electrochemical characterization of MgAl co-doped Li-rich Mn-based cathode materials. **2019**, 43, 12004-12012	27
904	Chemistry of Soft Matter Battery Electrolytes. **2019**, 1-11	
903	Alkali-Metal Anodes: From Lab to Market. **2019**, 3, 2334-2363	140
902	A Coaxial-Interweaved Hybrid Lithium Metal Anode for Long-Lifespan Lithium Metal Batteries. **2019**, 9, 1901932	44
901	ZnS coating of cathode facilitates lean-electrolyte Li-S batteries. **2019**, 1, 165-172	66
900	High-rate aqueous/ionic liquid dual electrolyte supercapacitor using 3D graphene sponge with an ultrahigh pore volume. **2019**, 327, 135014	8
899	ZrO(NO3)2 as a functional additive to suppress the diffusion of polysulfides in lithium - Sulfur batteries. **2019**, 442, 227232	18
898	Water-in-Salt Electrolyte Promotes High-Capacity FeFe(CN) Cathode for Aqueous Al-Ion Battery. **2019**, 11, 41356-41362	51
897	Electrochemical activity of platinum, gold and glassy carbon electrodes in water-in-salt electrolyte. **2019**, 854, 113538	10
896	Effects of Solvent Concentration on the Performance of Ionic-Liquid/Carbon Supercapacitors. **2019**, 11, 42680-42689	12
895	Formation of a Solid Electrolyte Interphase in Hydrate-Melt Electrolytes. **2019**, 11, 45554-45560	27
894	Transport Properties of Li-TFSI Water-in-Salt Electrolytes. **2019**, 123, 10514-10521	39
893	A Review of Carbon-Based Materials for Safe Lithium Metal Anodes. **2019**, 7, 721	18

892	Metal Coated Polypropylene Separator with Enhanced Surface Wettability for High Capacity Lithium Metal Batteries. **2019**, 9, 16795	13
891	Fluorinated Solid-Electrolyte Interphase in High-Voltage Lithium Metal Batteries. **2019**, 3, 2647-2661	214
890	Nonpolar Alkanes Modify Lithium-Ion Solvation for Improved Lithium Deposition and Stripping. **2019**, 9, 1902116	49
889	Artificial Solid-Electrolyte Interphase Enabled High-Capacity and Stable Cycling Potassium Metal Batteries. **2019**, 9, 1902697	42
888	An Investigation on the Relationship between the Stability of Lithium Anode and Lithium Nitrate in Electrolyte. **2019**, 166, A3570-A3574	4
887	An Ultrarobust Composite Gel Electrolyte Stabilizing Ion Deposition for Long-Life Lithium Metal Batteries. **2019**, 29, 1904547	48
886	In Situ Coupling of Colloidal Silica and Li Salt Anion toward Stable Li Anode for Long-Cycle-Life Li-O2 Batteries. **2019**, 1, 881-892	29
885	Bendable Network Built with Ultralong Silica Nanowires as a Stable Separator for High-Safety and High-Power Lithium-Metal Batteries. **2019**, 11, 34895-34903	20
884	A paradigm of storage batteries. **2019**, 12, 3203-3224	100
883	Molecular Brush with Dense PEG Side Chains: Design of a Well-Defined Polymer Electrolyte for Lithium-Ion Batteries. **2019**, 52, 7234-7243	34
882	Diffusion couples Cu-X (X=Sn, Zn, Al) derived 3D porous current collector for dendrite-free lithium metal battery. **2019**, 440, 227142	8
881	Salt-concentrated electrolytes for graphite anode in potassium ion battery. **2019**, 341, 115050	22
880	Interfacial behavior of water-in-salt electrolytes at porous electrodes and its effect on supercapacitor performance. **2019**, 326, 134989	26
879	Experimental and Theoretical Investigation of the Ion Conduction Mechanism of Tris(adiponitrile)perchloratosodium, a Self-Binding, Melt-Castable Crystalline Sodium Electrolyte. **2019**, 31, 8850-8863	6
878	A biomass based free radical scavenger binder endowing a compatible cathode interface for 5 V lithium-ion batteries. **2019**, 12, 273-280	58
877	Na3V2(PO4)2F3@WCNT: a high voltage cathode for non-aqueous and aqueous sodium-ion batteries. **2019**, 7, 248-256	78
876	A H-bond stabilized quinone electrode material for Li-organic batteries: the strength of weak bonds. **2019**, 10, 418-426	57
875	Wrinkled Graphene Cages as Hosts for High-Capacity Li Metal Anodes Shown by Cryogenic Electron Microscopy. **2019**, 19, 1326-1335	136

874	Nanoporous Polymer Films with a High Cation Transference Number Stabilize Lithium Metal Anodes in Light-Weight Batteries for Electrified Transportation. **2019**, 19, 1387-1394	42
873	Volumetric Discharge Capacity 1 A h cm□ Realized by Sulfur in Carbon Nanotube Sponge Cathodes. **2019**, 123, 3951-3958	10
872	Solid Electrolyte Interphase Film on Lithium Metal Anode in Mixed-Salt System. **2019**, 166, A5421-A5429	22
871	Bio-Inspired Stable Lithium-Metal Anodes by Co-depositing Lithium with a 2D Vermiculite Shuttle. **2019**, 58, 6200-6206	65
870	Sustainable cycling enabled by a high-concentration electrolyte for lithium-organic batteries. **2019**, 55, 608-611	19
869	ZnCl2 □Water-in-Salt□Electrolyte Transforms the Performance of Vanadium Oxide as a Zn Battery Cathode. **2019**, 29, 1902653	124
868	Efficient Li-Metal Plating/Stripping in Carbonate Electrolytes Using a LiNO3-Gel Polymer Electrolyte, Monitored by Operando Neutron Depth Profiling. **2019**, 31, 4564-4574	43
867	Methylsulfonylmethane-Based Deep Eutectic Solvent as a New Type of Green Electrolyte for a High-Energy-Density Aqueous Lithium-Ion Battery. **2019**, 4, 1419-1426	49
866	Fluorine-Free Noble Salt Anion for High-Performance All-Solid-State Lithium□Sulfur Batteries. **2019**, 9, 1900763	45
865	Sulfolane-Based Highly Concentrated Electrolytes of Lithium Bis(trifluoromethanesulfonyl)amide: Ionic Transport, Li-Ion Coordination, and Li□S Battery Performance. **2019**, 123, 14229-14238	73
864	Concentrated Electrolytes for Enhanced Stability of Al-Alloy Negative Electrodes in Li-Ion Batteries. **2019**, 166, A1867-A1874	19
863	Cathode electrolyte interface enabling stable Li□S batteries. **2019**, 21, 474-480	35
862	Water in Protic Ionic Liquids: Properties and Use of a New Class of Electrolytes for Energy-Storage Devices. **2019**, 12, 3827-3836	23
861	Critical Role of Anion Donicity in LiS Deposition and Sulfur Utilization in Li-S Batteries. **2019**, 11, 25940-25948	31
860	Specifically Designed Ionic Liquids□ormulations, Physicochemical Properties, and Electrochemical Double Layer Storage Behavior. **2019**, 3, 58	
859	Incorporating Solvate and Solid Electrolytes for All-Solid-State Li2S Batteries with High Capacity and Long Cycle Life. **2019**, 9, 1900938	28
858	Safe Lithium-Metal Anodes for Li□2 Batteries: From Fundamental Chemistry to Advanced Characterization and Effective Protection. **2019**, 2, 638-658	48
857	Electrolyte for lithium protection: From liquid to solid. **2019**, 4, 360-374	67

856	Extended flat voltage profile of hard carbon synthesized using a two-step carbonization approach as an anode in sodium ion batteries. **2019**, 430, 157-168	28
855	Enabling Safe Sodium Metal Batteries by Solid Electrolyte Interphase Engineering: A Review. **2019**, 58, 9758-9780	43
854	Oxygen Redox Reaction in Ionic Liquid and Ionic Liquid-like Based Electrolytes: A Scanning Electrochemical Microscopy Study. **2019**, 10, 3333-3338	4
853	Highly Elastic Polyrotaxane Binders for Mechanically Stable Lithium Hosts in Lithium-Metal Batteries. **2019**, 31, e1901645	39
852	Challenges and opportunities towards fast-charging battery materials. **2019**, 4, 540-550	566
851	Improved Stability and Rate Capability of Ionic Liquid Electrolyte with High Concentration of LiFSI. **2019**, 166, A1860-A1866	22
850	A highly stable glass fiber host for lithium metal anode behaving enhanced coulombic efficiency. **2019**, 317, 333-340	6
849	Natural Vermiculite Enables High-Performance in Lithium–Sulfur Batteries via Electrical Double Layer Effects. **2019**, 29, 1902820	27
848	Glyme-based liquid–solid electrolytes for lithium metal batteries. **2019**, 7, 13331-13338	10
847	A LiA1Cl4□BSO2-NaAlCl4□2SO2 binary inorganic electrolyte with improved electrochemical performance for Li-metal batteries. **2019**, 25, 4751-4760	2
846	Nanostructures and Nanomaterials for Lithium Metal Batteries. **2019**, 159-214	
845	LiFSI to improve lithium deposition in carbonate electrolyte. **2019**, 23, 350-357	38
844	Regulating Key Variables and Visualizing Lithium Dendrite Growth: An Operando X-ray Study. **2019**, 141, 8441-8449	65
843	LiAlCl4□BSO2: a promising inorganic electrolyte for stable Li metal anode at room and low temperature. **2019**, 25, 4137-4147	4
842	Influence of Li-Salt Concentration on Redox Potential of Lithium Metal and Electrochemistry of Ferrocene in DMSO-Based Electrolytes. **2019**, 166, A1574-A1579	11
841	A novel single-ion conducting gel polymer electrolyte based on polymeric sodium tartaric acid borate for elevated-temperature sodium metal batteries. **2019**, 337, 140-146	20
840	Current Status and Future Prospects of Metal-Sulfur Batteries. **2019**, 31, e1901125	237
839	A linear molecule sulfur-rich organic cathode material for high performance lithium–sulfur batteries. **2019**, 430, 210-217	21

838	Recent Development of Aprotic Na–O2 Batteries. **2019**, 2, 725-742		29
837	Nonflammable, Low-Cost, and Fluorine-Free Solvent for Liquid Electrolyte of Rechargeable Lithium Metal Batteries. **2019**, 11, 17333-17340		16
836	Akin solid–solid biphasic conversion of a Li–S battery achieved by coordinated carbonate electrolytes. **2019**, 7, 12498-12506		26
835	Strategies Toward Stable Nonaqueous Alkali Metal–O2 Batteries. **2019**, 9, 1900464		23
834	Concentrated Dual-Salt Electrolyte to Stabilize Li Metal and Increase Cycle Life of Anode Free Li-Metal Batteries. **2019**, 166, A1501-A1509		57
833	Evolution of Solid Electrolyte Interface on TiO2 Electrodes in an Aqueous Li-Ion Battery Studied Using Scanning Electrochemical Microscopy. **2019**,		19
832	The Challenge of Lithium Metal Anodes for Practical Applications. **2019**, 3, 1800551		42
831	Eliminating Tip Dendrite Growth by Lorentz Force for Stable Lithium Metal Anodes. **2019**, 29, 1902630		51
830	Vertically-aligned nanostructures for electrochemical energy storage. **2019**, 12, 2002-2017		23
829	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
828	A dual-layered artificial solid electrolyte interphase formed by controlled electrochemical reduction of LiTFSI/DME-LiNO3 for dendrite-free lithium metal anode. **2019**, 306, 407-419		28
827	Key Issues Hindering a Practical Lithium-Metal Anode. **2019**, 1, 152-158		208
826	Two-dimensional molecular brush-functionalized porous bilayer composite separators toward ultrastable high-current density lithium metal anodes. *Nature Communications*, **2019**, 10, 1363	17.4	170
825	The recent research status quo and the prospect of electrolytes for lithium sulfur batteries. **2019**, 369, 874-897		53
824	Rechargeable solid-state lithium metal batteries with vertically aligned ceramic nanoparticle/polymer composite electrolyte. **2019**, 60, 205-212		155
823	Sulfur-Based Composite Electrode with Interconnected Mesoporous Carbon for All-Solid-State Lithium–Sulfur Batteries. **2019**, 7, 1900077		18
822	High capacity conversion anodes in Li-ion batteries: A review. **2019**, 44, 10852-10905		62
821	Mesoscale Elucidation of Self-Discharge-Induced Performance Decay in Lithium-Sulfur Batteries. **2019**, 11, 13326-13333		5

820	Electrochemical Energy Storage. **2019**, 187-224	
819	Ionic Liquids and their Polymers in Lithium-Sulfur Batteries. **2019**, 59, 832-842	10
818	Toward a low-cost high-voltage sodium aqueous rechargeable battery. **2019**, 29, 26-36	101
817	Gel polymer electrolyte with high performances based on biodegradable polymer polyvinyl alcohol composite lignocellulose. **2019**, 229, 232-241	23
816	Suppressing dendrite growth by a functional electrolyte additive for robust Li metal anodes. **2019**, 23, 701-706	67
815	Comprehensive Understanding of Lithium-Sulfur Batteries: Current Status and Outlook. **2019**, 355-398	1
814	Disiloxane with nitrile end groups as Co-solvent for electrolytes in lithiumsulfur batteries □A feasible approach to replace LiNO3. **2019**, 307, 76-82	9
813	Fire-Retardant Phosphate-Based Electrolytes for High-Performance Lithium Metal Batteries. **2019**, 2, 2708-2716	32
812	A PEG-grafted carbon hybrid as sulfur host for high-performance lithium-sulfur batteries. **2019**, 21, 1	7
811	Porous scaffold of TiO2 for dendrite-free lithium metal anode. **2019**, 791, 364-370	15
810	Heat transfer analysis of a high-power and large-capacity thermal battery and investigation of effective thermal model. **2019**, 424, 35-41	20
809	Sodium Storage and Electrode Dynamics of Tin□Carbon Composite Electrodes from Bulk Precursors for Sodium-Ion Batteries. **2019**, 29, 1900790	76
808	Polymer-inorganic solid-electrolyte interphase for stable lithium metal batteries under lean electrolyte conditions. **2019**, 18, 384-389	367
807	Synergistic confining polysulfides by rational design a N/P co-doped carbon as sulfur host and functional interlayer for high-performance lithium□sulfur batteries. **2019**, 421, 23-31	70
806	A simple and practical hybrid ionic liquid/aqueous dual electrolyte configuration for safe and ion-exchange membrane-free high cell potential supercapacitor. **2019**, 305, 443-451	7
805	Lithium Metal Anode. **2019**, 1-21	2
804	Selenium Nanocomposite Cathode with Long Cycle Life for Rechargeable Lithium-Selenium Batteries. **2019**, 2, 784-791	20
803	Communication□Direct Room-Temperature Electrodeposition of La from LaCl3 in an Organic Solvent Supported by LiNO3. **2019**, 166, D218-D220	11

