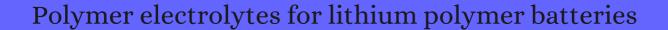
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899	AI-Assisted Exploration of Superionic Glass-Type Li+ Conductors with Aromatic Structures.		
898	A Novel Single-Ion-Conducting Polymer Electrolyte Derived from CO-Based Multifunctional Polycarbonate. 2016 , 8, 33642-33648		65
897	Dielectric and electrical properties of PEOAl2O3 nanocomposites. 2017, 701, 652-659		51
896	Lithium ion conductivity and dielectric properties of P(VdCl-co-AN-co-MMA)-LiCl-EC triblock co-polymer electrolytes. 2017 , 23, 2663-2668		6
895	Role of polar side chains in Li coordination and transport properties of polyoxetane-based polymer electrolytes. 2017 , 19, 5185-5194		13
894	Dendrite-Free, High-Rate, Long-Life Lithium Metal Batteries with a 3D Cross-Linked Network Polymer Electrolyte. 2017 , 29, 1604460		461
893	Unraveling the Agglomeration Mechanism in Charged Block Copolymer and Surfactant Complexes. 2017 , 50, 1193-1205		23
892	Electrolyte design strategies and research progress for room-temperature sodium-ion batteries. 2017 , 10, 1075-1101		320
891	Organic Ionic Plastic Crystal-Based Composite Electrolyte with Surface Enhanced Ion Transport and Its Use in All-Solid-State Lithium Batteries. 2017 , 2, 1700046		31
890	Recent advances in MoS 2 nanostructured materials for energy and environmental applications 🖪 review. 2017 , 252, 43-71		171
889	Optimization of the transport and mechanical properties of polysiloxane/polyether hybrid polymer electrolytes. 2017 , 241, 477-486		8
888	Effect of intercalated and exfoliated montmorillonite clay on the structural, dielectric and electrical properties of plasticized nanocomposite solid polymer electrolytes. 2017 , 5, 1-7		36
887	A review on cellulose and lignin based binders and electrodes: Small steps towards a sustainable lithium ion battery. 2017 , 103, 1032-1043		89
886	A Sandwich PVDF/HEC/PVDF Gel Polymer Electrolyte for Lithium Ion Battery. 2017, 245, 752-759		100
885	2D boron nitride nanoflakes as a multifunctional additive in gel polymer electrolytes for safe, long cycle life and high rate lithium metal batteries. 2017 , 10, 1911-1916		204
884	Network type sp3 boron-based single-ion conducting polymer electrolytes for lithium ion batteries. 2017 , 360, 98-105		45
883	Electrical and complex dielectric behaviour of composite polymer electrolyte based on PEO, alumina and tetrapropylammonium iodide. 2017 , 23, 1711-1719		21

(2017-2017)

882	A new Na[(FSO2)(n-C4F9SO2)N]-based polymer electrolyte for solid-state sodium batteries. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 7738-7743	13	55
881	Dendrite Suppression by Synergistic Combination of Solid Polymer Electrolyte Crosslinked with Natural Terpenes and Lithium-Powder Anode for Lithium-Metal Batteries. 2017 , 10, 2274-2283		38
88o	High ion-conducting solid polymer electrolytes based on blending hybrids derived from monoamine and diamine polyethers for lithium solid-state batteries. 2017 , 7, 20373-20383		12
879	One-Dimensional Glass Micro-Fillers in Gel Polymer Electrolytes for Li-O2 Battery Applications. 2017 , 235, 56-63		21
878	Fire retardant, superionic solid state polymer electrolyte membranes for lithium ion batteries. 2017 , 15, 68-75		24
877	Single lithium-ion conducting poly(tetrafluorostyrene sulfonate) [polyether block copolymer electrolytes. 2017 , 8, 785-794		40
876	Superior Blends Solid Polymer Electrolyte with Integrated Hierarchical Architectures for All-Solid-State Lithium-Ion Batteries. 2017 , 9, 36886-36896		78
875	Comb-like solid polymer electrolyte based on polyethylene glycol-grafted sulfonated polyether ether ketone. 2017 , 255, 396-404		43
874	Facile Synthesis of Unique Cellulose Triacetate Based Flexible and High Performance Gel Polymer Electrolyte for Lithium Ion Batteries. 2017 , 9, 34773-34782		40
873	In Situ Synthesis of Imidazolium-Crosslinked Ionogels via Debus-Radziszewski Reaction Based on PAMAM Dendrimers in Imidazolium Ionic liquid. 2017 , 38, 1700415		16
872	Electrochemical performance of all-solid-state lithium batteries using inorganic lithium garnets particulate reinforced PEO/LiClO4 electrolyte. 2017 , 253, 430-438		99
871	Structural and dielectric properties of NaIO 4 © Complexed PEO/PVP blended solid polymer electrolytes. 2017 , 17, 1518-1531		52
870	Solid polymer electrolyte based on waterborne polyurethane for all-solid-state lithium ion batteries. 2017 , 134, 45554		17
869	Preparation of Poly(vinylidene fluoride) Lithium-Ion Battery Separators and Their Compatibilization with Ionic Liquid IA Green Solvent Approach. 2017 , 2, 5394-5402		23
868	An Experimental Magnesium Ion Battery Cell Made of Flexible Materials. 2017,		1
867	Impedance Spectroscopy Analysis of the Lithium Ion Transport through the Li7La3Zr2O12/P(EO)20Li Interface. 2017 , 164, A2298-A2303		43
866	Effect of temperature on electrochemical performance of ionic liquid based polymer electrolyte with Li/LiFePO4 electrodes. 2017 , 309, 192-199		41
865	Dielectric and electrical characterization of (PEOPMMA) LiBF4EC plasticized solid polymer electrolyte films. 2017 , 24, 1		22

864	Steric effect on Li+ coordination and transport properties in polyoxetane-based polymer electrolytes bearing nitrile groups. 2017 , 7, 37975-37982	14
863	Crosslinked electrospun poly(vinylidene difluoride) fiber mat as a matrix of gel polymer electrolyte for fast-charging lithium-ion battery. 2017 , 258, 1329-1335	37
862	Anion Exchange Membranes: Enhancement by Addition of Unfunctionalized Triptycene Poly(Ether Sulfone)s. 2017 , 9, 42409-42414	46
861	Solid polymer electrolyte based on ionic bond or covalent bond functionalized silica nanoparticles. 2017 , 7, 54986-54994	18
860	Method of Measuring Salt Transference Numbers in Ion-Selective Membranes. 2017 , 164, A2940-A2947	10
859	Effects of different inorganic nanoparticles on the structural, dielectric and ion transportation properties of polymers blend based nanocomposite solid polymer electrolytes. 2017 , 247, 924-941	80
858	Flexible and free-standing LiFePO4/TPU/SP cathode membrane prepared via phase separation process for lithium ion batteries. 2017 , 541, 633-640	20
857	Ionic conductivity, ionic transport and electrochemical characterizations of plastic crystal polymer electrolytes. 2017 , 23, 265-273	4
856	Natural halloysite nano-clay electrolyte for advanced all-solid-state lithium-sulfur batteries. 2017 , 31, 478-485	208
855	Nanostructure PEO-Silica Hybrids: A New Class of Additive Material for Composite Polymer Electrolytes. 2017 , 2, 12019-12027	2
854	FTIR Spectroscopic and DC Ionic conductivity Studies of PVDF-HFP: LiBF4: EC Plasticized Polymer Electrolyte Membrane. 2017 , 225, 012049	6
853	Incorporating allylated lignin-derivatives in thiol-ene gel-polymer electrolytes. 2018, 113, 1041-1051	35
852	Advances in the Synthesis and Application of Tetrafluoroethylene- and 1,1,2,2-Tetrafluoroethyl-Containing Compounds. 2018 , 2018, 3554-3593	17
851	Development of poly(glycerol suberate) polyester (PGS) P VA blend polymer electrolytes with NH4SCN and its application. 2018 , 24, 1979-1993	13
850	Ion Conduction, Dielectric and Mechanical Properties of Epoxy-Based Solid Polymer Electrolytes Containing Succinonitrile. 2018 , 26, 459-465	15
849	High Ion-Conducting Solid-State Composite Electrolytes with Carbon Quantum Dot Nanofillers. 2018 , 5, 1700996	94
848	An Artificial Lithium Protective Layer that Enables the Use of Acetonitrile-Based Electrolytes in Lithium Metal Batteries. 2018 , 57, 5072-5075	82
847	Solid electrolyte based on waterborne polyurethane and poly(ethylene oxide) blend polymer for all-solid-state lithium ion batteries. 2018 , 320, 55-63	41

(2018-2018)

846	An Artificial Lithium Protective Layer that Enables the Use of Acetonitrile-Based Electrolytes in Lithium Metal Batteries. 2018 , 130, 5166-5169	14
845	Interfaces and Materials in Lithium Ion Batteries: Challenges for Theoretical Electrochemistry. 2018 , 376, 16	58
844	Design Strategies, Practical Considerations, and New Solution Processes of Sulfide Solid Electrolytes for All-Solid-State Batteries. 2018 , 8, 1800035	269
843	Nano-SiO2-embedded poly(propylene carbonate)-based composite gel polymer electrolyte for lithiumBulfur batteries. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 9539-9549	49
842	MgBO Nanowire Enabled Multifunctional Solid-State Electrolytes with High Ionic Conductivity, Excellent Mechanical Properties, and Flame-Retardant Performance. 2018 , 18, 3104-3112	157
841	Polycarbonate-based polyurethane as a polymer electrolyte matrix for all-solid-state lithium batteries. 2018 , 389, 84-92	51
840	Nonflammable and thermally stable gel polymer electrolytes based on crosslinked perfluoropolyether (PFPE) network for lithium battery applications. 2018 , 64, 453-460	12
839	Developing lithiated polyvinyl formal based single-ion conductor membrane with a significantly improved ionic conductivity as solid-state electrolyte for batteries. 2018 , 552, 349-356	24
838	Solid-State Sodium Batteries. 2018 , 8, 1703012	275
837	A conceptual review on polymer electrolytes and ion transport models. 2018, 3, 1-17	260
836	Polyethylene glycol-based waterborne polyurethane as solid polymer electrolyte for all-solid-state lithium ion batteries. 2018 , 142, 221-228	24
835	Recent Progress of the Solid-State Electrolytes for High-Energy Metal-Based Batteries. 2018 , 8, 1702657	577
834	Effect of polar aprotic solvents on hydroxyethyl cellulose-based gel polymer electrolyte. 2018 , 24, 1955-1964	16
833	Ionic liquids and derived materials for lithium and sodium batteries. 2018 , 47, 2020-2064	297
832	Building Ion-Conduction Highways in Polymeric Electrolytes by Manipulating Protein Configuration. 2018 , 10, 4726-4736	19
831	Challenges in Developing Electrodes, Electrolytes, and Diagnostics Tools to Understand and Advance Sodium-Ion Batteries. 2018 , 8, 1702403	164
830	Minimization of Ion-Solvent Clusters in Gel Electrolytes Containing Graphene Oxide Quantum Dots for Lithium-Ion Batteries. 2018 , 14, e1703571	34
829	Effect of the soft and hard segment composition on the properties of waterborne polyurethane-based solid polymer electrolyte for lithium ion batteries. 2018 , 22, 1109-1121	22

828	PEO/garnet composite electrolytes for solid-state lithium batteries: From 🛭 eramic-in-polymer 🗈 bolymer-in-ceramic 🗆 2018, 46, 176-184	672
827	Design Principles of Functional Polymer Separators for High-Energy, Metal-Based Batteries. 2018 , 14, e1703001	111
826	Gel polymer electrolytes for lithium ion batteries: Fabrication, characterization and performance. 2018 , 318, 2-18	110
825	Electrospun-sodiumtetrafluoroborate-polyethylene oxide membranes for solvent-free sodium ion transport in solid state sodium ion batteries. 2018 , 378, 610-617	32
824	Ion Conduction and Viscoelastic Response of Epoxy-Based Solid Polymer Electrolytes Containing Solvating Plastic Crystal Plasticizer. 2018 , 219, 1700514	16
823	Screening polyethylene oxide-based composite polymer electrolytes via combining effective medium theory and Halpin-Tsai model. 2018 , 144, 338-344	14
822	Noncovalent Approach to Liquid-Crystalline Ion Conductors: High-Rate Performances and Room-Temperature Operation for Li-Ion Batteries. 2018 , 3, 159-166	19
821	Highly conducting blend hybrid electrolytes based on amine ended block copolymers and organosilane with in-situ formed silica particles for lithium-ion batteries. 2018 , 390, 1-12	6
820	Electrochemical study of Ionic Liquid based polymer electrolyte with graphene oxide coated LiFePO4 cathode for Li battery. 2018 , 320, 186-192	28
819	Leveraging Molecular Architecture To Design New, All-Polymer Solid Electrolytes with Simultaneous Enhancement in Modulus and Ionic Conductivity. 2018 , 51, 2542-2550	32
818	Ionic conductivity and relaxation studies in PVDF-HFP:PMMA-based gel polymer blend electrolyte with LiClO4 salt. 2018 , 08, 1850005	32
817	Polymeric Ionic Liquid-poly(ethylene glycol) Composite Polymer Electrolytes for High-Temperature Lithium-Ion Batteries. 2018 , 5, 328-334	13
816	Ordered mesogenic units-containing hyperbranched star liquid crystal all-solid-state polymer electrolyte for high-safety lithium-ion batteries. 2018 , 259, 213-224	24
815	Polyethylene-supported ultra-thin polyvinylidene fluoride/hydroxyethyl cellulose blended polymer electrolyte for 5 V high voltage lithium ion batteries. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 1496-150 3^{3}	32
814	Comparing Soft Semicrystalline Polymer Nanocomposites Reinforced with Cellulose Nanocrystals and Fumed Silica. 2018 , 57, 220-230	14
813	A gel single ion conducting polymer electrolyte enables durable and safe lithium ion batteries graft polymerization 2018 , 8, 39967-39975	27
812	Creating ionic channels in single-ion conducting solid polymer electrolyte by manipulating phase separation structure. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 24848-24859	21
811	Multifunctional structural polymer electrolytes via interpenetrating truss structures. 2018 , 1, 015005	6

810	Conducting properties of nanocomposite polymer electrolytes based on polyethylene glycol diacrylate and SiO2 nanoparticles at the interface with a lithium electrode. 2018 , 67, 1648-1654	6
809	Electrospun Li(TFSI)@Polyethylene Oxide Membranes as Solid Electrolytes. 2018, 644, 1863-1874	13
808	Gel Polymer Electrolytes Based on Silica-Added Poly(ethylene oxide) Electrospun Membranes for Lithium Batteries. 2018 , 8,	3
807	Influence of Al2O3 Nanowires on Ion Transport in Nanocomposite Solid Polymer Electrolytes. 2018 , 51, 10194-10201	23
806	Separator Membranes for High Energy-Density Batteries. 2018 , 5, 346-371	16
805	Conductivity and dielectric behavior of lithium ion conducting gel polymer electrolyte. 2018,	
804	Highly porous single ion conducting polymer electrolyte for advanced lithium-ion batteries via facile water-induced phase separation process. 2018 , 568, 22-29	30
803	Graphene/transition metal dichalcogenides hybrid supercapacitor electrode: status, challenges, and perspectives. 2018 , 29, 502001	30
802	Nano-sized oxide filled composite PEO/PMMA/P(VDF-HFP) gel polymer electrolyte for rechargeable lithium and sodium batteries. 2018 , 326, 136-144	20
801	From Nature to Energy Storage: A Novel Sustainable 3D Cross-Linked Chitosan-PEGGE-Based Gel Polymer Electrolyte with Excellent Lithium-Ion Transport Properties for Lithium Batteries. 2018 , 10, 38526-38.	5 3 9
800	Enhancement of Plasticizing Effect on Bio-Based Polyurethane Acrylate Solid Polymer Electrolyte and Its Properties. 2018 , 10,	15
799	Hybrid Solid Polymer Electrolytes with Two-Dimensional Inorganic Nanofillers. 2018 , 24, 18180-18203	19
798	Multifunctional Epoxy-Based Solid Polymer Electrolytes for Solid-State Supercapacitors. 2018, 10, 35108-3511	7 39
797	Future Perspectives. 2018, 349-361	
796	Polymer lithium-garnet interphase for an all-solid-state rechargeable battery. 2018 , 53, 926-931	69
795	Flexible solid-like electrolytes with ultrahigh conductivity and their applications in all-solid-state supercapacitors 2018 , 8, 30239-30247	7
794	Six-arm star polymer based on discotic liquid crystal as high performance all-solid-state polymer electrolyte for lithium-ion batteries. 2018 , 395, 137-147	29
793	A study on the interfacial stability of the cathode/polycarbonate interface: implication of overcharge and transition metal redox. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 11846-11852	22

