Nitash P Balsara

List of Publications by Year
in descending order

228 papers	11,534 citations	23500 58 h-index	35952 97 g-index
232 all docs	232 docs citations	232 times ranked	8691 citing authors

#	Article	IF	Citations
1	Detection of subsurface structures underneath dendrites formed on cycled lithium metal electrodes. Nature Materials, 2014, 13, 69-73.	13.3	740
2	Polymer Electrolytes. Annual Review of Materials Research, 2013, 43, 503-525.	4.3	668
3	Effect of Molecular Weight on the Mechanical and Electrical Properties of Block Copolymer Electrolytes. Macromolecules, 2007, 40, 4578-4585.	2.2	449
4	Effect of Molecular Weight and Salt Concentration on Conductivity of Block Copolymer Electrolytes. Macromolecules, 2009, 42, 4632-4637.	2.2	309
5	Effect of Ion Distribution on Conductivity of Block Copolymer Electrolytes. Nano Letters, 2009, 9, 1212-1216.	4.5	228
6	Challenges for and Pathways toward Li-Metal-Based All-Solid-State Batteries. ACS Energy Letters, 0, , 1399-1404.	8.8	228
7	Energy storage emerging: A perspective from the Joint Center for Energy Storage Research. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 12550-12557.	3.3	218
8	Nonflammable perfluoropolyether-based electrolytes for lithium batteries. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 3327-3331.	3.3	182
9	Negative Transference Numbers in Poly(ethylene oxide)-Based Electrolytes. Journal of the Electrochemical Society, 2017, 164, E3569-E3575.	1.3	178
10	Systematic Computational and Experimental Investigation of Lithium-Ion Transport Mechanisms in Polyester-Based Polymer Electrolytes. ACS Central Science, 2015, 1, 198-205.	5.3	162
11	Ionic Conductivity of Block Copolymer Electrolytes in the Vicinity of Orderâ˜Disorder and Orderâ˜Order Transitions. Macromolecules, 2009, 42, 5642-5651.	2.2	161
12	Thermodynamics of Block Copolymers with and without Salt. Journal of Physical Chemistry B, 2014, 118, 4-17.	1.2	157
13	Effect of molecular weight on conductivity of polymer electrolytes. Solid State Ionics, 2011, 203, 18-21.	1.3	155
14	Ionic Conductivity of Low Molecular Weight Block Copolymer Electrolytes. Macromolecules, 2013, 46, 914-921.	2.2	154
15	Effect of Molecular Weight and Salt Concentration on Ion Transport and the Transference Number in Polymer Electrolytes. Macromolecules, 2015, 48, 7882-7888.	2.2	153
16	Anisotropic Proton Conduction in Aligned Block Copolymer Electrolyte Membranes at Equilibrium with Humid Air. Macromolecules, 2010, 43, 292-298.	2.2	152
17	Designing Polymer Electrolytes for Safe and High Capacity Rechargeable Lithium Batteries. Accounts of Chemical Research, 2017, 50, 590-593.	7.6	149
18	Morphologyâ€“Conductivity Relationship of Single-Ion-Conducting Block Copolymer Electrolytes for Lithium Batteries. ACS Macro Letters, 2014, 3, 510-514.	2.3	148

#	Article	IF	Citations
19	Structureâ€“Conductivity Relationship for Peptoid-Based PEOâ€“Mimetic Polymer Electrolytes. Macromolecules, 2012, 45, 5151-5156.	2.2	137
20	X-ray Absorption Spectra of Dissolved Polysulfides in Lithiumâ€“Sulfur Batteries from First-Principles. Journal of Physical Chemistry Letters, 2014, 5, 1547-1551.	2.1	134
21	Thermodynamic Properties of Block Copolymer Electrolytes Containing Imidazolium and Lithium Salts. Macromolecules, 2010, 43, 8282-8289.	2.2	131
22	Regular and Irregular Mixing in Blends of Saturated Hydrocarbon Polymers. Macromolecules, 1995, 28, 1260-1270.	2.2	130
23	Thermodynamics of Ion-Containing Polymer Blends and Block Copolymers. Physical Review Letters, 2011, 107, 198301.	2.9	129
24	Structure and Ionic Conductivity of Polystyrene-block-poly(ethylene oxide) Electrolytes in the High Salt Concentration Limit. Macromolecules, 2016, 49, 1770-1780.	2.2	129
25	Effect of Lithium-Ion Concentration on Morphology and Ion Transport in Single-Ion-Conducting Block Copolymer Electrolytes. Macromolecules, 2015, 48, 6589-6595.	2.2	125
26	Lithium Metal Stability in Batteries with Block Copolymer Electrolytes. Journal of the Electrochemical Society, 2013, 160, A464-A470.	1.3	121
27	Effect of Grain Size on the Ionic Conductivity of a Block Copolymer Electrolyte. Macromolecules, 2014, 47, 5424-5431.	2.2	119
28	Relationship between Conductivity, Ion Diffusion, and Transference Number in Perfluoropolyether Electrolytes. Macromolecules, 2016, 49, 3508-3515.	2.2	114
29	Self-assembly of crystalline nanotubes from monodisperse amphiphilic diblock copolypeptoid tiles. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 3954-3959.	3.3	114
30	A Review of Existing and Emerging Methods for Lithium Detection and Characterization in Liâ€Ion and Liâ€Metal Batteries. Advanced Energy Materials, 2021, 11, 2100372.	10.2	114
31	Compliant glassâ€“polymer hybrid single ion-conducting electrolytes for lithium batteries. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 52-57.	3.3	108
32	Characterization of Polysulfide Radicals Present in an Etherâ€Based Electrolyte of a Lithiumâ€“Sulfur Battery During Initial Discharge Using In Situ Xâ€Ray Absorption Spectroscopy Experiments and Firstâ€Principles Calculations. Advanced Energy Materials, 2015, 5, 1500285.	10.2	107
33	Simultaneous Conduction of Electronic Charge and Lithium Ions in Block Copolymers. ACS Nano, 2012, 6, 1589-1600.	7.3	105
34	Factors That Control the Formation of Dendrites and Other Morphologies on Lithium Metal Anodes. Frontiers in Energy Research, 2019, 7, .	1.2	103
35	Diffusion and migration in polymer electrolytes. Progress in Polymer Science, 2020, 103, 101220.	11.8	100
36	Diffraction imaging of nanocrystalline structures in organic semiconductor molecular thin films. Nature Materials, 2019, 18, 860-865.	13.3	99