802	Exploiting Pulping Waste as an Ecofriendly Multifunctional Binder for Lithium Sulfur Batteries. **2019**, 7, 8413-8418	13
801	Key Aspects of Lithium Metal Anodes for Lithium Metal Batteries. **2019**, 15, e1900687	134
800	LiXGe containing ion-conductive hybrid skin for high rate lithium metal anode. **2019**, 371, 294-300	28
799	Dendrite-tamed deposition kinetics using single-atom Zn sites for Li metal anode. **2019**, 23, 587-593	40
798	Structural and Transport Properties of Li/S Battery Electrolytes: Role of the Polysulfide Species. **2019**, 123, 10167-10177	23
797	Mixed Ion and Electron-Conducting Scaffolds for High-Rate Lithium Metal Anodes. **2019**, 9, 1900193	56
796	Sulfur-Deficient TiS2-x for Promoted Polysulfide Redox Conversion in Lithium-Sulfur Batteries. **2019**, 6, 2231-2237	28
795	Sodium Metal Anodes: Emerging Solutions to Dendrite Growth. **2019**, 119, 5416-5460	309
794	On the Factors Affecting Aging and Self-Discharge of Lithium–Sulfur Cells. Effect of Positive Electrode Composition. **2019**, 7, 1900134	4
793	Free-standing integrated cathode derived from 3D graphene/carbon nanotube aerogels serving as binder-free sulfur host and interlayer for ultrahigh volumetric-energy-density lithium sulfur batteries. **2019**, 60, 743-751	98
792	Preparation of activated carbon derived from biomass and its application in lithium–sulfur batteries. **2019**, 26, 1325-1333	13
791	High and intermediate temperature sodium-sulfur batteries for energy storage: development, challenges and perspectives.. **2019**, 9, 5649-5673	50
790	High-Cycle-Performance Aqueous Magnesium Ions Battery Capacitor Based on a Mg-OMS-1/Graphene as Cathode and a Carbon Molecular Sieves as Anode. **2019**, 7, 6113-6121	19
789	Anode Interface Engineering and Architecture Design for High-Performance Lithium-Sulfur Batteries. **2019**, 31, e1806532	109
788	Sustainable, Dendrite Free Lithium-Metal Electrode Cycling Achieved with Polymer Composite Electrolytes Based on a Poly(Ionic Liquid) Host. **2019**, 2, 229-239	26
787	Recent Advances in Hollow Porous Carbon Materials for Lithium-Sulfur Batteries. **2019**, 15, e1804786	172
786	Bio-Inspired Stable Lithium-Metal Anodes by Co-depositing Lithium with a 2D Vermiculite Shuttle. **2019**, 131, 6266-6272	5
785	Zirconium-Based Materials for Electrochemical Energy Storage. **2019**, 6, 1949-1968	4

784	Na0.9Ni0.45Ti0.55O2 as novel bipolar material for sodium ion batteries. **2019**, 334, 14-20		11
783	Unraveling the Formation Mechanism of Solid-Liquid Electrolyte Interphases on LiPON Thin Films. **2019**, 11, 9539-9547		18
782	Progressively providing ionic inhibitor via functional nanofiber layer to stabilize lithium metal anode. **2019**, 302, 301-309		5
781	High Rate Li-Ion Batteries with Cation-Disordered Cathodes. **2019**, 3, 1064-1079		8
780	Dual Lithiophilic Structure for Uniform Li Deposition. **2019**, 11, 10616-10623		29
779	High-Fluorinated Electrolytes for Li□S Batteries. **2019**, 9, 1803774		144
778	Hierarchical Co3O4 Nanofiber□Carbon Sheet Skeleton with Superior Na/Li-Philic Property Enabling Highly Stable Alkali Metal Batteries. **2019**, 29, 1808847		107
777	Efficient Li-Ion-Conductive Layer for the Realization of Highly Stable High-Voltage and High-Capacity Lithium Metal Batteries. **2019**, 9, 1803722		37
776	Surface activated polyethylene separator promoting Li+ ion transport in gel polymer electrolytes and cycling stability of Li-metal anode. **2019**, 368, 321-330		35
775	In situ observation of solid electrolyte interphase evolution in a lithium metal battery. **2019**, 2,		35
774	Lithiophilic Three-Dimensional Porous TiCT-rGO Membrane as a Stable Scaffold for Safe Alkali Metal (Li or Na) Anodes. **2019**, 13, 14319-14328		71
773	Computational Investigation of Mixed Anion Effect on Lithium Coordination and Transport in Salt Concentrated Ionic Liquid Electrolytes. **2019**, 10, 7414-7420		17
772	Probing the dynamic evolution of lithium dendrites: a review of in situ/operando characterization for lithium metallic batteries. **2019**, 11, 20429-20436		22
771	Nitrogen-doped graphdiyne nanowall stabilized dendrite-free lithium metal anodes. **2019**, 7, 27535-27546		18
770	In situLi-NMR analysis of lithium metal surface deposits with varying electrolyte compositions and concentrations. **2019**, 21, 26084-26094		25
769	Counterion Transport and Transference Number in Aqueous and Nonaqueous Short-Chain Polyelectrolyte Solutions. **2019**, 123, 10858-10867		4
768	Effects of a High-Concentration LiPF6-Based Carbonate Ester Electrolyte for the Electrochemical Performance of a High-Voltage Layered LiNi0.6Co0.2Mn0.2O2 Cathode. **2019**, 2, 8878-8884		12
767	Zinc anode-compatible in-situ solid electrolyte interphase via cation solvation modulation. *Nature Communications*, **2019**, 10, 5374	17.4	268

766	All-temperature batteries enabled by fluorinated electrolytes with non-polar solvents. **2019**, 4, 882-890	267
765	Stabilizing cathode structure the binder material with high resilience for lithium-sulfur batteries.. **2019**, 9, 40471-40477	5
764	Asymmetrically coated LAGP/PP/PVDF-HFP composite separator film and its effect on the improvement of NCM battery performance.. **2019**, 9, 41151-41160	10
763	A new approach to very high lithium salt content quasi-solid state electrolytes for lithium metal batteries using plastic crystals. **2019**, 7, 25389-25398	15
762	Monolithic heterojunction quasi-solid-state battery electrolytes based on thermodynamically immiscible dual phases. **2019**, 12, 559-565	21
761	First principles studies of self-diffusion processes on metallic lithium surfaces. **2019**, 150, 041723	24
760	Mechanically Excited Multicolor Luminescence in Lanthanide Ions. **2019**, 31, e1807062	70
759	An Interconnected Channel-Like Framework as Host for Lithium Metal Composite Anodes. **2019**, 9, 1802720	70
758	Strategies for Building Robust Traffic Networks in Advanced Energy Storage Devices: A Focus on Composite Electrodes. **2019**, 31, e1804204	50
757	Tuning P2-Structured Cathode Material by Na-Site Mg Substitution for Na-Ion Batteries. **2019**, 141, 840-848	147
756	Improving Cell Resistance and Cycle Life with Solvate-Coated Thiophosphate Solid Electrolytes in Lithium Batteries. **2019**, 11, 2014-2021	17
755	Review on areal capacities and long-term cycling performances of lithium sulfur battery at high sulfur loading. **2019**, 18, 289-310	159
754	Honeycomb-Like Nitrogen-Doped Carbon 3D Nanoweb@Li S Cathode Material for Use in Lithium Sulfur Batteries. **2019**, 12, 824-829	22
753	Separator modified with Ketjenblack-In2O3 nanoparticles for long cycle-life lithium-sulfur batteries. **2019**, 23, 645-656	17
752	Bio-inspired low-tortuosity carbon host for high-performance lithium-metal anode. **2019**, 6, 247-256	32
751	The mechanism of effect of support salt concentration in electrolyte on performance of lithium-sulfur cells. **2019**, 296, 1102-1114	12
750	Non-volatile, Li-doped ion gel electrolytes for flexible WO3-based electrochromic devices. **2019**, 162, 45-51	34
749	Guiding Uniform Li Plating/Stripping through Lithium-Aluminum Alloying Medium for Long-Life Li Metal Batteries. **2019**, 58, 1094-1099	202

748	Guiding Uniform Li Plating/Stripping through Lithium–Aluminum Alloying Medium for Long-Life Li Metal Batteries. **2019**, 131, 1106-1111	38
747	Solid-State Lithium/Selenium–Sulfur Chemistry Enabled via a Robust Solid-Electrolyte Interphase. **2019**, 9, 1802235	42
746	Nanobead-reinforced outmost shell of solid-electrolyte interphase layers for suppressing dendritic growth of lithium metal. **2019**, 414, 218-224	2
745	Wettability in electrodes and its impact on the performance of lithium-ion batteries. **2019**, 18, 139-147	53
744	Electrolyte Concentration Effect on Sulfur Utilization of Li-S Batteries. **2019**, 166, A50-A58	17
743	Unusual Capacity Increases with Cycling for Ladder-Type Microporous Polymers. **2019**, 11, 1739-1747	23
742	Electrolyte for Lithium–Sulfur Batteries. **2019**, 71-119	1
741	Lithium Sulfide. **2019**, 147-183	
740	Degradation in Lithium–Sulfur Batteries. **2019**, 185-226	
739	Carbon/Sulfur Composites Stabilized with Nano-TiNi for High-Performance Li–S Battery Cathodes. **2019**, 2, 1537-1543	6
738	UV-curable boron nitride nanosheet/ionic liquid-based crosslinked composite polymer electrolyte in lithium metal batteries. **2019**, 414, 283-292	26
737	Moss-Derived Mesoporous Carbon as Bi-Functional Electrode Materials for Lithium?Sulfur Batteries and Supercapacitors. **2019**, 9,	20
736	Efficient Charging of Lithium–Sulfur Batteries by Triboelectric Nanogenerator Based on Pulse Current. **2019**, 4, 1800326	6
735	A top-down approach to build Li2S@rGO cathode composites for high-loading lithium–sulfur batteries in carbonate-based electrolyte. **2019**, 296, 243-250	20
734	Concentrated electrolytes unlock the full energy potential of potassium-sulfur battery chemistry. **2019**, 18, 470-475	54
733	Hydroxylated sandwich-structure interlayer as a polysulfide reservoir for lithium-sulfur battery. **2019**, 776, 187-193	18
732	Porous insulating matrix for lithium metal anode with long cycling stability and high power. **2019**, 17, 31-37	22
731	Highly Solvating Electrolytes for Lithium-Sulfur Batteries. **2019**, 9, 1803096	116

730	Alkali Metal Anodes for Rechargeable Batteries. **2019**, 5, 313-338	103
729	Nanocrevasse-Rich Carbon Fibers for Stable Lithium and Sodium Metal Anodes. **2019**, 19, 1504-1511	88
728	Multi-walled carbon nanotube interlayers with controllable thicknesses for high-capacity and long-life lithium metal anodes. **2019**, 412, 170-179	31
727	Ab initio simulations of liquid electrolytes for energy conversion and storage. **2019**, 119, e25795	8
726	First-principles prediction of universal relation between exchange current density and adsorption energy of rare-earth elements in a molten salt. **2019**, 70, 94-98	2
725	An overview and future perspectives of aqueous rechargeable polyvalent ion batteries. **2019**, 18, 68-91	81
724	An all-vanadium aqueous lithium ion battery with high energy density and long lifespan. **2019**, 18, 92-99	28
723	Insight on lithium metal anode interphasial chemistry: Reduction mechanism of cyclic ether solvent and SEI film formation. **2019**, 17, 366-373	59
722	One-pot solution coating of high quality LiF layer to stabilize Li metal anode. **2019**, 16, 85-90	150
721	Sodium metal anodes for room-temperature sodium-ion batteries: Applications, challenges and solutions. **2019**, 16, 6-23	164
720	Spatially uniform deposition of lithium metal in 3D Janus hosts. **2019**, 16, 259-266	84
719	Recent progress in fluorinated electrolytes for improving the performance of Li$ batteries. **2020**, 41, 149-170	43
718	Understanding and suppression strategies toward stable Li metal anode for safe lithium batteries. **2020**, 25, 644-678	111
717	Towards better Li metal anodes: Challenges and strategies. **2020**, 33, 56-74	216
716	Ion association tailoring SEI composition for Li metal anode protection. **2020**, 45, 1-6	33
715	An air-stable prelithiation technology for lithium ion-sulfurized polyacrylonitrile battery. **2020**, 13, 1950094	2
714	Design Strategies to Enable the Efficient Use of Sodium Metal Anodes in High-Energy Batteries. **2020**, 32, e1903891	79
713	Multifunctional covalent organic frameworks for high capacity and dendrite-free lithium metal batteries. **2020**, 25, 334-341	44

712	Sodium storage property and mechanism of NaCr1/4Fe1/4Ni1/4Ti1/4O2 cathode at various cut-off voltages. **2020**, 24, 417-425	13
711	Electrolyte additive maintains high performance for dendrite-free lithium metal anode. **2020**, 31, 1217-1220	12
710	A sustainable platform of lignin: From bioresources to materials and their applications in rechargeable batteries and supercapacitors. **2020**, 76, 100788	100
709	Prospect of Sulfurized Pyrolyzed Poly(acrylonitrile) (S@pPAN) Cathode Materials for Rechargeable Lithium Batteries. **2020**, 59, 7306-7318	54
708	A Review of Composite Lithium Metal Anode for Practical Applications. **2020**, 5, 1900806	67
707	Self-Stabilized and Strongly Adhesive Supramolecular Polymer Protective Layer Enables Ultrahigh-Rate and Large-Capacity Lithium-Metal Anode. **2020**, 59, 2055-2060	113
706	How do organic polysulphides improve the performance of Li-S batteries?. **2020**, 330, 135253	4
705	Revisiting the Electroplating Process for Lithium-Metal Anodes for Lithium-Metal Batteries. **2020**, 132, 6730-6739	13
704	Revisiting the Electroplating Process for Lithium-Metal Anodes for Lithium-Metal Batteries. **2020**, 59, 6665-6674	62
703	Development and application of carbon fiber in batteries. **2020**, 384, 123294	55
702	Facile Synthesis of a "Two-in-One" Sulfur Host Featuring Metallic-Cobalt-Embedded N-Doped Carbon Nanotubes for Efficient Lithium-Sulfur Batteries. **2020**, 12, 5968-5978	29
701	Cycling Performance and Kinetic Mechanism Analysis of a Li Metal Anode in Series-Concentrated Ether Electrolytes. **2020**, 12, 8366-8375	10
700	Structure and mechanical properties of electroplated mossy lithium: Effects of current density and electrolyte. **2020**, 26, 276-282	6
699	Progress in electrolytes for beyond-lithium-ion batteries. **2020**, 44, 237-257	39
698	FSI-inspired solvent and fluorosulfonyl electrolyte for 4 V class lithium-metal batteries. **2020**, 13, 212-220	97
697	Stable Nano-Encapsulation of Lithium Through Seed-Free Selective Deposition for High-Performance Li Battery Anodes. **2020**, 10, 1902956	38
696	Three-Dimensional Superlithiophilic Interphase for Dendrite-Free Lithium Metal Anodes. **2020**, 12, 5767-5774	20
695	Covalent organic framework-based ultrathin crystalline porous film: manipulating uniformity of fluoride distribution for stabilizing lithium metal anode. **2020**, 8, 3459-3467	38

694	Effect of Dual-Salt Concentrated Electrolytes on the Electrochemical Performance of Silicon Nanoparticles. **2020**, 7, 1135-1141	6
693	Air-Stable and Dendrite-Free Lithium Metal Anodes Enabled by a Hybrid Interphase of C60 and Mg. **2020**, 10, 1903292	36
692	Prospect of Sulfurized Pyrolyzed Poly(acrylonitrile) (S@pPAN) Cathode Materials for Rechargeable Lithium Batteries. **2020**, 132, 7374-7386	14
691	Nanomaterials application in Li□e and Na□e batteries. **2020**, 69-114	1
690	Self-Stabilized and Strongly Adhesive Supramolecular Polymer Protective Layer Enables Ultrahigh-Rate and Large-Capacity Lithium-Metal Anode. **2020**, 132, 2071-2076	19
689	Electrolyte Regulation towards Stable Lithium-Metal Anodes in Lithium-Sulfur Batteries with Sulfurized Polyacrylonitrile Cathodes. **2020**, 59, 10732-10745	56
688	3D lithiophilic□thiophobic□thiophilic dual-gradient porous skeleton for highly stable lithium metal anode. **2020**, 8, 313-322	43
687	Tribute to Michel Armand: from Rocking Chair □Li-ion to Solid-State Lithium Batteries. **2020**, 167, 070507	45
686	A metal-free battery working at □80 □C. **2020**, 26, 585-592	23
685	Recent progress of flexible sulfur cathode based on carbon host for lithium-sulfur batteries. **2020**, 55, 56-72	29
684	Mechanism of lithium electrodeposition in a magnetic field. **2020**, 345, 115171	12
683	In situ formation of a LiF and Li□Al alloy anode protected layer on a Li metal anode with enhanced cycle life. **2020**, 8, 1247-1253	31
682	In-situ EC-AFM and ex-situ XPS characterization to investigate the mechanism of SEI formation in highly concentrated aqueous electrolyte for Li-ion batteries. **2020**, 507, 145059	24
681	Additives synergy for stable interface formation on rechargeable lithium metal anodes. **2020**, 29, 377-385	40
680	Dioxolanone-Anchored Poly(allyl ether)-Based Cross-Linked Dual-Salt Polymer Electrolytes for High-Voltage Lithium Metal Batteries. **2020**, 12, 567-579	19
679	Dendrite-free lithium metal and sodium metal batteries. **2020**, 27, 522-554	74
678	Mechanistics of Lithium-Metal Battery Performance by Separator Architecture Design. **2020**, 12, 556-566	16
677	Electrolyte Regulation towards Stable Lithium-Metal Anodes in Lithium□Sulfur Batteries with Sulfurized Polyacrylonitrile Cathodes. **2020**, 132, 10821-10834	17