792	Progress and future prospects of high-voltage and high-safety electrolytes in advanced lithium batteries: from liquid to solid electrolytes. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 11631-11663	166
791	Electrochemical performance of Li+-ion conducting solid polymer electrolytes based on PEOPMMA blend matrix incorporated with various inorganic nanoparticles for the lithium ion batteries. 2018 , 10, 11-17	45
790	A Functional Separator Coated with Sulfonated Poly(Styrene-ethylene-butylene-styrene) to Synergistically Enhance the Electrochemical Performance and Anti-Self-Discharge Behavior of Liß Batteries. 2018 , 1, 2555-2564	15
789	Photoinduced Controlled Radical Polymerizations Performed in Flow: Methods, Products, and Opportunities. 2018 , 30, 3931-3942	51
788	A solid polymer electrolyte based on star-like hyperbranched Eyclodextrin for all-solid-state sodium batteries. 2018 , 399, 363-371	28
787	Studies on sodium nitrate based polyethylene oxide / polyvinyl pyrrolidone polymer blend electrolytes. 2018 , 547, 55-63	21
786	Study of time-ageing effect on the ionic conduction and structural dynamics in solid polymer electrolytes by dielectric relaxation spectroscopy. 2018 , 324, 247-259	25
7 ⁸ 5	Polymer nanocomposites for lithium battery applications. 2018 , 283-313	4
784	Porous polymer electrolyte based on poly(vinylidene fluoride)/comb-liked polystyrene via ionic band functionalization. 2018 , 564, 663-671	23
783	Insight into lithium-ion mobility in Li2La(TaTi)O7. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 22152-22160 ₁₃	11
782	Crosslinked Poly(tetrahydrofuran) as a Loosely Coordinating Polymer Electrolyte. 2018, 8, 1800703	95
781	Polymer nanocomposite materials in energy storage: Properties and applications. 2018, 239-282	5
780	High-Performance All-Solid-State Polymer Electrolyte with Controllable Conductivity Pathway Formed by Self-Assembly of Reactive Discogen and Immobilized via a Facile Photopolymerization for a Lithium-Ion Battery. 2018 , 10, 25273-25284	38
779	Polyethylene oxide (PEO) Liquid crystal (E8) composite electrolyte membranes: Microstructural, electrical conductivity and dielectric studies. 2018 , 499, 107-116	6
778	Robust Succinonitrile-Based Gel Polymer Electrolyte for Lithium-Ion Batteries Withstanding Mechanical Folding and High Temperature. 2018 , 10, 25384-25392	29
777	Single lithium-ion polymer electrolytes based on poly(ionic liquid)s for lithium-ion batteries. 2018 , 14, 6313-6319	29
776	Hybrid electrolytes for lithium metal batteries. 2018 , 392, 206-225	125
775	High-Strength Internal Cross-Linking Bacterial Cellulose-Network-Based Gel Polymer Electrolyte for Dendrite-Suppressing and High-Rate Lithium Batteries. 2018 , 10, 17809-17819	84

774	Electrochemical Characterization of Single Lithium-Ion Conducting Polymer Electrolytes Based on sp Boron and Poly(ethylene glycol) Bridges. 2018 , 10, 30247-30256	23
773	Electrochemical Analysis of Mechanically Flexible Magnesiumion Battery Electrodes in a Polymer Gel Perchlorate Electrolyte. 2018 ,	
772	Understanding the Mechanism for Capacity Decay of VO-Based Lithium-Metal Polymer Batteries. 2018 , 10, 29667-29674	2
771	Solid-Liquid Lithium Electrolyte Nanocomposites Derived from Porous Molecular Cages. 2018, 140, 7504-750	9 ₂ 8
770	Confining electrodeposition of metals in structured electrolytes. 2018 , 115, 6620-6625	42
769	Electrochemical-mechanical modeling of solid polymer electrolytes: Stress development and non-uniform electric current density in trench geometry microbatteries. 2019 , 296, 1142-1162	25
768	Solution-processable electrochromic materials and devices: roadblocks and strategies towards large-scale applications. 2019 , 7, 12761-12789	75
767	Recent Progress in Covalent Organic Frameworks as Solid-State Ion Conductors. 2019 , 1, 327-335	36
766	Mechanical and sodium ion conductivity properties of graphene oxidelincorporated nanocomposite polymer electrolyte membranes. 2019 , 23, 2707-2722	6
765	A single-ion conducting polymer electrolyte based on poly(lithium 4-styrenesulfonate) for high-performance lithium metal batteries. 2019 , 341, 115048	18
764	Atomically Intimate Contact between Solid Electrolytes and Electrodes for Li Batteries. 2019, 1, 1001-1016	27
763	Recent advances on separator membranes for lithium-ion battery applications: From porous membranes to solid electrolytes. 2019 , 22, 346-375	127
762	Charge Delocalization on BO4ICenters to Improve Conductivity on Single Lithium Ion Conducting Polymer Electrolytes: A Computational/Experimental Approach. 2019 , 123, 17686-17694	22
761	Stabilizing polymer electrolytes in high-voltage lithium batteries. 2019 , 10, 3091	63
760	Dielectric relaxation and AC conductivity of TiO2 nanofiller dispersed polymer nanocomposite. 2019 ,	
759	Polyhedral Oligomeric Silsesquioxane Hybrid Polymers: Well-Defined Architectural Design and Potential Functional Applications. 2019 , 40, e1900101	41
758	Flexible solvent-free supercapacitors with high energy density enabled by electrical-ionic hybrid polymer nanocomposites. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 16748-16760	12
757	Development of gel polymer electrolyte based on LiTFSI and EMIMFSI for application in rechargeable lithium metal battery with GO-LFP and NCA cathodes. 2019 , 23, 2507-2518	16

756	Three-Dimensional Garnet Framework-Reinforced Solid Composite Electrolytes with High Lithium-Ion Conductivity and Excellent Stability. 2019 , 11, 26920-26927	52
755	Confining Hyperbranched Star Poly(ethylene oxide)-Based Polymer into a 3D Interpenetrating Network for a High-Performance All-Solid-State Polymer Electrolyte. 2019 , 11, 43146-43155	25
754	Overcoming the Challenges of 5 V Spinel LiNi0.5Mn1.5O4 Cathodes with Solid Polymer Electrolytes. 2019 , 4, 2871-2886	66
753	Surface Reconstruction Limited Conductivity in Block-Copolymer Li Battery Electrolytes. 2019 , 29, 1905977	11
752	Salt concentration and temperature dependent dielectric properties of blend solid polymer electrolyte complexed with NaPF6. 2019 , 12, 554-564	12
751	Electrochemistry of Rechargeable Batteries Beyond Lithium-Based Systems. 2019 , 1-66	
750	Periodic Polyethylene Sulfonates from Polyesterification: Bulk and Nanoparticle Morphologies and Ionic Conductivities. 2019 , 52, 8466-8475	13
749	From Local to Diffusive Dynamics in Polymer Electrolytes: NMR Studies on Coupling of Polymer and Ion Dynamics across Length and Time Scales. 2019 , 52, 9128-9139	8
748	Polymer Electrolytes for LIBs Based on Perfluorinated Sulfocationic Nepem-117 Membrane and Aprotic Solvents. 2019 , 123, 10217-10223	7
747	Microphase separation of poly(propylene monothiocarbonate)-b-poly(ethylene oxide) block copolymers induced by differential interactions with salt. 2019 , 180, 121745	7
746	Poly(vinylene carbonate)-Based Composite Polymer Electrolyte with Enhanced Interfacial Stability To Realize High-Performance Room-Temperature Solid-State Sodium Batteries. 2019 , 11, 43056-43065	24
745	Strong and Flexible Composite Solid Polymer Electrolyte Membranes for Li-Ion Batteries. 2019 , 4, 18203-1820	0932
744	Catalytic One-Pot Conversion of Renewable Platform Chemicals to Hydrocarbon and Ether Biofuels through Tandem Hf(OTf) +Pd/C Catalysis. 2019 , 12, 5217	7
743	Ion Transport Study in CS: POZ Based Polymer Membrane Electrolytes Using Trukhan Model. 2019 , 20,	28
742	An Ultrarobust Composite Gel Electrolyte Stabilizing Ion Deposition for Long-Life Lithium Metal Batteries. 2019 , 29, 1904547	48
741	Preparation and characterization of polypropylene supported electrospun POSS-(C3H6Cl)8/PVDF gel polymer electrolytes for lithium-ion batteries. 2019 , 580, 123750	14
740	Aqueous sodium alginate as binder: Dramatically improving the performance of dilithium terephthalate-based organic lithium ion batteries. 2019 , 438, 227007	11
739	Blend Hybrid Solid Electrolytes Based on LiTFSI Doped Silica-Polyethylene Oxide for Lithium-Ion Batteries. 2019 , 9,	4

738	Internal in situ gel polymer electrolytes for high-performance quasi-solid-state lithium ion batteries. 2019 , 23, 2785-2792		8	
737	Molecular Brush with Dense PEG Side Chains: Design of a Well-Defined Polymer Electrolyte for Lithium-Ion Batteries. 2019 , 52, 7234-7243		34	
736	A facile strategy to improve the cycle stability of 4.45 V LiCoO2 cathode in gel electrolyte system via succinonitrile additive under elevated temperature. 2019 , 341, 115049		13	
735	Improved lithium ion dynamics in crosslinked PMMA gel polymer electrolyte 2019 , 9, 27574-27582		33	
734	Rational Design of Nanostructured Polymer Electrolytes and Solid[liquid Interphases for Lithium Batteries. 2019 ,		3	
733	PEO/LAGP hybrid solid polymer electrolytes for ambient temperature lithium batteries by solvent-free, Bne pot[preparation. 2019 , 26, 100947		71	
732	Enhancing the lithium-ion conductivity in Li2SrTa2-xNbxO7 (x = 0 $\overline{2}$). 2019 , 97, 106014		2	
731	Origin of Enhanced Cyclability in Covalently Modified LiMnNiO Cathodes. 2019 , 11, 39890-39901		5	
730	An ionic liquid gel with ultralow concentrations of tetra-arm polymers: Gelation kinetics and mechanical and ion-conducting properties. 2019 , 166, 38-43		17	
729	Fluorinated polysulfonamide based single ion conducting room temperature applicable gel-type polymer electrolytes for lithium ion batteries. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 188-201	13	78	
728	Constructing stable ordered ion channels for a solid electrolyte membrane with high ionic conductivity by combining the advantages of liquid crystal and ionic liquid. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 1069-1075	13	33	
727	Garnet P olymer Composite Electrolytes: New Insights on Local Li-Ion Dynamics and Electrodeposition Stability with Li Metal Anodes. 2019 , 2, 1734-1746		53	
726	Electrodeposition of Polymer Electrolyte Into Porous LiNiMnO for High Performance All-Solid-State Microbatteries. 2018 , 6, 675		10	
725	Facile Development Strategy of a Single Carbon-Fiber-Based All-Solid-State Flexible Lithium-Ion Battery for Wearable Electronics. 2019 , 11, 7974-7980		60	
724	Polymer Electrolytes for High Energy Density Ternary Cathode Material-Based Lithium Batteries. 2019 , 2, 128-148		76	
7 2 3	Solvent-free lithium and sodium containing electrolytes based on pseudo-delocalized anions. 2019 , 55, 632-635		6	
722	Revisiting polymeric single lithium-ion conductors as an organic route for all-solid-state lithium ion and metal batteries. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 1917-1935	13	70	
721	Understanding the Effect of UV-Induced Cross-Linking on the Physicochemical Properties of Highly Performing PEO/LiTFSI-Based Polymer Electrolytes. 2019 , 35, 8210-8219		74	

720	In situ Investigations of a Proton Trap Material: A PEDOT-Based Copolymer with Hydroquinone and Pyridine Side Groups Having Robust Cyclability in Organic Electrolytes and Ionic Liquids. 2019 , 2, 4486-4495	12
719	Electrospun ceramic nanofibers as 1D solid electrolytes for lithium batteries. 2019 , 104, 106483	30
718	Characterizations of PMMA-based polymer electrolyte membranes with Al2O3. 2019 , 39, 612-619	6
717	Smart construction of intimate interface between solid polymer electrolyte and 3D-array electrode for quasi-solid-state lithium ion batteries. 2019 , 434, 226726	7
716	Recent progress on solid-state hybrid electrolytes for solid-state lithium batteries. 2019 , 21, 308-334	117
715	Boron nitride enhanced polymer/salt hybrid electrolytes for all-solid-state lithium ion batteries. 2019 , 435, 226736	26
714	Diatomite derived hierarchical hybrid anode for high performance all-solid-state lithium metal batteries. 2019 , 10, 2482	66
713	Electrochemical Stability Window of Polymeric Electrolytes. 2019 , 31, 4598-4604	49
712	A green and facile way to prepare methylcellulose-based porous polymer electrolytes with high lithium-ion conductivity. 2019 , 176, 256-263	8
711	A High-Performance All-Solid-State Sodium Battery with a Poly(ethylene oxide)Na3Zr2Si2PO12 Composite Electrolyte. 2019 , 1, 132-138	46
710	Mechanically robust hydrophobic association hydrogel electrolyte with efficient ionic transport for flexible supercapacitors. 2019 , 374, 738-747	47
709	Chemically exfoliated boron nitride nanosheets form robust interfacial layers for stable solid-state Li metal batteries. 2019 , 55, 7703-7706	25
708	Performance of a Li-Polyimide Battery with Electrolytes of Various Types. 2019 , 55, 254-264	1
707	Single-ion conducting polymer electrolytes with alternating ionic mesogen-like moieties interconnected by poly(ethylene oxide) segments. 2019 , 177, 231-240	7
706	A Solid Polymer Electrolyte from Cross-Linked Polytetrahydrofuran for Calcium Ion Conduction. 2019 , 1, 1837-1844	13
7 ⁰ 5	Flexible high Li+ conductive lithium garnetBased dry solid polymer electrolyte membrane with enhanced electrochemical performance for lithium metal batteries. 2019 , 25, 4703-4711	8
704	Electrical transport in PEO-NaI-NASICON nanocomposites: An assessment using impedance and X-Ray absorption spectroscopy. 2019 , 118, 110485	5
703	High Conductive Composite Polymer Electrolyte via in Situ UV-Curing for All-Solid-State Lithium Ion Batteries. 2019 , 7, 9875-9880	13

702	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	
701	Liquid crystalline lithium-ion electrolytes derived from biodegradable cyclodextrin. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 12201-12213	13	12	
700	Decoupling segmental relaxation and ionic conductivity for lithium-ion polymer electrolytes. 2019 , 4, 779-792		82	
699	Strategic Structural Design of a Gel Polymer Electrolyte toward a High Efficiency Lithium-Ion Battery. 2019 , 2, 3937-3971		67	
698	Ultrastrong and Heat-Resistant Poly(ether ether ketone) Separator for Dendrite-Proof and Heat-Resistant Lithium-Ion Batteries. 2019 , 2, 3886-3895		35	
697	Coarse-grained study of the effect of hydrophobic side chain length on cluster size distributions and water diffusion in (amphiphilic-hydrophobic) multi-block co-polymer membranes. 2019 , 173, 43-57		3	
696	Is superparelectric 2-dimensional Sn2P2S6 having a fligher dielectric constantIdesirable for more real Na+ pseudocapacitance?. 2019 , 61, 462-470		7	
695	Single-ion conducting artificial solid electrolyte interphase layers for dendrite-free and highly stable lithium metal anodes. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 13113-13119	13	46	
694	Synthesis and Application of a Conjugated Polydianion-Based Single-Ion Conducting Polymer for High-Performance Solid Lithium-Ion Batteries. 2019 , 6, 2707-2714		3	
693	An effective LiBO2 coating to ameliorate the cathode/electrolyte interfacial issues of LiNi0.6Co0.2Mn0.2O2 in solid-state Li batteries. 2019 , 426, 242-249		36	
692	Solid Polymer Electrolytes for Lithium Metal Battery via Thermally Induced Cationic Ring-Opening Polymerization (CROP) with an Insight into the Reaction Mechanism. 2019 , 31, 3118-3133		30	
691	Siloxane-based polymer electrolytes for solid-state lithium batteries. 2019 , 23, 466-490		74	
690	Molecular relaxation and ionic conductivity of ionic liquids confined in a poly(vinylidene fluoride) polymer matrix: Influence of anion and cation type. 2019 , 171, 58-69		14	
689	CO2-sourced polycarbonates as solid electrolytes for room temperature operating lithium batteries. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 9844-9853	13	16	
688	Nanohybrid electrolytes for high-energy lithium-ion batteries: recent advances and future challenges. 2019 , 30, 302002		16	
687	Dissolution of Lithium Metal in Poly(ethylene oxide). 2019 , 4, 903-907		18	
686	Simulations of 3D nanoscale architectures and electrolyte characteristics for Li-ion microbatteries. 2019 , 23, 1-8		10	
685	Ion transport in polymeric ionic liquids: recent developments and open questions. 2019 , 4, 280-293		36	