#	Article	IF	Citations
37	Influence of Electrolyte Modulus on the Local Current Density at a Dendrite Tip on a Lithium Metal Electrode. Journal of the Electrochemical Society, 2016, 163, A2216-A2224.	1.3	98
38	Relationship between Steady-State Current in Symmetric Cells and Transference Number of Electrolytes Comprising Univalent and Multivalent Ions. Journal of the Electrochemical Society, 2015, 162, A2720-A2722.	1.3	93
39	Optimizing Ion Transport in Polyether-Based Electrolytes for Lithium Batteries. Macromolecules, 2018, 51, 2847-2858.	2.2	86
40	Electrochemical Deposition and Stripping Behavior of Lithium Metal across a Rigid Block Copolymer Electrolyte Membrane. Journal of the Electrochemical Society, 2015, 162, A2699-A2706.	1.3	81
41	Negative Stefan-Maxwell Diffusion Coefficients and Complete Electrochemical Transport Characterization of Homopolymer and Block Copolymer Electrolytes. Journal of the Electrochemical Society, 2018, 165, A2766-A2773.	1.3	81
42	Relationship between Segmental Dynamics Measured by Quasi-Elastic Neutron Scattering and Conductivity in Polymer Electrolytes. ACS Macro Letters, 2018, 7, 504-508.	2.3	79
43	50th Anniversary Perspective: Phase Behavior of Polymer Solutions and Blends. Macromolecules, 2017, 50, 3051-3065.	2.2	78
44	Phase Behavior of Polystyrene-block-poly(2-vinylpyridine) Copolymers in a Selective Ionic Liquid Solvent. Macromolecules, 2009, 42, 4604-4613.	2.2	77
45	Fingerprinting Lithium-Sulfur Battery Reaction Products by X-ray Absorption Spectroscopy. Journal of the Electrochemical Society, 2014, 161, A1100-A1106.	1.3	76
46	Lithium Dendrite Growth in Glassy and Rubbery Nanostructured Block Copolymer Electrolytes. Journal of the Electrochemical Society, 2015, 162, A398-A405.	1.3	76
47	Beyond Local Solvation Structure: Nanometric Aggregates in Battery Electrolytes and Their Effect on Electrolyte Properties. ACS Energy Letters, 2022, 7, 461-470.	8.8	75
48	Salt Diffusion Coefficients in Block Copolymer Electrolytes. Journal of the Electrochemical Society, 2011, 158, A619.	1.3	72
49	Thermodynamics of Polymer Blends. , 2007, , 339-356.		71
50	Nanoparticle-Driven Assembly of Highly Conducting Hybrid Block Copolymer Electrolytes. Macromolecules, 2015, 48, 358-364.	2.2	71
51	Crystallization in Sequence-Defined Peptoid Diblock Copolymers Induced by Microphase Separation. Journal of the American Chemical Society, 2014, 136, 2070-2077.	6.6	70
52	Ohmâ€™s law for ion conduction in lithium and beyond-lithium battery electrolytes. Journal of Chemical Physics, 2019, 151, 020901.	1.2	67
53	Universal Relationship between Conductivity and Solvation-Site Connectivity in Ether-Based Polymer Electrolytes. Macromolecules, 2016, 49, 5244-5255.	2.2	66
54	Relationship between Ion Dissociation, Melt Morphology, and Electrochemical Performance of Lithium and Magnesium Single-Ion Conducting Block Copolymers. Macromolecules, 2016, 49, 9139-9147.	2.2	66