676	Fluorine-incorporated interface enhances cycling stability of lithium metal batteries with Ni-rich NCM cathodes. **2020**, 67, 104309		49
675	Graphite□lithium Sulfide Battery with a Single-Phase Sparingly Solvating Electrolyte. **2020**, 5, 1-7		24
674	Stable Li Metal Anode Enabled by Space Confinement and Uniform Curvature through Lithiophilic Nanotube Arrays. **2020**, 10, 1902819		30
673	Concentrated Battery Electrolytes: Developing New Functions by Manipulating the Coordination States. **2020**, 93, 109-118		23
672	Facile and Scalable Modification of a Cu Current Collector toward Uniform Li Deposition of the Li Metal Anode. **2020**, 12, 3681-3687		10
671	An ultra-stable lithium plating process enabled by the nanoscale interphase of a macromolecular additive. **2020**, 8, 23844-23850		4
670	Addition of Chloroform in a Solvent-in-Salt Electrolyte: Outcomes in the Microscopic Dynamics in Bulk and Confinement. **2020**, 124, 22366-22375		5
669	Lithium Metal-Based Composite: An Emerging Material for Next-Generation Batteries. **2020**, 3, 1009-1030		12
668	Turning Soluble Polysulfide Intermediates Back into Solid State by a Molecule Binder in Li-S Batteries. **2020**, 14, 15884-15893		10
667	Polysulfide species in various electrolytes of Li-S batteries □a chromatographic investigation. **2020**, 363, 137227		14
666	Design rules for liquid crystalline electrolytes for enabling dendrite-free lithium metal batteries. **2020**, 117, 26672-26680		13
665	Thermal runaway of Lithium-ion batteries employing LiN(SOF)-based concentrated electrolytes. *Nature Communications*, **2020**, 11, 5100	17.4	58
664	CuO□ modified glass fiber films with a mixed ion and electron-conducting scaffold for highly stable lithium metal anodes. **2020**, 8, 21961-21967		5
663	3D Structural Transition of the Electrodeposited and Electrochemically Dissolved Li Metal onto an Ultramicroelectrode. **2020**, 124, 22019-22024		4
662	Role of Li-Ion Depletion on Electrode Surface: Underlying Mechanism for Electrodeposition Behavior of Lithium Metal Anode. **2020**, 10, 2002390		53
661	Highly salt-concentrated electrolyte comprising lithium bis(fluorosulfonyl)imide and 1,3-dioxolane-based ether solvents for 4-V-class rechargeable lithium metal cell. **2020**, 363, 137198		7
660	Fast Charging Li-Ion Batteries for a New Era of Electric Vehicles. **2020**, 1, 100212		22
659	Fundamentals and perspectives in developing zinc-ion battery electrolytes: a comprehensive review. **2020**, 13, 4625-4665		176

658	Laser-oxidized Fe3O4 nanoparticles anchored on 3D macroporous graphene flexible electrodes for ultrahigh-energy in-plane hybrid micro-supercapacitors. **2020**, 77, 105058	32
657	Rational Design of Sandwich-Like Gel–Liquid–Gel Electrolytes for Dendrite-Free Lithium Metal Batteries. **2020**, 59, 14207-14216	4
656	High Voltage Stable Li Metal Batteries Enabled by Ether-Based Highly Concentrated Electrolytes at Elevated Temperatures. **2020**, 167, 110543	9
655	Ion interactions and dynamics in pseudohalide based ionic liquid electrolytes containing sodium solutes. **2020**, 303, 112597	1
654	Graphene film with folds for a stable lithium metal anode. **2020**, 26, 5357-5365	2
653	Shifting-reference concentration cells to refine composition-dependent transport characterization of binary lithium-ion electrolytes. **2020**, 358, 136688	9
652	Fluorinated co-solvent promises Li-S batteries under lean-electrolyte conditions. **2020**, 40, 63-71	30
651	The Dr Jekyll and Mr Hyde of lithium sulfur batteries. **2020**, 13, 4808-4833	42
650	A review on recent approaches for designing the SEI layer on sodium metal anodes. **2020**, 1, 3143-3166	10
649	3D Lithiophilic and Conductive 2 Framework for a Dendrite-Free Lithium Metal Battery. **2020**, 32, 9656-9663	8
648	The Mystery of Electrolyte Concentration: From Superhigh to Ultralow. **2020**, 5, 3633-3636	37
647	Lithium–Oxygen Battery Exploiting Highly Concentrated Glyme-Based Electrolytes. **2020**, 3, 12263-12275	11
646	Potassium Hexafluorophosphate Additive Enables Stable Lithium-Sulfur Batteries. **2020**, 12, 56017-56026	14
645	A robust and lithiophilic three-dimension framework of CoO nanorod arrays on carbon cloth for cycling-stable lithium metal anodes. **2020**, 18, 100520	8
644	Lithium Metal Anodes with Nonaqueous Electrolytes. **2020**, 120, 13312-13348	143
643	Water-free Localization of Anion at Anode for Small-Concentration Water-in-Salt Electrolytes Confined in Boron-Nitride Nanotube. **2020**, 1, 100246	2
642	Integrated Composite Polymer Electrolyte Cross-Linked with SiO2-Reinforced Layer for Enhanced Li-Ion Conductivity and Lithium Dendrite Inhibition. **2020**, 3, 8552-8561	7
641	Recent Progress in "Water-in-Salt" Electrolytes Toward Non-lithium Based Rechargeable Batteries. **2020**, 8, 595	22

640	Sulfur-based redox chemistry for electrochemical energy storage. **2020**, 422, 213445	11
639	A Liquid Electrolyte with De-Solvated Lithium Ions for Lithium-Metal Battery. **2020**, 4, 1776-1789	62
638	Evaluation of chemical stability of conducting ceramics to protect metallic lithium in Li/S batteries. **2020**, 354, 115402	0
637	Strongly Correlated Ion Dynamics in Plastic Ionic Crystals and Polymerized Ionic Liquids. **2020**, 124, 17889-17896	10
636	Anode-free rechargeable lithium metal batteries: Progress and prospects. **2020**, 32, 386-401	52
635	Lithium Dendrite Suppression with a Silica Nanoparticle-Dispersed Colloidal Electrolyte. **2020**, 12, 37188-37196	17
634	A high rate and long cycling life lithium metal anode with a self-repairing alloy coating. **2020**, 8, 17415-17419	15
633	Interface Concentrated-Confinement Suppressing Cathode Dissolution in Water-in-Salt Electrolyte. **2020**, 10, 2000665	34
632	Active Materials for Aqueous Zinc Ion Batteries: Synthesis, Crystal Structure, Morphology, and Electrochemistry. **2020**, 120, 7795-7866	347
631	Evaluating Solid-Electrolyte Interphases for Lithium and Lithium-free Anodes from Nanoindentation Features. **2020**, 6, 2728-2745	15
630	Highly concentrated nitrile functionalized disiloxane - LiFSI based non-flammable electrolyte for high energy density Li metal battery. **2020**, 879, 114794	6
629	Solid-state lithium–sulfur batteries: Advances, challenges and perspectives. **2020**, 40, 114-131	33
628	Interfacial Speciation Determines Interfacial Chemistry: X-ray-Induced Lithium Fluoride Formation from Water-in-salt Electrolytes on Solid Surfaces. **2020**, 59, 23180-23187	12
627	Reaction heterogeneity in practical high-energy lithium–sulfur pouch cells. **2020**, 13, 3620-3632	59
626	Interfacial Speciation Determines Interfacial Chemistry: X-ray-Induced Lithium Fluoride Formation from Water-in-salt Electrolytes on Solid Surfaces. **2020**, 132, 23380-23387	6
625	A Review of Solid-State Lithium–Sulfur Battery: Ion Transport and Polysulfide Chemistry. **2020**, 34, 11942-11961	26
624	Li1.5Al0.5Ge1.5(PO4)3 Ceramic Based Lithium-Sulfur Batteries with High Cycling Stability Enabled by a Dual Confinement Effect for Polysulfides. **2020**, 7, 4093-4100	3
623	Particulate Anion Sorbents as Electrolyte Additives for Lithium Batteries. **2020**, 30, 2003055	18

622	Dendrite-Free lithium electrode enabled by graphene aerogels with gradient porosity. **2020**, 33, 329-335	9
621	Hollow C@TiO2 array nanospheres as efficient sulfur hosts for lithium–sulfur batteries. **2020**, 4, 5493-5497	2
620	Lithiated carbon cloth as a dendrite-free anode for high-performance lithium batteries. **2020**, 4, 5773-5782	2
619	Fabrication of a 2.8 V high-performance aqueous flexible fiber-shaped asymmetric micro-supercapacitor based on MnO2/PEDOT:PSS-reduced graphene oxide nanocomposite grown on carbon fiber electrode. **2020**, 8, 19588-19602	27
618	Chalcogen cathode and its conversion electrochemistry in rechargeable Li/Na batteries. **2020**, 63, 1402-1415	20
617	Modeling the Interface between Lithium Metal and Its Native Oxide. **2020**, 12, 46015-46026	11
616	Robustness-Heterogeneity-Induced Ultrathin 2D Structure in Li Plating for Highly Reversible Li-Metal Batteries. **2020**, 12, 46132-46145	13
615	Polymer electrolytes for rechargeable lithium metal batteries. **2020**, 4, 5469-5487	11
614	A Chronocoulometric Method to Measure the Corrosion Rate on Zinc Metal Electrodes. **2020**, 12, 42612-42621	9
613	Polymer-Inorganic Nanocomposite Coating with High Ionic Conductivity and Transference Number for a Stable Lithium Metal Anode. **2020**, 12, 41620-41626	10
612	Exploring the innovation efficiency of new energy vehicle enterprises in China. **2020**, 22, 1671-1685	14
611	Pyr1,xTFSI Ionic Liquids (x = 1–8): A Computational Chemistry Study. **2020**, 10, 8552	3
610	An overview of the characteristics of advanced binders for high-performance Li–S batteries. **2020**,	4
609	Mechanistic Insight on the Formation of a Solid Electrolyte Interphase (SEI) by an Acetonitrile-Based Superconcentrated [Li][TFSI] Electrolyte near Lithium Metal. **2020**, 124, 27495-27502	5
608	Enhanced Electrochemical Kinetics and Polysulfide Traps of Bifunctional Perovskite Promoter for Highly Stable Lithium–Sulfur Batteries. **2020**, 8, 18636-18645	8
607	Dense Sandwich-like Na2Ti3O7@rGO Composite with Superior Performance for Sodium Storage. **2020**, 7, 2258-2264	5
606	A Highly Sensitive Electrochemical Sensor of Polysulfides in Polymer Lithium-Sulfur Batteries. **2020**, 167, 080520	1
605	Improving the Interfacial Stability between Lithium and Solid-State Electrolyte via Dipole-Structured Lithium Layer Deposited on Graphene Oxide. **2020**, 7, 2000237	16

604	Functional Covalent Triazine Frameworks-Based Quasi-Solid-State Electrolyte Used to Enhance Lithium Metal Battery Safety. **2020**, 3, 936-945	8
603	In Situ Formed LiZn Alloy Skeleton for Stable Lithium Anodes. **2020**, 12, 25818-25825	10
602	Regulating the Hidden Solvation-Ion-Exchange in Concentrated Electrolytes for Stable and Safe Lithium Metal Batteries. **2020**, 10, 2000901	39
601	Aqueous-Eutectic-in-Salt Electrolytes for High-Energy-Density Supercapacitors with an Operational Temperature Window of 100 °C, from -35 to +65 °C. **2020**, 12, 29181-29193	3
600	Conversion of Co Nanoparticles to CoS in Metal-Organic Framework-Derived Porous Carbon during Cycling Facilitates NaS Reactivity in a Na-S Battery. **2020**, 12, 29285-29295	1
599	Reliable liquid electrolytes for lithium metal batteries. **2020**, 30, 113-129	44
598	Recently developed strategies to restrain dendrite growth of Li metal anodes for rechargeable batteries. **2020**, 39, 616-635	54
597	A polypyrrole/black-TiO2/S double-shelled composite fixing polysulfides for lithium-sulfur batteries. **2020**, 353, 136529	19
596	Recent Progress in High Donor Electrolytes for Lithium–Sulfur Batteries. **2020**, 10, 2001456	51
595	Progress on Lithium Dendrite Suppression Strategies from the Interior to Exterior by Hierarchical Structure Designs. **2020**, 16, e2000699	36
594	Highly concentrated dual-anion electrolyte for non-flammable high-voltage Li-metal batteries. **2020**, 30, 228-237	28
593	Boosting High-Performance in Lithium-Sulfur Batteries via Dilute Electrolyte. **2020**, 20, 5391-5399	49
592	Salt-rich solid electrolyte interphase for safer high-energy-density Li metal batteries with limited Li excess. **2020**, 56, 8257-8260	7
591	Electrochemistry and transport properties of electrolytes modified with ferrocene redox-active ionic liquid additives. **2020**, 98, 554-563	2
590	Effects of fluoroethylene carbonate addition to Li-glyme solvate ionic liquids on their ionic transport properties and Si composite electrode performance. **2020**, 353, 136559	3
589	Tuning Low Concentration Electrolytes for High Rate Performance in Lithium-Sulfur Batteries. **2020**, 167, 100512	10
588	Soft Materials for Wearable/Flexible Electrochemical Energy Conversion, Storage, and Biosensor Devices. **2020**, 13,	16
587	A Mixed Modified Layer Formed In Situ to Protect and Guide Lithium Plating/Stripping Behavior. **2020**, 12, 31411-31418	12

586	A chemically stabilized sulfur cathode for lean electrolyte lithium sulfur batteries. **2020**, 117, 14712-14720	49
585	Effect of cation size on alkali acetate-based "water-in-bisalt" electrolyte and its application in aqueous rechargeable lithium battery. **2020**, 20, 100728	3
584	A Micelle Electrolyte Enabled by Fluorinated Ether Additives for Polysulfide Suppression and Li Metal Stabilization in Li-S Battery. **2020**, 8, 484	11
583	Computational Study of the Properties of Acetonitrile/Water-in-Salt Hybrid Electrolytes as Electrolytes for Supercapacitors. **2020**, 124, 5685-5695	7
582	Theory of ion aggregation and gelation in super-concentrated electrolytes. **2020**, 152, 234506	24
581	Highly concentrated LiN(SOCF)/dinitrile electrolytes: Liquid structures, transport properties, and electrochemistry. **2020**, 152, 104502	15
580	Effects of Polysulfide Solubility and Li Ion Transport on Performance of Li$S Batteries Using Sparingly Solvating Electrolytes. **2020**, 167, 070531	28
579	Ionic liquid electrolyte for room to intermediate temperature operating Li metal batteries: Dendrite suppression and improved performance. **2020**, 453, 227911	21
578	Ultralow-Concentration Electrolyte for Na-Ion Batteries. **2020**, 5, 1156-1158	54
577	Grain growth and superconductivity of rhenium electrodeposited from water-in-salt electrolytes. **2020**, 127, 085301	3
576	Influence of structures and functional groups of carbon on working potentials of supercapacitors in neutral aqueous electrolyte: In situ differential electrochemical mass spectrometry. **2020**, 29, 101379	8
575	Electrolytes for Lithium (Sodium) Batteries Based on Ionic Liquids: Highlighting the Key Role Played by the Anion. **2020**, 3, 793-827	23
574	Multiscale Lithium-Battery Modeling from Materials to Cells. **2020**, 11, 277-310	15
573	A New Class of Ionically Conducting Fluorinated Ether Electrolytes with High Electrochemical Stability. **2020**, 142, 7393-7403	89
572	Suppression of Fast Proton Conduction by Dilution of a Hydronium Solvate Ionic Liquid: Localization of Ligand Exchange. **2020**, 167, 046508	5
571	Non-flammable Inorganic Liquid Electrolyte Lithium-Ion Batteries. **2020**, 167, 070521	5
570	Functional Localized High-Concentration Ether-Based Electrolyte for Stabilizing High-Voltage Lithium-Metal Battery. **2020**, 12, 33710-33718	25
569	Solvent effects on Li ion transference number and dynamic ion correlations in glyme- and sulfolane-based molten Li salt solvates. **2020**, 22, 15214-15221	27

