PEO/garnet composite electrolytes for solid-state lithium batteries: From ceramic-in-polymer to polymer-in-ce

DOI: 10.1016/j.nanoen.2017.12.037
Nano Energy, 2018, 46, 176-184.

#	Paper	IF	Citations
879	Hyperbranched PEO-Based Hyperstar Solid Polymer Electrolytes with Simultaneous Improvement of Ion Transport and Mechanical Strength.		
878	SolidLiquid Electrolyte as a Nanoion Modulator for Dendrite-Free Lithium Anodes.		
877	Improving Ionic Conductivity with Bimodal-Sized Li7La3Zr2O12 Fillers for Composite Polymer Electrolytes.		
876	Thin and Flexible Solid Electrolyte Membranes with Ultrahigh Thermal Stability Derived from Solution-Processable Li Argyrodites for All-Solid-State Li-Ion Batteries.		
875	Asymmetric Structure Design of Electrolytes with Flexibility and Lithium Dendrite-Suppression Ability for Solid-State Lithium Batteries.		
874	Versatile Strategy for Realizing Flexible Room-Temperature All-Solid-State Battery through a Synergistic Combination of Salt Affluent PEO and Li6.75La3Zr1.75Ta0.25O12 Nanofibers.		
873	Polymer Electrolyte Membrane with High Ionic Conductivity and Enhanced Interfacial Stability for Lithium Metal Battery.		
872	Accumulation of Glassy Poly(ethylene oxide) Anchored in a Covalent Organic Framework as a Solid-State Li+ Electrolyte.		
871	Electric-Field-Directed Parallel Alignment Architecting 3D Lithium-Ion Pathways within Solid Composite Electrolyte. **2018**, 10, 15691-15696		42
870	Perspectives for restraining harsh lithium dendrite growth: Towards robust lithium metal anodes. **2018**, 15, 148-170		166
869	Polycarbonate-based polyurethane as a polymer electrolyte matrix for all-solid-state lithium batteries. **2018**, 389, 84-92		51
868	Challenges and perspectives of garnet solid electrolytes for all solid-state lithium batteries. **2018**, 389, 120-134		236
867	Boosting interfacial Li+ transport with a MOF-based ionic conductor for solid-state batteries. *Nano Energy*, **2018**, 49, 580-587	17.1	80
866	Dendrite-free Li metal deposition in all-solid-state lithium sulfur batteries with polymer-in-salt polysiloxane electrolyte. **2018**, 15, 37-45		145
865	A sandwich structure polymer/polymer-ceramics/polymer gel electrolytes for the safe, stable cycling of lithium metal batteries. **2018**, 555, 169-176		50
864	Ionic liquid/ether-plasticized quasi-solid-state electrolytes for long-life lithium–oxygen cells. **2018**, 42, 19521-19527		1
863	Enhanced lithium dendrite suppressing capability enabled by a solid-like electrolyte with different-sized nanoparticles. **2018**, 54, 13060-13063		14

862	Organosilica-based ionogel derived nitrogen-doped microporous carbons for high performance supercapacitor electrodes. **2018**, 5, 3091-3098	7
861	MOF-derived and nitrogen-doped ZnSe polyhedra encapsulated by reduced graphene oxide as the anode for lithium and sodium storage. **2018**, 6, 23621-23627	71
860	Development of the PEO Based Solid Polymer Electrolytes for All-Solid State Lithium Ion Batteries. **2018**, 10,	88
859	Status, promises, and challenges of nanocomposite solid-state electrolytes for safe and high performance lithium batteries. **2018**, 4, 1-16	127
858	Interfaces Between Cathode and Electrolyte in Solid State Lithium Batteries: Challenges and Perspectives. **2018**, 6, 616	105
857	Review of Recent Nuclear Magnetic Resonance Studies of Ion Transport in Polymer Electrolytes. **2018**, 8,	18
856	Unique fitting of electrochemical impedance spectra by random walk Metropolis Hastings algorithm. **2018**, 403, 184-191	10
855	Opportunities for Rechargeable Solid-State Batteries Based on Li-Intercalation Cathodes. **2018**, 2, 2208-2224	97
854	Ameliorating Interfacial Ionic Transportation in All-Solid-State Li-Ion Batteries with Interlayer Modifications. **2018**, 3, 2775-2795	45
853	Structural and Computational Assessment of the Influence of Wet-Chemical Post-Processing of the Al-Substituted Cubic LiLaZrO. **2018**, 10, 37188-37197	19
852	Interface Engineering for Garnet-Based Solid-State Lithium-Metal Batteries: Materials, Structures, and Characterization. **2018**, 30, e1802068	135
851	Self-Healing Polymer Electrolytes Formed via Dual-Networks: A New Strategy for Flexible Lithium Metal Batteries. **2018**, 24, 19200-19207	52
850	Non-isothermal crystallization of copper-containing composite based on polymer alloy of poly(ethylene oxide) and polyethylene. **2018**, 670, 61-70	4
849	Recent Progress of Hybrid Solid-State Electrolytes for Lithium Batteries. **2018**, 24, 18293-18306	80
848	A promising PMHS/PEO blend polymer electrolyte for all-solid-state lithium ion batteries. **2018**, 47, 14932-14937	46
847	Electrochemical performance of Li+-ion conducting solid polymer electrolytes based on PEO-PMMA blend matrix incorporated with various inorganic nanoparticles for the lithium ion batteries. **2018**, 10, 11-17	45
846	Solid-Liquid Electrolyte as a Nanoion Modulator for Dendrite-Free Lithium Anodes. **2018**, 10, 20412-20421	15
845	Cycle stability of lithium/garnet/lithium cells with different intermediate layers. **2018**, 37, 473-479	34

844	All-solid-state planar integrated lithium ion micro-batteries with extraordinary flexibility and high-temperature performance. *Nano Energy*, **2018**, 51, 613-620	17.1	68
843	Robust Succinonitrile-Based Gel Polymer Electrolyte for Lithium-Ion Batteries Withstanding Mechanical Folding and High Temperature. **2018**, 10, 25384-25392		29
842	High-Coulombic-Efficiency Carbon/Li Clusters Composite Anode without Precycling or Prelithiation. **2018**, 14, e1802226		15
841	Magnesium hexakis(methanol)-dinitrate complex electrolyte for use in rechargeable magnesium batteries. **2018**, 22, 2671-2679		9
840	Flexible poly(ethylene carbonate)/garnet composite solid electrolyte reinforced by poly(vinylidene fluoride-hexafluoropropylene) for lithium metal batteries. **2018**, 392, 232-238		81
839	Li7P3S11/poly(ethylene oxide) hybrid solid electrolytes with excellent interfacial compatibility for all-solid-state batteries. **2018**, 400, 212-217		51
838	Superior lithium ion conduction of polymer electrolyte with comb-like structure via solvent-free copolymerization for bipolar all-solid-state lithium battery. **2018**, 6, 13438-13447		48
837	New horizons for inorganic solid state ion conductors. **2018**, 11, 1945-1976		601
836	Solid polymer electrolyte soft interface layer with 3D lithium anode for all-solid-state lithium batteries. **2019**, 17, 309-316		185
835	Co-spray printing of LiFePO4 and PEO-Li1.5Al0.5Ge1.5(PO4)3 hybrid electrodes for all-solid-state Li-ion battery applications. **2019**, 7, 19094-19103		12
834	Improvement of preparation process for Li-ion conducting membranes composed of monolayered inorganic electrolyte particles and insulating polymer matrix. **2019**, 341, 115037		1
833	Safety-reinforced rechargeable Li-CO2 battery based on a composite solid state electrolyte. **2019**, 12, 2543-2548		17
832	Low volume change composite lithium metal anodes. *Nano Energy*, **2019**, 64, 103910	17.1	45
831	Review on Polymer-Based Composite Electrolytes for Lithium Batteries. **2019**, 7, 522		162
830	Ultraviolet irradiated PEO/LATP composite gel polymer electrolytes for lithium-metallic batteries (LMBs). **2019**, 494, 1119-1126		44
829	A branched cellulose-reinforced composite polymer electrolyte with upgraded ionic conductivity for anode stabilized solid-state Li metal batteries. **2019**, 3, 2642-2656		18
828	A novel organic/inorganic composite solid electrolyte with functionalized layers for improved room-temperature rate performance of solid-state lithium battery. **2019**, 43, 5912-5921		23
827	Cyclophosphazene-based hybrid polymer electrolytes obtained via epoxy–amine reaction for high-performance all-solid-state lithium-ion batteries. **2019**, 7, 18871-18879		34

826	Bicontinuously crosslinked polymer electrolyte membranes with high ion conductivity and mechanical strength. **2019**, 589, 117250	27
825	A designer fast Li-ion conductor Li6.25PS5.25Cl0.75 and its contribution to the polyethylene oxide based electrolyte. **2019**, 493, 1326-1333	17
824	Artificial solid electrolyte interphase based on polyacrylonitrile for homogenous and dendrite-free deposition of lithium metal. **2019**, 28, 078202	0
823	Flexible Organic□Inorganic Composite Solid Electrolyte with Asymmetric Structure for Room Temperature Solid-State Li-Ion Batteries. **2019**, 7, 15896-15903	25
822	High-Performance 3-D Fiber Network Composite Electrolyte Enabled with Li-Ion Conducting Nanofibers and Amorphous PEO-Based Cross-Linked Polymer for Ambient All-Solid-State Lithium-Metal Batteries. **2019**, 1, 46-60	26
821	A review of naturally derived nanostructured materials for safe lithium metal batteries. **2019**, 8, 100049	26
820	A novel titania nanorods-filled composite solid electrolyte with improved room temperature performance for solid-state Li-ion battery. **2019**, 43, 7296	9
819	Dual Insurance Design Achieves Long-Life Cycling of Li-Metal Batteries under a Wide Temperature Range. **2019**, 2, 5292-5299	3
818	A Semiliquid Lithium Metal Anode. **2019**, 3, 1637-1646	34
817	A 2D Layered Natural Ore as a Novel Solid-State Electrolyte. **2019**, 2, 5909-5916	17
816	Three-Dimensional Garnet Framework-Reinforced Solid Composite Electrolytes with High Lithium-Ion Conductivity and Excellent Stability. **2019**, 11, 26920-26927	52
815	Polymer Electrolytes for Lithium-Based Batteries: Advances and Prospects. **2019**, 5, 2326-2352	354
814	Self-Sacrificed Interface-Based on the Flexible Composite Electrolyte for High-Performance All-Solid-State Lithium Batteries. **2019**, 11, 42715-42721	17
813	LiLaTiO Nanofibers Enhanced Poly(vinylidene fluoride)-Based Composite Polymer Electrolytes for All-Solid-State Batteries. **2019**, 11, 42206-42213	53
812	Flexible all-solid-state electrolytes with ordered fast Li-ion-conductive nano-pathways for rechargeable lithium batteries. **2019**, 444, 227305	9
811	Gradient-Distributed Nucleation Seeds on Conductive Host for a Dendrite-Free and High-Rate Lithium Metal Anode. **2019**, 15, e1903520	51
810	Effects of oxalic acid concentration on the microstructures and properties of nano-VO2(B). **2019**, 23, 2951-2959	4
809	Uncovering the action of ethanol controlled crystallization of 3,4-bis(3-nitrofurazan-4-yl)furoxan crystal: A molecular dynamics study. **2019**, 92, 303-312	5

808	Enhanced electrochemical performance of solid PEO/LiClO4 electrolytes with a 3D porous Li6.28La3Zr2Al0.24O12 network. **2019**, 184, 107863	20
807	Challenges and development of composite solid-state electrolytes for high-performance lithium ion batteries. **2019**, 441, 227175	89
806	Solid-state lithium metal batteries enabled with high loading composite cathode materials and ceramic-based composite electrolytes. **2019**, 442, 227230	35
805	AC conductivity studies of polyethylene oxide-garnet-type Li7La3Zr2O12 hybrid composite solid polymer electrolyte films. **2019**, 343, 115089	5
804	Digital Printing of Solid-State Lithium-Ion Batteries. **2019**, 21, 1900737	21
803	Ultrathin, Flexible Polymer Electrolyte for Cost-Effective Fabrication of All-Solid-State Lithium Metal Batteries. **2019**, 9, 1902767	122
802	Probing the isotropy of cosmic acceleration using different supernova samples. **2019**, 79, 1	11
801	Aerosol Jet Printed Polymer Composite Electrolytes for Solid-State Li-Ion Batteries. **2019**, 21, 1900952	19
800	An in Situ-Formed Mosaic LiSn/LiF Interface Layer for High-Rate and Long-Life Garnet-Based Lithium Metal Batteries. **2019**, 11, 34939-34947	32
799	An Ultrarobust Composite Gel Electrolyte Stabilizing Ion Deposition for Long-Life Lithium Metal Batteries. **2019**, 29, 1904547	48
798	Tandem Interface and Bulk Li-Ion Transport in a Hybrid Solid Electrolyte with Microsized Active Filler. **2019**, 4, 2336-2342	39
797	High-performance all-solid-state batteries enabled by salt bonding to perovskite in poly(ethylene oxide). **2019**, 116, 18815-18821	117
796	High Capacity and Superior Cyclic Performances of All-Solid-State Lithium-Sulfur Batteries Enabled by a High-Conductivity LiSnPS Solid Electrolyte. **2019**, 11, 36774-36781	35
795	A bird's-eye view of Li-stuffed garnet-type Li7La3Zr2O12 ceramic electrolytes for advanced all-solid-state Li batteries. **2019**, 12, 2957-2975	192
794	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
793	Solid Polymer Electrolyte Based on Polymerized Ionic Liquid for High Performance All-Solid-State Lithium-Ion Batteries. **2019**, 7, 4675-4683	40
792	Lithium ion conductivity in Li2O–P2O5–ZnO glass-ceramics. **2019**, 786, 707-716	13
791	MOF-derived nanoporous multifunctional fillers enhancing the performances of polymer electrolytes for solid-state lithium batteries. **2019**, 7, 2653-2659	95

790	Li7La3Zr2O12 ceramic nanofiber-incorporated composite polymer electrolytes for lithium metal batteries. **2019**, 7, 3391-3398	109
789	Garnet-doped composite polymer electrolyte with high ionic conductivity for dendrite-free lithium batteries. **2019**, 24, 100767	15
788	A dopamine modified Li6.4La3Zr1.4Ta0.6O12/PEO solid-state electrolyte: enhanced thermal and electrochemical properties. **2019**, 7, 16425-16436	82
787	Electrospun ceramic nanofibers as 1D solid electrolytes for lithium batteries. **2019**, 104, 106483	30
786	Recent progress on solid-state hybrid electrolytes for solid-state lithium batteries. **2019**, 21, 308-334	117
785	Boron nitride enhanced polymer/salt hybrid electrolytes for all-solid-state lithium ion batteries. **2019**, 435, 226736	26
784	Low-Temperature Ionothermal Synthesis of Li-Ion Conductive Li4B7O12Cl Solid-State Electrolyte. **2019**, 2, 5140-5145	13
783	A polyoxometalate-based polymer electrolyte with an improved electrode interface and ion conductivity for high-safety all-solid-state batteries. **2019**, 7, 15924-15932	19
782	A highly ionic conductive poly(methyl methacrylate) composite electrolyte with garnet-typed Li6.75La3Zr1.75Nb0.25O12 nanowires. **2019**, 375, 121922	32
781	Safe all-solid-state potassium batteries with three dimentional, flexible and binder-free metal sulfide array electrode. **2019**, 433, 226697	32
780	Electrolyte for lithium protection: From liquid to solid. **2019**, 4, 360-374	67
779	Bifunctional ionic liquid and conducting ceramic co-assisted solid polymer electrolyte membrane for quasi-solid-state lithium metal batteries. **2019**, 586, 122-129	37
778	Porous sulfide scaffolded solvent-free PEG-Ti hybrid polymer: All-solution-processed thin film composite polymer electrolytes directly on electrodes for lithium-ion batteries. **2019**, 13, 119-124	9
777	Improved Composite Solid Electrolyte through Ionic Liquid-Assisted Polymer Phase for Solid-State Lithium Ion Batteries. **2019**, 166, A1785-A1792	14
776	Chemically exfoliated boron nitride nanosheets form robust interfacial layers for stable solid-state Li metal batteries. **2019**, 55, 7703-7706	25
775	High electrochemical performance poly(ethylene oxide)/2,4-toluene diisocyante/polyethylene glycol as electrolytes for all-solid-state lithium batteries. **2019**, 587, 117179	32
774	Electrical transport in PEO-NaI-NASICON nanocomposites: An assessment using impedance and X-Ray absorption spectroscopy. **2019**, 118, 110485	5
773	High Conductive Composite Polymer Electrolyte via in Situ UV-Curing for All-Solid-State Lithium Ion Batteries. **2019**, 7, 9875-9880	13