#	Article	IF	Citations
55	Effect of Chemical Oxidation on the Self-Assembly of Organometallic Block Copolymers. Journal of the American Chemical Society, 2004, 126, 7446-7447.	6.6	65
56	Bending Soft Block Copolymer Nanostructures by Lithographically Directed Assembly. Macromolecules, 2006, 39, 2435-2437.	2.2	65
57	Lithium Polysulfide Radical Anions in Ether-Based Solvents. Journal of Physical Chemistry C, 2016, 120, 18403-18410.	1.5	65
58	Effect of monomer structure on ionic conductivity in a systematic set of polyester electrolytes. Solid State Ionics, 2016, 289, 118-124.	1.3	62
59	Discontinuous Changes in Ionic Conductivity of a Block Copolymer Electrolyte through an Orderâ€“Disorder Transition. ACS Macro Letters, 2012, 1, 305-309.	2.3	60
60	Polymer and composite electrolytes. MRS Bulletin, 2018, 43, 759-767.	1.7	60
61	Failure Mode of Lithium Metal Batteries with a Block Copolymer Electrolyte Analyzed by X-Ray Microtomography. Journal of the Electrochemical Society, 2015, 162, A1301-A1309.	1.3	59
62	Phase Behavior and Electrochemical Characterization of Blends of Perfluoropolyether, Poly(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	3.2	58
63	First-Order Disordered-to-Lamellar Phase Transition in Lithium Salt-Doped Block Copolymers. ACS Macro Letters, 2013, 2, 478-481.	2.3	57
64	Phase Behavior of Mixtures of Block Copolymers and a Lithium Salt. Journal of Physical Chemistry B, 2018, 122, 8065-8074.	1.2	57
65	The evolution of cyclopropenium ions into functional polyelectrolytes. Nature Communications, 2015, 6, 5950.	5.8	54
66	Orientation mapping of semicrystalline polymers using scanning electron nanobeam diffraction. Micron, 2016, 88, 30-36.	1.1	54
67	Nanostructured Single-Ion-Conducting Hybrid Electrolytes Based on Salty Nanoparticles and Block Copolymers. Macromolecules, 2017, 50, 1998-2005.	2.2	53
68	Universal Relationship between Molecular Structure and Crystal Structure in Peptoid Polymers and Prevalence of the cis Backbone Conformation. Journal of the American Chemical Society, 2018, 140, 827-833.	6.6	52
69	Comparing Cycling Characteristics of Symmetric Lithium-Polymer-Lithium Cells with Theoretical Predictions. Journal of the Electrochemical Society, 2018, 165, A3186-A3194.	1.3	51
70	Phase Behavior of a Block Copolymer/Salt Mixture through the Order-to-Disorder Transition. Macromolecules, 2014, 47, 2666-2673.	2.2	50
71	Growth of Lithium Dendrites and Globules through a Solid Block Copolymer Electrolyte as a Function of Current Density. Journal of Physical Chemistry C, 2018, 122, 26797-26804.	1.5	49
72	Platelet Self-Assembly of an Amphiphilic Aâ^'Bâ^'Câ^'A Tetrablock Copolymer in Pure Water. Macromolecules, 2005, 38, 3567-3570.	2.2	48

#	Article	IF	Citations
73	Atomic-level engineering and imaging of polypeptoid crystal lattices. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 22491-22499.	3.3	48
74	Effect of Anion Size on Conductivity and Transference Number of Perfluoroether Electrolytes with Lithium Salts. Journal of the Electrochemical Society, 2017, 164, A3511-A3517.	1.3	47
75	Ionic Liquid Distribution in Ordered Block Copolymer Solutions. Macromolecules, 2010, 43, 3750-3756.	2.2	45
76	High Anion Conductivity and Low Water Uptake of Phosphonium Containing Diblock Copolymer Membranes. Macromolecules, 2014, 47, 7540-7547.	2.2	44
77	3D Detection of Lithiation and Lithium Plating in Graphite Anodes during Fast Charging. ACS Nano, 2021, 15, 10480-10487.	7.3	43
78	Difference between approximate and rigorously measured transference numbers in fluorinated electrolytes. Physical Chemistry Chemical Physics, 2019, 21, 7857-7866.	1.3	42
79	Thermodynamic origins of the solvent-dependent stability of lithium polysulfides from first principles. Physical Chemistry Chemical Physics, 2017, 19, 1441-1448.	1.3	41
80	Anisotropic Ion Diffusion and Electrochemically Driven Transport in Nanostructured Block Copolymer Electrolytes. Journal of Physical Chemistry B, 2018, 122, 1537-1544.	1.2	39
81	Measurement of Three Transport Coefficients and the Thermodynamic Factor in Block Copolymer Electrolytes with Different Morphologies. Journal of Physical Chemistry B, 2020, 124, 921-935.	1.2	39
82	Membranes with artificial free-volume for biofuel production. Nature Communications, 2015, 6, 7529.	5.8	38
83	3D Printed Absorber for Capturing Chemotherapy Drugs before They Spread through the Body. ACS Central Science, 2019, 5, 419-427.	5.3	38
84	Morphology and Proton Transport in Humidified Phosphonated Peptoid Block Copolymers. Macromolecules, 2016, 49, 3083-3090.	2.2	36
85	Imaging Unstained Synthetic Polymer Crystals and Defects on Atomic Length Scales Using Cryogenic Electron Microscopy. Macromolecules, 2018, 51, 7794-7799.	2.2	36
86	Improved Li⁺ Transport in Polyacetal Electrolytes: Conductivity and Current Fraction in a Series of Polymers. ACS Energy Letters, 2021, 6, 1886-1891.	8.8	36
87	Study of gas permeabilities through polystyrene-block-poly(ethylene oxide) copolymers. Journal of Membrane Science, 2013, 432, 83-89.	4.1	35
88	Comparing the Energy Content of Batteries, Fuels, and Materials. Journal of Chemical Education, 2013, 90, 446-452.	1.1	35
89	Discharge Characteristics of Lithium Battery Electrodes with a Semiconducting Polymer Studied by Continuum Modeling and Experiment. Journal of the Electrochemical Society, 2014, 161, A1836-A1843.	1.3	33
90	Relationship between Mobility and Lattice Strain in Electrochemically Doped Poly(3-hexylthiophene). ACS Macro Letters, 2015, 4, 1386-1391.	2.3	33