568	Evaluation of the Properties of an Electrolyte Based on Formamide and LiTFSI for Electrochemical Capacitors. **2020**, 167, 110508	3
567	LiFSI and LiDFBOP Dual-Salt Electrolyte Reinforces the Solid Electrolyte Interphase on a Lithium Metal Anode. **2020**, 12, 33719-33728	25
566	Effects of water on the structure and transport properties of room temperature ionic liquids and concentrated electrolyte solutions. **2020**, 29, 087804	0
565	Ab initio study of P-doped borocarbonitride nanosheet as anode material for Li-ion and Na-ion batteries. **2020**, 25, 101409	3
564	Glycerol-plasticized agarose separator suppressing dendritic growth in Li metal battery. **2020**, 247, 116697	4
563	A thermo-stable poly(propylene carbonate)-based composite separator for lithium-sulfur batteries under elevated temperatures. **2020**, 44, 10295-10306	3
562	Designing an intrinsically safe organic electrolyte for rechargeable batteries. **2020**, 31, 382-400	29
561	Molecular Structure, Chemical Exchange, and Conductivity Mechanism of High Concentration LiTFSI Electrolytes. **2020**, 124, 1965-1977	20
560	Revisiting the strategies for stabilizing lithium metal anodes. **2020**, 8, 13874-13895	24
559	Properties of Thin Lithium Metal Electrodes in Carbonate Electrolytes with Realistic Parameters. **2020**, 12, 32863-32870	4
558	Hydrated Eutectic Electrolytes with Ligand-Oriented Solvation Shells for Long-Cycling Zinc-Organic Batteries. **2020**, 4, 1557-1574	177
557	Stable cycling of small molecular organic electrode materials enabled by high concentration electrolytes. **2020**, 31, 318-327	20
556	Effects of charged interfaces on electrolyte decomposition at the lithium metal anode. **2020**, 472, 228449	21
555	Stabilizing lithium metal anode by molecular beam epitaxy grown uniform and ultrathin bismuth film. **2020**, 76, 105068	19
554	The effect of concentration and ratio of ethylene carbonate and propylene carbonate plasticizers on characteristics of the electrospun PEO-based electrolytes applicable in lithium-ion batteries. **2020**, 347, 115252	12
553	New Lithium Salt Forms Interphases Suppressing Both Li Dendrite and Polysulfide Shuttling. **2020**, 10, 1903937	35
552	Synergistic effect of organic plasticizer and lepidolite filler on polymer electrolytes for all-solid high-voltage Li metal batteries. **2020**, 8, 5968-5974	18
551	Comparative calculation on Li+ solvation in common organic electrolyte solvents for lithium ion batteries. **2020**, 29, 048202	6

550	Unprecedented Improvement of Single Li-Ion Conductive Solid Polymer Electrolyte Through Salt Additive. **2020**, 30, 2000455		32
549	Current Challenges and Routes Forward for Nonaqueous Lithium-Air Batteries. **2020**, 120, 6558-6625		183
548	Review: Emerging Trends in the Design of Electrolytes for Lithium and Post-Lithium Batteries. **2020**, 167, 050508		52
547	Slurry-like hybrid electrolyte with high lithium-ion transference number for dendrite-free lithium metal anode. **2020**, 48, 375-382		14
546	Electrolyte Design for Fast-Charging Li-Ion Batteries. **2020**, 2, 354-366		88
545	Boosting the sodium storage performance of coal-based carbon materials through structure modification by solvent extraction. **2020**, 162, 431-437		12
544	Crystalline chromium electroplating with high current efficiency using chloride hydrate melt-based trivalent chromium baths. **2020**, 338, 135873		8
543	Controlling dendrite growth in lithium metal batteries through forced advection. **2020**, 452, 227760		11
542	Mechanical rolling formation of interpenetrated lithium metal/lithium tin alloy foil for ultrahigh-rate battery anode. *Nature Communications*, **2020**, 11, 829	17.4	125
541	Rechargeable Lithium Metal Batteries with an In-Built Solid-State Polymer Electrolyte and a High Voltage/Loading Ni-Rich Layered Cathode. **2020**, 32, e1905629		59
540	A Highly Reversible, Dendrite-Free Lithium Metal Anode Enabled by a Lithium-Fluoride-Enriched Interphase. **2020**, 32, e1906427		87
539	A Novel Zwitterionic Ionic Liquid-Based Electrolyte for More Efficient and Safer Lithium-Sulfur Batteries. **2020**, 12, 11635-11642		10
538	Guidelines and trends for next-generation rechargeable lithium and lithium-ion batteries. **2020**, 49, 1569-1614		615
537	Uncharted Waters: Super-Concentrated Electrolytes. **2020**, 4, 69-100		153
536	Atomic layer deposition for improved lithiophilicity and solid electrolyte interface stability during lithium plating. **2020**, 28, 17-26		21
535	Bi-containing Electrolyte Enables Robust and Li Ion Conductive Solid Electrolyte Interphase for Advanced Lithium Metal Anodes. **2019**, 7, 952		7
534	Propelling polysulfide conversion for high-loading lithium–sulfur batteries through highly sulfiphilic NiCo2S4 nanotubes. **2020**, 27, 51-60		41
533	Versatile Strategy for Realizing Flexible Room-Temperature All-Solid-State Battery through a Synergistic Combination of Salt Affluent PEO and LiLaZrTaO Nanofibers. **2020**, 12, 7222-7231		29

532	In situ x-ray photoelectron spectroscopy study of lithium carbonate removal from garnet-type solid-state electrolyte using ultra high vacuum techniques. **2020**, 38, 023201	6
531	3D Vertically Aligned Li Metal Anodes with Ultrahigh Cycling Currents and Capacities of 10 mA cm⁻²/20 mAh cm⁻² Realized by Selective Nucleation within Microchannel Walls. **2020**, 10, 1903753	44
530	Enhancing the kinetics of lithium–sulfur batteries under solid-state conversion by using tellurium as a eutectic accelerator. **2020**, 8, 3405-3412	12
529	A Comparative Review of Electrolytes for Organic-Material-Based Energy-Storage Devices Employing Solid Electrodes and Redox Fluids. **2020**, 13, 2205-2219	32
528	An excellent anode renders protic ionic liquids sustainable in metal electrodeposition. **2020**, 22, 1821-1826	3
527	Redox-Driven Lithium Perfusion to Fabricate Li@Ni-Foam Composites for High Lithium-Loading 3D Anodes. **2020**, 12, 9355-9364	11
526	Efficient polysulfide trapping enabled by a polymer adsorbent in lithium-sulfur batteries. **2020**, 336, 135693	11
525	Toward High-Energy-Density Lithium Metal Batteries: Opportunities and Challenges for Solid Organic Electrolytes. **2020**, 32, e1905219	81
524	Exploring the origin of electrochemical performance of Cr-doped LiNiMnO. **2020**, 22, 3831-3838	8
523	Smoothing the Surface and Improving the Electrochemical Properties of NaMnO by a Wet Chemical Method. **2020**, 10,	
522	High-energy density LixSi-S full cell based on 3D current collector of few-wall carbon nanotube sponge. **2020**, 161, 612-621	6
521	Countersolvent Electrolytes for Lithium-Metal Batteries. **2020**, 10, 1903568	102
520	Perspective—Electrochemical Stability of Water-in-Salt Electrolytes. **2020**, 167, 070544	37
519	Electrochemically Stable, High Transference Number Lithium Bis(malonato)borate Polymer Solution Electrolytes. **2020**, 32, 3794-3804	13
518	PEDOT:PSS Dual-Function Film Initiated 1,3-Dioxolane Polymerization in Li/S Cells. **2020**, 3, 3586-3595	4
517	Topological design of ultrastrong MXene paper hosted Li enables ultrathin and fully flexible lithium metal batteries. **2020**, 74, 104817	54
516	Ruthenium Electrodeposition from Water-in-Salt Electrolytes and the Influence of Tetrabutylammonium. **2020**, 167, 062509	4
515	Enhanced ionic conductivity and mechanical properties via dynamic-covalent boroxine bonds in solid polymer electrolytes. **2020**, 608, 118218	16

514	Dendrite-Free Lithium Anodes with a Metal Organic Framework-Derived Cake-like TiO2 Coating on the Separator. **2020**, 7, 2159-2164	4
513	Water-in-salt electrolyte Zn/LiFePO4 batteries. **2020**, 867, 114193	21
512	A Safe Polyzwitterionic Hydrogel Electrolyte for Long-Life Quasi-Solid State Zinc Metal Batteries. **2020**, 30, 2001317	72
511	Electrolytes and Interphases in Sodium-Based Rechargeable Batteries: Recent Advances and Perspectives. **2020**, 10, 2000093	107
510	A Critical Analysis about the Underestimated Role of the Electrolyte in Batteries Based on Organic Materials. **2020**, 7, 2364-2375	13
509	Critical Role of Anion□Solvent Interactions for Dynamics of Solvent-in-Salt Solutions. **2020**, 124, 8457-8466	18
508	Brief History of Early Lithium-Battery Development. **2020**, 13,	93
507	A New Strategy of Constructing a Highly Fluorinated Solid-Electrolyte Interface towards High-Performance Lithium Anode. **2020**, 7, 2000154	12
506	Electrolyte design for Li metal-free Li batteries. **2020**, 39, 118-126	64
505	Universal chemomechanical design rules for solid-ion conductors to prevent dendrite formation in lithium metal batteries. **2020**, 19, 758-766	62
504	A novel design strategy of a practical carbon anode material from a single lignin-based surfactant source for sodium-ion batteries. **2020**, 56, 6078-6081	11
503	Interactions and Transport in Highly Concentrated LiTFSI-based Electrolytes. **2020**, 21, 1166-1176	12
502	Towards practical lithium-metal anodes. **2020**, 49, 3040-3071	224
501	Long-lifespan lithium□metal batteries obtained using a perovskite intercalation layer to stabilize the lithium electrode. **2020**, 8, 9137-9145	4
500	Enhanced conductivity and structure stability of BiPO@void@C/CNT particles for high-performance bismuth-based batteries. **2020**, 49, 5636-5645	4
499	Flame-retardant concentrated electrolyte enabling a LiF-rich solid electrolyte interface to improve cycle performance of wide-temperature lithium□sulfur batteries. **2020**, 51, 154-160	24
498	Challenges and Strategies for High-Energy Aqueous Electrolyte Rechargeable Batteries. **2021**, 60, 598-616	94
497	W□srige Hochleistungsbatterien: Herausforderungen und Strategien. **2021**, 133, 608-626	5

496	Solidifying Cathode–Electrolyte Interface for Lithium–Sulfur Batteries. **2021**, 11, 2000791	38
495	Electrolyte solvation chemistry for lithium–sulfur batteries with electrolyte-lean conditions. **2021**, 55, 80-91	26
494	Structures of Solid-Electrolyte Interphases and Impacts on Initial-Stage Lithium Deposition in Pyrrolidinium-Based Ionic Liquids. **2021**, 8, 62-69	2
493	A room temperature alloying strategy to enable commercial metal foil for efficient Li/Na storage and deposition. **2021**, 34, 708-715	9
492	An Inorganic-Rich Solid Electrolyte Interphase for Advanced Lithium-Metal Batteries in Carbonate Electrolytes. **2021**, 60, 3661-3671	103
491	Stabilizing Effect of Polysulfides on Lithium Metal Anodes in Sparingly Solvating Solvents. **2021**, 4, 347-358	5
490	Regulating electrodeposition behavior through enhanced mass transfer for stable lithium metal anodes. **2021**, 55, 580-587	10
489	Organic liquid electrolytes in Li-S batteries: actualities and perspectives. **2021**, 34, 128-147	21
488	Elongating the cycle life of lithium metal batteries in carbonate electrolyte with gradient solid electrolyte interphase layer. **2021**, 34, 241-249	25
487	Enabling High Capacity and Coulombic Efficiency for Li-NCM811 Cells Using a Highly Concentrated Electrolyte. **2021**, 4, 294-303	6
486	Fluorobenzene, A Low-Density, Economical, and Bifunctional Hydrocarbon Cosolvent for Practical Lithium Metal Batteries. **2021**, 31, 2005991	37
485	Recent Progress and Emerging Application Areas for Lithium-Sulfur Battery Technology. **2021**, 9, 2000694	23
484	Probing Lithium Metals in Batteries by Advanced Characterization and Analysis Tools. **2021**, 11, 2003039	17
483	Ultrathin MgO coating on fabricated O3–NaNi0.45Mn0.3Ti0.2Zr0.05O2 composite cathode via magnetron sputtering for enhanced kinetic and durable sodium-ion batteries. **2021**, 855, 157533	6
482	Advanced electrolyte design for stable lithium metal anode: From liquid to solid. **2021**, 80, 105516	34
481	Atomic Layer Deposition of High-Capacity Anodes for Next-Generation Lithium-Ion Batteries and Beyond. **2021**, 4, 363-391	15
480	In situ formation of poly(butyl acrylate)-based non-flammable elastic quasi-solid electrolyte for dendrite-free flexible lithium metal batteries with long cycle life for wearable devices. **2021**, 34, 629-639	24
479	A three-dimensional crosslinked chitosan sulfate network binder for high-performance Li–S batteries. **2021**, 56, 171-178	7

478	A design of Nafion-coated bilayered quasi-solid electrolyte for lithium-O2 batteries with high performance. **2021**, 34, 208-216	1
477	Surface electrochemistry approaches for understanding and creating smooth solid-electrolyte interphase and lithiophilic interfaces for lithium metal anodes. **2021**, 26, 100671	2
476	The strategies of boosting the performance of highly reversible zinc anodes in zinc-ion batteries: recent progress and future perspectives. **2021**, 5, 332-350	10
475	An Inorganic-Rich Solid Electrolyte Interphase for Advanced Lithium-Metal Batteries in Carbonate Electrolytes. **2021**, 133, 3705-3715	17
474	Lithium metal batteries for high energy density: Fundamental electrochemistry and challenges. **2021**, 59, 666-687	21
473	A well-designed polymer as a three-in-one multifunctional binder for high-performance lithium–sulfur batteries. **2021**, 9, 2970-2979	4
472	Non-Flammable Liquid and Quasi-Solid Electrolytes toward Highly-Safe Alkali Metal-Based Batteries. **2021**, 31, 2008644	44
471	Insights into the Nanostructure, Solvation, and Dynamics of Liquid Electrolytes through Small-Angle X-Ray Scattering. **2021**, 11, 2002821	14
470	An all-organic aqueous potassium dual-ion battery. **2021**, 57, 28-33	24
469	Recent development of Na metal anodes: Interphase engineering chemistries determine the electrochemical performance. **2021**, 409, 127943	16
468	The Applications of Water-in-Salt Electrolytes in Electrochemical Energy Storage Devices. **2021**, 31, 2006749	54
467	High Performance Li Metal Anode Enabled by Robust Covalent Triazine Framework-Based Protective Layer. **2021**, 31, 2006159	16
466	Lithium Metal Anode. **2021**, 311-321	
465	Concentrated Electrolytes for Lithium Metal Negative Electrodes. **2021**, 37-45	
464	Advanced liquid electrolytes enable practical applications of high-voltage lithium-metal full batteries. **2021**, 57, 840-858	11
463	Solvate electrolytes for Li and Na batteries: structures, transport properties, and electrochemistry. **2021**, 23, 21419-21436	8
462	High-voltage liquid electrolytes for Li batteries: progress and perspectives. **2021**, 50, 10486-10566	77
461	Recent advancements of functional gel polymer electrolytes for rechargeable lithium–metal batteries. **2021**, 5, 5211-5232	4