772	Direct tracking of the polysulfide shuttling and interfacial evolution in all-solid-state lithium–sulfur batteries: a degradation mechanism study. **2019**, 12, 2496-2506		94
771	Benign Recycling of Spent Batteries towards All-Solid-State Lithium Batteries. **2019**, 25, 8975-8981		15
770	Elastic and well-aligned ceramic LLZO nanofiber based electrolytes for solid-state lithium batteries. **2019**, 23, 306-313		75
769	Solid Garnet Batteries. **2019**, 3, 1190-1199		230
768	Stabilizing Solid Electrolyte-Anode Interface in Li-Metal Batteries by Boron Nitride-Based Nanocomposite Coating. **2019**, 3, 1510-1522		146
767	Synergistic effect of cation ordered structure and grain boundary engineering on long-term cycling of Li0.35La0.55TiO3-based solid batteries. **2019**, 39, 3332-3337		22
766	Mechanistic understanding and strategies to design interfaces of solid electrolytes: insights gained from transmission electron microscopy. **2019**, 54, 10571-10594		11
765	The Challenge of Lithium Metal Anodes for Practical Applications. **2019**, 3, 1800551		42
764	Rechargeable solid-state lithium metal batteries with vertically aligned ceramic nanoparticle/polymer composite electrolyte. *Nano Energy*, **2019**, 60, 205-212	17.1	155
763	Rational Design of Hierarchical "Ceramic-in-Polymer" and "Polymer-in-Ceramic" Electrolytes for Dendrite-Free Solid-State Batteries. **2019**, 9, 1804004		246
762	Space-Charge Effects at the LiLaZrO/Poly(ethylene oxide) Interface. **2019**, 11, 11999-12007		43
761	Composite Solid Polymer Electrolyte with Garnet Nanosheets in Poly(ethylene oxide). **2019**, 7, 7163-7170		77
760	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
759	Ionic conductivity promotion of polymer membranes with oxygen-ion conducting nanowires for rechargeable lithium batteries. **2019**, 580, 92-100		16
758	Improving Ionic Conductivity with Bimodal-Sized LiLaZrO Fillers for Composite Polymer Electrolytes. **2019**, 11, 12467-12475		60
757	Study of segmental dynamics and ion transport in polymer–ceramic composite electrolytes by quasi-elastic neutron scattering. **2019**, 4, 379-385		24
756	Correlation of Mechanical and Electrical Behavior of Polyethylene Oxide-Based Solid Electrolytes for All-Solid State Lithium-Ion Batteries. **2019**, 5, 26		4
755	Intercalated Electrolyte with High Transference Number for Dendrite-Free Solid-State Lithium Batteries. **2019**, 29, 1901047		178

754	An All-Solid-State Rechargeable Chloride Ion Battery. **2019**, 6, 1802130	25
753	UV-cured polymer electrolyte for LiNi0.85Co0.05Al0.1O2//Li solid state battery working at ambient temperature. **2019**, 22, 337-345	49
752	Sur-/interfacial regulation in all-solid-state rechargeable Li-ion batteries based on inorganic solid-state electrolytes: advances and perspectives. **2019**, 6, 871-910	49
751	Solid-state polymer electrolytes stabilized by task-specific salt additives. **2019**, 7, 7823-7830	48
750	NASICON-type polymer-in-ceramic composite electrolytes for lithium batteries. **2019**, 21, 6142-6149	28
749	Polymer-Mineral Composite Solid Electrolytes. **2019**, 4, 2659-2664	
748	Dendrite-free lithium□metal batteries at high rate realized using a composite solid electrolyte with an ester□PO4 complex and stable interphase. **2019**, 7, 23173-23181	13
747	Flexible, transparent ion-conducting membranes from two-dimensional nanoclays of intrinsic conductivity. **2019**, 7, 25657-25664	6
746	A functional-gradient-structured ultrahigh modulus solid polymer electrolyte for all-solid-state lithium metal batteries. **2019**, 7, 24477-24485	22
745	Asymmetric Structure Design of Electrolytes with Flexibility and Lithium Dendrite-Suppression Ability for Solid-State Lithium Batteries. **2019**, 11, 46783-46791	17
744	Building Better Batteries in the Solid State: A Review. **2019**, 12,	95
743	Solid Electrolytes for Advanced Applications. **2019**,	1
742	Topological polymer electrolyte containing poly(pinacol vinylboronate) segments composited with ceramic nanowires towards ambient-temperature superior performance all-solid-state lithium batteries. **2019**, 413, 318-326	13
741	Recent Advances on Self-Healing Materials and Batteries. **2019**, 6, 1605-1622	31
740	Practical Challenges and Future Perspectives of All-Solid-State Lithium-Metal Batteries. **2019**, 5, 753-785	305
739	Solid and Solid-Like Composite Electrolyte for Lithium Ion Batteries: Engineering the Ion Conductivity at Interfaces. **2019**, 6, 1800899	56
738	An Electron/Ion Dual-Conductive Alloy Framework for High-Rate and High-Capacity Solid-State Lithium-Metal Batteries. **2019**, 31, e1804815	128
737	Recent Advances in Energy Chemistry between Solid-State Electrolyte and Safe Lithium-Metal Anodes. **2019**, 5, 74-96	383

736	Anion-immobilized polymer electrolyte achieved by cationic metal-organic framework filler for dendrite-free solid-state batteries. **2019**, 18, 59-67	135
735	Self-assembly synthesis of solid polymer electrolyte with carbonate terminated poly(ethylene glycol) matrix and its application for solid state lithium battery. **2019**, 38, 55-59	16
734	Chemical Energy Release Driven Lithiophilic Layer on 1 m Commercial Brass Mesh toward Highly Stable Lithium Metal Batteries. **2019**, 19, 1832-1837	82
733	Low Resistance□Integrated All-Solid-State Battery Achieved by Li7La3Zr2O12 Nanowire Upgrading Polyethylene Oxide (PEO) Composite Electrolyte and PEO Cathode Binder. **2019**, 29, 1805301	240
732	Dendrite-free lithium metal anode enabled by separator engineering via uniform loading of lithiophilic nucleation sites. **2019**, 19, 24-30	97
731	Ionic Conduction in Composite Polymer Electrolytes: Case of PEO:Ga-LLZO Composites. **2019**, 11, 784-791	125
730	Recent progress for all solid state battery using sulfide and oxide solid electrolytes. **2019**, 52, 103001	43
729	Fabrication and electrochemical characteristics of NCM-based all-solid lithium batteries using nano-grade garnet Al-LLZO powder. **2019**, 71, 445-451	23
728	A corrosion-resistant current collector for lithium metal anodes. **2019**, 18, 199-204	33
727	Electrolytes for Rechargeable Lithium-Air Batteries. **2020**, 59, 2974-2997	89
726	Composite solid electrolyte of Na3PS4-PEO for all-solid-state SnS2/Na batteries with excellent interfacial compatibility between electrolyte and Na metal. **2020**, 41, 73-78	29
725	Elektrolyte f□wiederaufladbare Lithium-Luft-Batterien. **2020**, 132, 2994-3019	12
724	Understanding and suppression strategies toward stable Li metal anode for safe lithium batteries. **2020**, 25, 644-678	111
723	Composition Modulation and Structure Design of Inorganic-in-Polymer Composite Solid Electrolytes for Advanced Lithium Batteries. **2020**, 16, e1902813	44
722	A novel polyphosphonate flame-retardant additive towards safety-reinforced all-solid-state polymer electrolyte. **2020**, 239, 122014	16
721	Super lithiophilic SEI derived from quinones electrolyte to guide Li uniform deposition. **2020**, 24, 426-431	19
720	Recent Progress in Organic-Inorganic Composite Solid Electrolytes for All-Solid-State Lithium Batteries. **2020**, 26, 1720-1736	54
719	All-solid-state sodium batteries enabled by flexible composite electrolytes and plastic-crystal interphase. **2020**, 384, 123233	21

718	Boosted charge transfer and Na-ion diffusion in cooling-fins-like Sb2Te3Te nano-heterostructure for long cycle life and high rate capability anode. *Nano Energy*, **2020**, 70, 104468	17.1	28
717	Fast Li Conduction Mechanism and Interfacial Chemistry of a NASICON/Polymer Composite Electrolyte. **2020**, 142, 2497-2505		91
716	One-Pot Pulsed Laser Ablation route assisted copper oxide nanoparticles doped in PEO/PVP blend for the electrical conductivity enhancement. **2020**, 9, 2412-2422		60
715	Nanoscale Mapping of Extrinsic Interfaces in Hybrid Solid Electrolytes. **2020**, 4, 207-221		50
714	Nonflammable hybrid solid electrolyte membrane for a solid-state lithium battery compatible with conventional porous electrodes. **2020**, 603, 117820		18
713	Porous film host-derived 3D composite polymer electrolyte for high-voltage solid state lithium batteries. **2020**, 26, 283-289		120
712	Enhanced Surface Interactions Enable Fast Li+ Conduction in Oxide/Polymer Composite Electrolyte. **2020**, 132, 4160-4166		18
711	Electrode Degradation in Lithium-Ion Batteries. **2020**, 14, 1243-1295		209
710	A hybrid solid electrolyte Li0.33La0.557TiO3/poly(acylonitrile) membrane infiltrated with a succinonitrile-based electrolyte for solid state lithium-ion batteries. **2020**, 8, 706-713		38
709	Enhanced Surface Interactions Enable Fast Li Conduction in Oxide/Polymer Composite Electrolyte. **2020**, 59, 4131-4137		114
708	Superionic conductivity in lithium argyrodite solid-state electrolyte by controlled Cl-doping. *Nano Energy*, **2020**, 69, 104396	17.1	40
707	Novel Na3Zr2Si2PO12polymer hybrid composites with high ionic conductivity for solid-state ionic devices. **2020**, 262, 127022		3
706	Facile construction of a hybrid artificial protective layer for stable lithium metal anode. **2020**, 391, 123542		12
705	Fast lithium ionic conductivity observed in LiI-MoS2 composite. **2020**, 112, 107761		1
704	Conversion inorganic interlayer of a LiF/graphene composite in all-solid-state lithium batteries. **2020**, 56, 1725-1728		7
703	Comprehensively-upgraded polymer electrolytes by multifunctional aramid nanofibers for stable all-solid-state Li-ion batteries. *Nano Energy*, **2020**, 69, 104398	17.1	49
702	Insights into the Dual Role of Lithium Difluoro(oxalato)borate Additive in Improving the Electrochemical Performance of NMC811||Graphite Cells. **2020**, 3, 695-704		21
701	The reduction of interfacial transfer barrier of Li ions enabled by inorganics-rich solid-electrolyte interphase. **2020**, 28, 401-406		38

700	Li1.3Al0.3Ti1.7(PO4)3 reinforced hybrid polymer composites: assessment of enhanced Li+ ion transport and potential for solid-state supercapacitor applications. **2020**, 55, 3951-3963	9
699	Free-standing polymer electrolyte for all-solid-state lithium batteries operated at room temperature. **2020**, 449, 227518	24
698	Cold-pressing PEO/LAGP composite electrolyte for integrated all-solid-state lithium metal battery. **2020**, 345, 115156	15
697	Garnet-rich composite solid electrolytes for dendrite-free, high-rate, solid-state lithium-metal batteries. **2020**, 26, 448-456	46
696	A solid-electrolyte-reinforced separator through single-step electrophoretic assembly for safe high-capacity lithium ion batteries. **2020**, 448, 227469	13
695	Approaching Practically Accessible Solid-State Batteries: Stability Issues Related to Solid Electrolytes and Interfaces. **2020**, 120, 6820-6877	373
694	An In Situ Polymerized Comb-Like PLA/PEG-based Solid Polymer Electrolyte for Lithium Metal Batteries. **2020**, 167, 070504	16
693	Nacre-Inspired Composite Electrolytes for Load-Bearing Solid-State Lithium-Metal Batteries. **2020**, 32, e1905517	57
692	A three-dimensional interconnected polymer/ceramic composite as a thin film solid electrolyte. **2020**, 26, 242-249	46
691	Critical challenges and progress of solid garnet electrolytes for all-solid-state batteries. **2020**, 18, 100368	12
690	Processing Strategies to Improve Cell-Level Energy Density of Metal Sulfide Electrolyte-Based All-Solid-State Li Metal Batteries and Beyond. **2020**, 5, 3468-3489	31
689	Reviewing the current status and development of polymer electrolytes for solid-state lithium batteries. **2020**, 33, 188-215	93
688	Application of polyamide 6 microfiber non-woven fabrics in the large-scale production of all-solid-state lithium metal batteries. **2020**, 475, 228663	5
687	Polymer electrolytes for metal-ion batteries. **2020**, 89, 1132-1155	21
686	Rechargeable Battery Electrolytes Capable of Operating over Wide Temperature Windows and Delivering High Safety. **2020**, 10, 2001235	37
685	Recent Progress in Designing Stable Composite Lithium Anodes with Improved Wettability. **2020**, 7, 2002212	42
684	Li1.5Al0.5Ti1.5(PO4)3 enhanced polyethylene oxide polymer electrolyte for all-solid-state lithium batteries. **2020**, 356, 115437	9
683	Enabling "lithium-free" manufacturing of pure lithium metal solid-state batteries through in situ plating. **2020**, 11, 5201	41

682	Crosslinked poly(allyl glycidyl ether) with pendant nitrile groups as solid polymer electrolytes for Li□S batteries. **2020**, 362, 137141	3
681	Recently advances and perspectives of anode-free rechargeable batteries. *Nano Energy*, **2020**, 78, 105344	32
680	Poly(ethylene oxide)/Poly(vinylidene □oride)/Li6.4La3Zr1.4Ta0.6O12 composite electrolyte with a stable interface for high performance solid state lithium metal batteries. **2020**, 472, 228461	17
679	Designing composite solid-state electrolytes for high performance lithium ion or lithium metal batteries. **2020**, 11, 8686-8707	36
678	Boosting the Performance of Solid-State Lithium Battery Based on Hybridizing Micron-Sized LATP in a PEO/PVDF-HFP Heterogeneous Polymer Matrix. **2020**, 8, 2000444	6
677	Review of ionic liquids containing, polymer/inorganic hybrid electrolytes for lithium metal batteries. **2020**, 190, 108563	54
676	Toward high performance solid-state lithium-ion battery with a promising PEO/PPC blend solid polymer electrolyte. **2020**, 44, 10168-10178	15
675	Composite Solid Electrolyte for Solid-State Lithium Batteries Workable at Room Temperature. **2020**, 3, 12127-12133	5
674	Lithium fluorinated sulfonimide-based solid polymer electrolytes for Li || LiFePO4 cell: The impact of anionic structure. **2020**, 358, 115519	8
673	Hydroxyapatite Nanowire-Reinforced Poly(ethylene oxide)-Based Polymer Solid Electrolyte for Application in High-Temperature Lithium Batteries. **2020**, 12, 54637-54643	21
672	Li6.7La3Zr1.7Ta0.3O12 Reinforced PEO/PVDF-HFP Based Composite Solid Electrolyte for All Solid-State Lithium Metal Battery. **2020**, 34, 15011-15018	6
671	3D Coral-like LLZO/PVDF Composite Electrolytes with Enhanced Ionic Conductivity and Mechanical Flexibility for Solid-State Lithium Batteries. **2020**, 12, 52652-52659	28
670	In-Built Polymer-in-Solvent and Solvent-in-Polymer Electrolytes for High-Voltage Lithium Metal Batteries. **2020**, 1, 100146	4
669	Sub-10□hm V2O5 Crystals on Carbon Nanosheets for Advanced All-Solid-State Lithium Metal Batteries. **2020**, 37, 2000164	2
668	Formation mechanism of sol-gel synthesized Li7□Al La3Zr2O12 and the influence of abnormal grain growth on ionic conductivity. **2020**, 354, 115407	8
667	. **2020**,	9
666	LiSn2(PO4)3-based polymer-in-ceramic composite electrolyte with high ionic conductivity for all-solid-state lithium batteries. **2020**, 24, 2407-2417	5
665	Comprehensive Investigation into Garnet Electrolytes Toward Application-Oriented Solid Lithium Batteries. **2020**, 3, 656-689	50