#	Article	IF	Citations
91	Comparing Experimental Measurements of Limiting Current in Polymer Electrolytes with Theoretical Predictions. Journal of the Electrochemical Society, 2019, 166, A3228-A3234.	1.3	33
92	Comparing Two Electrochemical Approaches for Measuring Transference Numbers in Concentrated Electrolytes. Journal of the Electrochemical Society, 2018, 165, A3014-A3021.	1.3	32
93	Investigating the Effect of Added Salt on the Chain Dimensions of Poly(ethylene oxide) through Small-Angle Neutron Scattering. Macromolecules, 2019, 52, 8724-8732.	2.2	32
94	Neutron Scattering from Pressurized Polyolefin Blends near the Limits of Metastability. Macromolecules, 2000, 33, 7977-7989.	2.2	31
95	In Situ X-ray Absorption Spectroscopy Studies of Discharge Reactions in a Thick Cathode of a Lithium Sulfur Battery. Journal of the Electrochemical Society, 2017, 164, A18-A27.	1.3	31
96	Relationship between morphology and conductivity of block-copolymer based battery separators. Journal of Membrane Science, 2012, 394-395, 175-183.	4.1	28
97	Pervaporation-assisted catalytic conversion of xylose to furfural. Green Chemistry, 2016, 18, 4073-4085.	4.6	28
98	Reentrant phase behavior and coexistence in asymmetric block copolymer electrolytes. Soft Matter, 2018, 14, 2789-2795.	1.2	28
99	Extended Cycling through Rigid Block Copolymer Electrolytes Enabled by Reducing Impurities in Lithium Metal Electrodes. ACS Applied Energy Materials, 2019, 2, 8197-8206.	2.5	28
100	Dissolution of Lithium Metal in Poly(ethylene oxide). ACS Energy Letters, 2019, 4, 903-907.	8.8	28
101	Does conventional nucleation occur during phase separation in polymer blends?. Journal of Polymer Science, Part B: Polymer Physics, 2004, 42, 1793-1809.	2.4	27
102	Effect of Cross-Linking on the Structure and Thermodynamics of Lamellar Block Copolymers. Macromolecules, 2006, 39, 4848-4859.	2.2	27
103	Correlations between Salt-Induced Crystallization, Morphology, Segmental Dynamics, and Conductivity in Amorphous Block Copolymer Electrolytes. Macromolecules, 2018, 51, 1733-1740.	2.2	27
104	Liquid-Crystalline Phase Behavior in Polypeptoid Diblock Copolymers. Macromolecules, 2018, 51, 9519-9525.	2.2	27
105	Anomalous Self-Assembly and Ion Transport in Nanostructured Organicâ€“Inorganic Solid Electrolytes. ACS Macro Letters, 2018, 7, 1056-1061.	2.3	27
106	Establishing a unified framework for ion solvation and transport in liquid and solid electrolytes. Trends in Chemistry, 2021, 3, 807-818.	4.4	27
107	Water Uptake and Proton Conductivity in Porous Block Copolymer Electrolyte Membranes. Macromolecules, 2015, 48, 5648-5655.	2.2	26
108	Liquid perfluoropolyether electrolytes with enhanced ionic conductivity for lithium battery applications. Polymer, 2016, 100, 126-133.	1.8	26