460	Recent advances in separator engineering for effective dendrite suppression of Li-metal anodes. **2021**, 2, 993-1010	5
459	Epitaxial Induced Plating Current-Collector Lasting Lifespan of Anode-Free Lithium Metal Battery. **2021**, 11, 2003709	25
458	Insights into the deposition chemistry of Li ions in nonaqueous electrolyte for stable Li anodes. **2021**, 50, 3178-3210	43
457	Insoluble small-molecule organic cathodes for highly efficient pure-organic Li-ion batteries. **2021**, 23, 6090-6100	0
456	The lithium metal anode in Li□S batteries: challenges and recent progress. **2021**, 9, 10012-10038	13
455	Fundamental Properties and Solubility Toward Cathode Active Materials. **2021**, 277-286	
454	In situ coating of a lithiophilic interphase on a biporous Cu scaffold with vertical microchannels for dendrite-free Li metal batteries. **2021**, 9, 13642-13652	4
453	Rational Design of Electrolytes for Long-Term Cycling of Si Anodes over a Wide Temperature Range. **2021**, 6, 387-394	22
452	Electrospun Polymer Nanofibers with TiO@NiCo-LDH as Efficient Polysulfide Barriers for Wide-Temperature-Range Li-S Batteries. **2021**, 13, 2734-2744	21
451	Aprotic Alkali Metal□2 Batteries: Role of Cathode Surface-Mediated Processes and Heterogeneous Electrocatalysis. **2021**, 6, 665-674	2
450	POSS-based IPN nanocomposites. **2021**, 195-203	5
449	Strategies, design and synthesis of advanced nanostructured electrodes for rechargeable batteries. **2021**, 5, 5897-5931	4
448	Optimization of prismatic type layered electrode materials for high performance sodium battery. **2021**, 45, 8497-8507	
447	Manganese dioxide nanosheet coated carbon cloth as a multifunctional interlayer for advanced lithium□sulfur batteries. **2021**, 2, 688-691	1
446	Strategies towards enabling lithium metal in batteries: interphases and electrodes.	39
445	Elevated electrochemical performances enabled by a core-shell titanium hydride coated separator in lithium-sulphur batteries.. **2021**, 11, 30755-30762	0
444	Dendrite-Free Li-Metal Anode Enabled by Dendritic Structure. **2021**, 31, 2009712	14
443	Impact of Carbon Porosity on Sulfur Conversion in Li□S Battery Cathodes in a Sparingly Polysulfide Solvating Electrolyte. **2021**, 4, 823-833	7

442	Synergistic Effects on Lithium Metal Batteries by Preferential Ionic Interactions in Concentrated Bisalt Electrolytes. **2021**, 11, 2003520	15
441	Multifunctional roles of carbon-based hosts for Li-metal anodes: A review. **2021**, 3, 303-329	20
440	Understanding the Electrolytes of Lithium–Sulfur Batteries. **2021**, 4, 1064-1095	7
439	Low-Cost Regulating Lithium Deposition Behaviors by Transition Metal Oxide Coating on Separator. **2021**, 31, 2007255	6
438	Confining Water in Ionic and Organic Solvents to Tune Its Adsorption and Reactivity at Electrified Interfaces. **2021**, 54, 1034-1042	7
437	Lithiophilic and Antioxidative Copper Current Collectors for Highly Stable Lithium Metal Batteries. **2021**, 31, 2009805	15
436	Understanding the Reductive Decomposition of Highly Concentrated Li Salt/Sulfolane Electrolytes during Li Deposition and Dissolution. **2021**, 4, 1851-1859	9
435	On the local corrosion behavior of coupled welded zones of the 2098-T351 Al-Cu-Li alloy produced by Friction Stir Welding (FSW): An amperometric and potentiometric microelectrochemical investigation. **2021**, 373, 137910	6
434	Nucleation and Growth Mechanism of Anion-Derived Solid Electrolyte Interphase in Rechargeable Batteries. **2021**, 60, 8521-8525	28
433	Lithium-Sulfur Batteries Employing Hybrid-electrolyte Structure with Li7La3Zr2O12 at Middle Operating Temperature: Effect of Li Salts Concentration on Electrochemical Performance. **2021**, 89, 197-203	2
432	Recent Progress and Perspectives of Sodium Metal Anodes for Rechargeable Batteries. **2021**, 37, 189-199	2
431	Factors Influencing Preferential Anion Interactions during Solvation of Multivalent Cations in Ethereal Solvents. **2021**, 125, 6005-6012	8
430	Intrinsic differences and realistic perspectives of lithium-sulfur and magnesium-sulfur batteries. **2021**, 2,	9
429	2021 roadmap on lithium sulfur batteries. **2021**, 3, 031501	32
428	Effects of High and Low Salt Concentrations in Electrolytes at Lithium-Metal Anode Surfaces Using DFT-ReaxFF Hybrid Molecular Dynamics Method. **2021**, 12, 2922-2929	12
427	In situ protection of a sulfur cathode and a lithium anode via adopting a fluorinated electrolyte for stable lithium-sulfur batteries. **2021**, 64, 2127-2138	5
426	Nucleation and Growth Mechanism of Anion-Derived Solid Electrolyte Interphase in Rechargeable Batteries. **2021**, 133, 8602-8606	6
425	Enhancing electrode wettability in lithium-ion battery via particle-size ratio control. **2021**, 22, 100976	4

424	An Emerging Energy Storage System: Advanced Na-Se Batteries. **2021**, 15, 5876-5903	15
423	Lithium-Ion Desolvation Induced by Nitrate Additives Reveals New Insights into High Performance Lithium Batteries. **2021**, 31, 2101593	27
422	Lithium Metal Batteries Enabled by Synergetic Additives in Commercial Carbonate Electrolytes. **2021**, 6, 1839-1848	53
421	Inherently flame-retardant solid polymer electrolyte for safety-enhanced lithium metal battery. **2021**, 410, 128415	14
420	Molecular Simulation of Electrode-Solution Interfaces. **2021**, 72, 189-212	24
419	Polymorph Evolution Mechanisms and Regulation Strategies of Lithium Metal Anode under Multiphysical Fields. **2021**, 121, 5986-6056	48
418	Can carbon sponge be used as separator in Li metal batteries?. **2021**, 36, 108-114	7
417	High-Performance Lithium Sulfur Batteries Based on Multidimensional Graphene-CNT-Nanosulfur Hybrid Cathodes. **2021**, 7, 26	4
416	Synergistic Effect of Temperature and Electrolyte Concentration on Solid-State Interphase for High-Performance Lithium Metal Batteries. **2021**, 2, 2100010	1
415	Poor Stability of Li CO in the Solid Electrolyte Interphase of a Lithium-Metal Anode Revealed by Cryo-Electron Microscopy. **2021**, 33, e2100404	37
414	Material design and structure optimization for rechargeable lithium-sulfur batteries. **2021**, 4, 1142-1188	30
413	High-voltage aqueous planar symmetric sodium ion micro-batteries with superior performance at low-temperature of −40 °C. **2021**, 82, 105688	12
412	Simultaneous Stabilization of the Solid/Cathode Electrolyte Interface in Lithium Metal Batteries by a New Weakly Solvating Electrolyte. **2021**, 17, e2100133	19
411	Electrochemical reduction of CO2 in ionic liquid: Mechanistic study of Li-CO2 batteries via in situ ambient pressure X-ray photoelectron spectroscopy. **2021**, 83, 105830	11
410	Design Parameters for Ionic Liquid–Molecular Solvent Blend Electrolytes to Enable Stable Li Metal Cycling Within Li–O2 Batteries. **2021**, 31, 2010627	6
409	Super-Assembled Hierarchical CoO Nanosheets-Cu Foam Composites as Multi-Level Hosts for High-Performance Lithium Metal Anodes. **2021**, 17, e2101301	15
408	Lithiophilic current collector based on nitrogen doped carbon nanotubes and three-dimensional graphene for long-life lithium metal batteries. **2021**, 267, 115067	6
407	Challenges and promises of lithium metal anode by soluble polysulfides in practical lithium–sulfur batteries. **2021**, 45, 62-76	40

406	Artificial dual solid-electrolyte interfaces based on in situ organothiol transformation in lithium sulfur battery. *Nature Communications*, **2021**, 12, 3031	17.4	45
405	Ion Clusters and Networks in Water-in-Salt Electrolytes. **2021**, 168, 050514		6
404	Regulated Li Electrodeposition Behavior through Mesoporous Silica Thin Film in Anode-Free Lithium Metal Batteries. **2021**, 4, 5132-5142		4
403	Supervised Machine Learning-Based Classification of Li‐S Battery Electrolytes. **2021**, 4, 1156-1162		1
402	An in-situ solidification strategy to block polysulfides in Lithium-Sulfur batteries. **2021**, 37, 224-232		22
401	Safety challenges and safety measures of Li-ion batteries. **2021**, 9, 1647-1672		10
400	Core‐Shell Structure S@PPy/CB with High Electroconductibility to Effective Confinement Polysulfide Shuttle Effect for Advanced Lithium‐Sulfur Batteries. **2021**, 35, 10181-10189		0
399	Ion-Dipole Chemistry Drives Rapid Evolution of Li Ions Solvation Sheath in Low-Temperature Li Batteries. **2021**, 11, 2100935		38
398	Porous polymer thin film encapsulated sulfur nanoparticles on graphene via partial evaporation for high-performance lithium‐sulfur batteries. **2021**, 547, 149199		6
397	Liquid electrolyte design for metal-sulfur batteries: Mechanistic understanding and perspective. **2021**, 3, e12115		8
396	Nitrate-based ‘oversaturated gel electrolyte’ for high-voltage and high-stability aqueous lithium batteries. **2021**, 37, 598-608		7
395	In Situ Monitoring of Lithium Metal Anodes and Their Solid Electrolyte Interphases by Transmission Electron Microscopy. **2021**, 2, 2100018		12
394	Ultralight Electrolyte for High-Energy Lithium-Sulfur Pouch Cells. **2021**, 60, 17547-17555		21
393	Hybrid polyion complex micelles enabling high-performance lithium-metal batteries with universal carbonates. **2021**, 38, 509-519		4
392	An Atomistic View of the Lithiation/Delithiation Behavior of Carbon Nanotube-Confined Sulfur Cathode for Lithium-Sulfur Batteries. **2021**, 168, 060531		0
391	Nonpolar Solvent-based Electrolytes with a Quasi-Solid-State Redox Reaction for Lithium-Sulfur Batteries. **2021**, 8, 2321-2328		
390	CHAMPION: Chalmers hierarchical atomic, molecular, polymeric and ionic analysis toolkit. **2021**, 42, 1632-1642		0
389	Understanding the Effects of the Low-Concentration Electrolyte on the Performance of High-Energy-Density Li-S Batteries. **2021**, 13, 28405-28414		4

388	Ultralight Electrolyte for High-Energy Lithium–Sulfur Pouch Cells. **2021**, 133, 17688-17696	6
387	Electrolyte Structure of Lithium Polysulfides with Anti-Reductive Solvent Shells for Practical Lithium-Sulfur Batteries. **2021**, 60, 15503-15509	37
386	Electrolyte Structure of Lithium Polysulfides with Anti-Reductive Solvent Shells for Practical Lithium–Sulfur Batteries. **2021**, 133, 15631-15637	1
385	Potentiometric Measurement to Probe Solvation Energy and Its Correlation to Lithium Battery Cyclability. **2021**, 143, 10301-10308	21
384	Solid-Like Nano-Anion Cluster Constructs a Free Lithium-Ion-Conducting Superfluid Framework in a Water-in-Salt Electrolyte. **2021**, 125, 11838-11847	8
383	Review—Recent advances in non-aqueous liquid electrolytes containing fluorinated compounds for high energy density lithium-ion batteries. **2021**, 38, 542-570	18
382	Accelerated Polysulfide Redox in Binder-Free Li2S Cathodes Promises High-Energy-Density Lithium–Sulfur Batteries. **2021**, 11, 2100957	9
381	Predicted Operando Polymerization at Lithium Anode via Boron Insertion. **2021**, 6, 2320-2327	7
380	Hexafluoroisopropyl Trifluoromethanesulfonate-Driven Easily Li+ Desolvated Electrolyte to Afford Li||NCM811 Cells with Efficient Anode/Cathode Electrolyte Interphases. **2021**, 31, 2104395	34
379	Enabling Lithium Metal Anode in Nonflammable Phosphate Electrolyte with Electrochemically Induced Chemical Reactions. **2021**, 60, 19183-19190	11
378	Effect of temperature on concentrated electrolytes for advanced lithium ion batteries. **2021**, 154, 214503	2
377	Stabilizing Lithium Metal Anode Enabled by a Natural Polymer Layer for Lithium-Sulfur Batteries. **2021**, 13, 28252-28260	6
376	Electrolyte Issues in Lithium–Sulfur Batteries: Development, Prospect, and Challenges. **2021**, 35, 10405-10427	17
375	Enabling Lithium Metal Anode in Nonflammable Phosphate Electrolyte with Electrochemically Induced Chemical Reactions. **2021**, 133, 19332-19339	1
374	Effect of diffusion constant on the morphology of dendrite growth in lithium metal batteries. **2021**, 154, 234705	0
373	Quantitatively Designing Porous Copper Current Collectors for Lithium Metal Anodes. **2021**, 4, 6454-6465	6
372	Rational design of NiCo2S4@MoS2 ball-in-ball heterostructure nanospheres for advanced lithium-sulfur batteries. **2021**, 383, 138268	3
371	Fluorinated Poly-oxalate Electrolytes Stabilizing both Anode and Cathode Interfaces for All-Solid-State Li/NMC811 Batteries. **2021**, 60, 18335-18343	13

370	Superior potassium storage behavior of hard carbon facilitated by ether-based electrolyte. **2021**, 179, 60-67	2
369	Electrolyte Design for Lithium Metal Anode-Based Batteries Toward Extreme Temperature Application. **2021**, 8, e2101051	22
368	Sandwich-like N-doped carbon nanotube@Nb2C MXene composite for high performance alkali ion batteries. **2021**, 47, 20610-20616	8
367	Intermetallic interphases in lithium metal and lithium ion batteries. **2021**, 3, 1083	15
366	Fluorinated Poly-oxalate Electrolytes Stabilizing both Anode and Cathode Interfaces for All-Solid-State Li/NMC811 Batteries. **2021**, 133, 18483-18491	4
365	Molecular Dynamics Simulation of Solvation Nanostructure in Carbonate-Based Electrolyte of Lithium–Sulfur Battery. **2021**, 16, 2150092	
364	High Interfacial-Energy and Lithiophilic Janus Interphase Enables Stable Lithium Metal Anodes. **2021**, 17, e2102196	1
363	Isomeric Organodithiol Additives for Improving Interfacial Chemistry in Rechargeable Li-S Batteries. **2021**, 143, 11063-11071	22
362	Concentrated Electrolytes Widen the Operating Temperature Range of Lithium-Ion Batteries. **2021**, 8, e2101646	14
361	Thermally Stable and Nonflammable Electrolytes for Lithium Metal Batteries: Progress and Perspectives. **2021**, 1, 2100058	31
360	Low-Density Fluorinated Silane Solvent Enhancing Deep Cycle Lithium-Sulfur Batteries' Lifetime. **2021**, 33, e2102034	9
359	Revisiting the degradation of solid/electrolyte interfaces of magnesium metal anodes: Decisive role of interfacial composition. **2021**, 86, 106087	11
358	Polyvinyl Pyrrolidone as Electrolyte Additive for Aqueous Zinc Batteries with MnO2 Cathode. **2021**, 168, 080514	0
357	Multiscale Understanding of Covalently Fixed Sulfur-Polyacrylonitrile Composite as Advanced Cathode for Metal-Sulfur Batteries. **2021**, 8, e2101123	9
356	Frontiers in Theoretical Analysis of Solid Electrolyte Interphase Formation Mechanism. **2021**, 33, e2100574	11
355	Potentiometric MRI of a Superconcentrated Lithium Electrolyte: Testing the Irreversible Thermodynamics Approach. **2021**, 6, 3086-3095	11
354	Flame-Retardant and Polysulfide-Suppressed Ether-Based Electrolytes for High-Temperature Li-S Batteries. **2021**, 13, 38296-38304	0
353	Advanced Electrolyte Design for High-Energy-Density Li-Metal Batteries under Practical Conditions. **2021**, 133, 25828	8