684	Electrolyte for energy storage/conversion (Li+, Na+, Mg2+) devices based on PVC and their associated polymer: a comprehensive review. 2019 , 23, 997-1059	29
683	Probing the dielectric relaxation processes and their correlation with ions transportation in the complexes of plasticized nanocomposite solid polymer electrolyte. 2019 , 93, 1545-1558	5
682	Free-standing polydimethylsiloxane-based cross-linked network solid polymer electrolytes for future lithium ion battery applications. 2019 , 307, 148-156	24
681	Probing Li ion dynamics in amorphous xLi2SO4?(1 lk)LiPO3 by quasielastic neutron scattering. 2019 , 334, 95-98	9
68o	An Ionic Liquid/Poly(vinylidene fluoride-co-hexafluoropropylene) Gel-Polymer Electrolyte with a Compatible Interface for Sodium-Based Batteries. 2019 , 6, 2423-2429	12
679	Zwitterion-containing electrolytes with semiBrystalline PVDF-Co-HFP as a matrix for safer lithium-ion batteries. 2019 , 282, 340-346	7
678	Characterization of polymer/liquid crystal composite based electrolyte membranes for sodium ion battery applications. 2019 , 335, 86-96	10
677	Synthesis of Vinylidene Fluoride-Based Copolymers Bearing Perfluorinated Ether Pendant Groups and Their Application in Gel Polymer Electrolytes. 2019 , 52, 3056-3065	6
676	A Thermodynamic Model for Lithium-Ion Battery Degradation: Application of the Degradation-Entropy Generation Theorem. 2019 , 4, 23	19
675	A (Macro)Molecular-Level Understanding of Polymer Network Topology. 2019 , 1, 318-334	78
674	Preparation and characterisation of ion-conductive unsaturated polyester resins for the on-site production of resistivity sensors. 2019 , 25, 3971-3978	2
673	Nanothin film conductivity measurements reveal interfacial influence on ion transport in polymer electrolytes. 2019 , 4, 597-608	14
672	Designing polymers for advanced battery chemistries. 2019 , 4, 312-330	333
671	g-C3N4 nanosheets enhanced solid polymer electrolytes with excellent electrochemical performance, mechanical properties, and thermal stability. <i>Journal of Materials Chemistry A</i> , 2019 , 13 7, 11069-11076	101
670	An investigation of lithium ion conductivity of copolymers based on P(AMPS-co-PEGMA). 2019 , 136, 47798	2
669	Functional Hydrogels for Next-Generation Batteries and Supercapacitors. 2019 , 1, 335-348	103
668	5 V Stable Nitrile-Bearing Polymer Electrolyte with Aliphatic Segment as Internal Plasticizer. 2019 , 2, 3264-3273	9
667	Advanced Nanoclay-Based Nanocomposite Solid Polymer Electrolyte for Lithium Iron Phosphate Batteries. 2019 , 11, 8954-8960	29

An intricately designed poly(vinylene carbonate-acrylonitrile) copolymer electrolyte enables 5 V lithium batteries. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 5295-5304	13	41
Free-Standing PEO/LiTFSI/LAGP Composite Electrolyte Membranes for Applications to Flexible Solid-State Lithium-Based Batteries. 2019 , 166, A416-A422		25
Evaluating the electrochemical properties of PEO-based nanofibrous electrolytes incorporated with TiO2 nanofiller applicable in lithium-ion batteries. 2019 , 30, 1234-1242		20
Ultraporous Membranes Electrospun from Nonsolvent-Induced Phase-Separated Ternary Systems. 2019 , 40, e1800880		11
Depressing the irreversible reactions on a three-dimensional interface towards a high-areal capacity lithium metal anode. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 6267-6274	13	10
Tailored high cycling performance in a solid polymer electrolyte with perovskite-type LiLaTiO nanofibers for all-solid-state lithium ion batteries. 2019 , 48, 3263-3269		31
Heat Generation and Thermal Transport in Lithium-Ion Batteries: A Scale-Bridging Perspective. 2019 , 23, 128-156		25
Pathways for practical high-energy long-cycling lithium metal batteries. 2019 , 4, 180-186		1202
Electrostatically Assembled Silicontarbon Composites Employing Amine-Functionalized Carbon Intra-interconnections for Lithium-Ion Battery Anodes. 2019 , 2, 1868-1875		4
A nitrogen-containing all-solid-state hyperbranched polymer electrolyte for superior performance lithium batteries. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 6801-6808	13	18
High electrochemical stability of a 3D cross-linked network PEO@nano-SiO2 composite polymer electrolyte for lithium metal batteries. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 6832-6839	13	114
Advanced Polymer Electrolyte with Enhanced Electrochemical Performance for Lithium-Ion Batteries: Effect of Nitrile-Functionalized Ionic Liquid. 2019 , 2, 1685-1694		52
Solid-state polymer electrolytes stabilized by task-specific salt additives. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 7823-7830	13	48
NASICON-type polymer-in-ceramic composite electrolytes for lithium batteries. 2019 , 21, 6142-6149		28
A fibrotic poly (ethylene oxide) polymer electrolyte with high ionic conductivity for stable lithium metal batteries. 2019 , 30, 5038-5043		4
PEO-PVP-NaIO4 Ion-Conducting Polymer Electrolyte: Inspection for Ionic Space Charge Polarization and Charge Trapping. 2019 , 216, 1800739		3
Surface activated polyethylene separator promoting Li+ ion transport in gel polymer electrolytes and cycling stability of Li-metal anode. 2019 , 368, 321-330		35
Lithium Salt Doped Poly(Vinylidene Fluoride)/Cellulose Acetate Composite Gel Electrolyte Membrane for Lithium Ion Battery. 2019 , 654, 012017		5
	Itihium batteries. Journal of Materials Chemistry A, 2019, 7, 5295-5304 Free-Standing PEO/LiTFS/LAGP Composite Electrolyte Membranes for Applications to Flexible Solid-State Lithium-Based Batteries. 2019, 166, A416-A422 Evaluating the electrochemical properties of PEO-based nanofibrous electrolytes incorporated with TiO2 nanofiller applicable in lithium-ion batteries. 2019, 30, 1234-1242 Ultraporous Membranes Electrospun from Nonsolvent-Induced Phase-Separated Ternary Systems. 2019, 40, e1800880 Depressing the irreversible reactions on a three-dimensional interface towards a high-areal capacity lithium metal anode. Journal of Materials Chemistry A, 2019, 7, 6267-6274 Tailored high cycling performance in a solid polymer electrolyte with perovskite-type LiLaTiO nanofibers for all-solid-state lithium ion batteries. 2019, 48, 3263-3269 Heat Generation and Thermal Transport in Lithium-Ion Batteries: A Scale-Bridging Perspective. 2019, 23, 128-156 Pathways for practical high-energy long-cycling lithium metal batteries. 2019, 4, 180-186 Electrostatically Assembled Siliconflarbon Composites Employing Amine-Functionalized Carbon Intra-interconnections for Lithium-Ion Battery Anodes. 2019, 2, 1868-1875 A nitrogen-containing all-solid-state hyperbranched polymer electrolyte for superior performance lithium batteries. Journal of Materials Chemistry A, 2019, 7, 6801-6808 High electrochemical stability of a 3D cross-linked network PEO@nano-SiO2 composite polymer electrolyte for lithium metal batteries. Journal of Materials Chemistry A, 2019, 7, 6832-6839 Advanced Polymer Electrolyte with Enhanced Electrochemical Performance for Lithium-Ion Batteries: Effect of Nitrile-Functionalized lonic Liquid. 2019, 2, 1685-1694 Solid-state polymer electrolytes stabilized by task-specific salt additives. Journal of Materials Chemistry A, 2019, 7, 7823-7830 NASICON-type polymer-in-ceramic composite electrolytes for lithium batteries. 2019, 30, 5038-5043 PEO-PVP-NaIO4 Ion-Conducting Polymer Electrolyte: Inspection for Ionic Sp	Free-Standing PEO/LITFSI/LAGP Composite Electrolyte Membranes for Applications to Flexible Solid-State Lithium-Based Batteries. 2019, 166, A416-A422 Evaluating the electrochemical properties of PEO-based nanofibrous electrolytes incorporated with TiO2 nanofiller applicable in lithium-ion batteries. 2019, 30, 1234-1242 Ultraporous Membranes Electrospun from Nonsolvent-Induced Phase-Separated Ternary Systems. 2019, 40, e1800880 Depressing the irreversible reactions on a three-dimensional interface towards a high-areal capacity lithium metal anode. Journal of Materials Chemistry A, 2019, 7, 6267-6274 Tailored high cycling performance in a solid polymer electrolyte with perovskite-type LiLaTiO nanofibers for all-solid-state lithium ion batteries. 2019, 48, 3263-3269 Heat Generation and Thermal Transport in Lithium-Ion Batteries: A Scale-Bridging Perspective. 2019, 23, 128-156 Pathways for practical high-energy long-cycling lithium metal batteries. 2019, 4, 180-186 Electrostatically Assembled Silicon/Larbon Composites Employing Amine-Functionalized Carbon Intra-interconnections for Lithium-Ion Battery Anodes. 2019, 2, 1868-1875 Anitrogen-containing all-solid-state hyperbranched polymer electrolyte for superior performance lithium batteries. Journal of Materials Chemistry A, 2019, 7, 6801-6808 High electrochemical stability of a 3D cross-linked network PEO@nano-SiO2 composite polymer electrolyte for lithium metal batteries. Journal of Materials Chemistry A, 2019, 7, 6832-6839 Advanced Polymer Electrolyte with Enhanced Electrochemical Performance for Lithium-Ion Batteries: Effect of Nitrile-Functionalized lonic Liquid. 2019, 2, 1685-1694 Solid-state polymer electrolytes stabilized by task-specific salt additives. Journal of Materials Chemistry A, 2019, 7, 6832-6839 NASICON-type polymer-in-ceramic composite electrolytes for lithium batteries. 2019, 21, 6142-6149 A fibrotic poly (ethylene oxide) polymer electrolyte with high ionic conductivity for stable lithium metal batteries. 2019, 30, 5038-5043 PEO-PVP

648	Computational Investigation of Mixed Anion Effect on Lithium Coordination and Transport in Salt Concentrated Ionic Liquid Electrolytes. 2019 , 10, 7414-7420	17
647	A lithium carboxylate grafted dendrite-free polymer electrolyte for an all-solid-state lithium-ion battery. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 25818-25823	13
646	Ultrahigh Li-ion conductive single-ion polymer electrolyte containing fluorinated polysulfonamide for quasi-solid-state Li-ion batteries. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 24251-24261	29
645	Decoupling of mechanical properties and ionic conductivity in supramolecular lithium ion conductors. 2019 , 10, 5384	126
644	Building Better Batteries in the Solid State: A Review. 2019 , 12,	95
643	Holey graphene oxide as filler to improve electrochemical performance of solid polymer electrolytes. 2019 , 9, 1055-1061	3
642	Solid Electrolytes for Advanced Applications. 2019,	1
641	Mechanistic insight into the improved Li ion conductivity of solid polymer electrolytes 2019 , 9, 38646-38657	11
640	Hybrid polymer electrolyte for LiD2 batteries. 2019 , 4, 3-19	16
639	Development of Polymer Electrolyte and Cathode Material for Li-Batteries. 2019 , 166, A5187-A5192	17
638	Effectively improved ionic conductivity of montmorillonite clay nanoplatelets incorporated nanocomposite solid polymer electrolytes for lithium ion-conducting devices. 2019 , 1, 1	23
637	Analytical approximation for the frequency dependent conductivity in ionic conductors. 2019 , 297, 435-442	5
636	Polymer electrolytes based on a homogeneous poly(ethylene glycol) network and their application to polymer actuators. 2019 , 298, 866-873	6
635	Plastic crystal polymer electrolytes containing boron based anion acceptors for room temperature all-solid-state sodium-ion batteries. 2019 , 22, 57-65	26
634	Accumulation of Glassy Poly(ethylene oxide) Anchored in a Covalent Organic Framework as a Solid-State Li Electrolyte. 2019 , 141, 1227-1234	140
633	Facile interfacial modification via in-situ ultraviolet solidified gel polymer electrolyte for high-performance solid-state lithium ion batteries. 2019 , 409, 31-37	49
632	Composite polymer electrolytes based on electrospun thermoplastic polyurethane membrane and polyethylene oxide for all-solid-state lithium batteries. 2019 , 68, 473-480	8
631	Montmorillonite incorporated polymethylmethacrylate matrix containing lithium trifluoromethanesulphonate (LTF) salt: thermally stable polymer nanocomposite electrolyte for lithium-ion batteries application. 2019 , 25, 2645-2656	13

(2020-2019)

630	Solid and Solid-Like Composite Electrolyte for Lithium Ion Batteries: Engineering the Ion Conductivity at Interfaces. 2019 , 6, 1800899	56
629	Bifunctional poly(ethylene glycol) based crosslinked network polymers as electrolytes for all-solid-state lithium ion batteries. 2019 , 68, 684-693	21
628	Synthesis of Lithium-ion Conducting Polymers Designed by Machine Learning-based Prediction and Screening. 2019 , 48, 130-132	23
627	High Ion Conducting Solid Composite Electrolytes with Enhanced Interfacial Compatibility for Lithium Metal Batteries. 2019 , 6, 904-910	12
626	In Situ Cross-Linked Gel Polymer Electrolyte Membranes with Excellent Thermal Stability for Lithium Ion Batteries. 2019 , 4, 95-103	18
625	Fundamental parameters governing ion conductivity in polymer electrolytes. 2019 , 299, 191-196	35
624	Component-Interaction Reinforced Quasi-Solid Electrolyte with Multifunctionality for Flexible Li-O Battery with Superior Safety under Extreme Conditions. 2019 , 15, e1804701	24
623	PVDF/halloysite nanocomposite-based non-wovens as gel polymer electrolyte for high safety lithium ion battery. 2019 , 40, 2320-2334	33
622	High-performance electrospun POSS-(PMMA46)8/PVDF hybrid gel polymer electrolytes with PP support for Li-ion batteries. 2019 , 25, 2595-2605	11
621	Effect of lithium hexafluorophosphate LiPF6 and 1-butyl-3-methylimidazolium bis(trifluoromethanesulfonyl)imide [Bmim][TFSI] immobilized in poly(2-hydroxyethyl methacrylate) PHEMA. 2019 , 76, 3693-3707	2
620	Practical use of polymer brushes in sustainable energy applications: interfacial nanoarchitectonics for high-efficiency devices. 2019 , 48, 814-849	88
619	Photopolymerization of Ionic Liquids A Mutually Beneficial Approach for Materials Fabrication. 2019 , 59, 803-812	1
618	Ionic conductivity of PVdF-co-HFP/LiClO4 in terms of free volume defects probed by positron annihilation lifetime spectroscopy. 2019 , 174, 214-228	3
617	Brush-First ROMP of poly(ethylene oxide) macromonomers of varied length: impact of polymer architecture on thermal behavior and Li+ conductivity. 2019 , 57, 448-455	18
616	Polymers for high performance Li-S batteries: Material selection and structure design. 2019 , 89, 19-60	68
615	Lithium (4-styrenesulfonyl) (trifluoromethanesulfonyl) imide based single-ion polymer electrolyte with superior battery performance. 2020 , 24, 579-587	34
614	A supramolecular interaction strategy enabling high-performance all solid state electrolyte of lithium metal batteries. 2020 , 25, 756-763	34
613	Zwitterionic impetus on single lithium-ion conduction in solid polymer electrolyte for all-solid-state lithium-ion batteries. 2020 , 384, 123237	24

612	In situ crosslinked PMMA gel electrolyte from a low viscosity precursor solution for cost-effective, long lasting and sustainable lithium-ion batteries. 2020 , 594, 117456		23
611	Polymer Electrolytes for Lithium Ion Batteries and Challenges: Part I. 2020 , 187-199		O
610	Polymer Electrolytes for Lithium Ion Batteries and Challenges. 2020 , 201-230		
609	Dielectric Modulus and Conductivity Scaling Approach to the Analysis of Ion Transport in Solid Polymer Electrolytes. 2020 , 60, 297-305		6
608	Jeffamine-Based Polymers for Rechargeable Batteries. 2020 , 3, 30-46		15
607	Recent Progress in Organic-Inorganic Composite Solid Electrolytes for All-Solid-State Lithium Batteries. 2020 , 26, 1720-1736		54
606	Cross-Linked Polyacrylonitrile-Based Elastomer Used as Gel Polymer Electrolyte in Li-Ion Battery. 2020 , 3, 1099-1110		29
605	Micropores-in-macroporous gel polymer electrolytes for alkali metal batteries. 2020 , 4, 177-189		9
604	Ionic liquid mediated nano-composite polymer gel electrolyte for rechargeable battery application. 2020 , 59, 952-958		4
603	Silica gel solid nanocomposite electrolytes with interfacial conductivity promotion exceeding the bulk Li-ion conductivity of the ionic liquid electrolyte filler. 2020 , 6, eaav3400		30
602	Engineering the conductive carbon/PEO interface to stabilize solid polymer electrolytes for all-solid-state high voltage LiCoO2 batteries. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 2769-2776	13	38
601	Single-ion conducting gel polymer electrolytes: design, preparation and application. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 1557-1577	13	77
600	Enhancing ionic conductivity of solid electrolyte by lithium substitution in halogenated Li-Argyrodite. 2020 , 450, 227601		22
599	Correlation between structural, ion transport and ionic conductivity of plasticized 2-hydroxyethyl cellulose based solid biopolymer electrolyte. 2020 , 597, 117176		25
598	Salt-with-Salt, a novel strategy to design the flexible solid electrolyte membrane for highly safe lithium metal batteries. 2020 , 597, 117768		17
597	Thermally and Oxidatively Stable Polymer Electrolyte for Lithium Batteries Enabled by Phthalate Plasticization. 2020 , 2, 80-90		8
596	Recyclable High-Performance Polymer Electrolyte Based on a Modified Methyl Cellulose-Lithium Trifluoromethanesulfonate Salt Composite for Sustainable Energy Systems. 2020 , 13, 376-384		9
595	Synergistic effects of salt concentration and polymer blend composition on the crystal phases, dielectric relaxation, and ion conduction in PVDF/PEO/LiCF3SO3 solid polymer electrolytes. 2020 , 26, 2259-2275		9