#	Article	IF	Citations
109	Mesoporous Block Copolymer Morphology Studied by Contrast-Matched Resonant Soft X-ray Scattering. Macromolecules, 2012, 45, 9188-9195.	2.2	25
110	Conductivity of carbonate- and perfluoropolyether-based electrolytes in porous separators. Journal of Power Sources, 2016, 323, 158-165.	4.0	24
111	Synthesis of Well-Defined Polyethyleneâ€“Polydimethylsiloxaneâ€“Polyethylene Triblock Copolymers by Diimide-Based Hydrogenation of Polybutadiene Blocks. Macromolecules, 2014, 47, 4151-4159.	2.2	23
112	Mechanism of ion transport in perfluoropolyether electrolytes with a lithium salt. Soft Matter, 2017, 13, 5389-5396.	1.2	23
113	Organizing thermodynamic data obtained from multicomponent polymer electrolytes: Saltâ€containing polymer blends and block copolymers. Journal of Polymer Science, Part B: Polymer Physics, 2019, 57, 1177-1187.	2.4	23
114	Fermentation of hydrolysate detoxified by pervaporation through block copolymer membranes. Green Chemistry, 2014, 16, 4206-4213.	4.6	22
115	Continuous pervaporation-assisted furfural production catalyzed by CrCl₃. Green Chemistry, 2018, 20, 2903-2912.	4.6	22
116	Orderâ^'Disorder Transitions in Cross-Linked Block Copolymer Solids. Macromolecules, 2005, 38, 1277-1285.	2.2	21
117	Modifying Li⁺ and Anion Diffusivities in Polyacetal Electrolytes: A Pulsed-Field-Gradient NMR Study of Ion Self-Diffusion. Chemistry of Materials, 2021, 33, 4915-4926.	3.2	21
118	Rate Constants of Electrochemical Reactions in a Lithium-Sulfur Cell Determined by Operando X-ray Absorption Spectroscopy. Journal of the Electrochemical Society, 2018, 165, A3487-A3495.	1.3	20
119	Comparing Experimental Phase Behavior of Ion-Doped Block Copolymers with Theoretical Predictions Based on Selective Ion Solvation. Macromolecules, 2020, 53, 3956-3966.	2.2	20
120	Segmental Dynamics Measured by Quasi-Elastic Neutron Scattering and Ion Transport in Chemically Distinct Polymer Electrolytes. Macromolecules, 2020, 53, 2406-2411.	2.2	20
121	Block Copolymer Membranes for Efficient Capture of a Chemotherapy Drug. ACS Macro Letters, 2016, 5, 936-941.	2.3	19
122	Dependence of Morphology, Shear Modulus, and Conductivity on the Composition of Lithiated and Magnesiated Single-Ion-Conducting Block Copolymer Electrolytes. Macromolecules, 2017, 50, 8765-8776.	2.2	19
123	Theoretical Interpretation of Ion Velocities in Concentrated Electrolytes Measured by Electrophoretic NMR. Journal of the Electrochemical Society, 2019, 166, A264-A267.	1.3	19
124	Effect of Solvent Motion on Ion Transport in Electrolytes. Journal of the Electrochemical Society, 2022, 169, 040524.	1.3	19
125	Responsive Solids from Cross-Linked Block Copolymers. Physical Review Letters, 2003, 90, 155505.	2.9	18
126	Effect of thermal history on the ionic conductivity of block copolymer electrolytes. Journal of Polymer Science, Part B: Polymer Physics, 2013, 51, 927-934.	2.4	18

#	Article	IF	Citations
127	Development and Validation of Endovascular Chemotherapy Filter Device for Removing High-Dose Doxorubicin: Preclinical Study. Journal of Medical Devices, Transactions of the ASME, 2014, 8, 0410081-410088.	0.4	18
128	Effect of processing and end groups on the crystal structure of polypeptoids studied by cryogenic electron microscopy at atomic length scales. Soft Matter, 2019, 15, 4723-4736.	1.2	18
129	Structure and Thermodynamics of Hybrid Organicâ€“Inorganic Diblock Copolymers with Salt. Macromolecules, 2019, 52, 3165-3175.	2.2	18
130	Impact of Salt Concentration on Nonuniform Lithium Electrodeposition through Rigid Block Copolymer Electrolytes. ACS Applied Materials & Interfaces, 2019, 11, 47878-47885.	4.0	18
131	Miscible Polyether/Poly(etherâ€“acetal) Electrolyte Blends. Macromolecules, 2020, 53, 5728-5739.	2.2	18
132	The Transference Number. Energy and Environmental Materials, 2022, 5, 366-369.	7.3	18
133	Composition Dependence of the Floryâ€“Huggins Interaction Parameters of Block Copolymer Electrolytes and the Isotaksis Point. Macromolecules, 2019, 52, 5590-5601.	2.2	17
134	Uncovering Local Correlations in Polymer Electrolytes by X-ray Scattering and Molecular Dynamics Simulations. Macromolecules, 2021, 54, 6639-6648.	2.2	17
135	Electric-Field-Induced Spatially Dynamic Heterogeneity of Solvent Motion and Cation Transference in Electrolytes. Physical Review Letters, 2022, 128, .	2.9	17
136	Liquid Sulfur Impregnation of Microporous Carbon Accelerated by Nanoscale Interfacial Effects. Nano Letters, 2017, 17, 2517-2523.	4.5	16
137	Electrochemical properties of poly(ethylene oxide) electrolytes above the entanglement threshold. Solid State Ionics, 2021, 364, 115609.	1.3	16
138	Impact of Frictional Interactions on Conductivity, Diffusion, and Transference Number in Ether- and Perfluoroether-Based Electrolytes. Journal of the Electrochemical Society, 2020, 167, 120540.	1.3	16
139	Microphase segregation in molten randomly grafted copolymers. Journal of Chemical Physics, 2001, 115, 3387-3400.	1.2	15
140	Direct Imaging of Nanoscale Acidic Clusters in a Polymer Electrolyte Membrane. Journal of the American Chemical Society, 2011, 133, 20700-20703.	6.6	15
141	Comparing Measurements of Limiting Current of Electrolytes with Theoretical Predictions up to the Solubility Limit. Journal of Physical Chemistry C, 2019, 123, 23872-23881.	1.5	15
142	Resolving the Morphology of Peptoid Vesicles at the 1 nm Length Scale Using Cryogenic Electron Microscopy. Journal of Physical Chemistry B, 2019, 123, 1195-1205.	1.2	15
143	Limiting Current in Nanostructured Block Copolymer Electrolytes. Macromolecules, 2021, 54, 4010-4022.	2.2	15
144	Temperature and concentration dependence of the ionic transport properties of poly(ethylene oxide) electrolytes. Solid State Ionics, 2021, 370, 115751.	1.3	15