664	Polymer electrolytes and interfaces toward solid-state batteries: Recent advances and prospects. **2020**, 33, 26-54	51
663	A flexible composite solid electrolyte with a highly stable interphase for dendrite-free and durable all-solid-state lithium metal batteries. **2020**, 8, 18043-18054	38
662	Porous Materials Applied in Nonaqueous Li-O Batteries: Status and Perspectives. **2020**, 32, e2002559	46
661	Fast Li-ion transport and uniform Li-ion flux enabled by a double-layered polymer electrolyte for high performance Li metal battery. **2020**, 32, 55-64	31
660	Polyvinylidene fluoride nanofibers with embedded Li6.4La3Zr1.4Ta0.6O12 fillers modified polymer electrolytes for high-capacity and long-life all-solid-state lithium metal batteries. **2020**, 200, 108408	8
659	A review of composite solid-state electrolytes for lithium batteries: fundamentals, key materials and advanced structures. **2020**, 49, 8790-8839	153
658	Exploiting Self-Healing in Lithium Batteries: Strategies for Next-Generation Energy Storage Devices. **2020**, 10, 2002815	23
657	Progress and Perspective of All-Solid-State Lithium Batteries with High Performance at Room Temperature. **2020**, 34, 13456-13472	15
656	Ultrathin Solid Composite Electrolyte Based on Li6.4La3Zr1.4Ta0.6O12/PVDF-HFP/LiTFSI/Succinonitrile for High-Performance Solid-State Lithium Metal Batteries. **2020**, 3, 9428-9435	25
655	Challenges and Strategy on Parasitic Reaction for High-Performance Nonaqueous Lithium-Oxygen Batteries. **2020**, 10, 2001789	30
654	Polydopamine-Coated Garnet Particles Homogeneously Distributed in Poly(propylene carbonate) for the Conductive and Stable Membrane Electrolytes of Solid Lithium Batteries. **2020**, 12, 46162-46169	9
653	Inorganic/polymer hybrid layer stabilizing anode/electrolyte interfaces in solid-state Li metal batteries. **2020**, 13, 3230-3234	16
652	Stereolithography Three-Dimensional Printing Solid Polymer Electrolytes for All-Solid-State Lithium Metal Batteries. **2020**, 20, 7136-7143	32
651	Phase Evolution of a Prenucleator for Fast Li Nucleation in All-Solid-State Lithium Batteries. **2020**, 10, 2001191	10
650	Importance of Composite Electrolyte Processing to Improve the Kinetics and Energy Density of Li Metal Solid-State Batteries. **2020**, 3, 8344-8355	12
649	Mitigating Interfacial Instability in Polymer Electrolyte-Based Solid-State Lithium Metal Batteries with 4 V Cathodes. **2020**, 5, 3244-3253	37
648	Interface engineering of inorganic solid-state electrolytes for high-performance lithium metal batteries. **2020**, 13, 3780-3822	38
647	Three-Dimensional Porous Alginate Fiber Membrane Reinforced PEO-Based Solid Polymer Electrolyte for Safe and High-Performance Lithium Ion Batteries. **2020**, 12, 43805-43812	24

646	Thermal Conductive 2D Boron Nitride for High-Performance All-Solid-State Lithium-Sulfur Batteries. **2020**, 7, 2001303	15
645	Rational Design of an Electron/Ion Dual-Conductive Cathode Framework for High-Performance All-Solid-State Lithium Batteries. **2020**, 12, 41323-41332	11
644	Integrated Structure of Cathode and Double-Layer Electrolyte for Highly Stable and Dendrite-Free All-Solid-State Li-Metal Batteries. **2020**, 12, 56995-57002	10
643	Highly Efficient Interface Modification between Poly(Propylene Carbonate)-Based Solid Electrolytes and a Lithium Anode by Facile Graphite Coating. **2020**, 8, 17106-17115	8
642	Thin laminar composite solid electrolyte with high ionic conductivity and mechanical strength towards advanced all-solid-state lithium–sulfur battery. **2020**, 8, 23344-23353	16
641	Solid-State Batteries with Polymer Electrolytes. **2020**, 1-49	1
640	Controllable preparation of alumina nanorods with improved solid electrolyte electrochemical performance. **2020**, 46, 16224-16234	8
639	Initial investigation and evaluation of potassium metal as an anode for rechargeable potassium batteries. **2020**, 8, 16718-16737	22
638	Novel synthesis of poly(2-acryloyloxyethyl ferrocenecarboxylate) as quasi-reversible redox-active gel polymer electrolytes. **2020**, 31, 10437-10445	3
637	Preparation of SiO2 grafted polyimidazole solid electrolyte for lithium-ion batteries. **2020**, 26, 3883-3892	4
636	Enhancement of cycling stability of all-solid-state lithium-ion batteries with composite polymer electrolytes incorporating Li6.25La3Zr2Al0.25O12 nanofibers. **2020**, 26, 4239-4246	4
635	UV-curable PVdF-HFP-based gel electrolytes with semi-interpenetrating polymer network for dendrite-free Lithium metal batteries. **2020**, 871, 114308	12
634	A review on energy chemistry of fast-charging anodes. **2020**, 49, 3806-3833	131
633	Simple scalable processing method for a polymer/inorganic hybridized electrolyte. **2020**, 197, 108249	1
632	Li7La3Zr2O12 Ceramic Nanofiber-Incorporated Solid Polymer Electrolytes for Flexible Lithium Batteries. **2020**, 3, 5238-5246	15
631	Progress on Lithium Dendrite Suppression Strategies from the Interior to Exterior by Hierarchical Structure Designs. **2020**, 16, e2000699	36
630	Ga-doped lithium lanthanum zirconium oxide electrolyte for solid-state Li batteries. **2020**, 353, 136536	5
629	A composite solid electrolyte with a framework of vertically aligned perovskite for all-solid-state Li-metal batteries. **2020**, 610, 118265	17

628	A 3D polyacrylonitrile nanofiber and flexible polydimethylsiloxane macromolecule combined all-solid-state composite electrolyte for efficient lithium metal batteries. **2020**, 12, 14279-14289	26
627	Dense PVDF-type polymer-in-ceramic electrolytes for solid state lithium batteries.. **2020**, 10, 22417-22421	2
626	Room-temperature, high-voltage solid-state lithium battery with composite solid polymer electrolyte with in-situ thermal safety study. **2020**, 400, 125996	28
625	Simultaneously enhancing the thermal stability and electrochemical performance of solid polymer electrolytes by incorporating rod-like Zn2(OH)BO3 particles. **2020**, 45, 19601-19610	5
624	Exploring porous zeolitic imidazolate frame work-8 (ZIF-8) as an efficient filler for high-performance poly(ethyleneoxide)-based solid polymer electrolytes. **2020**, 13, 2259-2267	24
623	Contactless electric field driven Z-alignment of ceramic nanoparticles in polymer electrolyte to enhance ionic conductivity. **2020**, 192, 108753	2
622	An Adjustable-Porosity Plastic Crystal Electrolyte Enables High-Performance All-Solid-State Lithium-Oxygen Batteries. **2020**, 132, 9468-9473	5
621	Sandwich structured NASICON-type electrolyte matched with sulfurized polyacrylonitrile cathode for high performance solid-state lithium-sulfur batteries. **2020**, 393, 124705	41
620	Electrochemical studies on symmetric solid-state Na-ion full cell using Na3V2(PO4)3 electrodes and polymer composite electrolyte. **2020**, 454, 227954	11
619	Facile fabrication of a hybrid polymer electrolyte via initiator-free thiol-ene photopolymerization for high-performance all-solid-state lithium metal batteries. **2020**, 11, 2732-2739	14
618	Review: Interfaces: Key Issue to Be Solved for All Solid-State Lithium Battery Technologies. **2020**, 167, 070541	49
617	Regulating electrodeposition morphology of lithium: towards commercially relevant secondary Li metal batteries. **2020**, 49, 2701-2750	160
616	A Flexible Ceramic/Polymer Hybrid Solid Electrolyte for Solid-State Lithium Metal Batteries. **2020**, 32, e2000399	146
615	An Adjustable-Porosity Plastic Crystal Electrolyte Enables High-Performance All-Solid-State Lithium-Oxygen Batteries. **2020**, 59, 9382-9387	21
614	Novel electrospun polymer electrolytes incorporated with Keggin-type hetero polyoxometalate fillers as solvent-free electrolytes for lithium ion batteries. **2020**, 69, 675-687	8
613	Status and prospect of garnet/polymer solid composite electrolytes for all-solid-state lithium batteries. **2020**, 50, 154-177	80
612	Garnet-Based Solid-State Lithium Fluoride Conversion Batteries Benefiting from Eutectic Interlayer of Superior Wettability. **2020**, 5, 1167-1176	34
611	Garnet-Polymer Composite Electrolytes with High Li+ Conductivity and Transference Number via Well-Fused Grain Boundaries in Microporous Frameworks. **2020**, 7, 2389-2394	9

610	Composite polymer electrolytes reinforced by two-dimensional layer-double-hydroxide nanosheets for dendrite-free lithium batteries. **2020**, 347, 115275	13
609	A Nuclear Magnetic Resonance Study of Cation and Anion Dynamics in Polymer□Ceramic Composite Solid Electrolytes. **2020**, 2, 1180-1189	13
608	Flexible and Wearable Lithium-Ion Batteries. **2020**, 131-162	2
607	A Polymer-Reinforced SEI Layer Induced by a Cyclic Carbonate-Based Polymer Electrolyte Boosting 4.45 V LiCoO /Li Metal Batteries. **2020**, 16, e1907163	23
606	Improved Interface Stability and Room-Temperature Performance of Solid-State Lithium Batteries by Integrating Cathode/Electrolyte and Graphite Coating. **2020**, 12, 15120-15127	21
605	Garnet-type solid-state electrolytes and interfaces in all-solid-state lithium batteries: progress and perspective. **2020**, 20, 100750	7
604	Recent Advances in Filler Engineering of Polymer Electrolytes for Solid-State Li-Ion Batteries: A Review. **2020**, 34, 9189-9207	49
603	Behind the Candelabra: A Facile Flame Vapor Deposition Method for Interfacial Engineering of Garnet Electrolyte To Enable Ultralong Cycling Solid-State Li-FeF Conversion Batteries. **2020**, 12, 33729-33739	14
602	Recent progress in all-solid-state lithium batteries: The emerging strategies for advanced electrolytes and their interfaces. **2020**, 31, 401-433	53
601	Ionic liquid enhanced composite solid electrolyte for high-temperature/long-life/dendrite-free lithium metal batteries. **2020**, 612, 118424	16
600	Ionic Conductive Thermoplastic Polymer Welding Layer for Low Electrode/Solid Electrolyte Interface Resistance. **2020**, 3, 7011-7019	3
599	A hybrid solid electrolyte for solid-state sodium ion batteries with good cycle performance. **2020**, 31, 425401	13
598	Pulsed laser ablation route assisted copper oxide nanoparticles doped in Polyethylene Oxide/Polyvinyl pyrrolidone blend for enhancement the electrical conductivity. **2020**, 1207, 127807	50
597	Synthesis and electrochemical performance of (100□)Li7P3S11-xLi2OHBr composite solid electrolyte for all-solid-state lithium batteries. **2020**, 47, 307-316	16
596	Sodium Ion Conductivity in Superionic IL-Impregnated Metal-Organic Frameworks: Enhancing Stability Through Structural Disorder. **2020**, 10, 3532	17
595	Towards high-performance solid-state Li-S batteries: from fundamental understanding to engineering design. **2020**, 49, 2140-2195	175
594	Designing of root-soil-like polyethylene oxide-based composite electrolyte for dendrite-free and long-cycling all-solid-state lithium metal batteries. **2020**, 389, 124478	33
593	Ionic conductivity enhancement of □oggy sand□electrolytes with AlOOH nanofibers for dye-sensitized solar cells. **2020**, 337, 135849	3

592	Challenges in Lithium Metal Anodes for Solid-State Batteries. **2020**, 5, 922-934	171
591	A glimpse on all-solid-state Li-ion battery (ASSLIB) performance based on novel solid polymer electrolytes: a topical review. **2020**, 55, 6242-6304	27
590	Rational Design of a Laminated Dual-Polymer/Polymer□Ceramic Composite Electrolyte for High-Voltage All-Solid-State Lithium Batteries. **2020**, 2, 317-324	28
589	Review□Polymer Electrolytes for Rechargeable Batteries: From Nanocomposite to Nanohybrid. **2020**, 167, 070524	66
588	A quantitative correlation between macromolecular crystallinity and ionic conductivity in polymer-ceramic composite solid electrolytes. **2020**, 24, 101004	7
587	Discovering the Influence of Lithium Loss on Garnet Li7La3Zr2O12 Electrolyte Phase Stability. **2020**, 3, 3415-3424	27
586	Comprehensively-modified polymer electrolyte membranes with multifunctional PMIA for highly-stable all-solid-state lithium-ion batteries. **2020**, 48, 334-343	15
585	Flexible, stable, fast-ion-conducting composite electrolyte composed of nanostructured Na-super-ion-conductor framework and continuous Poly(ethylene oxide) for all-solid-state Na battery. **2020**, 454, 227949	16
584	Synergy of Inorganic Fillers in Composite Thermoplastic Polymer/Ionic Liquid/LiTFSI Electrolytes. **2020**, 167, 070519	11
583	The polymerization capability of alkenyl phosphates and application as gel copolymer electrolytes for lithium ion batteries with high flame-retardancy. **2020**, 149, 104535	3
582	Strong Lewis Acid-Base and Weak Hydrogen Bond Synergistically Enhancing Ionic Conductivity of Poly(ethylene oxide)@SiO Electrolytes for a High Rate Capability Li-Metal Battery. **2020**, 12, 10341-10349	43
581	Uncharted Waters: Super-Concentrated Electrolytes. **2020**, 4, 69-100	153
580	Recent advances in the interface design of solid-state electrolytes for solid-state energy storage devices. **2020**, 7, 1246-1278	30
579	Progress and Perspective of Ceramic/Polymer Composite Solid Electrolytes for Lithium Batteries. **2020**, 7, 1903088	179
578	Zinc bis(2□ethylhexanoate), 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
577	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
576	Flexible, high-voltage, ion-conducting composite membranes with 3D aramid nanofiber frameworks for stable all-solid-state lithium metal batteries. **2020**, 63, 703-718	15
575	Effect of NASICON-type LiSnZr(PO4)3 ceramic filler on the ionic conductivity and electrochemical behavior of PVDF based composite electrolyte. **2020**, 824, 153991	24

574	Preparation of Nanocomposite Polymer Electrolyte via In Situ Synthesis of SiO Nanoparticles in PEO. **2020**, 10,	11
573	Lithium Metal Protection by a Cross-Linked Polymer Ionic Liquid and Its Application in Lithium Battery. **2020**, 3, 2020-2027	17
572	Toward High Energy Density All Solid-State Sodium Batteries with Excellent Flexibility. **2020**, 10, 1903698	67
571	An all-solid-state lithium battery using the Li7La3Zr2O12 and Li6.7La3Zr1.7Ta0.3O12 ceramic enhanced polyethylene oxide electrolytes with superior electrochemical performance. **2020**, 46, 11397-11405	24
570	Thermosensitive Polyacrylonitrile/Polyethylene Oxide/Polyacrylonitrile Membrane Separators for Prompt and Safer Thermal Lithium-Ion Battery Shutdown. **2020**, 167, 020509	11
569	In situ thermally polymerized solid composite electrolytes with a broad electrochemical window for all-solid-state lithium metal batteries. **2020**, 8, 3892-3900	32
568	Preparation and performances of the modified gel composite electrolyte for application of quasi-solid-state lithium sulfur battery. **2020**, 389, 124300	34
567	Suppressed dendrite formation realized by selective Li deposition in all-solid-state lithium batteries. **2020**, 27, 198-204	24
566	Investigating the Correlation of Segmental Dynamics, Free Volume Characteristics, and Ionic Conductivity in Poly(ethylene oxide)-Based Electrolyte: A Broadband Dielectric and Positron Annihilation Spectroscopy Study. **2020**, 124, 4489-4501	11
565	Solvent-Free Synthesis of Thin, Flexible, Nonflammable Garnet-Based Composite Solid Electrolyte for All-Solid-State Lithium Batteries. **2020**, 10, 1903376	168
564	Mechanical vs. chemical stability of sulphide-based solid-state batteries. Which one is the biggest challenge to tackle? Overview of solid-state batteries and hybrid solid state batteries. **2020**, 8, 10150-10167	16
563	Rational Design of Ion Transport Paths at the Interface of Metal-Organic Framework Modified Solid Electrolyte. **2020**, 12, 22930-22938	15
562	Recent progress on flexible lithium metal batteries: Composite lithium metal anodes and solid-state electrolytes. **2020**, 29, 310-331	35
561	Effect of network homogeneity on mechanical, thermal and electrochemical properties of solid polymer electrolytes prepared by homogeneous 4-arm poly(ethylene glycols). **2020**, 16, 4290-4298	4
560	Polymer Electrolyte Membrane with High Ionic Conductivity and Enhanced Interfacial Stability for Lithium Metal Battery. **2020**, 12, 22710-22720	13
559	Enabling Stable Cycling of 4.2 V High-Voltage All-Solid-State Batteries with PEO-Based Solid Electrolyte. **2020**, 30, 1909392	77
558	Investigation on the Copolymer Electrolyte of Poly(1,3-dioxolane-co-formaldehyde). **2020**, 41, e2000047	20
557	Interface engineering of Li1.3Al0.3Ti1.7(PO4)3 ceramic electrolyte via multifunctional interfacial layer for all-solid-state lithium batteries. **2020**, 460, 228125	26