594	Comprehensively-upgraded polymer electrolytes by multifunctional aramid nanofibers for stable all-solid-state Li-ion batteries. 2020 , 69, 104398	49
593	In Situ Preparation of Thin and Rigid COF Film on Li Anode as Artificial Solid Electrolyte Interphase Layer Resisting Li Dendrite Puncture. 2020 , 30, 1907717	76
592	Dioxolanone-Anchored Poly(allyl ether)-Based Cross-Linked Dual-Salt Polymer Electrolytes for High-Voltage Lithium Metal Batteries. 2020 , 12, 567-579	19
591	Studies on ionics conduction properties of modification CMC-PVA based polymer blend electrolytes via impedance approach. 2020 , 81, 106234	33
590	. 2020,	11
589	Optimizing conductivity and cationic transport in crosslinked solid polymer electrolytes. 2020 , 345, 115161	10
588	Importance of Lithium Coordination Structure to Lithium-Ion Transport in Polyether Electrolytes with Cyanoethoxy Side Chains: An Experimental and Theoretical Approach. 2020 , 53, 9480-9490	3
587	On-site-coagulation gel polymer electrolytes with a high dielectric constant for lithium-ion batteries. 2020 , 480, 228802	6
586	Small Groups, Big Impact: Eliminating Li Traps in Single-Ion Conducting Polymer Electrolytes. 2020 , 23, 101417	11
585	Solution-Processable Covalent Organic Framework Electrolytes for All-Solid-State Li©rganic Batteries. 2020 , 5, 3498-3506	51
584	Algae-based electrochemical energy storage devices. 2020 , 22, 8062-8096	16
583	Effect of Li+ Affinity on Ionic Conductivities in Melt-Blended Nitrile Rubber/Polyether. 2020 , 2, 4943-4951	7
582	Polyindole batteries and supercapacitors. 2020 , 33, 336-359	25
581	Rational Design of Sandwich-Like Gel liquid Gel Electrolytes for Dendrite-Free Lithium Metal Batteries. 2020 , 59, 14207-14216	4
580	Cation-exchange membranes with sulfonylimide groups showing a high ionic conductivity in water/organic amide mixed systems. 2020 , 277, 128247	2
579	Ionanofluid plasticized electrolyte with improved electrical and electrochemical properties for high-performance lithium polymer battery. 2020 , 44, 10506-10522	4
578	Preparation and characterization of 1-ethyl-3-methylimidazolium chlorideBased gel polymer electrolyte in electrochemical double-layer capacitors. 2020 , 24, 2333-2340	
577	Design Strategies of Safe Electrolytes for Preventing Thermal Runaway in Lithium Ion Batteries. 2020 , 32, 9821-9848	23

576	An in situ solidifying strategy enabling high-voltage all-solid-state Li-metal batteries operating at room temperature. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 25217-25225	13	7
575	Recycling for All Solid-State Lithium-Ion Batteries. 2020 , 3, 1845-1861		9
574	Kinetic versus Thermodynamic Stability of LLZO in Contact with Lithium Metal. 2020 , 32, 10207-10215		27
573	High Molecular Weight Poly(methyl methacrylate) Synthesis Using Recyclable and Reusable Zeolitic Imidazole Framework-8 Catalyst. 2020 , 221, 2000271		1
572	Synthesis and Use of Zwitterion Bearing Sulfonyl(trifluoromethane sylfonyl)imide Anion as Additive for Polymer Electrolytes. 2020 , 10, 7724		1
571	The effects of polybenzimidazole nanofiber separator on the safety and performance of lithium-ion batteries: Characterization and analysis from the perspective of mechanism. 2020 , 475, 228624		17
570	Nonflammable organic electrolytes for high-safety lithium-ion batteries. 2020 , 32, 425-447		47
569	Mitigating the Shielding Effect of Ether Oxygen in Poly(ethylene glycol) on Boron Atoms in Boron-Doped Poly(ethylene glycol) Hybrid Polymer Electrolyte by Introducing Siloxane Spacers. 2020 , 7, 3353-3360		O
568	LiSn2(PO4)3-based polymer-in-ceramic composite electrolyte with high ionic conductivity for all-solid-state lithium batteries. 2020 , 24, 2407-2417		5
567	A Novel Gel Polymer Electrolyte by Thiol-Ene Click Reaction Derived from CO2-Based Polycarbonate for Lithium-Ion Batteries. 2020 , 2020, 1-12		
566	An In Situ Cross-Linked Nonaqueous Polymer Electrolyte for Zinc-Metal Polymer Batteries and Hybrid Supercapacitors. 2020 , 16, e2002528		12
565	Polymer electrolytes and interfaces toward solid-state batteries: Recent advances and prospects. 2020 , 33, 26-54		51
564	A flexible composite solid electrolyte with a highly stable interphase for dendrite-free and durable all-solid-state lithium metal batteries. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 18043-18054	13	38
563	Enhancing Li+ transport kinetics of PEO-based polymer electrolyte with mesoporous silica-derived fillers for lithium-ion batteries. 2020 , 354, 115412		8
562	Physicochemical Concepts of the Lithium Metal Anode in Solid-State Batteries. 2020 , 120, 7745-7794		196
561	Active Materials for Aqueous Zinc Ion Batteries: Synthesis, Crystal Structure, Morphology, and Electrochemistry. 2020 , 120, 7795-7866		347
560	Lithium, sodium and magnesium ion conduction in solid state mixed polymer electrolytes. 2020 , 22, 191	08-19	149
559	Synthesis, Phase Structure, and Ion Conductivity of Poly(p-phenylene) Functionalized with Lithium Trifluoromethanesulfonimide and Tetra(ethylene Oxide) Side Chains. 2020 , 3, 9066-9075		3

558	Covalently cross-linked polymer stabilized electrolytes with self-healing performance via boronic ester bonds. 2020 , 11, 5893-5902	13
557	A review of composite solid-state electrolytes for lithium batteries: fundamentals, key materials and advanced structures. 2020 , 49, 8790-8839	153
556	Solid-state lithiumBulfur batteries: Advances, challenges and perspectives. 2020 , 40, 114-131	33
555	The effect of variable electrolyte thickness of LMO vs Li metal foil lithium-ion coin cell using simulation. 2020 ,	
554	An anti-aging polymer electrolyte for flexible rechargeable zinc-ion batteries. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 22637-22644	18
553	Between Liquid and All Solid: A Prospect on Electrolyte Future in Lithium-Ion Batteries for Electric Vehicles. 2020 , 8, 2000580	13
552	Safe, superionic conductive and flexible polymer-in-plastic salts@lectrolytes for dendrite-free lithium metal batteries. 2020 , 33, 442-451	7
551	A conductive self healing polymeric binder using hydrogen bonding for Si anodes in lithium ion batteries. 2020 , 10, 14966	25
550	Electrolytes for Lithium- and Sodium-Metal Batteries. 2020 , 15, 3584-3598	18
549	Photo-crosslinked Polymer Electrolytes Containing Solvate Ionic Liquids: An Approach to Achieve Both Good Mechanical and Electrochemical Performances for Rechargeable Lithium Ion Batteries. 2020 , 49, 1465-1469	О
548	Polymer electrolytes for rechargeable lithium metal batteries. 2020 , 4, 5469-5487	11
547	Study of the structure and electrical conductivity of lithium-conducting polymer electrolytes based on PEG-1500[iiX (X = SCN, N(CF3SO2)2). 2020 , 69, 1463-1469	2
546	Ionic Liquid-Incorporated Zn-Ion Conducting Polymer Electrolyte Membranes. 2020 , 12,	8
545	Intrinsic self-healing polymers for advanced lithium-based batteries: Advances and strategies. 2020 , 7, 031304	25
544	Bacterial-Polymer-Based Electrolytes: Recent Progress and Applications. 2020 , 3, 11500-11515	4
543	Polyvinyl fibers as outperform candidature in the solid polymer electrolytes. 2020 , 152808372097062	1
542	Double-Crosslinked Polyurethane Acrylate for Highly Conductive and Stable Polymer Electrolyte. 2020 , 12,	4
541	Ultrathin Aramid/COF Heterolayered Membrane for Solid-State Li-Metal Batteries. 2020 , 20, 8120-8126	31

540	Free Volume Controlled Ionic Conductivity in Poly Vinyl Alcohol/Zinc Acetate Solid Polymer Electrolytes. 2020 , 167, 060525	4
539	Anticipated Progress in the Near- to Mid-Term Future of LIBs. 2020 , 1-32	
538	Review of the Design of Current Collectors for Improving the Battery Performance in Lithium-Ion and Post-Lithium-Ion Batteries. 2020 , 1, 124-159	22
537	Organic-Organic Composite Electrolyte Enables Ultralong Cycle Life in Solid-State Lithium Metal Batteries. 2020 , 12, 24837-24844	19
536	The classification and application of cyclodextrin polymers: a review. 2020 , 44, 9137-9148	21
535	Infilling of highly ion-conducting gel polymer electrolytes into electrodes with high mass loading for high-performance energy storage. 2020 , 87, 173-179	4
534	Preparation and characterization of gel polymer electrolyte based on PVA-K2CO3. 2020, 59, 1679-1697	2
533	Polymer Electrolytes in Rechargeable Batteries. 2020 , 61-85	
532	High Lithium Conductivity of Miscible Poly(ethylene oxide)/Methacrylic Sulfonamide Anionic Polyelectrolyte Polymer Blends. 2020 , 53, 4442-4453	8
531	Comprehensive evaluation of safety performance and failure mechanism analysis for lithium sulfur pouch cells. 2020 , 30, 87-97	33
530	A universal natural hydroxy propyl methyl cellulose polymer additive for modifying lignocellulose-based gel polymer electrolytes and stabilizing lithium metal anodes. 2020 , 250, 123174	7
529	Application of Electrospun Materials in Batteries. 2020 , 415-439	
528	Nanocomposite solid polymer electrolytes based on semi-interpenetrating hybrid polymer networks for high performance lithium metal batteries. 2020 , 353, 136481	11
527	Ga-doped lithium lanthanum zirconium oxide electrolyte for solid-state Li batteries. 2020 , 353, 136536	5
526	Solid Electrolytes for Li-S Batteries: Solid Solutions of Poly(ethylene oxide) with LiPON- and LiSiPON-Based Polymers. 2020 , 12, 30353-30364	11
525	Effective suppression of lithium dendrite growth using fluorinated polysulfonamide-containing single-ion conducting polymer electrolytes. 2020 , 1, 873-879	6
524	A flexible Cellulose/Methylcellulose gel polymer electrolyte endowing superior Li conducting property for lithium ion battery. 2020 , 246, 116622	17
523	A Solid Polymer Electrolyte from Photo-Crosslinked Polytetrahydrofuran and a Cycloaliphatic Epoxide for Lithium-Ion Conduction. 2020 , 5, 2467-2476	2

522	Batteries. 2020 , 30, 1910749		38
521	A crosslinked conducting polymer with well-defined proton trap function for reversible proton cycling in aprotic environments. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 12114-12123	13	2
520	Interfacial Engineering at Cathode/LATP Interface for High-Performance Solid-State Batteries. 2020 , 167, 100528		6
519	Silicon⊞ir batteries: progress, applications and challenges. 2020 , 2, 1		3
518	A Novel Li+-Conducting Polymer Membrane Gelled by Fluorine-Free Electrolyte Solutions for Li-Ion Batteries. 2020 , 3, 1112-1119		2
517	Electrochemical double-layer supercapacitor using poly(methyl methacrylate) solid polymer electrolyte. 2020 , 32, 201-207		8
516	Tuning the Properties of a UV-Polymerized, Cross-Linked Solid Polymer Electrolyte for Lithium Batteries. 2020 , 12,		13
515	Inorganic-organic gel electrolytes with 3D cross-linking star-shaped structured networks for lithium ion batteries. 2020 , 393, 124708		13
514	Fabrication and characterization of Zn-ion-conducting solid polymer electrolyte films based on PVdF-HFP/Zn(Tf)2 complex system. 2020 , 31, 6160-6173		18
513	Low-temperature paddlewheel effect in glassy solid electrolytes. 2020 , 11, 1483		51
512	ReviewInterfaces: Key Issue to Be Solved for All Solid-State Lithium Battery Technologies. 2020 , 167, 070541		49
511	Flexible, Self-Healing, and Fire-Resistant Polymer Electrolytes Fabricated via Photopolymerization for All-Solid-State Lithium Metal Batteries. 2020 , 9, 525-532		40
510	Sustainable Battery Materials from Biomass. 2020 , 13, 2110-2141		52
509	Asymmetric gel polymer electrolyte with high lithium ion conductivity for dendrite-free lithium metal batteries. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 8033-8040	13	42
508	Solid polymer electrolytes based on the composite of PEOIIFSI and organic ionic plastic crystal. 2020 , 747, 137335		10
507	One-dimensional lithium ion capacitor in core-shell wire shape construction for wearable applications. 2020 , 401, 126034		8
506	Ethylene oxideBased polymer electrolytes with fluoroalkyl moieties for stable lithium metal batteries. 2020 , 26, 4795-4802		1
505	Revisiting the strategies for stabilizing lithium metal anodes. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 13874-13895	13	24

504	Polymer Template Synthesis of Flexible SiO Nanofibers to Upgrade Composite Electrolytes. 2020 , 12, 31439-31447	17
503	Electrolytes with reversible switch between liquid and solid phases. 2020 , 21, 297-302	5
502	Biopolymer membranes for battery applications. 2020 , 477-502	1
501	Recent progress in all-solid-state lithium batteries: The emerging strategies for advanced electrolytes and their interfaces. 2020 , 31, 401-433	53
500	Poly(p-phenylene)s tethered with oligo(ethylene oxide): synthesis by Yamamoto polymerization and properties as solid polymer electrolytes. 2020 , 11, 2418-2429	7
499	Lithium-ion coordination-induced conformational change of PEG chains in ionic-liquid-based electrolytes. 2020 , 22, 5561-5567	11
498	Membranes with novel highly-delocalized sulfonylimide anions for lithium-ion batteries. 2020 , 601, 117918	4
497	Enhanced Li+ Conduction within Single-Ion Conducting Polymer Gel Electrolytes via Reduced Cation B olymer Interaction. 2020 , 2, 272-279	21
496	LLZO@EmimFSI@PEO derived hybrid solid electrolyte for high-energy lithium metal batteries. 2020 , 35, 618-624	6
495	Rational Design of a Laminated Dual-Polymer/Polymer/Leramic Composite Electrolyte for High-Voltage All-Solid-State Lithium Batteries. 2020 , 2, 317-324	28
494	Direct generation of electrospun interconnected macroporous nanofibers using a water bath as a collector. 2020 , 7, 015082	9
493	Improved battery safety via in-situ dip-coated composite gel polymer electrolytes. 2020 , 455, 227963	6
492	Polymer Gel Electrolyte Prepared by Balting-InIPoly(ethylene glycol) into a Phosphonium-Based Ionic Liquid with a Lithium Salt. 2020 , 2, 1276-1282	6
491	Progress and Perspective of Ceramic/Polymer Composite Solid Electrolytes for Lithium Batteries. 2020 , 7, 1903088	179
490	Zinc bis(2日thylhexanoate), a homogeneous and bifunctional additive, to improve conductivity and lithium deposition for poly (ethylene oxide) based all-solid-state lithium metal battery. 2020 , 451, 227730	17
489	Measurement of Three Transport Coefficients and the Thermodynamic Factor in Block Copolymer Electrolytes with Different Morphologies. 2020 , 124, 921-935	24
488	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
487	A Single-Ion Conducting Borate Network Polymer as a Viable Quasi-Solid Electrolyte for Lithium Metal Batteries. 2020 , 32, e1905771	62

4	.86	Nano-SiO2@PMMA-doped composite polymer PVDF-HFP/PMMA/PEO electrolyte for lithium metal batteries. 2020 , 31, 2708-2719	10	
4	.85	Flexible Quasi-Solid-State Composite Electrolyte Membrane Derived from a Metal-Organic Framework for Lithium-Metal Batteries. 2020 , 7, 707-715	38	
4	.84	Synergetic Covalent and Spatial Confinement of Sulfur Species by Phthalazinone-Containing Covalent Triazine Frameworks for Ultrahigh Performance of Li-S Batteries. 2020 , 12, 8296-8305	24	
4	.83	Strategies for inhibiting anode dendrite growth in lithiumBulfur batteries. <i>Journal of Materials</i> Chemistry A, 2020 , 8, 4629-4646	31	
4	.82	Toward High Energy Density All Solid-State Sodium Batteries with Excellent Flexibility. 2020 , 10, 1903698	67	
4	.81	Solid polymer electrolytes from double-comb Poly(methylhydrosiloxane) based on quaternary ammonium moiety-containing crosslinking system for Li/S battery. 2020 , 450, 227690	9	
4	.80	Toward High-Energy-Density Lithium Metal Batteries: Opportunities and Challenges for Solid Organic Electrolytes. 2020 , 32, e1905219	81	
4	-79	In situ thermally polymerized solid composite electrolytes with a broad electrochemical window for all-solid-state lithium metal batteries. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 3892-3900	32	
4	.78	Preparation and performances of the modified gel composite electrolyte for application of quasi-solid-state lithium sulfur battery. 2020 , 389, 124300	34	
4	-77	Solvent-Free Synthesis of Thin, Flexible, Nonflammable Garnet-Based Composite Solid Electrolyte for All-Solid-State Lithium Batteries. 2020 , 10, 1903376	168	
4	.76	Highly conductive and nonflammable composite polymer electrolytes for rechargeable quasi-solid-state Li-metal batteries. 2020 , 464, 228182	12	
4	-75	Polymer Electrolyte Membrane with High Ionic Conductivity and Enhanced Interfacial Stability for Lithium Metal Battery. 2020 , 12, 22710-22720	13	
4	74	Enhanced structural and cycling stability of Li2CuO2-coated LiNi0.33Mn0.33Co0.33O2 cathode with flexible ionic liquid-based gel polymer electrolyte for lithium polymer batteries. 2020 , 343, 136122	17	
4	-73	A wide-temperature superior ionic conductive polymer electrolyte for lithium metal battery. 2020 , 73, 104786	42	
4	.72	Ion Liquid Modified GO Filler to Improve the Performance of Polymer Electrolytes for Li Metal Batteries. 2020 , 8, 232	6	
4	171	A Highly Conductive and Thermally Stable Ionic Liquid Gel Electrolyte for Calcium-Ion Batteries. 2020 , 2, 2111-2118	12	
4	.70	Investigation of the Ionic Conduction Mechanism of Polyether/Li7La3Zr2O12 Composite Solid Electrolytes by Electrochemical Impedance Spectroscopy. 2020 , 167, 070559	8	
4	.69	Perspectives for Polymer Electrolytes: A View from Fundamentals of Ionic Conductivity. 2020 , 53, 4141-4157	91	