#	Article	IF	Citations
145	Does coarsening begin during the initial stages of spinodal decomposition?. Journal of Chemical Physics, 2005, 122, 214903.	1.2	14
146	Minimizing the Concentration of Diblock Copolymer Needed To Organize Blends of Weakly Segregated Polymers by Tuning Attractive and Repulsive Interactions. Macromolecules, 2007, 40, 1207-1217.	2.2	14
147	Conductivity and water uptake in block copolymers containing protonated polystyrene sulfonate and their imidazolium salts. Soft Matter, 2011, 7, 4446.	1.2	14
148	Pervaporation of organic compounds from aqueous mixtures using polydimethylsiloxaneâ€containing block copolymer membranes. AICHE Journal, 2015, 61, 2789-2794.	1.8	14
149	Conductivity of Block Copolymer Electrolytes Containing Lithium Polysulfides. Macromolecules, 2015, 48, 4863-4873.	2.2	14
150	Toward Bottom-Up Understanding of Transport in Concentrated Battery Electrolytes. ACS Central Science, 2022, 8, 880-890.	5.3	14
151	Birefringence and Depolarized Light Scattering from Ordered Block Copolymers with Anisotropic Distributions of Grain Orientations Produced by Shear Flow. Macromolecules, 2004, 37, 4185-4195.	2.2	13
152	Influence of Miscibility on Poly(ethylene oxide) Crystallization from Disordered Melts of Block Copolymers with Lithium and Magnesium Counterions. Macromolecules, 2017, 50, 4827-4839.	2.2	13
153	Simulation of local ion transport in lamellar block copolymer electrolytes based on electron micrographs. Journal of Polymer Science, Part B: Polymer Physics, 2017, 55, 266-274.	2.4	13
154	Effect of salt concentration profiles on protrusion growth in lithium-polymerâ€lithium cells. Solid State Ionics, 2020, 358, 115517.	1.3	13
155	Uncovering the Relationship between Diameter and Height of Electrodeposited Lithium Protrusions in a Rigid Electrolyte. ACS Applied Energy Materials, 2020, 3, 9645-9655.	2.5	13
156	Dynamic Structure and Phase Behavior of a Block Copolymer Electrolyte under dc Polarization. ACS Applied Materials & Interfaces, 2020, 12, 57421-57430.	4.0	13
157	Effect of Nonsolvent Exposure on Morphology of Mesoporous Semicrystalline Block Copolymer Films. Macromolecules, 2013, 46, 4411-4417.	2.2	12
158	Evolution of Grain Structure during Disorder-to-Order Transitions in a Block Copolymer/Salt Mixture Studied by Depolarized Light Scattering. Macromolecules, 2014, 47, 5784-5792.	2.2	12
159	Lithium Salt Distribution and Thermodynamics in Electrolytes Based on Short Perfluoropolyether-block-Poly(ethylene oxide) Copolymers. Macromolecules, 2020, 53, 1142-1153.	2.2	12
160	Orientation-Dependent Distortion of Lamellae in a Block Copolymer Electrolyte under DC Polarization. Macromolecules, 2021, 54, 7808-7821.	2.2	12
161	Continuum Description of the Role of Negative Transference Numbers on Ion Motion in Polymer Electrolytes. Journal of the Electrochemical Society, 2020, 167, 110559.	1.3	12
162	Effect of Crystallization on Proton Transport in Model Polymer Electrolyte Membranes. Macromolecules, 2014, 47, 4330-4336.	2.2	11