352	Advanced Electrolytes Enabling Safe and Stable Rechargeable Li-Metal Batteries: Progress and Prospects. 2105253	16
351	Dendrite-Free Reverse Lithium Deposition Induced by Ion Rectification Layer toward Superior Lithium Metal Batteries. **2021**, 31, 2104081	5
350	Advanced Electrolyte Design for High-Energy-Density Li-Metal Batteries under Practical Conditions. **2021**, 60, 25624-25638	17
349	How to avoid dendrite formation in metal batteries: Innovative strategies for dendrite suppression. **2021**, 86, 106142	23
348	Grafting and Depositing Lithium Polysulfides on Cathodes for Cycling Stability of Lithium-Sulfur Batteries. **2021**, 13, 40685-40694	3
347	Rational design and superfast production of biomimetic, calendering-compatible, catalytic, sulfur-rich secondary particles for advanced lithium-sulfur batteries. **2021**, 40, 415-425	9
346	Development of high performing polymer electrolytes based on superconcentrated solutions. **2021**, 506, 230220	2
345	Design Strategies and Research Progress for Water-in-Salt Electrolytes. **2021**,	3
344	Lithium-based Loop for Ambient-Pressure Ammonia Synthesis in a Liquid Alloy-Salt Catalytic System. **2021**, 14, 4697-4707	2
343	Recent progress of asymmetric solid-state electrolytes for lithium/sodium-metal batteries. **2021**, 3, 100058	10
342	Electrolyte solutions design for lithium-sulfur batteries. **2021**, 5, 2323-2364	38
341	EMIMBF4 in ternary liquid mixtures of water, dimethyl sulfoxide and acetonitrile as “tri-solvent-in-salt” electrolytes for high-performance supercapacitors operating at -70 °C. **2021**, 40, 368-385	10
340	Lithium Fluoride in Electrolyte for Stable and Safe Lithium-Metal Batteries. **2021**, 33, e2102134	30
339	Critical effects of electrolyte recipes for Li and Na metal batteries. **2021**, 7, 2312-2346	27
338	Highly-concentrated electrolyte incorporating Li-ion solvation sheath interphase for encapsulation-free organic electrochromic devices. **2021**, 390, 138870	1
337	Non-flammable super-concentrated polymer electrolyte with “solvated ionic liquid” for lithium-ion batteries. **2021**, 506, 230099	4
336	Thermal-Responsive and Fire-Resistant Materials for High-Safety Lithium-Ion Batteries. **2021**, 17, e2103679	6
335	Potassium iodide as a low-cost cathode material for efficient potassium-ion storage. **2021**, 41, 798-804	1

334	Highly porous single ion conducting membrane via a facile combined structural self-assembly and in-situ polymerization process for high performance lithium metal batteries. **2021**, 636, 119601	3
333	Rechargeable metal (Li, Na, Mg, Al)-sulfur batteries: Materials and advances. **2021**, 61, 104-134	22
332	Lithium-copper alloy embedded in 3D porous copper foam with enhanced electrochemical performance toward lithium metal batteries. **2021**, 100871	2
331	Breaking dendrites of lithium metal electrode by resonance: A theoretical calculation of lattice dynamics. **2021**, 780, 138921	
330	Acetate-based oversaturated gel electrolyte enabling highly stable aqueous Zn-MnO2 battery. **2021**, 42, 240-251	10
329	Appreciating the role of polysulfides in lithium-sulfur batteries and regulation strategies by electrolytes engineering. **2021**, 42, 645-678	5
328	Rational design of a carbonate-glyme hybrid electrolyte for practical anode-free lithium metal batteries. **2021**, 42, 295-306	3
327	Long-cycling lithium-oxygen batteries enabled by tailoring Li nucleation and deposition via lithiophilic oxygen vacancy in Vo-TiO2/Ti3C2Tx composite anodes. **2022**, 65, 654-665	20
326	Regulating Li deposition by constructing homogeneous LiF protective layer for high-performance Li metal anode. **2022**, 427, 131625	6
325	Guanine-assisted N-doped ordered mesoporous carbons as efficient capacity decaying suppression materials for lithium sulfur batteries. **2022**, 101, 155-164	7
324	Rational design of an Allyl-rich Triazine-based covalent organic framework host used as efficient cathode materials for Li-S batteries. **2022**, 429, 132254	8
323	Wide temperature cycling of Li-metal batteries with hydrofluoroether dilution of high-concentration electrolyte. **2022**, 427, 131889	6
322	Pseudo-solid-state electrolytes utilizing the ionic liquid family for rechargeable batteries.	9
321	Advanced High-Performance Potassium-Chalcogen (S, Se, Te) Batteries. **2021**, 17, e2004369	27
320	A physico-chemical investigation of highly concentrated potassium acetate solutions towards applications in electrochemistry. **2021**, 23, 1139-1145	7
319	A multifunctional separator with Mg(OH)2 nanoflake coatings for safe lithium-metal batteries. **2021**, 52, 75-83	10
318	Recent progress in water-in-salt and water-in-salt hybrid-electrolyte-based high voltage rechargeable batteries. **2021**, 5, 1619-1654	7
317	High Performance of Sulfur/Carbon Cathode Synthesized via a Facile Green Microwave Approach. **2021**, 35, 2750-2757	1

316	Crucial Challenges and Recent Optimization Progress of Metal–Sulfur Battery Electrolytes. **2021**, 35, 1966-1988	14
315	Early-stage decomposition of solid polymer electrolytes in Li-metal batteries.	2
314	A Water-/Fireproof Flexible Lithium-Oxygen Battery Achieved by Synergy of Novel Architecture and Multifunctional Separator. **2018**, 30, 1703791	53
313	High-Safety and High-Energy-Density Lithium Metal Batteries in a Novel Ionic-Liquid Electrolyte. **2020**, 32, e2001741	81
312	Aqueous Rechargeable Metal-Ion Batteries Working at Subzero Temperatures. **2020**, 8, 2002590	45
311	Next generation technologies. **2018**, 187-208	1
310	A tin-plated copper substrate for efficient cycling of lithium metal in an anode-free rechargeable lithium battery. **2017**, 258, 1201-1207	62
309	A multifunctional electrolyte with highly-coordinated solvation structure-in-nonsolvent for rechargeable lithium batteries. **2020**, 51, 362-371	8
308	The origin of the two-plateaued or one-plateaued open circuit voltage in Li–S batteries. **2020**, 75, 104915	10
307	New Concepts in Electrolytes. **2020**, 120, 6783-6819	267
306	Research Progress on Improving the Sulfur Conversion Efficiency on the Sulfur Cathode Side in Lithium–Sulfur Batteries. **2020**, 59, 20979-21000	4
305	Building Better Li Metal Anodes in Liquid Electrolyte: Challenges and Progress. **2021**, 13, 18-33	11
304	Fire-extinguishing organic electrolytes for safe batteries. **2018**, 3, 22-29	406
303	Approaching the voltage and energy density limits of potassium-selenium battery chemistry in a concentrated ether-based electrolyte. **2020**, 11, 6045-6052	23
302	Spin-glass charge ordering in ionic liquids. **2019**, 3,	8
301	Plastic Crystals Utilising Small Ammonium Cations and Sulfonylimide Anions as Electrolytes for Lithium Batteries. **2020**, 167, 070529	12
300	Ion Transport Mechanisms via Time-Dependent Local Structure and Dynamics in Highly Concentrated Electrolytes. **2020**, 167, 140537	9
299	Concentration Dependent Solution Structure and Transport Mechanism in High Voltage LiTFSI–Adiponitrile Electrolytes. **2020**, 167, 160532	3

298	Reducing Dendrite Growth in Lithium Metal Batteries by Creeping Poiseuille and Couette Flows. **2020**, 167, 160525	1
297	Lithium/Sulfur Secondary Batteries: A Review. **2016**, 7, 97-114	23
296	Synergistic Effects of Salt Concentration and Working Temperature towards Dendrite-Free Lithium Deposition. **2019**, 2019, 7481319	5
295	Progress of Non-Aqueous Electrolyte for Li-Air Batteries. **2015**, 03, 1-8	2
294	Enhanced Reaction Kinetic of Fe3O4-graphite Nanofiber Composite Electrode for Lithium Ion Batteries. **2014**, 15, 338-343	6
293	Lithium/Sulfur Secondary Batteries: A Review. **2016**, 7, 97-114	10
292	Electrochemical Evaluation of Lithium-Metal Anode in Highly Concentrated Ethylene Carbonate Based Electrolytes. **2020**, 88, 540-547	5
291	Lithium intercalation properties of SnSb/C composite in carbonthermal reduction as the anode material for lithium ion battery. **2014**, 63, 168201	5
290	Molecular dynamics simulation of average velocity of lithium iron across the end of carbon nanotube. **2014**, 63, 200508	1
289	Formation sequence of solid electrolyte interphases and impacts on lithium deposition and dissolution on copper: an atomic force microscopic study. **2021**,	3
288	Interwoven nickel(II)-dimethylglyoxime nanowires in 3D nickel foam for dendrite-free lithium deposition. **2021**,	1
287	Design of a LiF-Rich Solid Electrolyte Interphase Layer through Highly Concentrated LiFSI-THF Electrolyte for Stable Lithium Metal Batteries. **2021**, 17, e2103375	7
286	Moving beyond 99.9% Coulombic efficiency for lithium anodes in liquid electrolytes. **2021**, 6, 951-960	51
285	Ce and F Dual-Doping Strategy for High Cycle Performance of Lithium-Rich Layered Oxide Materials.	0
284	Recent Advances and Perspectives in Lithium-Sulfur Pouch Cells. **2021**, 26,	1
283	Na-Ion Anode Based on Na(Li,Ti)O2 System: Effects of Mg Addition. **2016**, 53, 282-287	
282	Lithium Cluster (Li48) Realized by a Defined Cage as Anode in Lithium-Based Batteries.	
281	Nanocrevass-Rich Carbon Fibers for Stable Lithium and Sodium Metal Anodes.	

280	Rechargeable Lithium Metal Batteries. **2019**, 147-203	
279	Chapter 17:Applications of Solid-state NMR in Crystalline Solid Polymer Electrolytes. **2019**, 387-419	
278	7.??????????????Na????????????????????????????????????. **2019**, 87, 233-238	
277	1.?????????????. **2019**, 87, 195-199	
276	Preparation of a High-Performance Nanocrystalline Lithium/Graphene Composite Battery via High-Pressure Torsion Method. **2019**, 60, 2451-2455	1
275	Dual strategy with Li-ion solvation and solid electrolyte interphase for high Coulombic efficiency of lithium metal anode. **2022**, 44, 48-56	4
274	Two-dimensional materials towards separator functionalization in advanced Li-S batteries. **2021**, 13, 18883-18911	1
273	A brief analysis of the microscopic physical image of ions transport in electrolyte. **2020**, 0-0	10
272	Nanomaterials for Batteries. **2020**, 107-193	
271	A Perspective of ZnCl2 Electrolytes: the Physical and Electrochemical Properties. **2021**,	12
270	Multifunctional Separator Allows Stable Cycling of Potassium Metal Anodes and of Potassium Metal Batteries. **2021**, e2105855	11
269	Challenges and development of lithium-ion batteries for low temperature environments. **2021**, 100145	14
268	Understanding Solid Electrolyte Interphase Nucleation and Growth on Lithium Metal Surfaces. **2021**, 7, 73	1
267	Physicochemical nature of polarization components limiting the fast operation of Li-ion batteries. **2021**, 2, 041307	2
266	Solid Polymer Electrolytes Comprising Camphor-Derived Chiral Salts for Solid-State Batteries. **2020**, 167, 120541	
265	On the Relevance of Reporting Water Content in Highly Concentrated Electrolytes: The LiTFSI-Acetonitrile Case. **2020**, 167, 120536	3
264	Efficient diffusion of superdense lithium via atomic channels for dendrite-free lithium metal batteries.	1
263	Architecture design principles for stable electrodeposition behavior-towards better alkali metal (Li/Na/K) anodes. **2022**, 45, 48-73	6

262	P2-Na0.55[Mg0.25Mn0.75]O2: An SEI-free anode for long-life and high-rate Na-ion batteries. **2022**, 45, 92-100	1
261	An overview of the key challenges and strategies for lithium metal anodes. **2021**, 47, 103641	2
260	New Insight into the Working Mechanism of Lithium-Sulfur Batteries under a Wide Temperature Range. **2021**, 13, 55007-55019	4
259	In Situ Formed Lithiophilic LiNbO in a Carbon Nanofiber Network for Dendrite-Free Li-Metal Anodes. **2021**, 13, 56498-56509	1
258	Designing spacial skeleton for lithium metal anode with Li+ concentration regulation and interfacial modification. **2021**, 898, 162802	
257	Cathode materials for rechargeable lithium batteries: Recent progress and future prospects. **2021**, 47, 103534	1
256	Lithiophilic Carbon Nanofiber/Graphene Nanosheet Composite Scaffold Prepared by a Scalable and Controllable Biofabrication Method for Ultrastable Dendrite-Free Lithium-Metal Anodes. **2021**, 18, e2104735	1
255	Construction of hierarchical yolk-shell structured Mn3O4@NC as efficient sulfur hosts for Li-S batteries. **2021**, 48, 6470-6470	0
254	Boosting the Energy Density of Li||CF Primary Batteries Using a 1,3-Dimethyl-2-imidazolidinone-Based Electrolyte. **2021**, 13, 57470-57480	3
253	Alkali metal chlorides in DMSO–methanol binary mixtures: insights into the structural properties through molecular dynamics simulations. **2021**, 140, 1	1
252	Enabling double-layer polymer electrolyte batteries: overcoming the Li-salt interdiffusion. **2021**, 45, 578-578	2
251	Thermal risk evaluation of concentrated electrolytes for Li-ion batteries. **2021**, 12, 100079	0
250	A Perspective on Li/S Battery Design: Modeling and Development Approaches. **2021**, 7, 82	2
249	Understanding Na-ion adsorption in nitrogen doped graphene oxide anode for rechargeable sodium ion batteries. **2022**, 579, 152147	3
248	A Facile Potential Hold Method for Fostering an Inorganic Solid-Electrolyte Interphase for Anode-Free Lithium-Metal Batteries.	1
247	A Solid-Phase Conversion Sulfur Cathode with Full Capacity Utilization and Superior Cycle Stability for Lithium-Sulfur Batteries.. **2022**, e2106144	2
246	Beyond Simple Dilution: Superior Conductivities from Cosolvation of Acetonitrile/LiTFSI Concentrated Solution with Acetone. **2022**, 126, 2788-2796	2
245	Designing advanced liquid electrolytes for alkali metal batteries: principles, progress, and perspectives.	0