468	Partially Oxidized Cellulose grafted with Polyethylene Glycol mono-Methyl Ether (m-PEG) as Electrolyte Material for Lithium Polymer Battery. 2020 , 240, 116339	9
467	Improving the NMC111 Polymer Electrolyte Interface by Cathode Composition and Processing. 2020 , 167, 070546	5
466	Cellulose-based polymer electrolyte derived from waste coconut husk: residual lignin as a natural plasticizer. 2020 , 27, 1	8
465	Lithium Dendrite in All-Solid-State Batteries: Growth Mechanisms, Suppression Strategies, and Characterizations. 2020 , 3, 57-94	140
464	Probing the physio-chemical appraisal of green synthesized PbO nanoparticles in PbO-PVC nanocomposite polymer membranes. 2020 , 235, 118303	28
463	Tuning Morphology and Properties of Epoxy-Based Solid-State Polymer Electrolytes by Molecular Interaction for Flexible All-Solid-State Supercapacitors. 2020 , 32, 3879-3892	16
462	Solvent-Free Method Prepared a Sandwich-like Nanofibrous Membrane-Reinforced Polymer Electrolyte for High-Performance All-Solid-State Lithium Batteries. 2020 , 12, 21586-21595	24
461	UV-cured eutectic gel polymer electrolytes for safe and robust Li-ion batteries. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 8485-8495	26
460	Polymer-in-ceramicIbased poly(Etaprolactone)/ceramic composite electrolyte for all-solid-state batteries. 2021 , 52, 318-325	13
459	A lithiated gel polymer electrolyte with superior interfacial performance for safe and long-life lithium metal battery. 2021 , 55, 313-322	11
458	Flexible hybrid solid electrolyte incorporating ligament-shaped Li6.25Al0.25La3Zr2O12 filler for all-solid-state lithium-metal batteries. 2021 , 366, 137348	8
457	Flexible organic alkali-ion batteries. 2021, 353-382	
456	Structure Code for Advanced Polymer Electrolyte in Lithium-Ion Batteries. 2021 , 31, 2008208	31
455	Interface Issues and Challenges in All-Solid-State Batteries: Lithium, Sodium, and Beyond. 2021 , 33, e2000721	84
454	Designing Ceramic/Polymer Composite as Highly Ionic Conductive Solid-State Electrolytes. 2021 , 4, 39-59	22
453	Studies of composite films of polyethylene oxide doped with potassium hexachloroplatinate. 2021 , 138, 49757	4
452	Study of electrical and electrochemical properties of P(VdF-HFP)-MMT based nanocomposite gel polymer electrolytes for application in energy storage devices. 2021 , 263, 114822	6
451	Postinjection gelation of an electrolyte with high storage permittivity and low loss permittivity for electrochemical capacitors. 2021 , 481, 228869	8

450	A review of composite polymer-ceramic electrolytes for lithium batteries. 2021 , 34, 282-300	80
449	Lignin-Based Solid Polymer Electrolytes: Lignin-Graft-Poly(ethylene glycol). 2021 , 42, e2000428	5
448	Hierarchical Composite-Solid-Electrolyte with High Electrochemical Stability and Interfacial Regulation for Boosting Ultra-Stable Lithium Batteries. 2021 , 31, 2006381	24
447	Development of a thin flexible Li battery design with a new gel polymer electrolyte operating at room temperature. 2021 , 482, 229055	9
446	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
445	High performance solid-state sodium batteries enabled by boron contained 3D composite polymer electrolyte. 2021 , 406, 126736	15
444	Advances in Natural Biopolymer-Based Electrolytes and Separators for Battery Applications. 2021 , 31, 2005646	66
443	A Molecular Dynamics Study of the Mechanical Properties of Ionic Copolymers during Tension R ecovery Deformation. 2021 , 30, 2000081	1
442	PEO/PVA/LiOH Solid Polymer Electrolyte Prepared via Ultrasound-assisted Solution Cast Method. 2021 , 556, 120549	10
441	Solid Electrolytes for High-Temperature Stable Batteries and Supercapacitors. 2021 , 11, 2002869	15
440	Polymer-Based Solid Electrolytes: Material Selection, Design, and Application. 2021 , 31, 2007598	45
439	Viability of Low Molecular Weight Lignin in Developing Thiol-Ene Polymer Electrolytes with Balanced Thermomechanical and Conductive Properties. 2021 , 42, e2000477	2
438	Polymer electrolytes for sodium-ion batteries. 2021 , 36, 10-30	21
437	Anomalously high elastic modulus of a poly(ethylene oxide)-based composite electrolyte. 2021 , 35, 431-442	14
436	Quasi-solid single ion conducting polymer electrolyte membrane containing novel fluorinated poly(arylene ether sulfonimide) for lithium metal batteries. 2021 , 484, 229267	12
435	Bio-Derived Materials Achieving High Performance in Alkali Metal © halcogen Batteries. 2021 , 31, 2008354	5
434	Macromolecular Design of Lithium Conductive Polymer as Electrolyte for Solid-State Lithium Batteries. 2021 , 17, e2005762	28
433	Hydrogels Generated from Cyclic Poly(2-Oxazoline)s Display Unique Swelling and Mechanical Properties. 2021 , 42, e2000658	6

432	Modifying an ultrathin insulating layer to suppress lithium dendrite formation within garnet solid electrolytes. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 3576-3583	13	8
431	Construction of stable solid electrolyte interphase on lithium anode for long-cycling solid-state lithiumBulfur batteries. 2021 , 880, 114874		3
430	Two-dimensional lithiophilic YFI enabled lithium dendrite removal for quasi-solid-state lithium batteries. 2021 , 7, 355-365		3
429	Tough and Flexible, Super Ion-Conductive Electrolyte Membranes for Lithium-Based Secondary Battery Applications. 2021 , 31, 2008586		13
428	Advanced gel polymer electrolytes for safe and durable lithium metal batteries: Challenges, strategies, and perspectives. 2021 , 34, 515-535		47
427	Boosting the ionic conductivity of PEO electrolytes by waste eggshell-derived fillers for high-performance solid lithium/sodium batteries. 2021 , 5, 1315-1323		22
426	Dielectric studies and AC conductivity of PVDF-HFP: LiBF4: EC plasticized polymer electrolytes. 2021 , 44, 2168-2172		5
425	Polymer-Ceramic Composite Electrolyte for Li-Ion Batteries. 2021 ,		O
424	Single-ion conducting polymer electrolytes as a key jigsaw piece for next-generation battery applications. 2021 , 12, 13248-13272		9
423	Recent advancements of functional gel polymer electrolytes for rechargeable lithium thetal batteries. 2021 , 5, 5211-5232		4
422	In situ formation of polymer electrolytes using a dicationic imidazolium cross-linker for high-performance lithium ion batteries. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 5796-5806	13	3
421	Organoboron-Containing Polymer Electrolytes for High-Performance Lithium Batteries. 2021 , 31, 20086	32	10
420	A comprehensive review of the development of magnesium anodes for primary batteries. <i>Journal of Materials Chemistry A</i> ,	13	11
419	Computational investigation of enhanced properties in functionalized carbon nanotube doped polyvinyl alcohol gel electrolyte systems. 2021 , 23, 21286-21294		O
418	Dual solid electrolytes for aluminium-air batteries based on polyvinyl alcohol acidic membranes and neutral hydrogels. 2021 , 25, 1207-1216		7
417	Polymers in Lithium-Ion and Lithium Metal Batteries. 2021 , 11, 2003239		45
416	Flame-retardant single-ion conducting polymer electrolytes based on anion acceptors for high-safety lithium metal batteries. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 7692-7702	13	8
415	Super-conductive plastic crystal-based materials as the interface layers for solid-state lithium metal batteries. 2021 , 14, 2141003		O

414	Printable Gel Polymer Electrolytes for Solid-State Printed Supercapacitors. 2021 , 14,	2
413	Understanding the discharge behavior of an ultra-high-purity Mg anode for MgBir primary batteries. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 21387-21401	3
412	Improved ionic conductivity for amide-containing electrolytes by tuning intermolecular interaction: the effect of branched side-chains with cyanoethoxy groups. 2021 , 23, 10070-10080	О
411	Gel-polymer electrolytes based on polyurethane ionomers for lithium power sources 2021 , 11, 21548-21559	2
410	High-performance & thermally stable n-type polymer thermoelectrics based on a benzyl viologen radical cation-doped ladder-type conjugated polymer. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 11787-11793	11
409	Surface-modified boron nitride as a filler to achieve high thermal stability of polymer solid-state lithium-metal batteries. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 20530-20543	8
408	Investigation of alkali and alkaline earth solvation structures in tetraglyme solvent. 2021 , 23, 26120-26129	1
407	Smart fibers for energy conversion and storage. 2021 , 50, 7009-7061	29
406	Emergent electrochemical functions and future opportunities of hierarchically constructed metal-organic frameworks and covalent organic frameworks. 2021 , 13, 6341-6356	13
405	Highly stable interface formation in onsite coagulation dual-salt gel electrolyte for lithium-metal batteries. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 5675-5684	4
404	In situ polymerization process: an essential design tool for lithium polymer batteries. 2021 , 14, 2708-2788	31
403	CHAPTER 10:Organic and OrganicIhorganic Composite Solid Electrolytes. 2021 , 323-363	
402	MetalBrganic frameworks and zeolite materials as active fillers for lithium-ion battery solid polymer electrolytes. 2021 , 2, 3790-3805	6
401	Ion-selective PEDOT:PSS-decorated separator as a potential polysulfide immobilizer for lithium-sulfur batteries. 2021 , 27, 1087-1099	5
400	Insights into the structure and ionic transport in Water-in-bisalt@lectrolytes for lithium-ion batteries.	2
399	Lithium Ion Conduction in Diblock Polymer Electrolyte with Tethered Anion. 2021 , 6, 595-599	2
398	Stoichiometric tuning of lattice flexibility and Na diffusion in NaAlSiO4: quasielastic neutron scattering experiment and ab initio molecular dynamics simulations. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 16129-16136	О
397	Integrated interface between composite electrolyte and cathode with low resistance enables ultra-long cycle-lifetime in solid-state lithium-metal batteries. 2021 , 64, 673-680	4

396	Solid Polymer Electrolytes with High Conductivity and Transference Number of Li Ions for Li-Based Rechargeable Batteries. 2021 , 8, 2003675	35
395	Room Temperature to 150 [®] C Lithium Metal Batteries Enabled by a Rigid Molecular Ionic Composite Electrolyte. 2021 , 11, 2003559	13
394	Composite solid polymer electrolyte with silica filler for structural supercapacitor applications. 2021 , 38, 454-460	2
393	Recent advances in high performance conducting solid polymer electrolytes for lithium-ion batteries. 2021 , 486, 229378	10
392	A Mechanically Robust and Versatile Liquid-Free Ionic Conductive Elastomer. 2021, 33, e2006111	62
391	Suppressing Dendrites via Interfacial Ionic Conductivity Regulation in Lithium Metal Batteries. 2021 , 35, 5333-5341	2
390	Structure and ionic conductivity of gel polymer electrolytes based on PVDF/P(AMPS-TFEMA) blend membranes. 2021 , 675, 012218	
389	Room-Temperature SodiumBulfur Batteries and Beyond: Realizing Practical High Energy Systems through Anode, Cathode, and Electrolyte Engineering. 2021 , 11, 2003493	50
388	Structure-Property Relationship of Polymerized Ionic Liquids for Solid-State Electrolyte Membranes. 2021 , 13,	1
387	Promising biodegradable polymer blend electrolytes based on cornstarch:PVP for electrochemical cell applications. 2021 , 44, 1	3
386	Solid electrolyte membranes prepared from poly(arylene ether sulfone)-g-poly(ethylene glycol) with various functional end groups for lithium-ion battery. 2021 , 621, 119023	7
385	Abuse-Tolerant Electrolytes for Lithium-Ion Batteries. 2021 , 8, e2003694	5
384	Layer-by-Layer Assembly of Reduced Graphene Oxide and MXene Nanosheets for Wire-Shaped Flexible Supercapacitors. 2021 , 13, 14068-14076	23
383	Challenges and Development of Composite Solid Electrolytes for All-solid-state Lithium Batteries. 2021 , 37, 210-231	4
382	Inorganic Fillers in Composite Gel Polymer Electrolytes for High-Performance Lithium and Non-Lithium Polymer Batteries. 2021 , 11,	12
381	Flame-Retardant, Highly Conductive, and Low-Temperature-Resistant Organic Gel Electrolyte for High-Performance All-Solid Supercapacitors. 2021 , 14, 2056-2066	1
380	Robust and Highly Ion-Conducting Gel Polymer Electrolytes with Semi-Interpenetrating Polymer Network Structure. 2021 , 29, 211-216	1
379	Polymer Electrolytes: Development and Supercapacitor Application. 2021 , 37-66	O

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378	all-Solid-State Flexible Lithium Batteries. 2021 , 4, 2318-2326	9
377	Electrochemical Performance of LixSiON Polymer Electrolytes Derived from an Agriculture Waste Product, Rice Hull Ash. 2021 , 3, 2144-2152	1
376	Tailoring Slurries Using Cosolvents and Li Salt Targeting Practical All-Solid-State Batteries Employing Sulfide Solid Electrolytes. 2021 , 11, 2003766	13
375	Advances in transition metal dichalcogenide-based two-dimensional nanomaterials. 2021 , 19, 100399	21
374	In-Situ Intermolecular Interaction in Composite Polymer Electrolyte for Ultralong Life Quasi-Solid-State Lithium Metal Batteries. 2021 , 133, 12223-12230	6
373	A gel porous single-ion conducting polyelectrolyte with double anionic functional group for enhancing lithium ion battery performance. 2021 , 288, 129309	O
372	Comprehensive analysis and correlation of ionic liquid conductivity data for energy applications. 2021 , 220, 119761	8
371	Electrolytes for Sodium Batteries. 2021 , 205-241	О
370	Insights on Flexible Zinc-Ion Batteries from Lab Research to Commercialization. 2021, 33, e2007548	50
369	High Performance Composite Polymer Electrolytes for Lithium-Ion Batteries. 2021 , 31, 2101380	34
368	In-Situ Intermolecular Interaction in Composite Polymer Electrolyte for Ultralong Life Quasi-Solid-State Lithium Metal Batteries. 2021 , 60, 12116-12123	25
367	Preparation and properties of a novel green solid polymer electrolyte for all-solid-state lithium battery. 2021 , 138, 50945	2
366	Dimethyl sulfoxide additive to Na2SO4-based polymer electrolytes for low temperature capacitive devices. 2021 , 376, 137984	2
365	Simultaneous establishment of high conductivity and mechanical stability via pore-filling of porous PTFE substrate with poly(ethylene glycol) and ionic liquid for lithium secondary battery. 2021 , 624, 119029	1
364	Excess Li2O Additives to Promote Grain Boundary Growth and Improve Ionic Conductivity of LiTa2PO8 Solid Electrolytes. 2021 , 8,	1
363	Strategies to Boost Ionic Conductivity and Interface Compatibility of Inorganic - Organic Solid Composite Electrolytes. 2021 , 36, 291-308	26
362	Design of Mixed Electron- and Ion-Conducting Radical Polymer-Based Blends. 2021 , 54, 5178-5186	2
361	The critical role of inorganic nanofillers in solid polymer composite electrolyte for Li+ transportation. 2021 , 3, 482-508	18