#	Article	IF	Citations
163	Lithium Metal-Copper Vanadium Oxide Battery with a Block Copolymer Electrolyte. Journal of the Electrochemical Society, 2016, 163, A2447-A2455.	1.3	11
164	Reversible Changes in the Grain Structure and Conductivity in a Block Copolymer Electrolyte. Macromolecules, 2020, 53, 5455-5464.	2.2	11
165	Evolution of Protrusions on Lithium Metal Anodes Stabilized by a Solid Block Copolymer Electrolyte Studied Using Time-Resolved X-ray Tomography. ACS Applied Materials & Interfaces, 2021, 13, 27006-27018.	4.0	11
166	Effect of Added Salt on Disordered Poly(ethylene oxide)-Block-Poly(methyl methacrylate) Copolymer Electrolytes. Macromolecules, 2021, 54, 1414-1424.	2.2	11
167	Comparing the Purity of Rolled versus Evaporated Lithium Metal Films Using X-ray Microtomography. ACS Energy Letters, 2022, 7, 1120-1124.	8.8	11
168	Characterization of a Block Copolymer with a Wide Distribution of Grain Sizes. Macromolecules, 2016, 49, 8198-8208.	2.2	10
169	Polymer Dynamics in Block Copolymer Electrolytes Detected by Neutron Spin Echo. ACS Macro Letters, 2020, 9, 639-645.	2.3	10
170	Effect of crystallization of the polyhedral oligomeric silsesquioxane block on self-assembly in hybrid organic-inorganic block copolymers with salt. Giant, 2021, 6, 100055.	2.5	10
171	Increased Donnan exclusion in charged polymer networks at high salt concentrations. Soft Matter, 2022, 18, 282-292.	1.2	10
172	Current-Induced Formation of Gradient Crystals in Block Copolymer Electrolytes. Nano Letters, 2012, 12, 464-468.	4.5	9
173	Limiting Current Density in Single-Ion-Conducting and Conventional Block Copolymer Electrolytes. Journal of the Electrochemical Society, 2022, 169, 043502.	1.3	9
174	Importance of the Positively Charged Ïƒ-Hole in Crystal Engineering of Halogenated Polypeptoids. Journal of Physical Chemistry B, 2022, 126, 4152-4159.	1.2	9
175	Effect of Pressure on a Multicomponent A/B/Aâ^'C Polymer Blend with Attractive and Repulsive Interactions. Macromolecules, 2007, 40, 355-365.	2.2	8
176	Phase Diagrams of Blends of Polyisobutylene and Deuterated Polybutadiene as a Function of Chain Length. Macromolecules, 2011, 44, 3077-3084.	2.2	8
177	Effect of Supercritical Carbon Dioxide on the Thermodynamics of Model Blends of Styrene-Acrylonitrile Copolymer and Poly(methyl methacrylate) Studied by Small-Angle Neutron Scattering. Macromolecules, 2013, 46, 6345-6356.	2.2	8
178	Hydroxide-ion transport and stability of diblock copolymers with a polydiallyldimethyl ammonium hydroxide block. Journal of Polymer Science Part A, 2017, 55, 2243-2248.	2.5	8
179	Optimizing the monomer structure of polyhedral oligomeric silsesquioxane for ion transport in hybrid organicâ€“inorganic block copolymers. Journal of Polymer Science, 2020, 58, 363-371.	2.0	8
180	Effect of Yield Stress on Stability of Block Copolymer Electrolytes against Lithium Metal Electrodes. ACS Applied Energy Materials, 2022, 5, 852-861.	2.5	8

#	Article	IF	Citations
181	Incipient microphase separation in short chain perfluoropolyether-block-poly(ethylene oxide) copolymers. Soft Matter, 2017, 13, 4047-4056.	1.2	7
182	Nanobeam Scanning Diffraction for Orientation Mapping of Polymers. Microscopy and Microanalysis, 2017, 23, 1782-1783.	0.2	7
183	Crystallization and self-assembly of shape-complementary sequence-defined peptoids. Polymer Chemistry, 2021, 12, 4770-4777.	1.9	7
184	BLOCK COPOLYMERS IN NANOTECHNOLOGY. , 2003, , 317-327.		6
185	Confined versus Unconfined Crystallization in Block Copolymer/Salt Mixtures Studied by Depolarized Light Scattering. Macromolecules, 2019, 52, 982-991.	2.2	6
186	Ion diffusion across a disorder-to-order phase transition in a poly(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 547 Td (oxide)-b Engineering, 2019, 4, 357-364.	1.7	6
187	NGenE 2021: Electrochemistry Is Everywhere. ACS Energy Letters, 2022, 7, 368-374.	8.8	6
188	Failure Analysis of Batteries Using Synchrotron-based Hard X-ray Microtomography. Journal of Visualized Experiments, 2015, , e53021.	0.2	5
189	Depolarized Scattering from Block Copolymer Grains Using Circularly Polarized Light. Macromolecules, 2017, 50, 5122-5131.	2.2	5
190	Lithium-Sulfur Batteries with a Block Copolymer Electrolyte Analyzed by X-ray Microtomography. Journal of the Electrochemical Society, 2020, 167, 060506.	1.3	5
191	High-Resolution Imaging of Unstained Polymer Materials. ACS Applied Polymer Materials, 2021, 3, 2849-2864.	2.0	5
192	Minimizing Crinkling of Soft Specimens Using Holey Gold Films on Molybdenum Grids for Cryogenic Electron Microscopy. Microscopy and Microanalysis, 2021, 27, 767-775.	0.2	5
193	Effect of microphase separation on the limiting current density in hybrid organic-inorganic copolymer electrolytes. Solid State Ionics, 2021, 368, 115702.	1.3	5
194	Preferential Stripping of a Lithium Protrusion Resulting in Recovery of a Planar Electrode. Journal of the Electrochemical Society, 2020, 167, 100553.	1.3	5
195	Block copolymers and nanotechnology. Journal of Polymer Science, Part B: Polymer Physics, 2006, 44, 3429-3430.	2.4	4
196	Charge transporting nanostructured polymers for electrochemical systems â€“ a themed collection. Molecular Systems Design and Engineering, 2019, 4, 221-222.	1.7	3
197	Exploring the Ion Solvation Environments in Solid-State Polymer Electrolytes through Free-Energy Sampling. Macromolecules, 2021, 54, 8590-8600.	2.2	3
198	Complete Electrochemical Characterization and Limiting Current of Polyacetal Electrolytes. Journal of the Electrochemical Society, 2022, 169, 020538.	1.3	3