244	Oxidative Stabilization of Dilute Ether Electrolytes via Anion Modification. **2022**, 7, 675-682	1
243	An encapsulating lithium-polysulfide electrolyte for practical lithium–sulfur batteries. **2022**,	13
242	Principles and Challenges of Lithium–Sulfur Batteries. **2022**, 1-18	
241	In situ formation of circular and branched oligomers in a localized high concentration electrolyte at the lithium-metal solid electrolyte interphase: a hybrid ab initio and reactive molecular dynamics study. **2022**, 10, 632-639	4
240	Tale of a "Non-interacting" Additive in a Lithium-Ion Electrolyte: Effect on Ionic Speciation and Electrochemical Properties.. **2022**, 126, 2141-2150	
239	Effect of conductivity, viscosity, and density of water-in-salt electrolytes on the electrochemical behavior of supercapacitors: molecular dynamics simulations and in situ characterization studies. **2022**, 3, 611-623	2
238	Lithium-Ion-Conducting Ceramics-Coated Separator for Stable Operation of Lithium Metal-Based Rechargeable Batteries.. **2022**, 15,	1
237	Influence of electrolyte structural evolution on battery applications: Cationic aggregation from dilute to high concentration.	4
236	Progress in electrolyte and interface of hard carbon and graphite anode for sodium-ion battery.	9
235	Lithium Metal and Other Anodes. **2022**, 225-246	
234	A Facile Potential Hold Method for Fostering Inorganic Solid-electrolyte Interphase for Anode-free Lithium-metal Batteries.. **2022**,	5
233	Solvent-Diluent Interaction-Mediated Solvation Structure of Localized High-Concentration Electrolytes.. **2022**,	4
232	Critical Roles of Mechanical Properties of Solid Electrolyte Interphase for Potassium Metal Anodes. 2112399	3
231	Quasi-solid electrolytes with tailored lithium solvation for fast-charging lithium metal batteries. **2022**, 3, 100722	2
230	Challenges, Strategies, and Prospects of the Anode-Free Lithium Metal Batteries. 2100197	2
229	Hierarchical O□rich Co3O4 nanoarray anchored on Ni foam with superior lithiophilicity enabling ultrastable lithium metal batteries. **2022**, 436, 134698	4
228	Stabilized Li metal anode with robust C-Li3N interphase for high energy density batteries. **2022**, 46, 563-569	2
227	Organic-inorganic composite SEI for a stable Li metal anode by in-situ polymerization. **2022**, 95, 106983	9

226	Solid state ionics Selected topics and new directions. **2022**, 126, 100921	2
225	Fluorobenzene diluted low-density electrolyte for high-energy density and high-performance lithium-sulfur batteries. **2022**, 68, 752-761	3
224	??????????????. **2022**,	0
223	Low Temperature Lithium-ion Batteries Electrolytes: Rational Design, Advancements, and Future Perspectives. **2022**, 164163	1
222	Perspectives of ionic covalent organic frameworks for rechargeable batteries. **2022**, 458, 214431	3
221	Stable lithium metal batteries enabled by localized high-concentration electrolytes with sevoflurane as a diluent.	1
220	Controlling Li deposition below the interface. **2022**,	15
219	Electroactive polymeric nanofibrous composite to drive in situ construction of lithiophilic SEI for stable lithium metal anodes. **2022**,	10
218	The pathway toward practical application of lithium-metal anodes for nonaqueous secondary batteries.	2
217	Tailoring the Lithium Solid Electrolyte Interphase for Highly Concentrated Electrolytes with Direct Exposure to Halogenated Solvents. **2022**, 5, 2768-2779	0
216	Importance of Mass Transport in High Energy Density Lithium-Sulfur Batteries Under Lean Electrolyte Conditions.	1
215	ElectrodeElectrolyte Interfacial Chemistry Modulation for Ultra-High Rate Sodium-Ion Batteries.	2
214	Superionicity in Ionic-Liquid-Based Electrolytes Induced by Positive Ion-Ion Correlations.. **2022**,	5
213	From room temperature to harsh temperature applications: Fundamentals and perspectives on electrolytes in zinc metal batteries.. **2022**, 8, eabn5097	24
212	Recent Advances and Strategies toward Polysulfides Shuttle Inhibition for High-Performance Li-S Batteries.. **2022**, e2106004	14
211	Graphene-Based Conductive Networks to Enhance the Performance of Polyimide Anode Materials for Dual-Ion Batteries. **2022**, 7,	0
210	Eutectic Electrolytes Chemistry for Rechargeable Zn Batteries.. **2022**, e2200550	3
209	Polymer-Stabilized Liquid Metal Nanoparticles as a Scalable Current Collector Engineering Approach Enabling Lithium Metal Anodes. **2022**, 5, 3615-3625	0

208	Modification of Nitrate Ion Enables Stable Solid Electrolyte Interphase in Lithium Metal Batteries.. **2022**,	12
207	Electrode-Electrolyte Interfacial Chemistry Modulation for Ultra-High Rate Sodium-Ion Battery.. **2022**,	3
206	Structural regulation chemistry of lithium ion solvation for lithium batteries.	7
205	Influence of Porosity of Sulfide-Based Artificial Solid Electrolyte Interphases on Their Performance with Liquid and Solid Electrolytes in Li and Na Metal Batteries.. **2022**,	1
204	Modification of Nitrate Ion Enables Stable Solid Electrolyte Interphase in Lithium Metal Batteries.	1
203	Sodiophilic Mg -Decorated Ti C MXene for Dendrite-Free Sodium Metal Batteries with Carbonate-Based Electrolytes.. **2022**, e2107637	5
202	Physicochemical properties of Pyr13TFSI-NaTFSI electrolyte for sodium batteries. **2022**, 412, 140123	0
201	A Better Choice to Achieve High Volumetric Energy Density: Anode-Free Lithium Metal Batteries.. **2022**, e2110323	6
200	Fast and Simple Ag/Cu Ion Exchange on Cu Foil for Anode-Free Lithium-Metal Batteries.. **2022**,	2
199	Diffusion Limited Current Density: A Watershed in Electrodeposition of Lithium Metal Anode. 2200244	9
198	Density, speed of sound, and surface tension of binary aqueous solutions containing ammonium based protic ionic liquids. **2022**, 354, 118845	0
197	Mitigating irreversible capacity loss for higher-energy lithium batteries. **2022**, 48, 44-73	1
196	Austen Angell's legacy in electrolyte research. **2022**, 14, 100088	1
195	Understanding the anchoring effect on Li plating with Indium Tin oxide layer functionalized hosts for Li metal anodes. **2022**, 440, 135827	1
194	Morphology Selection Kinetics of Li Sphere via Interface Regulation at High Current Density for Pragmatic Li Metal Batteries. **2022**, 12, 2103503	3
193	BiFeO3 Coupled Polysulfide Trapping in C/S Composite Cathode Material for Li-S Batteries as Large Efficiency and High Rate Performance. **2021**, 14, 8362	1
192	"First-Cycle Effect" of Trace LiS in a High-Performance Sulfur Cathode.. **2021**,	2
191	Remedies to Avoid Failure Mechanisms of Lithium-Metal Anode in Li-Ion Batteries. **2022**, 10, 5	0

190	Silica Nanowires Reinforced with Poly(vinylidene fluoride-co-hexafluoropropylene): Separator for High-Performance Lithium Batteries. **2022**, 8,	0
189	Stable Li-Metal Batteries Enabled by in Situ Gelation of an Electrolyte and In-Built Fluorinated Solid Electrolyte Interface. **2021**,	1
188	Robust, Ultrasmooth Fluorinated Lithium Metal Interphase Feasible via Lithiophilic Graphene Quantum Dots for Dendrite-Less Batteries.. **2022**, e2200919	2
187	Constructing High-performance Quasi-solid-state Sulfur Cathode via the Cooperation of Solid Electrolyte Interface and Selenium-doping.	
186	Stable cycling of high nickel Li-metal batteries with limited Li anode in fluorine rich flame retardant electrolytes. **2022**, 593, 153434	0
185	Nanoscale interface engineering of inorganic Solid-State electrolytes for High-Performance alkali metal batteries.. **2022**, 621, 41-66	1
184	Data_Sheet_1.docx. **2020**,	
183	Table_1.docx. **2018**,	
182	Presentation_1.pdf. **2020**,	
181	Image_1.pdf. **2019**,	
180	Advanced carbon-based nanostructure frameworks for lithium anodes. **2022**, 499-520	
179	The generalized solubility limit approach for vanadium based cathode materials for lithium-ion batteries.	
178	Electrolyte and current collector designs for stable lithium metal anodes. **2022**, 29, 953-964	2
177	Electrolyte measures to prevent polysulfide shuttle in Li-S batteries.	4
176	Drastic Effect of Salt Concentration in Ionic Liquid on Performance of Lithium Sulfur Battery. **2022**, 169, 050515	3
175	Implanting an ion-selective Skin In electrolyte towards high-energy and safe lithium-sulfur battery. **2022**,	2
174	PF-SMOTE: A novel parameter-free SMOTE for imbalanced datasets. **2022**,	1
173	Regulating liquid and solid-state electrolytes for solid-phase conversion in Li S batteries. **2022**, 8, 1201-1230	3

172	Highly sulfur-rich polymeric cathode materials via inverse vulcanization of sulfur for lithium–sulfur batteries. **2022**, 285, 126168	0
171	How do super concentrated electrolytes push the Li-ion batteries and supercapacitors beyond their thermodynamic and electrochemical limits?. **2022**, 98, 107336	2
170	Tetrathiafulvalene as a multifunctional electrolyte additive for simultaneous interface amelioration, electron conduction, and polysulfide redox regulation in lithium-sulfur batteries. **2022**, 536, 231482	0
169	Nitrogen-rich azoles as trifunctional electrolyte additives for high-performance lithium-sulfur battery. **2022**, 71, 572-579	0
168	Track-etched polyimide separator decorated with polyvinylpyrrolidone for self-assembling a robust protective layer on lithium-metal anode. **2022**, 445, 136801	4
167	Mechanistic Insight on the Stability of Ether and Fluorinated Ether Solvent-Based Lithium Bis(fluoromethanesulfonyl) Electrolytes near Li Metal Surface.	1
166	Approaches to Combat the Polysulfide Shuttle Phenomenon in Li–S Battery Technology. **2022**, 8, 45	2
165	Electrochromic devices constructed with water-in-salt electrolyte enabling energy-saving and prolonged optical memory effect. **2022**, 446, 137122	2
164	Li+ Transference Number and Dynamic Ion Correlations in Gylme-Li Salt Solvate Ionic Liquids Diluted with Molecular Solvents.	1
163	??????????????????. **2022**,	
162	Anion Stacking for Improved Lithium Transport in Polymer Electrolytes.	4
161	In-Situ Construction of Ceramic–Polymer All-Solid-State Electrolytes for High-Performance Room-Temperature Lithium Metal Batteries. 1297-1305	0
160	Surface Roughness-Independent Homogeneous Lithium Plating in Synergetic Conditioned Electrolyte. 2219-2227	0
159	A review on recent advancements in solid state lithium-sulphur batteries: Fundamentals, challenges, and perspectives.	1
158	Enhancing Li-Ion Transport in Solid Electrolytes by Confined Water. 2201094	
157	Lithium-Sulfur Battery Diagnostics Through Distribution of Relaxation Times Analysis. **2022**,	5
156	Controlling the Ion Transport Number in Solvent-in-Salt Solutions. **2022**, 126, 4572-4583	
155	Lithium-Sulfur Solid-State Batteries. 267-288	1

154	Advances in Carbon Materials for Sodium and Potassium Storage. 2203117	10
153	Designing Anion-Derived Solid Electrolyte Interphase in a Siloxane-Based Electrolyte for Lithium-Metal Batteries. **2022**, 14, 27873-27881	1
152	Three-dimensional porous framework constructed by hybrid of carbon nanotubes and carbon nanocoils for stable lithium metal anode.	
151	A reaction-dissolution strategy for designing solid electrolyte interphases with stable energetics for lithium metal anodes. **2022**, 100948	3
150	Three-dimensional graphene with charge transfer doping for stable lithium metal anode. **2022**, 918, 116512	
149	Constructing a lithiophilic and mixed conductive interphase layer in electrolyte with dual-anion solvation sheath for stable lithium metal anode. **2022**, 50, 792-801	2
148	Dendrite formation in rechargeable lithium-metal batteries: Phase-field modeling using open-source finite element library. **2022**, 53, 104892	0
147	Prussian blue and its analogues for aqueous energy storage: From fundamentals to advanced devices. **2022**, 50, 618-640	3
146	Study on Fundamental Properties of Solvate Electrolytes and Their Application in Batteries. **2022**,	2
145	Suppression of lithium dendrite growth in lithium-sulfur batteries. **2022**, 261-295	
144	Advances in Understanding and Regulation of Sulfur Conversion Processes in Metal-Sulfur Batteries.	0
143	The key role of concentrated Zn(OTF)2 electrolyte in the performance of aqueous ZnS batteries.	1
142	Regulating Water Activity for Rechargeable Zinc-Ion Batteries: Progress and Perspective. 2515-2530	9
141	Triggering Zn 2+ Unsaturated Hydration Structure via Hydrated Salt Electrolyte for High Voltage and Cycling Stable Rechargeable Aqueous Zn Battery. 2201599	1
140	Pathways towards High-Performance Aqueous Zinc-Organic Batteries.	2
139	The effects of electrolytes, electrolyte/electrode interphase, and binders on lithium-ion batteries at low temperature. **2022**, 100187	2
138	Toward unveiling structure and property relationships from ionic ordering in Li/S battery electrolytes: Neutron total scattering and Molecular dynamics simulations. **2022**,	0
137	Oxygen Reduction Reaction Mechanism in Highly Concentrated Lithium Nitrate-Dimethyl Sulfoxide: Effect of Lithium Nitrate Concentration.	0

136	Non-flammable ultralow concentration mixed ether electrolyte for advanced lithium metal batteries. **2022**, 51, 660-670	1
135	Customized design of electrolytes for high-safety and high-energy-density lithium batteries. **2022**, 100082	
134	Water-in-salt electrolytes □molecular insights to the high solubility of lithium-ion salts. **2022**, 58, 9528-9531	0
133	Advanced Non-Flammable Organic Electrolyte Promises Safer Li Metal Batteries: From Solvation Structure Perspectives. 2206228	1
132	Adjustable Mixed Conductive Interphase for Dendrite-Free Lithium Metal Batteries. **2022**, 16, 13101-13110	2
131	Polysulfide Speciation in Li-S Battery Electrolyte via In-Operando Optical Imaging and Ex-Situ UV-vis Spectra Analysis.	
130	Review on lithium metal anodes towards high energy density batteries. **2022**,	1
129	Extending the low-temperature operation of sodium metal batteries combining linear and cyclic ether-based electrolyte solutions. **2022**, 13,	6
128	Low Concentration Electrolyte Enabling Cryogenic Lithium□Sulfur Batteries. 2205393	4
127	Will lithium-sulfur batteries be the next beyond-lithium ion batteries and even much better?.	1
126	Non-fluorinated non-solvating cosolvent enabling superior performance of lithium metal negative electrode battery. **2022**, 13,	6
125	A High-Voltage Gel Electrolyte with a Low Salt Concentration for Quasi-Solid-State Flexible Supercapacitors. **2022**, 36, 9295-9302	
124	Interfacial engineering on metal anodes in rechargeable batteries. **2022**, 4, 100089	
123	Electrochemical behaviors and electrochemical performances of lithium-selenium battery using selenium/carbon as cathode in different electrolytes. **2022**, 921, 116654	0
122	3D artificial electron and ion conductive pathway enabled by MgH2 nanoparticles supported on g-C3N4 towards dendrite-free Li metal anode. **2022**, 52, 220-229	0
121	Nonflammable, localized high-concentration electrolyte towards a high-safety lithium metal battery. **2022**, 52, 355-364	2
120	Asbestos-functionalized solid polymer electrolyte for uniform Li deposition in lithium metal batteries. **2023**, 451, 138599	
119	Ion Transport Kinetics in Low-Temperature Lithium Metal Batteries. 2202432	2