556	Poly(β-caprolactone)-block-poly(ethylene glycol)-block-poly(β-caprolactone)-based hybrid polymer electrolyte for lithium metal batteries. **2020**, 607, 118132		21
555	Garnet-Type Solid-State Electrolytes: Materials, Interfaces, and Batteries. **2020**, 120, 4257-4300		271
554	Mobile Ions in Composite Solids. **2020**, 120, 4169-4221		105
553	Polymer-in-Ceramic Nanocomposite Solid Electrolyte for Lithium Metal Batteries Encompassing PEO-Grafted TiO2 Nanocrystals. **2020**, 167, 070535		18
552	In Situ Construction of an Ultra-Stable Conductive Composite Interface for High-Voltage All-Solid-State Lithium Metal Batteries. **2020**, 132, 11882-11886		11
551	High-Safety All-Solid-State Lithium-Ion Battery Working at Ambient Temperature with In Situ UV-Curing Polymer Electrolyte on the Electrode. **2020**, 7, 2599-2607		7
550	Perspectives for Polymer Electrolytes: A View from Fundamentals of Ionic Conductivity. **2020**, 53, 4141-4157		91
549	Lithium Dendrite in All-Solid-State Batteries: Growth Mechanisms, Suppression Strategies, and Characterizations. **2020**, 3, 57-94		140
548	Boosting the performance of poly(ethylene oxide)-based solid polymer electrolytes by blending with poly(vinylidene fluoride-co-hexafluoropropylene) for solid-state lithium-ion batteries. **2020**, 44, 7831-7840		13
547	Recent Progress in Solid Electrolytes for Energy Storage Devices. **2020**, 30, 2000077		44
546	In Situ Construction of an Ultra-Stable Conductive Composite Interface for High-Voltage All-Solid-State Lithium Metal Batteries. **2020**, 59, 11784-11788		60
545	Cotton Cloth-Induced Flexible Hierarchical Carbon Film for Sodium-Ion Batteries. **2020**, 7, 2136-2144		4
544	Semi closed coordination structure polymer electrolyte combined in situ interface engineering for lithium batteries. **2020**, 394, 124847		3
543	Polyoxovanadate-polymer hybrid electrolyte in solid state batteries. **2020**, 29, 172-181		15
542	Mechanical property-reinforced PEO/PVDF/LiClO4/SN blend all solid polymer electrolyte for lithium ion batteries. **2020**, 869, 114156		27
541	Enhanced performance of solid-state lithium-air batteries with continuous 3D garnet network added composite polymer electrolyte. **2020**, 461, 228146		15
540	Li2CO3 effects: New insights into polymer/garnet electrolytes for dendrite-free solid lithium batteries. *Nano Energy*, **2020**, 73, 104836	17.1	29
539	Stabilizing Na3Zr2Si2PO12/Na Interfacial Performance by Introducing a Clean and Na-Deficient Surface. **2020**, 32, 3970-3979		25

538	Upgrading Traditional Organic Electrolytes toward Future Lithium Metal Batteries: A Hierarchical Nano-SiO2-Supported Gel Polymer Electrolyte. **2020**, 5, 1681-1688	38
537	Towards practical lithium-metal anodes. **2020**, 49, 3040-3071	224
536	A Polymer-Rich Quaternary Composite Solid Electrolyte for Lithium Batteries. **2020**, 167, 070557	7
535	Enhancing interfacial stability in solid-state lithium batteries with polymer/garnet solid electrolyte and composite cathode framework. **2021**, 52, 210-217	35
534	Improving Li Plating Behaviors Through Cu–Sn Alloy-Coated Current Collector for Dendrite-Free Lithium Metal Anodes. **2021**, 34, 354-358	2
533	Advances in Composite Polymer Electrolytes for Lithium Batteries and Beyond. **2021**, 11, 2000802	74
532	Stabilization Perspective on Metal Anodes for Aqueous Batteries. **2021**, 11, 2000962	51
531	Polymer-in-ceramic-based poly(ε-caprolactone)/ceramic composite electrolyte for all-solid-state batteries. **2021**, 52, 318-325	13
530	Quasi-solid electrolyte membranes with percolated metal–organic frameworks for practical lithium-metal batteries. **2021**, 52, 354-360	11
529	Tribute to John B. Goodenough: From Magnetism to Rechargeable Batteries. **2021**, 11, 2000773	6
528	High-performance all-solid-state polymer electrolyte with fast conductivity pathway formed by hierarchical structure polyamide 6 nanofiber for lithium metal battery. **2021**, 54, 644-654	16
527	Hybrid solid electrolyte enabled dendrite-free Li anodes for high-performance quasi-solid-state lithium-oxygen batteries. **2021**, 8, nwaa150	20
526	Co-doping effects of Ba2+ and Ta5+ on the microstructure and ionic conductivity of garnet-type solid state electrolytes. **2021**, 854, 157143	4
525	PVdF-HFP-Based Gel Polymer Electrolyte with Semi-Interpenetrating Networks For Dendrite-Free Lithium Metal Battery. **2021**, 34, 417-424	5
524	Flexible hybrid solid electrolyte incorporating ligament-shaped Li6.25Al0.25La3Zr2O12 filler for all-solid-state lithium-metal batteries. **2021**, 366, 137348	8
523	Structure Code for Advanced Polymer Electrolyte in Lithium-Ion Batteries. **2021**, 31, 2008208	31
522	Al4B2O9 nanorods-modified solid polymer electrolytes with decent integrated performance. **2021**, 64, 296-306	3
521	Protecting lithium metal anode in all-solid-state batteries with a composite electrolyte. **2021**, 40, 409-416	20

520	Designing Ceramic/Polymer Composite as Highly Ionic Conductive Solid-State Electrolytes. **2021**, 4, 39-59		22
519	New insights into the formation of silicon–oxygen layer on lithium metal anode via in situ reaction with tetraethoxysilane. **2021**, 56, 14-22		8
518	In-situ construction of a Mg-modified interface to guide uniform lithium deposition for stable all-solid-state batteries. **2021**, 55, 272-278		23
517	Asymmetric Polymer Electrolyte Constructed by Metal–Organic Framework for Solid-State, Dendrite-Free Lithium Metal Battery. **2021**, 31, 2007198		72
516	A review of composite polymer-ceramic electrolytes for lithium batteries. **2021**, 34, 282-300		80
515	Interfacial challenges for all-solid-state batteries based on sulfide solid electrolytes. **2021**, 7, 209-218		30
514	Recent advances in organic-inorganic composite solid electrolytes for all-solid-state lithium batteries. **2021**, 34, 388-416		40
513	Reducing the thickness of solid-state electrolyte membranes for high-energy lithium batteries. **2021**, 14, 12-36		78
512	Research progress and application prospect of solid-state electrolytes in commercial lithium-ion power batteries. **2021**, 35, 70-87		37
511	A Metal–Organic Framework-5-Incorporated All-Solid-State Composite Polymer Electrolyte Membrane with Enhanced Performances for High-Safety Lithium-Ion Batteries. **2021**, 9, 2000808		7
510	Cathode supported solid lithium batteries enabling high energy density and stable cyclability. **2021**, 35, 512-519		35
509	Unlocking solid-state conversion batteries reinforced by hierarchical microsphere stacked polymer electrolyte. **2021**, 66, 694-707		20
508	Electro-chemo-mechanics of lithium in solid state lithium metal batteries. **2021**, 14, 602-642		40
507	Regulating lithium deposition via bifunctional regular-random cross-linking network solid polymer electrolyte for Li metal batteries. **2021**, 484, 229186		11
506	Dimethyl carbonate adsorption enabling enhanced overall electrochemical properties for solid composite electrolyte. **2021**, 853, 157340		4
505	Solvent-free synthesis of PEO/garnet composite electrolyte for high-safety all-solid-state lithium batteries. **2021**, 860, 157915		20
504	A brief review of recent advances in garnet structured solid electrolyte based lithium metal batteries. **2021**, 33, 102157		14
503	Single Li ion conducting solid-state polymer electrolytes based on carbon quantum dots for Li-metal batteries. *Nano Energy*, **2021**, 82, 105698	17.1	22

502	Toward the Scale-Up of Solid-State Lithium Metal Batteries: The Gaps between Lab-Level Cells and Practical Large-Format Batteries. **2021**, 11, 2002360		37
501	Polyethylene oxide-Li6.5La3Zr1.5Ta0.5O12 hybrid electrolytes: Lithium salt concentration and biopolymer blending. **2021**, 1, e2000029		2
500	Ameliorating the interfacial issues of all-solid-state lithium metal batteries by constructing polymer/inorganic composite electrolyte. **2021**, 58, 85-93		13
499	Nanocomposite with fast Li+ conducting percolation network: Solid polymer electrolyte with Li+ non-conducting filler. *Nano Energy*, **2021**, 79, 105475	17.1	17
498	(Oxalato)borate: The key ingredient for polyethylene oxide based composite electrolyte to achieve ultra-stable performance of high voltage solid-state LiNi0.8Co0.1Mn0.1O2/lithium metal battery. *Nano Energy*, **2021**, 80, 105562	17.1	24
497	Boosting the ionic conductivity of PEO electrolytes by waste eggshell-derived fillers for high-performance solid lithium/sodium batteries. **2021**, 5, 1315-1323		22
496	Bacterial Cellulose Composite Solid Polymer Electrolyte With High Tensile Strength and Lithium Dendrite Inhibition for Long Life Battery. **2021**, 4, 434-443		15
495	TEMPO-Substituted Poly(ethylene sulfide) for Solid-State Electro-Chemical Charge Storage. **2021**, 42, e2000607		2
494	The role of polymers in lithium solid-state batteries with inorganic solid electrolytes. **2021**, 9, 18701-18732		7
493	PEO based polymer-ceramic hybrid solid electrolytes: a review. **2021**, 8, 2		34
492	Lithium-ion transport in inorganic active fillers used in PEO-based composite solid electrolyte sheets.. **2021**, 11, 31855-31864		2
491	A flame-retardant polymer electrolyte for high performance lithium metal batteries with an expanded operation temperature. **2021**, 14, 3510-3521		49
490	Interfacial engineering facilitating robust Li6.35Ga0.15La3Zr1.8Nb0.2O12 for all-solid-state lithium batteries. **2021**, 5, 2077-2084		4
489	Applying multi-scale silica-like three-dimensional networks in a PEO matrix via in situ crosslinking for high-performance solid composite electrolytes.		5
488	Surface-modified boron nitride as a filler to achieve high thermal stability of polymer solid-state lithium-metal batteries. **2021**, 9, 20530-20543		8
487	All-solid-state lithium batteries enabled by sulfide electrolytes: from fundamental research to practical engineering design. **2021**, 14, 2577-2619		49
486	Delineating the Lithium□Electrolyte Interfacial Chemistry and the Dynamics of Lithium Deposition in Lithium□Sulfur Batteries. **2021**, 11, 2003293		10
485	In situ generation of a soft□tough asymmetric composite electrolyte for dendrite-free lithium metal batteries. **2021**, 9, 4018-4025		12

484	In situ polymerization process: an essential design tool for lithium polymer batteries. **2021**, 14, 2708-2788	31
483	Status and prospect of in situ and operando characterization of solid-state batteries. **2021**, 14, 4672-4711	13
482	Reactivity-guided formulation of composite solid polymer electrolytes for superior sodium metal batteries. **2021**, 9, 18632-18643	5
481	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
480	In Situ Electrolyte Gelation to Prevent Chemical Crossover in Li Metal Batteries. **2021**, 8, 2002152	1
479	Ultra-high throughput manufacturing method for composite solid-state electrolytes. **2021**, 24, 102055	2
478	Incorporating multifunctional LiAlSiO4 into polyethylene oxide for high-performance solid-state lithium batteries. **2021**, 53, 116-123	10
477	Flexible Nanowire Cathode Membrane with Gradient Interfaces and Rapid Electron/Ion Transport Channels for Solid-State Lithium Batteries. **2021**, 11, 2100026	15
476	Promoted ion conductivity of sodium salt–poly(ethylene oxide) polymer electrolyte induced by adding conductive beta-alumina and application in all-solid-state sodium batteries. **2021**, 56, 9951-9960	5
475	Progress and perspective of interface design in garnet electrolyte-based all-solid-state batteries. **2021**, 3, 385-409	7
474	Enhanced transport and favorable distribution of Li-ion in a poly(ionic liquid) based electrolyte facilitated by Li1.3Al0.3Ti1.7(PO4)3 nanoparticles for highly-safe lithium metal batteries. **2021**, 368, 137581	9
473	Formation of Excellent Cathode/Electrolyte Interface with UV-Cured Polymer Electrolyte through In Situ Strategy. **2021**, 168, 020511	3
472	Polymer-based electrolytes for all-solid-state lithium–sulfur batteries: from fundamental research to performance improvement. **2021**, 56, 8358-8382	6
471	Critical Current Density in Solid-State Lithium Metal Batteries: Mechanism, Influences, and Strategies. **2021**, 31, 2009925	74
470	Well-Dispersed Garnet Crystallites for Applications in Solid-State Li-S Batteries. **2021**, 13, 11995-12005	3
469	Dendrites in Solid-State Batteries: Ion Transport Behavior, Advanced Characterization, and Interface Regulation. **2021**, 11, 2003250	22
468	Enhancing Interfacial Contact in Solid-State Batteries with a Gradient Composite Solid Electrolyte. **2021**, 17, e2006578	8
467	Strategies with Functional Materials in Tackling Instability Challenges of Non-aqueous Lithium-Oxygen Batteries. **2021**, 37, 232-245	4

466	Nonporous Gel Electrolytes Enable Long Cycling at High Current Density for Lithium-Metal Anodes. **2021**, 13, 14258-14266	8
465	Garnet-Poly(ε-caprolactone-co-trimethylene carbonate) Polymer-in-Ceramic Composite Electrolyte for All-Solid-State Lithium-Ion Batteries. **2021**, 4, 2531-2542	9
464	Solid-State Electrolytes for Sodium Metal Batteries. **2021**, 35, 9063-9079	13
463	Self-adaptive multiblock-copolymer-based hybrid solid-state electrolyte for safe and stable lithium-metal battery. **2021**, 371, 137702	2
462	Inorganic Fillers in Composite Gel Polymer Electrolytes for High-Performance Lithium and Non-Lithium Polymer Batteries. **2021**, 11,	12
461	Recent progress of composite solid polymer electrolytes for all-solid-state lithium metal batteries. **2021**,	11
460	High-Strength Poly(ethylene oxide) Composite Electrolyte Reinforced with Glass Fiber and Ceramic Electrolyte Simultaneously for Structural Energy Storage. **2021**, 4, 4038-4049	3
459	Highly dispersible silicon nitride whiskers in asymmetric porous separators for high-performance lithium-ion battery. **2021**, 621, 119001	3
458	A High-Voltage Hybrid Solid Electrolyte Based on Polycaprolactone for High-Performance all-Solid-State Flexible Lithium Batteries. **2021**, 4, 2318-2326	9
457	Combination of Organic and Inorganic Electrolytes for Composite Membranes Toward Applicable Solid Lithium Batteries. **2021**, 37, 246-253	2
456	Advances in Polymer Electrolytes for Electrochromic Applications. **2021**, 17-47	
455	Ultra-fast and facile preparation of uniform sulfur/graphene composites with microwave for lithium-sulfur batteries. **2021**, 32,	3
454	Garnet-Based Solid-State Li Batteries: From Materials Design to Battery Architecture. **2021**, 6, 1920-1941	19
453	A Decade of Progress on Solid-State Electrolytes for Secondary Batteries: Advances and Contributions. **2021**, 31, 2100891	25
452	In-Situ Intermolecular Interaction in Composite Polymer Electrolyte for Ultralong Life Quasi-Solid-State Lithium Metal Batteries. **2021**, 133, 12223-12230	6
451	Flexible Nanocomposite Polymer Electrolyte Based on UV-Cured Polyurethane Acrylate for Lithium Metal Batteries. **2021**, 9, 5631-5641	6
450	Ion Pairing, Clustering and Transport in a LiFSI-TMP Electrolyte as Functions of Salt Concentration using Molecular Dynamics Simulations. **2021**, 168, 040511	6
449	An integrated solvent-free modification and composite process of Li6.4La3Zr1.4Ta0.6O12/Poly(ethylene oxide) solid electrolytes: Enhanced compatibility and cycle performance. **2021**, 492, 229672	5