360	Application of Electrospun Nanofibers for Fabrication of Versatile and Highly Efficient Electrochemical Devices: A Review. 2021 , 13,	11
359	A Stretchable and Safe Polymer Electrolyte with a Protecting-Layer Strategy for Solid-State Lithium Metal Batteries. 2021 , 8, 2003241	16
358	A solid-like dual-salt polymer electrolyte for Li-metal batteries capable of stable operation over an extended temperature range. 2021 , 37, 609-618	18
357	Development of biopolymer electrolyte membrane using Gellan gum biopolymer incorporated with NH4SCN for electro-chemical application. 2021 , 27, 3415-3429	3
356	Recent Advances and Perspectives on the Polymer Electrolytes for Sodium/Potassium-Ion Batteries. 2021 , 17, e2006627	33
355	Solvent-Cast Solid Electrolyte Membranes Based on a Charged Rigid-Rod Polymer and Ionic Liquids. 2021 , 4, 6599-6605	1
354	Transition metal dichalcogenide (TMDs) electrodes for supercapacitors: a comprehensive review. 2021 , 33,	12
353	Poly(ethylene glycol) brush on Li6.4La3Zr1.4Ta0.6O12 towards intimate interfacial compatibility in composite polymer electrolyte for flexible all-solid-state lithium metal batteries. 2021 , 498, 229934	16
352	Progress in thermal stability of all-solid-state-Li-ion-batteries. 2021 , 3, 827-853	22
351	Rationally Designed PEGDA-LLZTO Composite Electrolyte for Solid-State Lithium Batteries. 2021 , 13, 30703-30711	5
350	Phosphate Polyanion Materials as High-Voltage Lithium-Ion Battery Cathode: A Review. 2021 , 35, 10428-1045	022
349	Effect of temperature on concentrated electrolytes for advanced lithium ion batteries. 2021 , 154, 214503	2
348	Zinc Oxide-Based Pseudocapacitors with Electrospun Poly(Vinylidene Fluoride)/Poly(Ionic Liquid) Nanofibers as Solid Polymer Electrolyte. 889, 112-119	
347	Electrospun Silsequioxane-grafted PVDF hybrid membranes for high-performance rechargeable lithium batteries. 2021 , 215, 108849	6
346	Dual-salt effect on polyethylene oxide/Li6.4La3Zr1.4Ta0.6O12 composite electrolyte for solid-state lithium metal batteries with superior electrochemical performance. 2021 , 210, 108837	2
345	Increasing the Lithium Ion Mobility in Poly(Phosphazene)-Based Solid Polymer Electrolytes through Tailored Cation Doping. 2021 , 168, 070559	
344	Stable Cycling of a 4 V Class Lithium Polymer Battery Enabled by In Situ Cross-Linked Ethylene Oxide/Propylene Oxide Copolymer Electrolytes with Controlled Molecular Structures. 2021 , 13, 35664-35676	3
343	In-situ UV cured acrylonitrile grafted epoxidized natural rubber (ACN-g-ENR) LiTFSI solid polymer electrolytes for lithium-ion rechargeable batteries. 2021 , 164, 104938	3

342	Future Material Developments for Electric Vehicle Battery Cells Answering Growing Demands from an End-User Perspective. 2021 , 14, 4223	8
341	Improved performance of lithium ion battery by the incorporation of novel synthesized organic-inorganic hybrid nanoparticles SiO2-poly(methyl methacrylate-co-ureidopyrimidinone) in gel polymer electrolyte based on poly (vinylidene fluoride). 2021 , 228, 123924	6
340	In situ preparation of gel polymer electrolyte for lithium batteries: Progress and perspectives.	11
339	Structural and impedance analysis of PAN-based Na+ ion conducting gel polymer electrolytes for energy storage device application. 2021 , 51, 1164-1164	
338	Immobilizing Ceramic Electrolyte Particles into a Gel Matrix Formed In Situ for Stable Li-Metal Batteries. 2021 , 13, 38179-38187	1
337	Effect of Coordination Behavior in Polymer Electrolytes for Sodium-Ion Conduction: A Molecular Dynamics Study of Poly(ethylene oxide) and Poly(tetrahydrofuran). 2021 , 54, 8553-8562	1
336	Development of sodium hybrid quasi-solid electrolytes based on porous NASICON and ionic liquids. 2021 ,	2
335	Sodium alginate incorporated with magnesium nitrate as a novel solid biopolymer electrolyte for magnesium-ion batteries. 2021 , 32, 22270-22285	O
334	Nanostructured Polymer Electrolytes for Lithium-Ion Batteries. 2021 , 29, 509-518	7
333	Room-Temperature Solid-State Lithium Metal Batteries Using Metal Organic Framework Composited Comb-Like Methoxy Poly(ethylene glycol) Acrylate Solid Polymer Electrolytes. 2021 , 306, 2100336	2
332	2D Silicate Materials for Composite Polymer Electrolytes. 2021 , 16, 2842-2851	1
331	Solid polymer nanocomposite electrolytes with improved interface properties towards lithium metal battery application at room temperature. 2021 , 387, 138455	3
330	A Flexible Semi-Interpenetrating Network-Enhanced Ionogel Polymer Electrolyte for Highly Stable and Safe Lithium Metal Batteries. 2021 , 13, 41946-41955	2
329	Lithium-ion mobility in layered oxides Li2Ca1.5Nb3O10, Li2Ca1.5TaNb2O10 and Li2Ca1.5Ta2NbO10, enhanced by supercell formation. 2021 , 60, 75-84	1
328	Fiber supercapacitor using epoxy-based gel polymer electrolyte with high ionic conductivity and mechanical flexibility. 2021 , 3, 035005	0
327	Development of high performing polymer electrolytes based on superconcentrated solutions. 2021 , 506, 230220	2
326	Research Progress and Application of PEO-Based Solid State Polymer Composite Electrolytes. 2021 , 9,	2
325	Building a highly functional Li1.3Al0.3Ti1.7(PO4)3/poly (vinylidene fluoride) composite electrolyte for all-solid-state lithium batteries. 2021 , 874, 159890	5

324	Cross-linked Single-Ion Solid Polymer Electrolytes with Alternately Distributed Lithium Sources and Ion-Conducting Segments for Lithium Metal Batteries.	9
323	Stable Interface Chemistry and Multiple Ion Transport of Composite Electrolyte Contribute to Ultra-long Cycling Solid-State LiNi0.8Co0.1Mn0.1O2/Lithium Metal Batteries.	O
322	Enhanced Cyclability of CrO Cathode for PEO-Based All-Solid-State Lithium-Ion Batteries by Atomic Layer Deposition of AlO. 2021 , 14,	1
321	Stable Interface Chemistry and Multiple Ion Transport of Composite Electrolyte Contribute to Ultra-long Cycling Solid-State LiNi Co Mn O /Lithium Metal Batteries. 2021 , 60, 24668-24675	26
320	Highly conductive polymer electrolytes based on PAN-PEI nanofiber membranes with in situ gelated liquid electrolytes for lithium-ion batteries. 2021 , 230, 124038	7
319	High Salt-Content Plasticized Flame-Retardant Polymer Electrolytes. 2021 , 13, 44844-44859	1
318	Perovskite Quantum Dots for Lewis Acid $f B$ ase Interactions and Interface Engineering in Lithium-Metal Batteries.	2
317	Tuning the solution structure of electrolyte for optimal solid-electrolyte-interphase formation in high-voltage lithium metal batteries. 2021 , 60, 178-185	16
316	Non-flammable super-concentrated polymer electrolyte with Bolvated ionic liquidIfor lithium-ion batteries. 2021 , 506, 230099	4
315	The significance of aqueous binders in lithium-ion batteries. 2021 , 147, 111227	11
315	The significance of aqueous binders in lithium-ion batteries. 2021, 147, 111227 Polymer electrolytes and interfaces in solid-state lithium metal batteries. 2021,	21
314	Polymer electrolytes and interfaces in solid-state lithium metal batteries. 2021 , All-dry synthesis of self-supporting thin Li10GeP2S12 membrane and interface engineering for	21
314	Polymer electrolytes and interfaces in solid-state lithium metal batteries. 2021, All-dry synthesis of self-supporting thin Li10GeP2S12 membrane and interface engineering for solid state lithium metal batteries. 2021, 421, 129965 Nonflammable highly-fluorinated polymer electrolytes with enhanced interfacial compatibility for	21
314 313 312	Polymer electrolytes and interfaces in solid-state lithium metal batteries. 2021, All-dry synthesis of self-supporting thin Li10GeP2S12 membrane and interface engineering for solid state lithium metal batteries. 2021, 421, 129965 Nonflammable highly-fluorinated polymer electrolytes with enhanced interfacial compatibility for dendrite-free lithium metal batteries. 2021, 510, 230411 Addressing interface elimination: Boosting comprehensive performance of all-solid-state Li-S	21 10 5
314 313 312 311	Polymer electrolytes and interfaces in solid-state lithium metal batteries. 2021, All-dry synthesis of self-supporting thin Li10GeP2S12 membrane and interface engineering for solid state lithium metal batteries. 2021, 421, 129965 Nonflammable highly-fluorinated polymer electrolytes with enhanced interfacial compatibility for dendrite-free lithium metal batteries. 2021, 510, 230411 Addressing interface elimination: Boosting comprehensive performance of all-solid-state Li-S battery. 2021, 41, 563-570 Electrochemical characterization of Li-ion conducting polyvinylidene fluoride/sulfonated graphene	21 10 5
314 313 312 311 310	Polymer electrolytes and interfaces in solid-state lithium metal batteries. 2021, All-dry synthesis of self-supporting thin Li10GeP2S12 membrane and interface engineering for solid state lithium metal batteries. 2021, 421, 129965 Nonflammable highly-fluorinated polymer electrolytes with enhanced interfacial compatibility for dendrite-free lithium metal batteries. 2021, 510, 230411 Addressing interface elimination: Boosting comprehensive performance of all-solid-state Li-S battery. 2021, 41, 563-570 Electrochemical characterization of Li-ion conducting polyvinylidene fluoride/sulfonated graphene oxide nanocomposite polymer electrolyte membranes for lithium ion batteries. 2021, 636, 119563 Lithium bis(trifluoromethanesulfonyl)imide blended in polyurethane acrylate photocurable solid	21 10 5 4

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306	Ultrathin polymer-in-ceramic and ceramic-in-polymer bilayer composite solid electrolyte membrane for high-voltage lithium metal batteries. 2021 , 640, 119840		6
305	Algal-based polysaccharides as polymer electrolytes in modern electrochemical energy conversion and storage systems: A review. 2021 , 2, 100023		3
304	Designing composite polymer electrolytes for all-solid-state lithium batteries. 2021 , 30, 100828		4
303	Anion anchored conjugated microporous polymers as solid electrolytes. 2022 , 427, 131728		5
302	A high ion-conducting, self-healing and nonflammable polymer electrolyte with dynamic imine bonds for dendrite-free lithium metal batteries. 2022 , 428, 131224		10
301	Advances and prospects of PVDF based polymer electrolytes. 2022 , 64, 62-84		34
300	Material and configuration design strategies towards flexible and wearable power supply devices: a review. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 8950-8965	13	13
299	Investigations of biodegradable polymer blend electrolytes based on Cornstarch: PVP: NH4Cl and its potential application in solid-state batteries. 2021 , 32, 5427-5441		1
298	Modification of Thiol-Ene Ionogels with Octakis (methacryloxypropyl) Silsesquioxane. 2021 , 13,		О
297	Novel conducting solid polymer electrolytes with a zwitterionic structure boosting ionic conductivity and retarding lithium dendrite formation. <i>Journal of Materials Chemistry A</i> ,	13	3
296	Multilayered PVDF-HFP Porous Separator via Phase Separation and Selective Solvent Etching for High Voltage Lithium-Ion Batteries. 2021 , 11,		7
295	An evaluation of solid-state electrolyte based on pectin and lithium bis (trifluoromethanesulphonyl)imide for lithium-ion batteries. 2021 , 47, 819-824		1
294	Polymer Nanocomposites for Ion Transport. 2021 , 85-127		
293	Preliminary study of electrochemical properties of polyethylene oxide (PEO) and polyvinyl alcohol (PVA) composites as material for solid polymer electrolyte. 2021 , 44, 3375-3377		O
292	Constructing Li-Rich Artificial SEI Layer in Alloy-Polymer Composite Electrolyte to Achieve High Ionic Conductivity for All-Solid-State Lithium Metal Batteries. 2021 , 33, e2004711		32
291	Preparation and characterization of nanofibrous cellulose as solid polymer electrolyte for lithium-ion battery applications 2021 , 11, 22929-22936		2
290	Progress and Challenges for All-Solid-State Sodium Batteries. 2021, 2, 2000057		8
289	Antifreezing Zwitterionic Hydrogel Electrolyte with High Conductivity of 12.6 mS cml at 40 IIC through Hydrated Lithium Ion Hopping Migration. 2021 , 31, 2009438		33

288	Recent Advances in Polymer Electrolytes for Zinc Ion Batteries: Mechanisms, Properties, and Perspectives. 2020 , 10, 1903977	144
287	Highly Strong and Tough Double-Crosslinked Hydrogel Electrolyte for Flexible Supercapacitors. 2020 , 7, 1007-1015	13
286	Li Metal Polymer Batteries. 2019 , 347-373	4
285	Rational Polymer Design of Stretchable Poly(ionic liquid) Membranes for Dual Applications. 2021 , 54, 896-905	7
284	Highly Efficient Multicomponent Gel Biopolymer Binder Enables Ultrafast Cycling and Applicability in Diverse Battery Formats. 2020 ,	2
283	Investigation of a Biomass Hydrogel Electrolyte Naturally Stabilizing Cathodes for Zinc-Ion Batteries. 2021 , 13, 745-754	22
282	A Comparative Study of Sulfate-Based Neutral pH Polymer Electrolytes: Effects of Temperature on Ionic Conductivity. 2020 , 167, 126508	1
281	Solid-State Lithium-Sulfur Battery Based on Composite Electrode and Bi-layer Solid Electrolyte Operable at Room Temperature. 2020 , 167, 140529	5
280	Secondary Battery Performance of Solid Polymer Electrolyte Membranes Based on Lithium Ion Conductive Polyimide Nanofibers. 2020 , 33, 321-325	3
279	Optimization of the Electrochemical Performance of a Composite Polymer Electrolyte Based on PVA-KCO-SiO Composite. 2020 , 13,	8
278	A scaffold membrane of solid polymer electrolytes for realizing high-stability and dendrite-free lithium-metal batteries. <i>Journal of Materials Chemistry A</i> ,	3
277	Application of a Modified Porphyrin in a Polymer Electrolyte with Superior Properties for All-Solid-State Lithium Batteries. 2021 , 13, 48569-48581	3
276	Copper-coordinated cellulose ion conductors for solid-state batteries. 2021 , 598, 590-596	49
275	Thermal, Mechanical, and Ion-Conductive Properties of Crosslinked Poly[(ethylene carbonate)-co-(ethylene oxide)]-Lithium Bis(fluorosulfonyl)Imide Electrolytes. 2100327	О
274	Modified MOF-Based Composite All-Solid-State Polymer Electrolyte with Improved Comprehensive Performance for Dendrite-Free Li-Ion Batteries. 2100325	1
273	Enhanced Al/Ta co-doped Li7La3Zr2O12 ceramic electrolytes with the reduced Ta doping level for solid-state lithium batteries. 2021 , 56, 19614	1
272	Review on Microstructural and Ion-Conductivity Properties of Biodegradable Starch-Based Solid Polymer Electrolyte Membranes. 2100170	1
271	Block copolymers as (single-ion conducting) lithium battery electrolytes. 2021 , 33,	1

270	Role of Filler Content and Morphology in LLZO/PEO Membranes. 2021, 9,	4
269	An Organic/Inorganic Composite Gel Electrolyte Inducing Uniformly Lithium Deposition at High Current Density and Capacity. 2021 , 8, 2100790	2
268	One-Pot Green Synthesis of a PEO/TCPP/LiClO4 Solid Polymer Electrolyte with Improvement of Ion Transport. 2021 , 125, 22960-22969	0
267	Multisalt chemistry in ion transport and interface of lithium metal polymer batteries. 2022 , 44, 263-277	3
266	Zeolitic imidazolate framework enables practical room-temperature operation of solid-state lithium batteries. 2021 , 21, 100554	0
265	Stabilizing Polymer Electrolytes in High-Voltage Lithium Batteries. 2019 , 199-227	
264	Confining Electrodeposition of Metals in Structured Electrolytes. 2019 , 59-79	1
263	Ionic Conductivity, Polymer Electrolyte, Membranes, Electrochemical Stability, Separators. 2019 , 163-193	1
262	CHAPTER 3:Electrolyte Development for Solid-state Lithium Batteries. 2019 , 100-135	
261	Ionic Liquid-Based Gel Polymer Electrolytes for Application in Rechargeable Lithium Batteries.	1
260	Recent Advancements in High-Performance Solid Electrolytes for Li-ion Batteries: Towards a Solid Future. 2020 , 16, 507-533	
259	Density Functional Theory Study of Ethylene Carbonate Adsorption on the (0001) Surface of Aluminum Oxide EAlO. 2021 , 6, 29577-29587	О
258	Structural and Electrical Conductivity Studies of PVDF-HFP Film Filled with Tio2 and Nacl for Polymer Semiconductors. 2021 , 37, 1102-1108	1
257	Newly comprehensive understanding of Li2S8 as additive in liquid electrolyte for lithium-sulfur battery through reconstructing the cathode and SEI. 2021 , 14, 2151001	O
256	Modern Directions of Development of Lithium-Ion Battery Technology. 2020 , 18,	
255	Ionically Cross-Linked Polymers as Asymmetric Gel Polymer Electrolytes for Enhanced Cycle Performance of Lithium-Sulfur Batteries 2021 , 10, 110-115	2
254	The role and the necessary features of electrolytes for microsupercapacitors. 2022, 47-116	О
253	PVDF-HFP based polymer electrolytes with high Li+ transference number enhancing the cycling performance and rate capability of lithium metal batteries. 2022 , 574, 151593	6