118	Rational design of electrolyte solvation structure for stable cycling and fast charging lithium metal batteries. **2022**, 548, 232106	1
117	Constructing lithium oxysulfide-rich solid electrolyte interphase to shield polysulfides in practical lithium□sulfur batteries. **2022**, 550, 232144	0
116	Temperature-responsive solid-electrolyte-interphase enabling stable sodium metal batteries in a wide temperature range. **2022**, 103, 107746	4
115	High Ionic Conductivity and Ion Conduction Mechanism in ZIF-8 Based Quasi-Solid-State Electrolytes: a Positron Annihilation and Broadband Dielectric Spectroscopy Study.	0
114	Electrochemical Evaluation of Lithium Metal Batteries Using Separators with Different Pore Sizes. **2022**,	0
113	Unraveling the origin of reductive stability of super-concentrated electrolytes from first principles and unsupervised machine learning.	0
112	Ionic Association of Potassium and Tetrabutylammonium Thiocyanate Salts in Binary Mixtures of □Butyrolactone and N,N-Dimethylacetamide at 298.15 K and 308.15 K. **2022**, 34, 2749-2756	0
111	An Overview of Polymer Based Electrolytes for Li-Ion Battery Applications. **2022**, 225-258	0
110	A Competitive Solvation of Ternary Eutectic Electrolytes Tailoring the Electrode/Electrolyte Interphase for Lithium Metal Batteries. **2022**, 16, 14558-14568	1
109	Hollow amorphous CoS to reversible storage sulfur as cathode of Li□ battery. **2022**, 33, 20479-20486	0
108	Anionic Coordination Manipulation of Multilayer Solvation Structure Electrolyte for High-Rate and Low-Temperature Lithium Metal Battery. 2200621	4
107	Strategies to enhance Li+ transference number in liquid electrolytes for better lithium batteries.	0
106	Tailoring Electrolyte Solvation for LiF-Rich Solid Electrolyte Interphase toward a Stable Li Anode.	4
105	Recent Progress on High-Voltage and Fast-Charge Electrolytes for Lithium-Ion Batteries.	0
104	Applications of magnetic field for electrochemical energy storage. **2022**, 9, 031307	2
103	Preparation and electrochemical properties of hollow carbon spheres/sulfur co-doped with N and O for high-performance lithium-sulfur batteries.	0
102	Organic batteries for a greener rechargeable world.	1
101	The role of concentration in electrolyte solutions for non-aqueous lithium-based batteries. **2022**, 13,	6

100	Ion slippage through Li + -centered G-quadruplex. **2022**, 8,	0
99	Exploring ionic liquid-laden metal-organic framework composite materials as hybrid electrolytes in metal (ion) batteries. 10,	1
98	Tuning the Solvent Alkyl Chain to Tailor Electrolyte Solvation for Stable Li-Metal Batteries. **2022**, 14, 44470-44478	2
97	Ultralean Electrolyte Li-S Battery by Avoiding Gelation Catastrophe.	0
96	Weakening the Solvating Power of Solvents to Encapsulate Lithium Polysulfides Enables Long-Cycling Lithium–Sulfur Batteries. 2205284	2
95	Solvation Structure-Tunable Phase Change Electrolyte for Stable Lithium Metal Batteries. 3761-3769	2
94	Revealing the High Salt Concentration Manipulated Evolution Mechanism on the Lithium Anode in Quasi-Solid-State Lithium-Sulfur Batteries.	0
93	Lithiophilic Aromatic Sites and Porosity of COFs for a Stable Lithium Metal Anode.	0
92	Revealing the High Salt Concentration Manipulated Evolution Mechanism on the Lithium Anode in Quasi-Solid-State Lithium-Sulfur Batteries.	1
91	Electrolyte Solvation and Ionic Association: Part IX. Structures and Raman Spectroscopic Characterization of LiFSI Solvates.	0
90	Electrode potential influences the reversibility of lithium-metal anodes.	5
89	Concentrated ternary ether electrolyte allows for stable cycling of a lithium metal battery with commercial mass loading high-nickel NMC and thin anodes.	1
88	Fluorinated Strategies Among All-Solid-State Lithium Metal Batteries from Microperspective. 2200122	2
87	Temperature Dependency of Ion Transport in Highly Concentrated Li Salt/Sulfolane Electrolyte Solutions.	2
86	From Lithium to Emerging Mono- and Multivalent- Cations Based Rechargeable Batteries: Non-aqueous Organic Electrolyte and Interphase Perspective.	1
85	Rubber-Derived Sulfur Composite as a High Capacity Anode for Li-ion Battery Using 5 V-Class LiNi_{0.5}Mn_{1.5}O₄ Cathode. **2022**,	0
84	Separators with reactive metal oxide coatings for dendrite-free lithium metal anodes. **2023**, 555, 232336	0
83	Porosity vs. Carbon Shell Number: Key Factor Actually Affecting the Performance of Multi-shelled Hollow Carbon Nanospheres in Li-S Batteries. **2022**, 116980	0

82	Prospects of LLZO type solid electrolyte: from material design to battery application. **2022**, 140375	0
81	Molecular/ionic Designs in the Electrolyte and Interphases for Lithium Metal Anode.	0
80	Structural and Chemical Evolutions of Li/Electrolyte Interfaces in Li-Metal Batteries: Tracing Compositional Changes of Electrolytes under Practical Conditions. 2204812	0
79	A high-loading and cycle-stable solid-phase conversion sulfur cathode using edible fungus slag-derived microporous carbon as sulfur host.	0
78	Effects of the electrolyte concentration on the nature of the SEI of a lithium metal electrode.	0
77	A highly conductive gel electrolyte with favorable ion transfer channels for long-lived zinc□bdine batteries.	1
76	Modified lithium metal anode via anions-planting protection mechanisms for dendrite-free long-life lithium metal batteries.	0
75	From sparingly solvating to weakly solvating: Fine electrolyte regulation for lean-electrolyte Li-SeS2 batteries. **2023**, 55, 272-278	0
74	Localized high-concentration electrolyte enabled by a novel ester diluent for lithium metal batteries.	0
73	Stable Na-organosulfide batteries enabled by an in-situ constructed protective interphase. **2022**, 140562	1
72	An Inorganic-Dominate Molecular Diluent Enables Safe Localized High Concentration Electrolyte for High-Voltage Lithium-Metal Batteries. 2209725	1
71	Structurally Tailored Hierarchical Cu Current Collector with Selective Inward Growth of Lithium for High-Performance Lithium Metal Batteries. 2202321	0
70	Spectroscopic investigations of solvent assisted Li-ion transport decoupled from polymer in a gel polymer electrolyte. **2022**, 121, 223903	0
69	Magnetoelectric Coupling for Metal□Air Batteries. 2210127	0
68	Concentrated Electrolytes for Rechargeable Lithium Metal Batteries.	0
67	Progress and perspective on rechargeable magnesium-ion batteries.	0
66	LiTFSI salt concentration effect to digest lithium polysulfides for high-loading sulfur electrodes. **2022**,	0
65	Defect-Rich Hierarchical Porous Mn-Doped CoP Hollow Microspheres Accelerate Polysulfide Conversion. 2211124	0

64	Recent Progress on the Performance of Zn-Ion Battery Using Various Electrolyte Salt and Solvent Concentrations.	0
63	The origin of anode-electrolyte interfacial passivation in rechargeable Mg-metal batteries.	0
62	Protecting lithium metal anodes in lithium–sulfur batteries: A review. **2023**, 4,	0
61	Facile Li + Transport in Interpenetrating O- and F-Containing Polymer Networks for Solid-State Lithium Batteries. 2213469	0
60	Ionic Conduction Mechanism in High Concentration Lithium Ion Electrolytes.	0
59	Does Li-ion transport occur rapidly in localized high-concentration electrolytes?.	0
58	Electrochemical Reactivation of Dead Li2S for Li-S Batteries in Non-Solvating Electrolytes.	0
57	Dual-Salt Localized High-Concentration Electrolyte for Long Cycle Life Silicon-Based Lithium-Ion Batteries. **2023**, 15, 3586-3598	0
56	High-stable nonflammable electrolyte regulated by coordination-number rule for all-climate and safer lithium-ion batteries. **2023**, 55, 836-846	1
55	Electrochemical Reactivation of Dead Li2S for Li-S Batteries in Non-Solvating Electrolytes.	0
54	Suppressing the Shuttle Effects with FeCo/SPAN Cathodes and High-Concentration Electrolytes for High-Performance Lithium–Sulfur Batteries.	0
53	A 3D multifunctional host anode from commercial carbon cloth for lithium metal batteries.	0
52	N, P-co-doped three-dimensional porous carbon nanocomposites for lithium–sulfur batteries. **2023**,	0
51	A review on lithium-sulfur batteries: Challenge, development, and perspective.	0
50	On enhancing the Li-ion conductivity of quasi-solid-state electrolytes by suppressing the flexibility of zeolitic imidazolate framework-8 via a mixed ligand strategy.	0
49	Long-cycling High-voltage Lithium Metal Batteries Enabled by Anion-concentrated Plastic Crystal Electrolytes. **2023**, 141382	0
48	Double sites doping local chemistry Adjustment: A Multiple-Layer oriented P2-Type cathode with Long-life and Water/Air stability for sodium ion batteries. **2023**, 458, 141384	0
47	Construct a porous carbon structure 3D-NOPC doped with N and O as the sulfur main body for durable lithium-sulfur batteries. **2023**, 441, 141857	0

46	Building Better Lithium-Sulfur Batteries: A Reassessment of the Working Mechanism.	0
45	Structure–Dynamics Interrelation Governing Charge Transport in Cosolvated Acetonitrile/LiTFSI Solutions. **2023**, 127, 308-320	0
44	Progress and Prospect of Practical Lithium-Sulfur Batteries Based on Solid-Phase Conversion. **2023**, 9, 27	0
43	Direct Correlation between Short-Range Vibrational Spectral Diffusion and Localized Ion-Cage Dynamics of Water-in-Salt Electrolytes. **2023**, 127, 236-248	0
42	A Comprehensive Formulation of Aqueous Electrolytes for Low-Temperature Supercapacitors.	0
41	Unveiling the dynamic Li+–solvent interaction evolution in lithium metal batteries.	0
40	Localized Recrystallization of a Lithium-Metal Anode during Fast Stripping in High-Activity Liquid Electrolytes. **2023**, 15, 6639-6646	0
39	Molecular-Level Insight into Charge Carrier Transport and Speciation in Solid Polymer Electrolytes by Chemically Tuning Both Polymer and Lithium Salt. **2023**, 127, 1955-1964	0
38	On the concentration polarisation in molten Li salts and borate-based Li ionic liquids.	0
37	Quantitative Chemistry in Electrolyte Solvation Design for Aqueous Batteries. **2023**, 8, 1076-1095	1
36	A Review of Solid Electrolyte Interphase (SEI) and Dendrite Formation in Lithium Batteries. **2023**, 6,	0
35	Ultrafast Charging of a 4.8 V Manganese-Rich Cathode-Based Lithium Metal Cell by Constructing Robust Solid Electrolyte Interphases.	0
34	Three-dimensional experimental-scale phase-field modeling of dendrite formation in rechargeable lithium-metal batteries. **2023**, 62, 106854	0
33	Utilizing the capacity below 0 V to maximize lithium storage of hard carbon anodes. **2023**, 83, 169-177	0
32	An Amphiphilic Molecule-Regulated Core-Shell-Solvation Electrolyte for Li-Metal Batteries at Ultra-Low Temperature. **2023**, 62,	0
31	An Amphiphilic Molecule-Regulated Core-Shell-Solvation Electrolyte for Li-Metal Batteries at Ultra-Low Temperature. **2023**, 135,	0
30	Liquid electrolytes for low-temperature lithium batteries: main limitations, current advances, and future perspectives. **2023**, 56, 642-663	0
29	In situ formation of stable solid electrolyte interphase with high ionic conductivity for long lifespan all-solid-state lithium metal batteries. **2023**, 57, 1-13	0

28	Investigation of the Impact of High Concentration LiTFSI Electrolytes on Silicon Anodes with Reactive Force Field Simulations. **2023**, 3, 132-158	0
27	High-performance, printable quasi-solid-state electrolytes toward all 3D direct ink writing of shape-versatile Li-ion batteries. **2023**, 57, 277-288	0
26	Recent progress in electrolyte design for advanced lithium metal batteries.	0
25	All-fluorinated electrolyte directly tuned Li+ solvation sheath enabling high-quality passivated interfaces for robust Li metal battery under high voltage operation. **2023**, 57, 249-259	0
24	Ion Transport in Glyme- and Sulfolane-Based Highly Concentrated Electrolytes.	0
23	Poly(Ether-Ester)-Based Solid Polymer Electrolytes with High Li-Ion Transference Number for High Voltage All-Solid-State Lithium Metal Batteries. **2023**, 6, 3113-3125	0
22	(Localized) Highly Concentrated Electrolytes for Calcium Batteries.	0
21	Realizing a □solid to solid□process via in situ cathode electrolyte interface (CEI) by solvent-in-salt electrolyte for Li-S batteries.	0
20	Electrochemical Impedance Spectroscopy for Electrode Process Evaluation: Lithium Titanium Phosphate in Concentrated Aqueous Electrolyte.	0
19	Anion-enrichment interface enables high-voltage anode-free lithium metal batteries. **2023**, 14,	0
18	Li-growth and SEI engineering for anode-free Li-metal rechargeable batteries: A review of current advances. **2023**, 57, 508-539	0
17	Towards safe lithium-sulfur batteries from liquid-state electrolyte to solid-state electrolyte. **2023**, 17,	0
16	Beyond conventional aqueous electrolytes: Recent developments in Li-free □water-in-salt□ electrolytes for supercapacitors.	0
15	Design of Localized High-Concentration Electrolytes via Donor Number. **2023**, 8, 1723-1734	0
14	Lithium salt-regulated dual-stabilized elastomeric quasi-solid electrolyte for high-voltage lithium metal batteries. **2023**, 11, 8308-8319	0
13	Characterizing the Impact of Mg-Doped Li Metal Anode and Excess Electrons on High Concentration Electrolyte Interfacial Stability: A Theoretical Study. **2023**, 6, 3291-3300	0
12	Theory of Cation Solvation and Ionic Association in Nonaqueous Solvent Mixtures. **2023**, 2,	0
11	Nanoarchitecture factors of solid electrolyte interphase formation via 3D nano-rheology microscopy and surface force-distance spectroscopy. **2023**, 14,	0

10	Ultrathin Lithiophilic 3D Arrayed Skeleton Enabling Spatial-Selection Deposition for Dendrite-Free Lithium Anodes.	0
9	Evaluation of Glyoxal-Based Electrolytes for Lithium-Sulfur Batteries. **2023**, 9, 210	0
8	Rapid Solution Synthesis of Argyrodite-Type Li6PS5X (X = Cl, Br, and I) Solid Electrolytes Using Excess Sulfur. **2023**, 62, 6076-6083	0
7	Discharge Behavior within Lithium□Sulfur Batteries Using Li□Glyme Solvate Ionic Liquids. **2023**, 127, 6645-6654	0
6	Optimized Pinecone-Squama-Structure MoS2-Coated CNT and Graphene Framework as Binder-Free Anode for Li-Ion Battery with High Capacity and Cycling Stability. **2023**, 16, 3218	0
5	Electrolyte solvation chemistry to construct an anion-tuned interphase for stable high-temperature lithium metal batteries. **2023**, 100135	0
4	Synergistic Effects of FeCo Bimetallic Single-Atom Catalysts: Accelerating the Redox Conversion of Polysulfides and Inhibiting the Growth of Lithium Dendrites in Lithium□Sulfur Batteries. **2023**, 6, 4671-4682	0
3	Conversion reaction lithium metal batteries.	0
2	Structure□Property Correlations in Aqueous Binary Na+/K+□CH3COO□Highly Concentrated Electrolytes.	0
1	Three-dimensional heterogeneity in liquid electrolyte structures promotes Na ion transport and storage performance in Na-ion batteries.	0