448	High Performance Composite Polymer Electrolytes for Lithium-Ion Batteries. **2021**, 31, 2101380	34
447	In-Situ Intermolecular Interaction in Composite Polymer Electrolyte for Ultralong Life Quasi-Solid-State Lithium Metal Batteries. **2021**, 60, 12116-12123	25
446	Use of Solid-State NMR Spectroscopy for the Characterization of Molecular Structure and Dynamics in Solid Polymer and Hybrid Electrolytes. **2021**, 13,	4
445	Enlarging potential window and enhancing stability of poly(ethylene oxide)-based composite solid electrolyte via succinonitrile additive for advanced solid lithium batteries. **2021**, 14, 2141004	2
444	An All-Solid-State Battery with a Tailored Electrode–Electrolyte Interface Using Surface Chemistry and Interlayer-Based Approaches. **2021**, 33, 3401-3412	10
443	Interactions are important: Linking multi-physics mechanisms to the performance and degradation of solid-state batteries. **2021**,	12
442	Strategies to Boost Ionic Conductivity and Interface Compatibility of Inorganic - Organic Solid Composite Electrolytes. **2021**, 36, 291-308	26
441	Designing inorganic electrolytes for solid-state Li-ion batteries: A perspective of LGPS and garnet. **2021**, 50, 418-418	15
440	Quasi-Solid-State Li–O2 Batteries Performance Enhancement Using an Integrated Composite Polymer-Based Architecture. **2021**, 4, 6221-6232	1
439	In-situ formation of LiF-rich composite interlayer for dendrite-free all-solid-state lithium batteries. **2021**, 411, 128534	8
438	Interfacial barrier free organic-inorganic hybrid electrolytes for solid state batteries. **2021**, 37, 306-314	12
437	Porous Composite Gel Polymer Electrolyte with Interfacial Transport Pathways for Flexible Quasi Solid Lithium-Ion Batteries. **2021**, 13, 23743-23750	4
436	3D-structured organic-inorganic hybrid solid-electrolyte-interface layers for Lithium metal anode. **2021**, 37, 567-575	7
435	Polyethylene Oxide-Based Solid-State Composite Polymer Electrolytes for Rechargeable Lithium Batteries. **2021**, 4, 4581-4601	13
434	An advanced solid polymer electrolyte composed of poly(propylene carbonate) and mesoporous silica nanoparticles for use in all-solid-state lithium-ion batteries. **2021**, 37, 476-490	23
433	A Stretchable and Safe Polymer Electrolyte with a Protecting-Layer Strategy for Solid-State Lithium Metal Batteries. **2021**, 8, 2003241	16
432	Composite polymer electrolytes with uniform distribution of ionic liquid-grafted ZIF-90 nanofillers for high-performance solid-state Li batteries. **2021**, 412, 128733	24
431	Revealing the Superiority of Fast Ion Conductor in Composite Electrolyte for Dendrite-Free Lithium-Metal Batteries. **2021**, 13, 22978-22986	10

430	Enabling the Low-Temperature Cycling of NMC||Graphite Pouch Cells with an Ester-Based Electrolyte. **2021**, 6, 2016-2023	18
429	Tailoring inorganic□polymer composites for the mass production of solid-state batteries.	82
428	Particles in composite polymer electrolyte for solid-state lithium batteries: A review. **2021**,	6
427	Toward High Performance All-Solid-State Lithium Batteries with High-Voltage Cathode Materials: Design Strategies for Solid Electrolytes, Cathode Interfaces, and Composite Electrodes. **2021**, 11, 2003154	12
426	Uniform and Anisotropic Solid Electrolyte Membrane Enables Superior Solid-State Li Metal Batteries. **2021**, 8, e2100899	9
425	Hybrid Polymer-Garnet Materials for All-Solid-State Energy Storage Devices. **2021**, 6, 15551-15558	0
424	Review on Computational-Assisted to Experimental Synthesis, Interfacial Perspectives of Garnet-Solid Electrolytes for All-Solid-State Lithium Batteries. **2021**, 168, 060529	7
423	Stable interface of a high-energy solid-state lithium metal battery via a sandwich composite polymer electrolyte. **2021**, 496, 229835	9
422	Covalent Organic Framework-Based Electrolytes for Fast Li+ Conduction and High-Temperature Solid-State Lithium-Ion Batteries. **2021**, 33, 5058-5066	14
421	A study on the use of various additives to polymer-based solid electrolytes for all-solid-state batteries. **2021**, 24, 185-202	
420	Defect Engineering and Anisotropic Modulation of Ionic Transport in Perovskite Solid Electrolyte LiLaNbO. **2021**, 26,	0
419	Transport Properties of Flexible Composite Electrolytes Composed of LiAlTi(PO) and a Poly(vinylidene fluoride--hexafluoropropylene) Gel Containing a Highly Concentrated Li[N(SOCF)]/Sulfolane Electrolyte. **2021**, 6, 16187-16193	0
418	Silicon-Based Lithium Ion Battery Systems: State-of-the-Art from Half and Full Cell Viewpoint. **2021**, 31, 2102546	24
417	Double-network composite solid electrolyte with stable interface for dendrite-free Li metal anode. **2021**, 38, 447-453	10
416	Compositional Dependence of Li-Ion Conductivity in Garnet-Rich Composite Electrolytes for All-Solid-State Lithium-Ion Batteries-Toward Understanding the Drawbacks of Ceramic-Rich Composites. **2021**, 13, 31111-31128	2
415	Multilayer PEO/LLZTO composite electrolyte enables high-performance solid-state Li-ion batteries. **2021**, 27, 4127-4134	2
414	A High-Capacity, Long-Cycling All-Solid-State Lithium Battery Enabled by Integrated Cathode/Ultrathin Solid Electrolyte. **2021**, 11, 2101612	13
413	Recent Advances of Composite Solid-State Electrolytes for Lithium-Based Batteries. **2021**, 35, 11118-11140	4

412	Layer-by-Layer Assembly of Strong Thin Films with High Lithium Ion Conductance for Batteries and Beyond. **2021**, 17, e2100954	6
411	PEO Infiltration of Porous Garnet-Type Lithium-Conducting Solid Electrolyte Thin Films. **2021**, 4, 421-436	1
410	Li-ion conducting glass ceramic (LICGC)/reduced graphene oxide sandwich-like structure composite for high-performance lithium-ion batteries. **2021**, 500, 229976	4
409	Fast Lithium Ionic Conductivity in Complex Hydride-Sulfide Electrolytes by Double Anions Substitution.. **2021**, 5, e2100609	6
408	Enabling safer, ultralong lifespan all-solid-state Li-organic batteries. **2021**, 416, 129171	3
407	In situ formation of polymer-inorganic solid-electrolyte interphase for stable polymeric solid-state lithium-metal batteries. **2021**,	16
406	Ion-conductive self-healing polymer network based on reversible imine bonding for Si electrodes. **2021**, 499, 229968	5
405	Composite Hybrid Quasi-Solid Electrolyte for High-Energy Lithium Metal Batteries. **2021**, 4, 7973-7982	9
404	In Situ Synthesis of a Li6.4La3Zr1.4Ta0.6O12/Poly(vinylene carbonate) Hybrid Solid-State Electrolyte with Enhanced Ionic Conductivity and Stability. **2021**, 4, 9368-9375	2
403	Development of sodium hybrid quasi-solid electrolytes based on porous NASICON and ionic liquids. **2021**,	2
402	Stabilizing Ceramic-Based Electrolyte Interfaces with Self-Viscous Modification Strategy for Solid-State Lithium Batteries. **2021**, 35, 13411-13418	2
401	Multifunctional approaches for safe structural batteries. **2021**, 40, 102747	8
400	Isomeric Li□La□Zr□O Amorphous□Crystalline Composite Thin-Film Electrolytes for All-Solid-State Lithium Batteries. **2021**, 4, 8517-8528	1
399	Achieving reversible Cu□Al batteries by reducing self-discharge and side reactions. **2021**, 388, 138595	1
398	A flame retarded polymer-based composite solid electrolyte improved by natural polysaccharides. **2021**, 26, 100774	11
397	Investigation of Polymer/Ceramic Composite Solid Electrolyte System: The Case of PEO/LGPS Composite Electrolytes. **2021**, 9, 11314-11322	5
396	Carbon Dots Evoked Li Ion Dynamics for Solid State Battery. **2021**, 17, e2102978	19
395	PVDF-HFP-modified gel polymer electrolyte for the stable cycling lithium metal batteries. **2021**, 895, 115462	5

394	Nano-silica doped composite polymer chitosan/poly(ethylene oxide)-based electrolyte with high electrochemical stability suitable for quasi solid-state lithium metal batteries. **2021**, 895, 115464	5
393	Advances in solid lithium ion electrolyte based on the composites of polymer and LLTO/LLZO of rare earth oxides. e12448	0
392	A novel coral-like garnet for high-performance PEO-based all solid-state batteries. 1	4
391	Commercialization-Driven Electrodes Design for Lithium Batteries: Basic Guidance, Opportunities, and Perspectives. **2021**, 17, e2102233	7
390	Issues and Advances in Scaling up Sulfide-Based All-Solid-State Batteries. **2021**, 54, 3390-3402	19
389	Lithium solid-state batteries: State-of-the-art and challenges for materials, interfaces and processing. **2021**, 502, 229919	24
388	Asymmetry-structure electrolyte with rapid Li+ transfer pathway towards high-performance all-solid-state lithium□sulfur battery. **2021**, 634, 119432	4
387	Effect of nanostructured Al2O3 on poly(ethylene oxide)-based solid polymer electrolytes. **2021**,	0
386	Heterogeneous electrolyte membranes enabling double-side stable interfaces for solid lithium batteries. **2021**, 60, 162-168	12
385	A high-performance solid electrolyte assisted with hybrid biomaterials for lithium metal batteries. **2022**, 608, 313-321	6
384	Research Progress and Application of PEO-Based Solid State Polymer Composite Electrolytes. **2021**, 9,	2
383	Garnet-type solid electrolyte: Advances of ionic transport performance and its application in all-solid-state batteries. **2021**, 10, 933	10
382	Recent progress of asymmetric solid-state electrolytes for lithium/sodium-metal batteries. **2021**, 3, 100058	10
381	Stable Interface Chemistry and Multiple Ion Transport of Composite Electrolyte Contribute to Ultra-long Cycling Solid-State LiNi0.8Co0.1Mn0.1O2/Lithium Metal Batteries.	0
380	Achievement of high-cyclability and high-voltage Li-metal batteries by heterogeneous SEI film with internal ionic conductivity/external electronic insulativity hybrid structure. **2021**, 40, 337-346	6
379	Organic fast ion-conductor with ordered Li-ion conductive nano-pathways and high ionic conductivity for electrochemical energy storage. **2021**, 66, 647-647	1
378	Design and Sintering of All-Solid-State Composite Cathodes with Tunable Mixed Conduction Properties via the Cold Sintering Process. **2021**, 13, 48071-48087	1
377	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

376	Design, fabrication and application of PEO/CMC-Li @PI hybrid polymer electrolyte membrane in all-solid-state lithium battery. **2021**, 389, 138747		2
375	Li0.35La0.55TiO3 nanofibers filled poly (ethylene carbonate) composite electrolyte with enhanced ion conduction and electrochemical stability. **2021**, 734, 138835		1
374	An advance review of solid-state battery: Challenges, progress and prospects. **2021**, 29, e00297		8
373	Optimized CeO2 nanowires with rich surface oxygen vacancies enable fast Li-ion conduction in composite polymer electrolytes.		0
372	Robust and high thermal-stable composite polymer electrolyte reinforced by PI nanofiber network. **2021**, 32,		3
371	Polybenzimidazole functionalized electrolyte with Li-wetting and self-fluorination functionalities for practical Li metal batteries.		5
370	Functional additives for solid polymer electrolytes in flexible and high-energy-density solid-state lithium-ion batteries.		9
369	Composite solid electrolyte comprising poly(propylene carbonate) and Li1.5Al0.5Ge1.5(PO4)3 for long-life all-solid-state Li-ion batteries. **2021**, 392, 139007		7
368	Revisiting TiS2 as a diffusion-dependent cathode with promising energy density for all-solid-state lithium secondary batteries. **2021**, 41, 289-296		6
367	A Liquid-Free Poly(butylene oxide) Electrolyte for Near-Room-Temperature and 4-V Class All-Solid-State Lithium Batteries. *Nano Energy*, **2021**, 90, 106566	17.1	0
366	Sandwich composite PEO@(Er0.5Nb0.5)0.05Ti0.95O2@cellulose electrolyte with high cycling stability for all-solid-state lithium metal batteries. **2021**, 877, 160307		3
365	All-dry synthesis of self-supporting thin Li10GeP2S12 membrane and interface engineering for solid state lithium metal batteries. **2021**, 421, 129965		10
364	Addressing interface elimination: Boosting comprehensive performance of all-solid-state Li-S battery. **2021**, 41, 563-570		4
363	Flame-retardant composite gel polymer electrolyte with a dual acceleration conduction mechanism for lithium ion batteries. **2021**, 422, 130526		9
362	Enabling lithium metal battery with flexible polymer/garnet type solid oxide composite electrolyte. **2021**, 368, 115710		0
361	Rational design of fireproof fiber-network reinforced 3D composite solid electrolyte for dendrite-free solid-state batteries. **2021**, 421, 127771		5
360	Insights into evolution processes and degradation mechanisms of anion-tunable interfacial stability in all-solid-state lithium-sulfur batteries. **2021**, 41, 642-649		2
359	Three-dimensional fiber network reinforced polymer electrolyte for dendrite-free all-solid-state lithium metal batteries. **2021**, 41, 631-641		23

358	Research progress in electrospinning engineering for all-solid-state electrolytes of lithium metal batteries. **2021**, 61, 253-268		23
357	A high-performance, solution-processable polymer/ceramic/ionic liquid electrolyte for room temperature solid-state Li metal batteries. *Nano Energy*, **2021**, 89, 106351	17.1	9
356	Functional polymers for lithium metal batteries. **2021**, 122, 101453		8
355	Solid-state polymer electrolytes with polypropylene separator-reinforced sandwich structure for room-temperature lithium ion batteries. **2021**, 638, 119713		7
354	Insight into anion storage batteries: Materials, properties and challenges. **2021**, 42, 42-67		4
353	Soft, robust, Li-ion friendly halloysite-based hybrid protective layer for dendrite-free Li metal anode. **2021**, 424, 130326		2
352	Rational design of a pre-lithiated ionogel membrane with enhanced safety and electrochemical performances. **2021**, 272, 124975		0
351	Long cycle-life prototype lithium-metal all-solid-state pouch cells employing garnet-rich composite electrolyte. **2021**, 397, 139249		3
350	Local electric field effect of montmorillonite in solid polymer electrolytes for lithium metal batteries. *Nano Energy*, **2021**, 90, 106490	17.1	5
349	Stable all-solid-state lithium metal batteries with Li3N-LiF-enriched interface induced by lithium nitrate addition. **2021**, 43, 229-237		16
348	Ultrathin polymer-in-ceramic and ceramic-in-polymer bilayer composite solid electrolyte membrane for high-voltage lithium metal batteries. **2021**, 640, 119840		6
347	Status and challenges facing representative anode materials for rechargeable lithium batteries. **2022**, 66, 260-294		26
346	Enhanced interfacial stability with a novel boron-centered crosslinked hybrid polymer gel electrolytes for lithium metal batteries. **2022**, 428, 131100		8
345	Interface reactivity of in-situ formed LiCoO2 - PEO solid-state interfaces investigated by X-ray photoelectron spectroscopy: Reaction products, energy level offsets and double layer formation. **2022**, 571, 151218		1
344	Gel composite electrolyte □an effective way to utilize ceramic fillers in lithium batteries. **2021**, 9, 6555-6566		4
343	Dual Li-ion migration channels in an ester-rich copolymer/ionic liquid quasi-solid-state electrolyte for high-performance Li□S batteries. **2021**, 9, 2459-2469		4
342	Atomic-scale Al2O3 modified PEO-based composite polymer electrolyte for durable solid-state Li□□S batteries. **2021**, 881, 114916		12
341	Interface issues of lithium metal anode for high-energy batteries: Challenges, strategies, and perspectives. **2021**, 3, 155-174		72