252	Acylamino-functionalized crosslinker to synthesize all-solid-state polymer electrolytes for high-stability lithium batteries. 2022 , 430, 132948	3
251	Waterborne Polyurethanes in Sustainability Development. 2021 , 83-108	
250	Bio-Based Aromatics: Aminobenzoic Acid Derivatives for High-Performance Bioplastics. 2020 , 99-121	О
249	Safety-enhanced Polymer Electrolytes with High Ambient-temperature Lithium-ion Conductivity Based on ABA Triblock Copolymers. 1	1
248	Electrochemical construction of functional polymers and their application advances in lithium batteries.	3
247	Effects of ionic liquids and silica nanoparticles on the ionic conductivities, mechanical properties, and rheological properties of sodium-containing solid polymer electrolytes. 2022 , 518, 230748	2
246	Impact of Charged Surfaces on the Structure and Dynamics of Polymer Electrolytes: Insights from Atomistic Simulations. 2021 , 125, 25392-25403	1
245	Extrusion of Polymer Blend Electrolytes for Solid-State Lithium Batteries: A Study of Polar Functional Groups.	2
244	Influence of CeO2 as Dispersoid in Blend POLY (Styrene-co-Methyl Methacrylate) - Electrolyte for Li-ION Battery.	0
243	Advanced Block Copolymer Design for Polymer Electrolytes: Prospects of Microphase Separation.	1
242	Mg-based inorganic nanofibers constructing fast and multi-dimensional ion conductive pathways for all-solid-state lithium metal batteries. 2021 , 67, 684-684	1
241	Influence of heat treatment on the discharge performance of Mg-Al and Mg-Zn alloys as anodes for the Mg-air battery. 2021 , 433, 133797	1
240	High-Throughput Experimentation and Computational Freeway Lanes for Accelerated Battery Electrolyte and Interface Development Research. 2102678	5
239	In Situ Polymerized Electrolytes with Fully Cross-Linked Networks Boosting High Ionic Conductivity and Capacity Retention for Lithium Ion Batteries.	1
238	Zwitterionic materials with disorder and plasticity and their application as non-volatile solid or liquid electrolytes. 2021 ,	5
237	Polymerization of Aniline Derivatives to Yield Poly[,-(phenylamino)disulfides] as Polymeric Auxochromes. 2021 , 54, 10405-10414	o
236	Development and Progression of Polymer Electrolytes for Batteries: Influence of Structure and Chemistry. 2021 , 13,	3
235	Temperature Dependence of Conformational Relaxation of Poly(ethylene oxide) Melts. 2021 , 13,	0

234	A composite PEO electrolyte with amide-based polymer matrix for suppressing lithium dendrite growth in all-solid-state lithium battery. 2021 ,	3
233	Enabling double-layer polymer electrolyte batteries: overcoming the Li-salt interdiffusion. 2021 , 45, 578-578	2
232	Photocured Cationic Polyoxazoline Macromonomers as Gel Polymer Electrolytes for Lithium-Ion Batteries.	О
231	Contribution of Li+ Ions to a Gel Polymer Electrolyte Based on Polymethyl Methacrylate and Polylactic Acid Doped with Lithium Bis(oxalato) Borate. 2022 , 51, 745	2
230	Starch as the Flame Retardant for Electrolytes in Lithium-Ion Cells 2022, 15,	О
229	LLCZN/PEO/LiPF6 Composite Solid-State Electrolyte for Safe Energy Storage Application. 2022 , 8, 3	1
228	Ionic interactions control the modulus and mechanical properties of molecular ionic composite electrolytes.	1
227	Solid polymer electrolytes based on polysiloxane with anion-trapping boron moieties for all-solid-state lithium metal batteries. 2022 , 240, 124517	О
226	All-organic non-aqueous redox flow batteries with advanced composite polymer-ceramic Li-conductive membrane. 2022 , 46, 103810	1
225	Electrochemo-mechanical effects as a critical design factor for all-solid-state batteries. 2022 , 26, 100977	8
224	Increasing the electrochemical stability window for polyethylene-oxide-based solid polymer electrolytes by understanding the affecting factors. 2022 , 375, 115837	1
223	Quasi-Solid-State Polymer Electrolyte Based on High-Concentrated LiTFSI Complexing DMF for Ambient-Temperature Rechargeable Lithium Batteries.	
222	A strong Lewis acid imparts high ionic conductivity and interfacial stability to polymer composite electrolytes towards all-solid-state Li-metal batteries. 1	3
221	A comprehensive review of polymer electrolyte for lithium-ion battery. 1	O
220	Does Cell Polarization Matter in Single-Ion Conducting Electrolytes?. 2022,	2
219	Cyanospirobifluorene-based conjugated polyelectrolytes: Synthesis and tunable nonvolatile information storage performance. 2022 , 163, 110940	O
218	Introduction to ionic liquids and their environment-friendly applications. 2022, 1-15	0
217	Influence of Inorganic Glass Ceramic Particles on Ion States and Ion Transport in Composite Single-Ion Conducting Gel Polymer Electrolytes with Varying Chain Chemistry. 2022 , 4, 1095-1109	1

216	3D structural lithium alginate-based gel polymer electrolytes with superior high-rate long cycling performance for high-energy lithium metal batteries. <i>Journal of Materials Chemistry A</i> , 2022 , 10, 707-715	8 ¹³	4
215	Designing Polyurethane Solid Polymer Electrolytes for High-Temperature Lithium Metal Batteries. 2022 , 5, 407-418		1
214	Hydroxypropyl methyl cellulose-based gel polymer electrolyte provides a fast migration channel for sodium-ion batteries. 2022 , 57, 4311-4322		O
213	Metal oxides-free anodes for lithium-ion batteries. 2022 , 149-176		
212	Designing Versatile Polymers for Lithium-Ion Battery Applications: A Review 2022, 14,		1
211	Single-Ion Gel Polymer Electrolyte Based on Poly(ether sulfone) for High-Performance Lithium-Ion Batteries. 2100791		2
210	Supramolecular Network Structured Gel Polymer Electrolyte with High Ionic Conductivity for Lithium Metal Batteries 2022 , e2106352		4
209	Cornstarch/polyvinylpyrrolidone based proton conducting biocompatible polymer blend electrolyte for long life battery. 2022 , 28, 1809		
208	Long-chain fluorocarbon-driven hybrid solid polymer electrolyte for lithium metal batteries. <i>Journal of Materials Chemistry A</i> ,	13	2
207	Gel polymer electrolyte based on hydroxypropyl methyl cellulose matrix composited with polyhedral oligomeric silsesquioxane. 2022 , 907, 116058		O
206	Spatial Adjustment Strategy to Improve the Sensitivity of Ionogels for Flexible Sensors. 2200035		1
205	Worldwide ubiquitous utilization of lithium-ion batteries: What we have done, are doing, and could do safely once they are dead?. 2022 , 523, 231015		1
204	Solid state lithium ion conductors for lithium batteries. 2022 ,		O
203	Reducing the crystallinity of PEO-based composite electrolyte for high performance lithium batteries. 2022 , 234, 109729		1
202	Gel polymer electrolytes with high performance based on a polyvinylidene fluoride composite with eco-friendly lignocellulose for lithium-ion batteries.		
201	Covalent organic frameworks for solid-state electrolytes of lithium metal batteries. <i>Journal of Materials Chemistry A</i> , 2022 , 10, 7497-7516	13	6
200	Crosslinked xylose-based polyester as a bio-derived and degradable solid polymer electrolyte for Li+-ion conduction. <i>Journal of Materials Chemistry A</i> , 2022 , 10, 6796-6808	13	2
199	Polyether-based solid electrolytes with a homogeneous polymer network: effect of the salt concentration on the Li-ion coordination structure 2022 ,		O

198	Synthesis and molecular characterization of well-defined polyanion miktoarm star copolymers. 2022 , 13, 1997-2007	О
197	Polymer Nanocomposites for Energy Storage Applications. 2022 , 697-724	
196	Correlation of Electrical, Thermal, and Crystal Parameters of Complex Composite Films Based on Polyethylene Oxide (Peo) Doped by Copper Sulfate (Cuso4).	
195	MOF-supported crystalline ionic liquid: new type of solid electrolyte for enhanced and high ionic conductivity 2022 ,	2
194	Solid-State and Gel Electrolytes for Sodium-Ion Batteries. 2022 , 401-448	
193	Reprocessable and Recyclable Polymer Network Electrolytes via Incorporation of Dynamic Covalent Bonds. 2022 , 34, 2393-2399	7
192	Synergistic Effect of Lithium Salts with Fillers and Solvents in Composite Electrolytes for Superior Room-Temperature Solid-State Lithium Batteries. 2022 , 5, 2484-2494	7
191	Composite polymer electrolytes: progress, challenges, and future outlook for sodium-ion batteries. 1	Ο
190	Electrochemical Cells and Storage Technologies to Increase Renewable Energy Share in Cold Climate Conditions Critical Assessment. 2022 , 15, 1579	1
189	In Situ Construction a Stable Protective Layer in Polymer Electrolyte for Ultralong Lifespan Solid-State Lithium Metal Batteries 2022 , e2104277	11
188	A Single-Ion Polymer Composite Electrolyte Via In Situ Polymerization of Electrolyte Monomers into a Porous MOF-Based Fibrous Membrane for Lithium Metal Batteries. 2022 , 5, 3800-3809	2
187	A review of the recent progress in battery informatics. 2022 , 8,	4
186	Molecular dynamics study on lithium-ion transport in PEO branched nanopores with PYR 14 TFSI ionic liquid. 20210013	
185	Polymers for Long-Cycle and Highly Safe Lithium-Based Batteries. 2100923	
184	Electrochemical Impedance Spectroscopy of PEO-LATP Model Multilayers: Ionic Charge Transport and Transfer 2022 ,	1
183	Iongel Soft Solid Electrolytes Based on [DEME][TFSI] Ionic Liquid for Low Polarization Lithium-O 2 Batteries.	1
182	Toward High-Voltage Solid-State Li-Metal Batteries with Double-Layer Polymer Electrolytes. 2022 , 7, 1473-1480	7
181	Fabrication of a PEO-PVDF blend based polymer composite electrolyte with extremely high ionic conductivity via the addition of LLTO nanowires. 2022 , 377, 115885	1

180	Closo-Borate Gel Polymer Electrolyte with Remarkable Electrochemical Stability and a Wide Operating Temperature Window 2022 , e2106032	0
179	A Janus-faced, perovskite nanofiber framework reinforced composite electrolyte for high-voltage solid lithium-metal batteries. 2022 , 526, 231172	O
178	Hybrids gel electrolytes with pending polyhedral oligomeric silsesquioxane toward improving interfacial stability for lithium ion batteries. 1	
177	Recent Advances in Printed Thin-film Batteries. 2022,	2
176	Teaching Metal-Organic Frameworks to Conduct: Ion and Electron Transport in Metal-Organic Frameworks. 2022 , 52,	0
175	Gel Polymer Electrolytes Based on an Interconnected Porous Matrix Functionalized with Poly(ethylene glycol) Brushes Showing High Lithium Transference Numbers for High Charging-Rate Lithium Ion Batteries.	1
174	Polyurethane-based polymer electrolyte for lithium ion batteries: a review.	0
173	Self-assembly of Li single-ion-conducting block copolymers for improved conductivity and viscoelastic properties. 2022 , 413, 140126	2
172	Free-standing solid polymer electrolytes based on elastomeric material and ionic liquids for safer lithium-ion battery applications. 2022 , 379, 115901	0
171	Highly conductive self-healing polymer electrolytes based on synergetic dynamic bonds for highly safe lithium metal batteries. 2022 , 442, 136083	3
170	Electrophysical Properties of the System PEG 1500LiTFSI. 2021 , 57, 1078-1087	
169	Applications of Polymer Materials in Lithium-Ion Batteries: Polymeric Electrolytes and Separators. 2021 ,	
168	Single-Ion-Conducting "Polymer-in-Ceramic" Hybrid Electrolyte with an Intertwined NASICON-Type Nanofiber Skeleton 2021 , 13, 61067-61077	3
167	Poly(ionic liquid) Based Composite Electrolytes for Lithium Ion Batteries 2021 , 13,	O
166	Polymerization-induced microphase separation of polymer-polyoxometalate nanocomposites for anhydrous solid state electrolytes. 2021 ,	2
165	A Hollow Porous Metal-Organic Framework Enabled Polyethylene Oxide Based Composite Polymer Electrolytes for All-Solid-State Lithium Batteries. 2022 , 5,	O
164	The quest for the holy grail of solid-state lithium batteries.	10
163	Vertically Heterostructured Solid Electrolytes for Lithium Metal Batteries. 2201465	2

162	Polyethylene Glycol-Grafted Cellulose-based Gel Polymer Electrolyte for Long-life Li-ion Batteries. 2022 , 153411	1
161	Nonflammable, robust and flexible electrolytes enabled by phosphate coupled polymer-polymer for Li-metal batteries 2022 , 621, 222-231	Ο
160	Polymeric nanocomposites for lithium ulfur batteries. 2022 , 389-424	
159	Polymer Electrolytes Based on Interactions between [Solvent-Li+] Complex and Solvent-Modified Polymer.	
158	The structural and ionic conductivity analysis of poly(ethylene oxide)/LiTFSI/MOF-5 nanocomposite electrolytes by using molecular dynamics simulations. 1	0
157	Progress and perspectives on electrospinning techniques for solid-state lithium batteries.	6
156	Hole transport and current⊠oltage characteristics of PEO / PVP /cobalt nitrate polymer blend electrolytes.	0
155	Ionic conductivity and ion transport mechanisms of solid-state lithium-ion battery electrolytes: A review. 2022 , 10, 1643-1671	5
154	Incorporation of Poly(Ionic Liquid) with PVDF-HFP-Based Polymer Electrolyte for All-Solid-State Lithium-Ion Batteries. 2022 , 14, 1950	0
153	In Situ Dendrimer-Crosslinked Gel Polymer Electrolytes for Lithium-Ion Batteries with High Ionic Conductivity and Excellent Electrochemical Performance.	О
152	A comparative study on the influence of the polymeric host for the operation of all-solid-state batteries at different temperatures. 2022 , 535, 231382	0
151	Synergistically reinforced poly(ethylene oxide)-based composite electrolyte for high-temperature lithium metal batteries 2022 , 622, 1029-1036	1
150	Sodium Polyacrylate Hydrogel Electrolyte Hybridized with Layered Double Hydroxide for Solid-State NiCo/Zinc Battery. 2022 , 169, 040559	0
149	Progress in Gel Polymer Electrolytes for Sodium Ion Batteries.	1
148	Fabrication of ultra-thin, flexible, dendrite-free, robust and nanostructured solid electrolyte membranes for solid-state Li-batteries. <i>Journal of Materials Chemistry A</i> ,	0
147	Polyrotaxane-based electrolyte with excellent thermal stability for quasi-solid lithium metal batteries.	O
146	Quasi-Solid-State Polymer Electrolyte Based on Highly Concentrated LiTFSI Complexing DMF for Ambient-Temperature Rechargeable Lithium Batteries.	0
145	Poly(poly(ethylene glycol) methyl ether methacrylate-co-acrylonitrile) gel polymer electrolytes for high performance lithium ion batteries: Comparing controlled and conventional radical polymerization. 2022 , 173, 111276	О

144	Fast Li+ Transport Pathways of Composite Solid-State Electrolyte Constructed by 3d Mof Composite Nanofibrous Network for Dendrite-Free Lithium Metal Battery.		
143	Influence of Electron beam radiation on the properties of Surface-Modified Titania-Filled gel polymer electrolytes using vinyltriethoxysilane (VTES) for lithium battery application. 2022 , 4, 100383		
142	3D Printable Composite Polymer Electrolytes: Influence of SiO2 Nanoparticles on 3D-Printability. 2022 , 12, 1859		1
141	Quasi-Solid-State Electrolyte Membranes Based on Helical Mesoporous Polysilsesquioxane Nanofibers for High-Performance Lithium Batteries. 2022 , 135, 104399		O
140	Tailoring intermolecular interactions in ion gels with rationally designed phosphonic acid polymers.		1
139	Metallic Sodium Anodes for Advanced Sodium Metal Batteries: Progress, Challenges and Perspective.		
138	A review on recent advancements in solid state lithium-sulphur batteries: Fundamentals, challenges, and perspectives.		1
137	Review of low-temperature lithium-ion battery progress: New battery system design imperative.		Ο
136	Plasticizers and Salt Concentrations Effects on Polymer Gel Electrolytes Based on Poly (Methyl Methacrylate) for Electrochemical Applications. 2022 , 8, 363		1
135	Solid Composite Electrolytes for Solid-State Alkali Metal Batteries. 395-423		
134	Green Polymer Electrolytes based on Polycaprolactones for Solid-State High-Voltage Lithium Metal Batteries. 2200335		2
133	Improvement of the Interface between the Lithium Anode and a Garnet-Type Solid Electrolyte of Lithium Batteries Using an Aluminum-Nitride Layer. 2022 , 12, 2023		4
132	Core-Shell Structured Gel Polymer Electrolyte with Single-Ion Conducting and Thermal Stability Bifunction for Lithium-Ion Batteries.		
131	Regulating zinc metal anodes via novel electrolytes in rechargeable zinc-based batteries. <i>Journal of Materials Chemistry A</i> ,	13	1
130	Electrospun Nanofibers based Electrodes and Electrolytes for Supercapacitors. 2022, 351-389		
129	Solid electrolytes for lithium-sulfur batteries. 2022 , 17-47		
128	Solid-State Nanocomposite Ionogel Electrolyte with In-Situ Formed Ionic Channels for Uniform Ion-Flux and Suppressing Dendrite Formation in Lithium Metal Batteries.		
127	New insights on the origin of chemical instabilities between poly(carbonate)-based polymer and Li-containing inorganic materials.		