340	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
339	Single crystal Ni-rich layered cathodes enabling superior performance in all-solid-state batteries with PEO-based solid electrolytes. **2021**, 9, 16787-16797	6
338	Interrelated interfacial issues between a Li7La3Zr2O12-based garnet electrolyte and Li anode in the solid-state lithium battery: a review. **2021**, 9, 5952-5979	15
337	Biomass-based materials for green lithium secondary batteries. **2021**, 14, 1326-1379	55
336	Progress and Challenges for All-Solid-State Sodium Batteries. **2021**, 2, 2000057	8
335	Recent Advances in Polymer Electrolytes for Zinc Ion Batteries: Mechanisms, Properties, and Perspectives. **2020**, 10, 1903977	144
334	Polyester-ZrO2 Nanocomposite Electrolytes with High Li Transference Numbers for Ambient Temperature All-Solid-State Lithium Batteries. **2021**, 4, 653-662	8
333	Practical development and challenges of garnet-structured Li7La3Zr2O12 electrolytes for all-solid-state lithium-ion batteries: A review. **2021**, 28, 1565-1583	6
332	Anion-immobilized solid composite electrolytes based on metal-organic frameworks and superacid ZrO2 fillers for high-performance all solid-state lithium metal batteries. **2021**, 28, 1636-1646	6
331	Imidazole containing solid polymer electrolyte for lithium ion conduction and the effects of two lithium salts. **2020**, 351, 136342	8
330	Blending Poly(ethylene oxide) and Li6.4La3Zr1.4Ta0.6O12 by Haake Rheomixer without any solvent: A low-cost manufacture method for mass production of composite polymer electrolyte. **2020**, 451, 227797	12
329	A flexible composite electrolyte membrane with ultrahigh LLZTO garnet content for quasi solid state Li-air batteries. **2020**, 351, 115340	5
328	Composite Polymer Electrolytes Based on PVA/PAN for All-Solid-State Lithium Metal Batteries Operated at Room Temperature. **2020**, 3, 11024-11035	13
327	Self-Healing Single-Ion Conducting Polymer Electrolyte Formed via Supramolecular Networks for Lithium Metal Batteries. **2021**, 4, 482-491	13
326	Synthesis and interface modification of oxide solid-state electrolyte-based all-solid-state lithium-ion batteries: Advances and perspectives. **2021**, 14, 2130002	2
325	Solid-State Lithium-Sulfur Battery Based on Composite Electrode and Bi-layer Solid Electrolyte Operable at Room Temperature. **2020**, 167, 140529	5
324	Review Polymer/Ceramic Interface Barriers: The Fundamental Challenge for Advancing Composite Solid Electrolytes for Li-Ion Batteries. **2020**, 167, 160514	13
323	In-situ Polymerization Integrating 3D Ceramic Framework in All Solid-state Lithium Battery. **2020**, 35, 1357	2

322	Recent progress in tackling Zn anode challenges for Zn ion batteries. **2021**, 9, 25750-25772	2
321	Porous polyamine/PEO composite solid electrolyte for high performance solid-state lithium metal batteries. **2021**, 9, 24661-24669	7
320	Application of a Modified Porphyrin in a Polymer Electrolyte with Superior Properties for All-Solid-State Lithium Batteries. **2021**, 13, 48569-48581	3
319	Solvent-Free Process for Blended PVDF-HFP/PEO and LLZTO Composite Solid Electrolytes with Enhanced Mechanical and Electrochemical Properties for Lithium Metal Batteries. **2021**, 4, 11802-11812	5
318	Enhanced ionic conductivity and electrochemical stability of Indium doping Li1.3Al0.3Ti1.7(PO4)3 solid electrolytes for all-solid-state lithium-ion batteries. 1	0
317	Impact of the Solid-Electrolyte Interface on Dendrite Formation: A Case Study Based on Zinc Metal Electrodes.	
316	Role of Filler Content and Morphology in LLZO/PEO Membranes. **2021**, 9,	4
315	Rapid Ion Transport Induced by the Enhanced Interaction in Composite Polymer Electrolyte for All-Solid-State Lithium-Metal Batteries. **2021**, 12, 10603-10609	3
314	Cation Vacancy-Boosted Lewis Acid-Base Interactions in a Polymer Electrolyte for High-Performance Lithium Metal Batteries. **2021**, 13, 51107-51116	1
313	Investigation of XRD and Transport Properties of (PEO+KNO3+Nano Al2O3) Composite Polymer Electrolyte. **2018**, 15, 23-27	
312	Composite Electrolytes Based on Tetragonal Li7La3Zr2O12 for Lithium Batteries. **2019**, 167-193	
311	Li7La3Zr2O12 and Poly(Ethylene Oxide) Based Composite Electrolytes. **2019**, 195-215	
310	High-Energy All-Solid-State Lithium-Metal Batteries by Nanomaterial Designs. **2019**, 205-262	
309	Recent Advancements in High-Performance Solid Electrolytes for Li-ion Batteries: Towards a Solid Future. **2020**, 16, 507-533	
308	Revisiting the role of polymers as renewable and flexible materials for advanced batteries. **2021**, 45, 1012-1012	2
307	An effective artificial layer boosting high-performance all-solid-state lithium batteries with high coulombic efficiency. **2021**, 8, 257-257	1
306	Solid polymer electrolyte with in-situ generated fast Li+ conducting network enable high voltage and dendrite-free lithium metal battery. **2022**, 44, 93-103	10
305	Effects of porosity and ionic liquid impregnation on ionic conductivity of garnet-based flexible sheet electrolytes. **2022**, 517, 230705	2

304	Nanostructured zeolitic imidazolate framework-67 reinforced poly(ethylene oxide) composite electrolytes for all solid state Lithium ion batteries. **2022**, 573, 151489	5
303	Rational design of ultrathin composite solid-state electrolyte for high-performance lithium metal batteries. **2022**, 642, 119952	4
302	Plasma optimized Li7La3Zr2O12 with vertically aligned ion diffusion pathways in composite polymer electrolyte for stable solid-state lithium metal batteries. **2022**, 430, 132874	4
301	Research progress of interface problems and optimization of garnet-type solid electrolyte. **2020**, 69, 228806	2
300	Physical issues in solid garnet batteries. **2020**, 69, 228804	2
299	A brief analysis of the microscopic physical image of ions transport in electrolyte. **2020**, 0-0	10
298	Fast Li+ conduction in (PEO+LiClO4) incorporated LiSn2(PO4)3 polymer-in-ceramic solid electrolyte. **2020**,	0
297	Perovskite Solid-State Electrolytes for Lithium Metal Batteries. **2021**, 7, 75	4
296	ZnF2/ZnS heterostructures@NC doped porous carbon nanofibers as interlayers for stable lithium metal anodes. **2022**, 230, 109531	0
295	Recent advances of composite electrolytes for solid-state Li batteries. **2022**, 67, 524-548	7
294	Reconstruction and electronic properties of Li3PS4 |Li2S interface.	1
293	Unraveling the Synergistic Coupling Mechanism of Li+ Transport in an Inorganogel-in-Ceramic Hybrid Solid Electrolyte for Rechargeable Lithium Metal Battery. 2108706	4
292	Mg-based inorganic nanofibers constructing fast and multi-dimensional ion conductive pathways for all-solid-state lithium metal batteries. **2021**, 67, 684-684	1
291	Composite polymer electrolyte with three-dimensional ion transport channels constructed by NaCl template for solid-state lithium metal batteries. **2021**,	3
290	Ionic Conductivity of Hybrid Composite Solid Polymer Electrolytes of PEOnLiClO4-Cubic Li7La3Zr2O12 Films. **2021**, 9, 2090	
289	Li-Rich Antiperovskite/Nitrile Butadiene Rubber Composite Electrolyte for Sheet-Type Solid-State Lithium Metal Battery. **2021**, 9, 744417	2
288	Emerging Two-Dimensional Covalent and Coordination Polymers for Stable Lithium Metal Batteries: From Liquid to Solid. **2021**,	6
287	Preparation and Electrochemical Properties of Bicontinuous Solid Electrolytes Derived from Porous Li6.4La3Zr1.4Ta0.6O12 Incorporated with Succinonitrile. **2021**, 168, 110537	

286	Electrochemical behavior of rutile phase TiO2-coated NCM materials for ASLBs operated at a high temperature. **2022**, 430, 127984	0
285	Segmental and interfacial dynamics quantitatively determine ion transport in solid polymer composite electrolytes. 52143	1
284	LLCZN/PEO/LiPF6 Composite Solid-State Electrolyte for Safe Energy Storage Application. **2022**, 8, 3	1
283	Lithium metal structural battery developed with vacuum bagging.	0
282	Flexible Composite Solid Electrolyte with 80 wt% Na3.4Zr1.9Zn0.1Si2.2P0.8O12 for Solid-State Sodium Batteries. **2022**,	4
281	A high strength asymmetric polymer–inorganic composite solid electrolyte for solid-state Li-ion batteries. **2022**, 404, 139701	3
280	Increasing the electrochemical stability window for polyethylene-oxide-based solid polymer electrolytes by understanding the affecting factors. **2022**, 375, 115837	1
279	One-step fabrication of garnet solid electrolyte with integrated lithiophilic surface. **2022**, 45, 814-820	4
278	Quasi-Solid-State Polymer Electrolyte Based on High-Concentrated LiTFSI Complexing DMF for Ambient-Temperature Rechargeable Lithium Batteries.	
277	Enhanced NIR Region Emission of Chromium by Changing the Chromium Concentration in Yttrium Aluminum Garnet (YAG) Host Matrix.	
276	A succinonitrile-infiltrated silica aerogel synergistically-reinforced hybrid solid electrolyte for durable solid-state lithium metal batteries.	
275	Composite polymer electrolytes reinforced by a three-dimensional polyacrylonitrile/Li0.33La0.557TiO3 nanofiber framework for room-temperature dendrite-free all-solid-state lithium metal battery.	6
274	Dielectric polymer based electrolytes for high-performance all-solid-state lithium metal batteries. **2022**,	9
273	Evaluating Interfacial Stability in Solid-State Pouch Cells via Ultrasonic Imaging. **2022**, 7, 650-658	4
272	Stabilized and Almost Dendrite-Free Li Metal Anodes by In Situ Construction of a Composite Protective Layer for Li Metal Batteries.. **2022**,	1
271	A Direct View on Li-Ion Transport and Li-Metal Plating in Inorganic and Hybrid Solid-State Electrolytes.. **2022**,	3
270	Regulating Interfacial Li-Ion Transport via an Integrated Corrugated 3D Skeleton in Solid Composite Electrolyte for All-Solid-State Lithium Metal Batteries.. **2022**, e2104506	3
269	Molecular composite electrolytes of polybenzimidazole/polyethylene oxide with enhanced safety and comprehensive performance for all-solid-state lithium ion batteries. **2022**, 239, 124450	0

268	Single-ion polymer/LLZO hybrid electrolytes with high lithium conductivity. **2022**, 3, 1139-1151		1
267	Polydopamine coated TiO nanofiber fillers for polyethylene oxide hybrid electrolytes for efficient and durable all solid state lithium ion batteries.. **2022**,		1
266	Elastomeric electrolytes for high-energy solid-state lithium batteries.. **2022**, 601, 217-222		45
265	Sandwich-like solid composite electrolytes employed as bifunctional separators for safe lithium metal batteries with excellent cycling performance.		2
264	Challenges, Strategies, and Prospects of the Anode-Free Lithium Metal Batteries. 2100197		2
263	Long-chain fluorocarbon-driven hybrid solid polymer electrolyte for lithium metal batteries.		2
262	11,11,12,12-tetracyano-9,10-anthraquinonedimethane as a sustainable cathode for room temperature all solid-state lithium battery.		0
261	Solid acrylonitrile-based copolymer electrolytes and their potential application in solid state battery. 52158		2
260	Enhanced ionic conductivity and interface compatibility of PVDF-LLZTO composite solid electrolytes by interfacial maleic acid modification.. **2022**, 613, 368-375		2
259	Fast-Charging Solid-State Lithium Metal Batteries: A Review. 2100203		1
258	Fabrication of asymmetric bilayer solid-state electrolyte with boosted ion transport enabled by charge-rich space charge layer for -20~70℃ lithium metal battery. *Nano Energy*, **2022**, 107027	17.1	2
257	A 3D interconnected metal-organic framework-derived solid-state electrolyte for dendrite-free lithium metal battery. **2022**, 47, 262-262		8
256	Garnet Ceramic Fabric-Reinforced Flexible Composite Solid Electrolyte Derived from Silk Template for Safe and Long-term Stable All-Solid-State Lithium Metal Batteries. **2022**, 47, 279-279		2
255	Reducing the crystallinity of PEO-based composite electrolyte for high performance lithium batteries. **2022**, 234, 109729		1
254	All-solid-state electric double layer supercapacitors using Li1.3Al0.3Ti1.7(PO4)3 reinforced solid polymer electrolyte. **2022**, 49, 104178		1
253	Fabrication of Asymmetric Bilayer Solid-State Electrolyte with Boosted Ion Transport Enabled by Charge-Rich Space Charge Layer for -20~70℃ Lithium Metal Battery.		
252	Polymer-ceramic based solid composite membranes as potential electrolytes for the lithium batteries. **2022**, 181-200		
251	Ion transport in composite polymer electrolytes.		3

250	High-performance all-solid-state electrolyte for sodium batteries enabled by the interaction between the anion in salt and NaSbS.. **2022**, 13, 3416-3423	2
249	Constructing the Lithium Polymeric Salt Interfacial Phase in Composite Solid-State Electrolytes for Enhancing Cycle Performance of Lithium Metal Batteries.	
248	A Dual-Salt Peo-Based Polymer Electrolyte with Cross-Linked Polymer Network for High-Voltage Lithium Metal Batteries.	
247	High-Safety Composite Solid Electrolyte Based on Inorganic Matrix for Solid-State Lithium-Metal Batteries.	
246	Review on the recent progress in the nanocomposite polymer electrolytes on the performance of lithium-ion batteries.	0
245	Investigating the Interface between Ceramic Particles and Polymer Matrix in Hybrid Electrolytes by Electrochemical Strain Microscopy.. **2022**, 12,	1
244	Controlling Li deposition below the interface. **2022**,	15
243	Li2CO3: Insights into Its Blocking Effect on Li-Ion Transfer in Garnet Composite Electrolytes. **2022**, 5, 2853-2861	2
242	Semi-interpenetrated polymer networks based on modified cellulose and starch as gel polymer electrolytes for high performance lithium ion batteries. **2022**, 29, 3423	1
241	A highly ionic conductive succinonitrile-based composite solid electrolyte for lithium metal batteries. 1	1
240	A two-step strategy for constructing stable gel polymer electrolyte interfaces for long-life cycle lithium metal batteries. **2022**,	0
239	Enabling Stable Interphases via In Situ Two-Step Synthetic Bilayer Polymer Electrolyte for Solid-State Lithium Metal Batteries. **2022**, 10, 42	0
238	Electrochemical Impedance Spectroscopy of PEO-LATP Model Multilayers: Ionic Charge Transport and Transfer.. **2022**,	1
237	Solid-State Lithium Metal Battery of Low Capacity Fade Enabled by a Composite Electrolyte with Sulfur-Containing Oligomers.. **2022**,	
236	Carbon dots for ultrastable solid-state batteries.	2
235	Thin Yet Strong Composite Polymer Electrolyte Reinforced by Nanofibrous Membrane for Flexible Dendrite-Free Solid-State Lithium Metal Batteries. 2100193	
234	Ferroelectric Engineered Electrode-Composite Polymer Electrolyte Interfaces for All-Solid-State Sodium Metal Battery.. **2022**, e2105849	2
233	Asymmetric polymer solid electrolyte constructed by dopamine-modified Li1.4Al0.4Ti1.6(PO4)3 for dendrite-free lithium battery. 1	