126	Electrical and thermal characterizations of synthesized composite films based on polyethylene oxide (PEO) doped by aluminium chloride (AlCl3).	O
125	Research progress on space charge layer effect in lithium-ion solid-state battery.	O
124	Lithium-Ion Battery Solid Electrolytes Based on Poly(vinylidene Fluoride)Metal Thiocyanate Ionic Liquid Blends.	
123	Soft Ionics: Governing Physics and State of Technologies. 10,	1
122	NaSICON: A promising solid electrolytelfor solid-state sodium batteries.	1
121	Sodium-based solid electrolytes and interfacial stability. Towards solid-state sodium batteries. 2022 , 32, 104009	1
120	Improving the refractive index by engineering PbS/PVA nano polymer composite for optoelectronic applications. 2022 , 131, 112639	1
119	Polymer electrolytes based on interactions between [solvent-Li+] complex and solvent-modified polymer. 2022 , 51, 443-452	7
118	Solvent-free green synthesis of nonflammable and self-healing polymer film electrolytes for lithium metal batteries. 2022 , 323, 119571	3
117	Structure P roperty Relationships for Polyether-Based Electrolytes in the High-Dielectric-Constant Regime.	О
116	Progress in the development of solid-state electrolytes for reversible room-temperature sodium Bulfur batteries. 2022 , 3, 6415-6440	3
115	Effect of Ionic Liquid on Plasticized Cs-Pvp-Nai Based Bio-Polymer Blend Electrolytes: Structural, Thermal, Dielectric and Ion Transport Properties Study.	
114	Influence of Salt Anions on the Reactivity of Polymer Electrolytes in All-Solid-State Sodium Batteries. 2022 , 169, 070530	
113	Designing Cathodes and Cathode Active Materials for Solid-State Batteries. 2201425	10
112	Controlled polymerization for Lithium-ion batteries. 2022,	О
111	Revealing the Anion Chemistry Effect on Transport Properties of Ternary Gel Polymer Electrolytes. 2022 , 34, 7493-7502	O
110	Exploration of organic superionic glassy conductors by process and materials informatics with lossless graph database. 2022 , 8,	
109	Achieving Low-Energy-Barrier Ion Hopping in Adhesive Composite Polymer Electrolytes by Nanoabsorption. 2022 , 55, 7117-7126	2

108	Alginate Fiber Grafted Polyetheramine Driven High Ion Conductive and Flame-Retardant Solid Polymer Electrolyte for Lithium Metal Batteries.	
107	Fast Li+ transport pathways of quasi-solid-state electrolyte constructed by 3D MOF composite nanofibrous network for dendrite-free lithium metal battery. 2022 , 101117	1
106	Starch acetate and carboxymethyl starch as green and sustainable polymer electrolytes for high performance lithium ion batteries. 2022 , 324, 119767	1
105	Correlation of electrical, thermal, and crystal parameters of complex composite films based on polyethylene oxide (PEO) doped by copper sulfate (CuSO4). 2022 , 645, 414224	O
104	Engineered networking in a family of solvent-free single-ion conducting borate network polymer electrolytes for Li-metal battery applications. 2022 , 450, 138407	
103	Structural aspect on Balting-inImechanism of PEG chains into a phosphonium-based ionic liquid using lithium salt. 2022 , 366, 120255	O
102	Triallyl cyanurate copolymerization delivered nonflammable and fast ion conduction elastic polymer electrolyte.	0
101	Development of a New Crosslinked Highly Conductive Hybrid Electrolyte based on Polyetherdiamine, Diphenylmethane Diisocyanate and Organosilanes for Efficient Lithium-Metal Battery.	O
100	Structural, electrical and dielectric studies of PVA based NaNO3 Polymer electrolytes for battery applications 1-15	0
99	Spent Li-Ion Battery Electrode Material with Lithium Nickel Manganese Cobalt Oxide as a Reusable Catalyst for Oxidation of Biofurans. 2022 , 10, 12642-12650	O
98	Dense inorganic electrolyte particles as a lever to promote composite electrolyte conductivity.	1
97	Recent advances in cellulose-based polymer electrolytes.	Ο
96	Low-Enthalpy and High-Entropy Polymer Electrolytes for Li-Metal Battery.	0
95	A Self-Standing Flexible Gel Polymer Electrolyte for Dendrite-Free Lithium-Metal Batteries.	O
94	A high-safety electrolyte based on functionalized ionic liquid and polyurethane for lithium batteries. 2022 , 141316	0
93	Bio-Based Polymer Electrolytes for Supercapacitor Applications. 2022 , 1-7	O
92	Novel Design Aspects of All-Solid-State Batteries. 2022 , 157-191	0
91	How to commercialize solid-state batteries: A perspective from solid electrolytes. 2022,	O

90	MXene Based Electrospun Polymer Electrolyte fibers: Fabrication and Enhanced Ionic Conductivity. 2022 , 7,	0
89	Opportunities of Flexible and Portable Electrochemical Devices for Energy Storage: Expanding the Spotlight onto Semi-solid/Solid Electrolytes.	3
88	A Single Ion Polymer Electrolyte via Copolymerization of Lithium (4-Styrenesulfonyl)(Trifluoromethanesulfonyl)imide and Allyl Poly(Aryl Ether Ketone) Enables Safe Lithium Ion Batteries. 2022 , 155363	0
87	Sodium-ion conducting polymer electrolytes.	O
86	Concerted ionic-electronic conductivity enables high-rate capability Li-metal solid-state batteries. 2022 ,	О
85	In situ polymerization infiltrated three-dimensional garnet-based framework for quasi-solid lithium metal batteries. 2022 , 434, 141353	0
84	Electrochemical investigation of double layer surface-functionalized Li-NMC cathode with nano-composite gel polymer electrolyte for Li-battery applications. 2022 , 435, 141328	Ο
83	Failure mechanisms investigation of ultra-thin composite polymer electrolyte-based solid-state lithium metal batteries. 2022 , 436, 141441	Ο
82	Interface functionalization of composite electrolyte by Lix-CeO2 layer on the surface of Li6.4La3Zr1.4Ta0.6O12. 2022 , 435, 141366	0
81	Solid-state nanocomposite ionogel electrolyte with in-situ formed ionic channels for uniform ion-flux and suppressing dendrite formation in lithium metal batteries. 2023 , 54, 40-50	0
80	A review on design considerations in polymer and polymer composite solid-state electrolytes for solid Li batteries. 2023 , 553, 232267	0
79	Upcycling Waste Poly(Ethylene Terephthalate) into Polymer Electrolytes.	O
78	Overview and perspectives of solid electrolytes for sodium batteries.	O
77	Structure and Transport Properties of Poly(ethylene oxide)-Based Cross-Linked Polymer Electrolytes-A Molecular Dynamics Simulations Study.	0
76	Organic Ionic Thermoelectric Materials and Devices. 2022 , 161-193	O
75	Recent Advances in Porous Polymers for Solid-State Rechargeable Lithium Batteries. 2022, 14, 4804	0
74	PEO-Based Block Copolymer Electrolytes Containing Double Conductive Phases with Improved Mechanical and Electrochemical Properties. 2022 , 15, 7930	0
73	Role of Bicontinuous Structure in Elastomeric Electrolytes for High-Energy Solid-State Lithium-Metal Batteries. 2205194	O

72	An overview of metal-air batteries, current progress, and future perspectives. 2022, 56, 106075	О
71	Recent Progresses in Liquid-Free Soft Ionic Conductive Elastomers.	O
70	NaSICON-type solid-state Li+ ion conductors with partial polyanionic substitution of phosphate with silicate. 2022 , 100313	0
69	Sulfide solid electrolyte thin film with high ionic conductive from slurry-casting strategy for all-solid-state lithium batteries. 2023 , 928, 117032	O
68	High-performance aramid electrodes for high-rate and long cycle-life organic Li-ion batteries.	О
67	Newly developed gel polymer electrolytes based on crosslinked poly(2-oxazolines). 2023 , 389, 116096	O
66	A Single Ion Gel Polymer Electrolyte based on Polyimide Grafted with Lithium 3-Chloropropanesulfonyl (Trifluoromethanesulfonyl) imide for High Performance Lithium Ion Batteries.	1
65	Cellulose-based gel-type electrolyte fabricated by lyophilization to enable uniform Li+ ion flux distribution for stable Li metal anodes with high-rate capability. 2023 , 30, 101705	О
64	Effect of ionic liquid on plasticized CS-PVP-NaI based bio-polymer blend electrolytes: Structural, thermal, dielectric and ion transport properties study. 2023 , 288, 116215	О
63	A solvent-anchored non-flammable electrolyte. 2022 ,	O
62	Imidazolium-Type Poly(ionic liquid) Endows the Composite Polymer Electrolyte Membrane with Excellent Interface Compatibility for All-Solid-State Lithium Metal Batteries. 2022 , 14, 55664-55673	0
61	Fluorinated Solid-State Electrolytes for Lithium Batteries: Interface Design and Ion Conduction Mechanisms.	O
60	Synthesis of Garnet LLZO by Aliovalent Co-Doping, and Electrochemical Behavior of Composite Solid Electrolyte for All-Solid Lithium Batteries. 2022 , 169, 120506	O
59	Insights into the use of polyepichlorohydrin polymer in lithium battery energy storage/conversion devices: review. 2023 , 5,	O
58	Effect of Nanoparticles in LiFePO4 Cathode Material Using Organic/Inorganic Composite Solid Electrolyte for All-Solid-State Batteries.	1
57	Enhanced Performance of Lithium Polymer Batteries Based on the Nickel-Rich LiNi0.8Mn0.1Co0.1O2 Cathode Material and Dual Salts. 2022 , 5, 15768-15779	O
56	Novel Quasi-Solid-State Composite Electrolytes Boost Interfacial Li+ Transport for Long-Cycling and Dendrite-Free Lithium Metal Batteries. 2023 ,	0
55	Ion Conduction□in Composite Polymer Electrolytes - Potential Electrolytes for Sodium-ion Batteries.	О

54	Design of Solid Electrolytes with Fast Ion Transport: Computation-driven and Practical Approaches.	О
53	Emerging electrolyte-gated transistors for neuromorphic perception. 2023 , 24,	1
52	The correlation of Li+ Carrier Towards Immittance Conduction Properties on Alginate-PVA-LiNO3 Complexes-Based Solid Polymer Electrolytes System.	1
51	Realizing Scalable Nano-SiO2-Aerogel-Reinforced Composite Polymer Electrolytes with High Ionic Conductivity via Rheology-Tuning UV Polymerization. 2023 , 28, 756	O
50	The Role of Polymer-Based Materials in Sustainable, Safe, and Efficient Metal Batteries. 2023, 415-441	0
49	Incorporating Ethylene Oxide Functionalized Inorganic Particles to Solid Polymer Electrolytes for Enhanced Mechanical Stability and Electrochemical Performance. 2200125	O
48	Valid design and evaluation of cathode and anode materials of aqueous zinc ion batteries with high-rate capability and cycle stability.	0
47	Ionic Conduction in Polymer-Based Solid Electrolytes. 2201718	1
46	Polymer-Containing Batteries *. 2023 , 17-68	0
45	Charge and mass transport mechanisms in two-dimensional covalent organic frameworks (2D COFs) for electrochemical energy storage devices.	O
44	Targeted Delivery of Zinc Ion Derived by Pseudopolyrotaxane Gel Polymer Electrolyte for Long-Life Zn Anode. 2023 , 15, 6839-6847	0
43	Chemistry-Informed Machine Learning for Polymer Electrolyte Discovery.	O
42	The Emergence of Redox Polymers In the Field of Energy-Storage Applications *. 2023, 1-15	0
41	Key approaches and challenges in fabricating advanced flexible zinc-ion batteries with functional hydrogel electrolytes. 2023 , 56, 351-393	O
40	Flexible-High-Conducting Polymer-In-Salt-Electrolyte (PISE) Membranes: A Reality Due to Crosslinked-Starch Polymer Host. 2023 , 247-263	0
39	A Brief Review of Gel Polymer Electrolytes Using In Situ Polymerization for Lithium-ion Polymer Batteries. 2023 , 15, 803	O
38	Quasi-Solid Polymer Electrolyte with Multiple Lithium-Ion Transport Pathways by In Situ Thermal-Initiating Polymerization. 2023 , 15, 8128-8137	0
37	Preparation of nanocomposite polymer electrolytes by incorporating poly[poly(ethylene glycol) methyl ether methacrylate]-grafted poly(amidoamine) dendrimer for high performance lithium ion batteries. 2023 , 186, 111854	O

36	Investigation of the effect of F-doping on the solid-electrolyte property of Li3InCl6. 2023, 567, 232962	O
35	Design strategies for coordination polymers as electrodes and electrolytes in rechargeable lithium batteries. 2023 , 483, 215084	O
34	A cellulose reinforced polymer composite electrolyte for the wide-temperature-range solid lithium batteries. 2023 , 464, 142537	O
33	Stepwise optimization of single-ion conducting polymer electrolytes for high-performance lithium-metal batteries. 2023 , 80, 174-181	O
32	A review on battery technology for space application. 2023 , 61, 106792	0
31	Polyether-b-Amide Based Solid Electrolytes with Well-Adhered Interface and Fast Kinetics for Ultralow Temperature Solid-State Lithium Metal Batteries.	Ο
30	Selection of Polymer Segment Species Matters for Electrolyte Properties and Performance in Lithium Metal Batteries.	0
29	Synthesis of methacrylate polyanion chains via RAFT polymerization, kinetic study. Thermal properties of its copolymers with MMA and monomers deactivity ratios. 2023 , 186, 111842	O
28	Towards advanced lithium metal solid-state batteries: Durable and safe multilayer pouch cell enabled by a nanocomposite solid electrolyte. 2023 , 392, 116148	0
27	Ab-initio investigation of the structural stability, electronic and optical properties of the LiBO2 compound by using the G0W0+BSE approach. 2023 , 34, e00789	O
26	Physicochemical characterizations of synthesized polyethylene oxide/boron carbide chanocomposite films. 2023 , 58, 2634-2646	О
25	Solid polymer electrolytes: Ion conduction mechanisms and enhancement strategies. 2023,	1
24	Modulating the Coordination Environment of Lithium Bonds for High Performance Polymer Electrolyte Batteries. 2023 , 17, 3786-3796	0
23	Thin-Film Batteries: Fundamental and Applications.	O
22	In situ 3D crosslinked gel polymer electrolyte for ultra-long cycling, high-voltage, and high-safety lithium metal batteries. 2023 , 57, 92-101	0
21	A Review of Current Trends on Polyvinyl Alcohol (PVA)-Based Solid Polymer Electrolytes. 2023 , 28, 1781	O
20	Thermal stable polymer-based solid electrolytes: Design strategies and corresponding stable mechanisms for solid-state Li metal batteries. 2023 , 36, e00587	О
19	Advanced Composite Solid Electrolytes for Lithium Batteries: Filler Dimensional Design and Ion Path Optimization. 2206355	О

18	Succinonitrile-Polymer Composite Electrolytes for Li-Ion Solid-State Batteries-The Influence of Polymer Additives on Thermomechanical and Electrochemical Properties. 2023 , 8, 9058-9066	O
17	Ultra-long-life and ultrathin quasi-solid electrolytes fabricated by solvent-free technology for safe lithium metal batteries. 2023 , 58, 132-141	O
16	Agar-based hydrogel polymer electrolyte for high-performance zinc-ion batteries at all climatic temperatures. 2023 , 26, 106437	О
15	Achieving high-energy and high-safety lithium metal batteries with high-voltage-stable solid electrolytes. 2023 , 6, 1096-1124	O
14	Supramolecular Assembly and Microscopic Dynamics Modulation of Nanoscale Inorganic Cryptand and Polymer Complex for Versatile Design of Flexible Single-Ion Conductors. 2023 , 23, 2669-2676	O
13	A Cellulose/Polyethylene Oxide Gel Polymer Electrolyte with Enhanced Mechanical Strength and High Ionic Conductivity for Lithium-Ion Batteries. 2202002	O
12	Composite electrolyte with polyethylene oxide and metalBrganic framework for lithium-ion conduction.	О
11	Ionogel Electrolytes Supported by Zwitterionic Copolymers Featuring Lithium Ion-Mediated, Noncovalent Cross-Links. 2023 , 5, 2887-2894	0
10	Nanofiber Materials for Lithium-Ion Batteries.	O
9	Performance-based materials evaluation for Li batteries through impedance spectroscopy: a critical review. 2023 , 34, 101283	0
8	The Critical Role of Fillers in Composite Polymer Electrolytes for Lithium Battery. 2023, 15,	O
7	Physical, mechanical, morphological and electrochemical performance of poly (propylene carbonate) based blend polymer electrolyte. 2023 , 34,	O
6	Single-Ion Gel Polymer Electrolyte based on In-Situ UV Irradiation Cross-Linked Polyimide Complexed with PEO for Lithium-Ion Batteries.	О
5	Recent Progression and Opportunities of Polysaccharide Assisted Bio-Electrolyte Membranes for Rechargeable Charge Storage and Conversion Devices. 2023 , 4, 212-238	O
4	Redox-active polynaphthalimides as versatile electrode materials for high-voltage, high-rate and long-cycle-life organic Li-ion batteries.	О
3	MoS2-based core-shell nanostructures: Highly efficient materials for energy storage and conversion applications. 2023 , 66, 107393	O
2	Molecular Origin of High Cation Transference in Mixtures of Poly(pentyl malonate) and Lithium Salt. 612-618	О
1	Salt-Concentrated Siloxane-Based Electrolytes for Lithium Metal Batteries: Physical Properties, Electrochemical Properties, and Cell Performance.	0