232	Activated metal-organic frameworks (a-MIL-100 (Fe)) as fillers in polymer electrolyte for high-performance all-solid-state lithium metal batteries. **2022**, 103518	3
231	Solid-state lithium battery with garnet Li7La3Zr2O12 nanofibers composite polymer electrolytes. **2022**, 378, 115897	0
230	Commercial carbon cloth: An emerging substrate for practical lithium metal batteries. **2022**, 48, 172-190	7
229	Inorganic all-solid-state lithium-sulfur batteries enhanced by facile thermal formation. **2022**, 48, 283-289	
228	Fabricating a PVDF skin for PEO-based SPE to stabilize the interface both at cathode and anode for Li-ion batteries. **2022**, 70, 356-362	2
227	Enhanced NIR region emission of chromium by changing the chromium concentration in yttrium aluminum garnet (YAG) host matrix. **2022**, 908, 164601	1
226	Constructing the lithium polymeric salt interfacial phase in composite solid-state electrolytes for enhancing cycle performance of lithium metal batteries. **2022**, 442, 136154	1
225	A polyethylene oxide/metal-organic framework composite solid electrolyte with uniform Li deposition and stability for lithium anode by immobilizing anions.. **2022**, 620, 47-56	1
224	Flexible, solid-state, fiber-network-reinforced composite solid electrolyte for long lifespan solid lithium-sulfurized polyacrylonitrile battery. **2022**, 15, 3290-3298	0
223	Double-Layer Solid Composite Electrolytes Enabling Improved Room-Temperature Cycling Performance for High-Voltage Lithium Metal Batteries.. **2022**, 7, 994-1002	0
222	Effects of Polymer Coating Mechanics at Solid-Electrolyte Interphase for Stabilizing Lithium Metal Anodes. **2022**, 12, 2103187	3
221	Solvent-Free Approach for Interweaving Freestanding and Ultrathin Inorganic Solid Electrolyte Membranes. **2022**, 7, 410-416	15
220	References. **2021**, 317-358	
219	Fiber-Reinforced Composite Polymer Electrolytes for Solid-State Lithium Batteries. **2022**, 6, 2100389	2
218	Impacts of Lithium Salts on the Thermal and Mechanical Characteristics in the Lithiated PEO/LAGP Composite Electrolytes. **2022**, 6, 12	2
217	High Performance Single-Crystal Ni-Rich Cathode Modification via Crystalline LLTO Nanocoating for All-Solid-State Lithium Batteries.. **2021**,	4
216	Degradation of All-Solid-State Lithium-Sulfur Batteries with PEO-Based Composite Electrolyte.	0
215	Graphite–Silicon Diffusion-Dependent Electrode with Short Effective Diffusion Length for High-Performance All-Solid-State Batteries. **2022**, 12, 2103108	5

214	Bistrifluoroacetamide-Activated Double-Layer Composite Solid Electrolyte for Dendrite-Free Lithium Metal Battery. **2022**, 9, 2101486	0
213	Novel fast lithium-ion conductor LiTa2PO8 enhances the performance of poly(ethylene oxide)-based polymer electrolytes in all-solid-state lithium metal batteries. **2021**,	0
212	Fundamental Understanding and Construction of Solid-State Li-Air Batteries. 2200005	1
211	Stable composite electrolytes of PVDF modified by inorganic particles for solid-state lithium batteries.	
210	Recent Advances of Li7La3Zr2O12-based Solid-state Lithium Batteries towards High Energy Density. **2022**,	6
209	Suppression of lithium dendrites in all-solid-state lithium batteries by using a Janus-structured composite solid electrolyte. **2022**, 136479	1
208	Thermal Decomposition Characteristics of PEO/LiBF4/LAGP Composite Electrolytes. **2022**, 6, 117	0
207	Covalent Organic Framework for Rechargeable Batteries: Mechanisms and Properties of Ionic Conduction. 2200057	8
206	Integration of a low-tortuous electrode and an in-situ-polymerized electrolyte for all-solid-state lithium-metal batteries. **2022**, 3, 100851	1
205	Composite solid electrolytes containing single-ion lithium polymer grafted garnet for dendrite-free, long-life all-solid-state lithium metal batteries. **2022**, 136436	3
204	Temperature and Stress -resistant Solid State Electrolyte for Stable Lithium-Metal Batteries. **2022**,	0
203	Foldable nano-LiMnO integrated composite polymer solid electrolyte for all-solid-state Li metal batteries with stable interface.. **2022**, 621, 232-240	0
202	Electrolyte based on laser-generated nano-garnet in poly(ethylene oxide) for solid-state lithium metal batteries. **2022**, 443, 136418	0
201	Composite solid electrolyte with Li+ conducting 3D porous garnet-type framework for all-solid-state lithium batteries.	2
200	The Plasticizer-Free Composite Block Copolymer Electrolytes for Ultralong Lifespan All-Solid-State Lithium-Metal Batteries.	
199	Constructing the high-areal-capacity, solid-state Li polymer battery via the multiscale ion transport pathway design. **2022**,	0
198	Sandwich structured PVDF-HFP-based composite solid electrolytes for solid-state lithium metal batteries.	0
197	All-solid-state lithium-sulfur batteries assembled by composite polymer electrolyte and amorphous sulfur/rGO composite cathode. **2022**, 380, 115926	1

196	A flexible Li2SnO3-coupled PEO-based single-ion conducting composite solid-state electrolyte for highly-stable Li metal batteries. **2022**, 911, 165138	0
195	Double-salt electrolyte for Li-ion batteries operated at elevated temperatures. **2022**, 49, 493-501	1
194	Interface science in polymer-based composite solid electrolytes in lithium metal batteries.	0
193	Rice HuskDerived Porous Silicon Dioxide Fillers for Enhancing Ionic Conductivity in a Solid-State Electrolyte of LithiumSulfur Batteries Under Molecular Dynamic Calculation.	0
192	Progress, challenges and perspectives of computational studies on glassy superionic conductors for solid-state batteries.	3
191	Highly Conductive and Stable Hybrid Solid Electrolyte for High Voltage Lithium Metal Batteries.	1
190	Recent Developments in Electrolyte Materials for Rechargeable Batteries. **2022**, 369-415	
189	Quasi-Solid-State Polymer Electrolyte Based on Highly Concentrated LiTFSI Complexing DMF for Ambient-Temperature Rechargeable Lithium Batteries.	0
188	Review on defect engineering of perovskite in photovoltaic application.	0
187	High-safety composite solid electrolyte based on inorganic matrix for solid-state lithium-metal batteries. **2022**, 101052	1
186	One-Step Synthesis of PVDF-HFP/PMMA-ZrO2 Gel Polymer Electrolyte to Boost the Performance of a Lithium Metal Battery.	0
185	Three-Dimensional Printable, Highly Conductive Ionic Elastomers for High-Sensitivity Iontronics.	4
184	Strategies and characterizations enabling high performance PEO-based solid-state lithium-ion batteries.	1
183	Recent advances in solid-state beyond lithium batteries.	0
182	Electrochemical Properties of an Sn-Doped LATP Ceramic Electrolyte and Its Derived Sandwich-Structured Composite Solid Electrolyte. **2022**, 12, 2082	0
181	Solid Composite Electrolytes for Solid-State Alkali Metal Batteries. 395-423	
180	All-Solid-State Potassium Polymer Batteries Enabled by the Effective Pretreatment of Potassium Metal. 2244-2246	6
179	Recent Developments in Polymeric Composites for Solid-State Batteries. 167-200	

178	The plasticizer-free composite block copolymer electrolytes for ultralong lifespan all-solid-state lithium-metal batteries. *Nano Energy*, **2022**, 107499	17.1	1
177	An All-Solid-State Battery Based on Sulfide and PEO Composite Electrolyte. 2202069		2
176	Solid-State Rechargeable Lithium-Ion Batteries: Component Chemistries and Battery Architectures. 21-37		
175	Agglomeration-free composite solid electrolyte and enhanced cathode-electrolyte interphase kinetics for all-solid-state lithium metal batteries. **2022**, 51, 19-28		1
174	In-situ construction of dual lithium-ion migration channels in polymer electrolytes for lithium metal batteries. **2022**, 448, 137661		0
173	Enhancing Li ion transfer efficacy in PEO-based solid polymer electrolytes to promote cycling stability of Li-metal batteries.		1
172	Solid-State Nanocomposite Ionogel Electrolyte with In-Situ Formed Ionic Channels for Uniform Ion-Flux and Suppressing Dendrite Formation in Lithium Metal Batteries.		
171	Artificially Transformed Ultra-Stable Li6.4la3zr1.4ta0.6o12 Incorporated Composite Solid Electrolyte Towards High Voltage Solid Lithium Metal Batteries.		
170	Ternary metal oxide filled PEO-based polymer electrolyte for solid-state lithium metal battery: The role of filler particle size. **2022**, 106958		1
169	Cold-Starting All-Solid-State Batteries from Room Temperature by Thermally Modulated Current Collector in Sub-Minute. 2202848		0
168	Scalable, thin asymmetric composite solid electrolyte for high-performance all-solid-state lithium metal batteries.		0
167	20 Îm-Thick Li6.4La3Zr1.4Ta0.6O12-Based Flexible Solid Electrolytes for All-Solid-State Lithium Batteries. **2022**, 2022, 1-8		4
166	Soft Ionics: Governing Physics and State of Technologies. 10,		1
165	Structural, thermal, and electrochemical studies on PVA-LiTf-TiO2 nanocomposite polymer electrolyte and the performance on electric double layer capacitor application.		
164	Double-layer solid-state electrolyte enables compatible interfaces for high-performance lithium metal batteries. **2022**,		0
163	Flexible PVA/BMIMOTf/LLZTO composite electrolyte with liquid-comparable ionic conductivity for solid-state lithium metal battery. **2022**,		0
162	Passerini polymerization as a novel route for high ionic conductivity solid polymer electrolyte. **2022** , 176, 111400		0
161	Li6.4La3Zr1.4Ta0.6O12 Reinforced Polystyrene-Poly(ethylene oxide)-Poly(propylene oxide)-Poly(ethylene oxide)-Polystyrene pentablock copolymer-based composite solid electrolytes for solid-state lithium metal batteries. **2022**, 542, 231797		2

160	Fabrication and electrochemical behavior of flexible composite solid electrolyte for bipolar solid-state lithium batteries. **2022**, 542, 231789	0
159	Integrated Interlocking architecture improving cycle stability of supercapacitors based on Self-Supporting electrodes. **2022**, 450, 137918	
158	A Dual-Salt PEO-based polymer electrolyte with Cross-Linked polymer network for High-Voltage lithium metal batteries. **2022**, 450, 137776	1
157	Stabilize Garnet/Electrode Interface via Low-melting Polymer Layer in Solid-state Lithium Metal Battery. **2022**, 140907	0
156	Synergistic coupling of Li6.4La3Zr1.4Ta0.6O12 and fluoroethylene carbonate boosts electrochemical performances of poly(ethylene oxide)-based all-solid-state lithium batteries.	
155	Improving Li-ion interfacial transport in hybrid solid electrolytes.	4
154	Ion conduction path in composite solid electrolytes for lithium metal batteries: from polymer rich to ceramic rich.	
153	Hybrid solid state electrolytes blending NASICON-type Li1+xAlxTi2 (PO4)3 with poly(vinylidene fluoride-co-hexafluoropropene) for lithium metal batteries. **2022**, 427, 140903	2
152	The Impact of Polymer Electrolyte Properties on Lithium-Ion Batteries. **2022**, 14, 3101	
151	Composite Polymer Electrolytes for Lithium Batteries. **2022**, 7,	0
150	Recent advances and challenges in the design of Li air batteries oriented solid-state electrolytes. 20220014	
149	Advanced Non-Flammable Organic Electrolyte Promises Safer Li Metal Batteries: From Solvation Structure Perspectives. 2206228	1
148	Lithium-ion conductive glass-ceramic electrolytes enable safe and practical Li batteries. **2022**, 101118	0
147	A High-Filled Li7La3Zr2O12/Polypropylene Oxide Composite Solid Electrolyte with Improved Lithium-Ion Transport and Safety Performances for High-Voltage Li Batteries.	
146	In Situ Catalytic Polymerization of a Highly Homogeneous PDOL Composite Electrolyte for Long-Cycle High-Voltage Solid-State Lithium Batteries. 2201762	1
145	Filler-Integrated Composite Polymer Electrolyte for Solid-State Lithium Batteries. 2110423	4
144	Design and fabrication of PEO-HPMC@Ht composite solid-state electrolytes in all-solid-state lithium battery.	
143	Achieving Low-Energy-Barrier Ion Hopping in Adhesive Composite Polymer Electrolytes by Nanoabsorption. **2022**, 55, 7117-7126	2

142	A Silica Reinforced Composite Electrolyte with Greatly Enhanced Interfacial Lithium-Ion Transfer Kinetics for High-Performance Lithium Metal Batteries. 2205575	3
141	A Review on 1D Materials for All-Solid-State Lithium-ion Batteries and All-Solid-State Lithium-sulfur Batteries. **2022**, 138532	0
140	Enhancing electrical conductivity of single-atom doped Co3O4 nanosheet arrays at grain boundary by phosphor doping strategy for efficient water splitting.	1
139	Thermally stable bulk-type all-solid-state capacitor with a highly deformable oxide solid electrolyte. **2022**, 543, 231821	
138	Electrical properties of Mg2+ ion-conducting PEO: P(VdF-HFP) based solid blend polymer electrolytes. **2022**, 256, 125242	1
137	Starch acetate and carboxymethyl starch as green and sustainable polymer electrolytes for high performance lithium ion batteries. **2022**, 324, 119767	1
136	Highly stable lithium batteries enabled by composite solid electrolyte with synergistically enhanced in-built ion-conductive framework. **2022**, 545, 231928	0
135	Research progress and prospect in typical sulfide solid-state electrolytes. **2022**, 55, 105382	0
134	Fast Li+ transport and superior interfacial chemistry within composite polymer electrolyte enables ultra-long cycling solid-state Li-metal batteries. **2022**, 52, 201-209	3
133	Strategies for rational design of polymer-based solid electrolytes for advanced lithium energy storage applications. **2022**, 52, 430-464	0
132	Direct recycling of shorted solid-state electrolytes enabled by targeted recovery. **2022**, 52, 365-370	0
131	Engineering the interface of organic/inorganic composite solid-state electrolyte by amino effect for all-solid-state lithium batteries. **2022**, 628, 877-885	0
130	Temperature Dependence of the Electrical Properties of Na2Ti3O7/Na2Ti6O13/POMA Composites. **2022**, 27, 5756	0
129	Few-layer bismuthene enabled solid-state Li batteries. **2022**, 52, 655-663	1
128	Polyimide-reinforced solid polymer electrolyte with outstanding lithium transferability for durable Li metal batteries. **2022**, 548, 232034	0
127	Ion coordination to improve ionic conductivity in polymer electrolytes for high performance solid-state batteries. **2022**, 103, 107763	1
126	Flexible ion-conducting membranes with 3D continuous nanohybrid networks for high-performance solid-state metallic lithium batteries. **2022**, 75, 360-368	0
125	Ameliorating the electrode/electrolyte interface compatibility in Li-ion solid-state batteries with plasticizer. **2022**, 927, 167077	0

124	Control of side reactions using LiNbO3 mixed/doped solid electrolyte for enhanced sulfide-based all-solid-state batteries. **2023**, 452, 138955	1
123	A polydopamine-modified garnet-based polymer-in-ceramic hybrid solid electrolyte membrane for high-safety lithium metal batteries. **2023**, 452, 139340	1
122	Surface-Patterned Graphite Electrode with Hybrid Polymer/Garnet Electrolyte for All-Solid-State Batteries.	0
121	Ion-Selective Fibers in Constructing Solid Polymer Electrolyte for High-Rate and Long-Cycling Solid-State Batteries.	0
120	Stabilizing the interface of PEO solid electrolyte to lithium metal anode via a g-C3N4 mediator. **2022**, 58, 10821-10824	0
119	Chaotropic Polymer Additive with Ion Transport Tunnel Enable Dendrite-Free Zinc Battery. **2022**, 14, 40951-40958	0
118	Unilateral modified composite electrolyte by high modulus ceramics filling.	0
117	Polymer-in-ceramic flexible separators for Li-ion batteries.	0
116	Dense inorganic electrolyte particles as a lever to promote composite electrolyte conductivity.	1
115	Pressure-Driven Contact Mechanics Evolution of Cathode Interfaces in Lithium Batteries.	0
114	Lithium Ionic Conductive Mechanism in PEO Polymer Electrolytes Enhanced by Nano/Micron Size LLZO Fillers.	0
113	Two-Dimensional Fluorinated Graphene Reinforced Solid Polymer Electrolytes for High-Performance Solid-State Lithium Batteries. 2200967	4
112	NMR Study of Lithium Transport in Liquid–Ceramic Hybrid Solid Composite Electrolytes. **2022**, 14, 43226-43236	1
111	Constructing an In Situ Polymer Electrolyte and a Na-Rich Artificial SEI Layer toward Practical Solid-State Na Metal Batteries.	1
110	Conductivity enhancement within garnet-rich polymer composite electrolytes via the addition of succinonitrile.	0
109	Bifunctional MOF Doped PEO Composite Electrolyte for Long-Life Cycle Solid Lithium Ion Battery.	3
108	3D spiny AlF3/Mullite heterostructure nanofiber as solid-state polymer electrolyte fillers with enhanced ionic conductivity and improved interfacial compatibility. **2022**,	0
107	Polypropylene separator-reinforced polymer-in-salt solid composite electrolytes for high-performance lithium ion batteries at room temperature.	0

106	Single-wall and graphene-modified multiwall wasp nest shaped Bi2Mo2O9 self-assembly for performance-enhanced asymmetric supercapacitor.	1
105	Local lattice structures and electronic properties of Li3PS4/CuS interface.	0
104	On the Surface Modification of LLZTO with LiF via a Gas-Phase Approach and the Characterization of the Interfaces of LiF with LLZTO as Well as PEO+LiTFSI. **2022**, 15, 6900	0
103	Dendrite Suppression by Lithium-Ion Redistribution and Lithium Wetting of Lithium Zeolite Li2(Al2Si4O12) in Liquid Electrolytes.	0
102	Order-structured solid-state electrolytes.	1
101	Li+ Transport in Ethylene Carbonate Based Comb-Branched Solid Polymer Electrolyte: A Molecular Dynamics Simulation Study.	0
100	Advances in Sulfide-Based All-Solid-State Lithium-Sulfur Battery: Materials, Composite Electrodes and Electrochemo-Mechanical Effects. **2022**, 139923	2
99	Trade-offs between ion-conducting and mechanical properties: The case of polyacrylate electrolytes.	0
98	Nanocomposite polymer electrolytes for solid-state lithium-ion batteries with enhanced electrochemical properties.	0
97	Rational Design of LLZO/Polymer Solid Electrolytes for Solid-State Batteries.	0
96	In situ polymerization infiltrated three-dimensional garnet-based framework for quasi-solid lithium metal batteries. **2022**, 434, 141353	0
95	A room-temperature high performance all-solid-state lithium-sulfur battery enabled by a cross-linked copolymer@ceramic hybrid solid electrolyte. **2022**, 104, 107912	0
94	Failure mechanisms investigation of ultra-thin composite polymer electrolyte-based solid-state lithium metal batteries. **2022**, 436, 141441	0
93	Interface functionalization of composite electrolyte by Lix-CeO2 layer on the surface of Li6.4La3Zr1.4Ta0.6O12. **2022**, 435, 141366	0
92	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
91	Flexible polymer-in-ceramic composite solid electrolyte PIPEO0.2PDA@LATP0.8 and its ionic conductivity.	0
90	Recent Advances of Organic Polymers for Zinc-ion Batteries.	0
89	Electrospun derived polymer-garnet composite quasi solid state electrolyte with low interface resistance for lithium metal batteries. **2023**, 263, 126058	2

88	Artificially transformed ultra-stable Li6.75La3Zr1.75Ta0.25O12 incorporated composite solid electrolyte towards high voltage solid lithium metal batteries. **2023**, 454, 140251	0
87	Lithium Phosphosulfide Electrolytes for Solid State Batteries: Part II.	1
86	High-entropy metal oxide containing hybrid electrolyte for long-life Li-metal batteries.	0
85	Recent Advances in Porous Polymers for Solid-State Rechargeable Lithium Batteries. **2022**, 14, 4804	0
84	Advances in Nanofibrous Materials for Stable Lithium-Metal Anodes.	0
83	Deformable lithium-ion batteries for wearable and implantable electronics. **2022**, 9, 041310	0
82	Solid polymer electrolyte membranes using the Polymer-in-ceramic approach for all-solid-state supercapacitor applications. **2022**, 387, 116063	1
81	Insight into the key factors in high Li + transference number composite electrolytes for solid lithium batteries.	0
80	Metastable properties of a garnet type Li5La3Bi2O12 solid electrolyte towards low temperature pressure driven densification. **2022**, 11, 364-373	0
79	Improved the electrochemical performance between ZnO@Li1.3Al0.3Ti1.7(PO4)3 solid electrolyte and lithium metal electrode for all-solid-state lithium-ion batteries. **2023**, 439, 141549	0
78	Electrophoretically deposited LAGP-based electrolytes - Structure and ion transport in plasticized systems. **2023**, 556, 232502	0
77	Understanding key limiting factors for the development of all-solid-state-batteries. **2023**, 13, 100436	0
76	Composite Electrolytes Prepared by Improving the Interfacial Compatibility of Organic–Inorganic Electrolytes for Dendrite-Free, Long-Life All-Solid Lithium Metal Batteries. **2022**, 14, 53828-53839	0
75	Polymer-in-ceramic PEO/2D heterojunction composite electrolytes for solid-state batteries. **2022**, 2393, 012025	0
74	A robust solid electrolyte interphase enabled by solvate ionic liquid for high-performance sulfide-based all-solid-state lithium metal batteries.	0
73	Metal-air batteries: progress and perspective. **2022**, 67, 2449-2486	2
72	Recent Advances in Conduction Mechanisms, Synthesis Methods, and Improvement Strategies for Li 1+ x Al x Ti 2−x (PO 4) 3 Solid Electrolyte for All-Solid-State Lithium Batteries. 2203440	0
71	Oxide-Based Pseudo-Solid-State Hybrid Electrolyte Functionalized by Ionic Liquid for Lithium Metal Batteries.	0

70	A Stable Solid Polymer Electrolyte for Lithium Metal Battery with Electronically Conductive Fillers.	0
69	A Stable Solid Polymer Electrolyte for Lithium Metal Battery with Electronically Conductive Fillers.	0
68	Synergistically enabling the interface stability of lithium metal batteries with soft ionic gel and garnet-type Li6.4La3Zr1.4Ta0.6O12 ceramic filler. **2022**,	0
67	Synthesis of Garnet LLZO by Aliovalent Co-Doping, and Electrochemical Behavior of Composite Solid Electrolyte for All-Solid Lithium Batteries. **2022**, 169, 120506	0
66	Thiol-Ene crosslinked cellulose-based gel polymer electrolyte with good structural integrity for high cycling performance lithium-metal battery. **2022**, 108031	0
65	Ionic Liquid/Poly(Ionic Liquid)-Based Electrolytes for Lithium Batteries.	0
64	PEO composite solid polymer electrolytes with the synergistic effect of cryogenic engineering and trace BP nanosheets for nearly room temperature and 4 V class all-solid-state lithium batteries.	1
63	Molecular Self-Assembled Ether-Based Polyrotaxane Solid Electrolyte for Lithium Metal Batteries.	0
62	The Role of Polymer-Based Materials in Sustainable, Safe, and Efficient Metal Batteries. **2023**, 415-441	0
61	Recent Progress of Polymer Electrolytes for Solid-State Lithium Batteries.	1
60	Negatively Charged Laponite Sheets Enhanced Solid Polymer Electrolytes for Long-Cycling Lithium-Metal Batteries.	0
59	Effects of polishing treatments on the interface between garnet solid electrolyte and lithium metal. **2023**, 441, 141789	0
58	Novel PEO-based composite electrolyte for low-temperature all-solid-state lithium metal batteries enabled by interfacial cation-assistance. **2023**, 56, 121-131	0
57	Scalable preparation of practical 1Ah all-solid-state lithium-ion batteries cells and their abuse tests. **2023**, 59, 106547	0
56	Robust artificial HfO2/PEDOT:PSS polarity layer for increasing stability of Li metal anodes. **2023**, 939, 168703	0
55	Surface Defects Reinforced Polymer-Ceramic Interfacial Anchoring for High-Rate Flexible Solid-State Batteries. 2210845	0
54	Next-generation battery technology based on solid-state electrolytes. **2023**, 1-46	0
53	MOFs Containing Solid-State Electrolytes for Batteries. 2206887	0

52	Limiting Factors Affecting the Ionic Conductivities of LATP/Polymer Hybrid Electrolytes. **2023**, 9, 87	0
51	Polymeric concentrated electrolyte enables simultaneous stabilization of electrode/electrolyte interphases for quasi-solid-state lithium metal batteries.	0
50	Solid-state batteries based on composite polymer electrolytes. **2023**, 47-80	0
49	Ionic Conduction in Polymer-Based Solid Electrolytes. 2201718	1
48	Influence of LiBF4 sintering aid on the grain boundary and conductivity of LAGP electrolyte.	0
47	Surface-patterned Graphite Electrode with Hybrid Polymer/Garnet Electrolyte for All-solid-state Batteries. **2023**, 100338	0
46	Improving Interfaces in All-Solid-State Supercapacitors Using Polymer-Added Activated Carbon Electrodes. **2023**, 9, 81	0
45	In Situ Polymerization of Fluorinated Polyacrylate Copolymer Solid Electrolytes for High-Voltage Lithium Metal Batteries at Room Temperature.	0
44	Fast Li + Transport via Silica Network-Driven Nanochannels in Ionomer-in-Framework for Lithium Metal Batteries. 2210916	0
43	Tape-Casting Method of Hybrid Solid Electrolytes with a Residual Active Solvent of Tetraethylene Glycol Dimethyl Ether.	0
42	A ZIF-8 composite SiO2-enhanced high-performance PEO-based solid-state electrolyte for Li-metal batteries.	0
41	Tailoring Practically Accessible Polymer/Inorganic Composite Electrolytes for All-Solid-State Lithium Metal Batteries: A Review. **2023**, 15,	0
40	Defects-abundant Ga 2 O 3 nanobricks enabled multifunctional solid polymer electrolyte for superior lithium metal batteries.	0
39	In-situ constructed SnO2 gradient buffer layer as a tight and robust interphase toward Li metal anodes in LATP solid state batteries. **2023**,	0
38	The effects of amino groups and open metal sites of MOFs on polymer-based electrolytes for all-solid-state lithium metal batteries. **2023**,	0
37	Solid-state Li air batteries: Fundamentals, challenges, and strategies.	0
36	Latest progresses and the application of various electrolytes in high-performance solid-state lithium-sulfur batteries. **2023**,	0
35	2D VOPO 4 Pseudocapacitive Ultrafast-Charging Cathode with Multi-Electron Chemistry for High-Energy and High-Power Solid-State Lithium Metal Batteries.	0

34	Thin Li1.3Al0.3Ti1.7(PO4)3-based composite solid electrolyte with a reinforced interface of in situ formed poly(1,3-dioxolane) for lithium metal batteries. **2023**,	0
33	Recent advances and interfacial challenges in solid-state electrolytes for rechargeable Li-air batteries.	0
32	Molecular coordination induced high ionic conductivity of composite electrolytes and stable LiF/Li3N interface in long-term cycling all-solid-state lithium metal batteries. **2023**, 59, 102773	0
31	Fast ion conduction assisted by covalent organic frameworks in poly(ethylene oxide)-based composite electrolyte enabling high-energy and strong-stability all-solid-state lithium metal batteries. **2023**, 449, 142267	0
30	Ultrathin poly(cyclocarbonate-ether)-based composite electrolyte reinforced with high-strength functional skeleton. **2023**, 81, 603-612	0
29	Phosphorylated cellulose nanofiber as sustainable organic filler and potential flame-retardant for all-solid-state lithium batteries. **2023**, 62, 106838	0
28	Reevaluating the stability of the PEO-based solid-state electrolytes for high voltage solid-state batteries. **2023**, 63, 107052	0
27	PEO/Li2ZrO3 composite electrolyte for solid-state rechargeable lithium battery. **2023**, 65, 107283	0
26	Garnet/polymer solid electrolytes for high-performance solid-state lithium metal batteries: The role of amorphous Li2O2. **2023**, 642, 246-254	0
25	Polyether-b-Amide Based Solid Electrolytes with Well-Adhered Interface and Fast Kinetics for Ultralow Temperature Solid-State Lithium Metal Batteries.	0
24	Polybenzimidazole-reinforced polyethylene oxide-based polymer-in-salt electrolytes enabling excellent structural stability and superior electrochemical performance for lithium metal batteries. **2023**, 465, 142794	0
23	Solid polymer electrolytes: Ion conduction mechanisms and enhancement strategies. **2023**,	1
22	A Review of Polymer-based Solid-State Electrolytes for Lithium-Metal Batteries: Structure, Kinetic, Interface Stability, and Application. **2023**, 6,	1
21	Reaction Current Heterogeneity at the Interface between a Lithium Electrode and Polymer/Ceramic Composite Electrolytes. **2023**, 6, 2160-2177	0
20	12□m-Thick Sintered Garnet Ceramic Skeleton Enabling High-Energy-Density Solid-State Lithium Metal Batteries. **2023**, 13,	0
19	Poly (ethylene oxide) based solid polymer electrolyte improved by multifunctional additives of poly (acrylamide) and LiI. **2023**, 445, 142062	0
18	Surface Oxygen Vacancy Inducing Li-Ion-Conducting Percolation Network in Composite Solid Electrolytes for All-Solid-State Lithium-Metal Batteries. 2207223	0
17	Flexible solid-state lithium-sulfur batteries based on structural designs. **2023**, 57, 429-459	0

16	Toward the Advanced Next-Generation Solid-State Na-S Batteries: Progress and Prospects. 2214430	0
15	A dielectric electrolyte composite with high lithium-ion conductivity for high-voltage solid-state lithium metal batteries.	0
14	Li-Ion Transfer Mechanism of Ambient-Temperature Solid Polymer Electrolyte toward Lithium Metal Battery. 2204036	0
13	Determining the Role of Ion Transport Throughput in Solid-State Lithium Batteries.	0
12	Determining the Role of Ion Transport Throughput in Solid-State Lithium Batteries.	0
11	Lipoic Acid-Assisted In Situ Integration of Ultrathin Solid-State Electrolytes. **2023**, 6, 3321-3328	0
10	Effect of LLZO on the in situ polymerization of acrylate solid-state electrolytes on cathodes. **2023**, 13, 8130-8135	0
9	The Influences of DMF Content in Composite Polymer Electrolytes on Li + -Conductivity and Interfacial Stability with Li-Metal. 2301165	0
8	Mechanistic study of Al2O3 coating effects on lithium deposition and dissolution reaction. **2023**, 13, 9142-9153	0
7	Solid Batteries Chemistries Beyond Lithium. **2023**, 69-122	0
6	Strengthening extraction of lithium and rubidium from activated β-spodumene concentrate via sodium carbonate roasting. **2023**,	0
5	The Critical Role of Fillers in Composite Polymer Electrolytes for Lithium Battery. **2023**, 15,	0
4	Rational Design of High-Performance PEO/Ceramic Composite Solid Electrolytes for Lithium Metal Batteries. **2023**, 15,	0
3	Recent Development in Topological Polymer Electrolytes for Rechargeable Lithium Batteries.	0
2	Interfacial Modification, Electrode/Solid-Electrolyte Engineering, and Monolithic Construction of Solid-State Batteries. **2023**, 6,	0
1	Building cross-phase ion transport channels between ceramic and polymer for highly conductive composite solid-state electrolyte. **2023**, 101382	0