#	Article	IF	Citations
199	Nanostructured Ionic Separator Formed by Block Copolymer Self-Assembly: A Gateway for Alleviating Concentration Polarization in Batteries. Macromolecules, 2022, 55, 2787-2796.	2.2	3
200	Morphology Study of Phosphonated Peptoid Block Copolymer. Microscopy and Microanalysis, 2016, 22, 1926-1927.	0.2	2
201	Development of Diffraction Scanning Techniques for Beam Sensitive Polymers.. Microscopy and Microanalysis, 2016, 22, 492-493.	0.2	2
202	Comparing measurement of limiting current in block copolymer electrolytes as a function of salt concentration with theoretical predictions. Electrochimica Acta, 2022, 409, 139911.	2.6	2
203	Accurate Cryo-EM Characterizations of Polypeptoid Vesicles. Microscopy and Microanalysis, 2017, 23, 836-837.	0.2	1
204	Imaging of Polypeptoid Nanosheets with Atomic Scale Precision (In Honor of Ken Downing). Microscopy and Microanalysis, 2019, 25, 1356-1357.	0.2	1
205	Detection of the Order-to-Disorder Transition in Block Copolymer Electrolytes Using Quadrupolar 7Li NMR Splitting. ACS Macro Letters, 2019, 8, 107-112.	2.3	1
206	Using cryo-TEM to study the effect of side-chain chemistry on the crystal motifs in polypeptoid nanosheets. Microscopy and Microanalysis, 2021, 27, 2894-2895.	0.2	1
207	Propagation of Elliptically Polarized Light through Ordered Block Copolymers. Macromolecules, 2021, 54, 8372-8380.	2.2	1
208	Multiâ€physics modeling of doxorubicine binding to ionâ€exchange resin in blood filtration devices. AICHE Journal, 2021, 67, e17119.	1.8	1
209	Miscible Polyether/Poly(ether-acetal) Electrolyte Blends. Macromolecules, 2020, 53, .	2.2	1
210	Interplay between Mechanical and Electrochemical Properties of Block Copolymer Electrolytes and its Effect on Stability against Lithium Metal Electrodes. Journal of the Electrochemical Society, 2021, 168, 120546.	1.3	1
211	TEM Investigations of Peptoid Structures. Microscopy and Microanalysis, 2017, 23, 1778-1779.	0.2	0
212	Structure-dependent Conducting Properties of Phosphonated Polypeptoid Electrolyte Membranes Revealed by Cryogenic Electron Tomography. Microscopy and Microanalysis, 2019, 25, 1822-1823.	0.2	0
213	Effect of hydration on morphology of thin phosphonate block copolymer electrolyte membranes studied by electron tomography. Polymer Engineering and Science, 2021, 61, 1104-1115.	1.5	0
214	Electrophoretic NMR of Concentrated Electrolytes for Li-Ion Batteries: Understanding the Role of Solvent Motion. ECS Meeting Abstracts, 2021, MA2021-01, 468-468.	0.0	0
215	Holey-Gold Films on Molybdenum Grids for Cryogenic Electron Microscopy Imaging of 2D Polymer Crystals. Microscopy and Microanalysis, 2021, 27, 2896-2898.	0.2	0
216	Impact of Salt Concentration on Lithium Dendritic Growth in a Rigid SEO Polymer Electrolyte. ECS Meeting Abstracts, 2019, , .	0.0	0

#	Article	IF	Citations
217	(Invited) Predicting the Performance of Lithium Metal Electrodes Stabilized By Polymer Electrolytes. ECS Meeting Abstracts, 2019, , .	0.0	0
218	Experimental Measurement of the Local Current Density in the Vicinity of a Lithium Protrusion: Plating and Stripping. ECS Meeting Abstracts, 2019, , .	0.0	0
219	Lithium Cycling, Limiting Current, and Electrochemical Characterization in Solid Polymer Electrolytes. ECS Meeting Abstracts, 2019, , .	0.0	0
220	Lithium-Ion Transport and Cycling Characteristics of Fluorinated Electrolytes. ECS Meeting Abstracts, 2019, , .	0.0	0
221	Temperature Dependent Anion Rotational Dynamics Correlated to Cation Transport in Cluster Ion Anti-Perovskites. ECS Meeting Abstracts, 2021, MA2021-02, 1-1.	0.0	0
222	Examining Solvent Motion in Polarized Concentrated Electrolytes. ECS Meeting Abstracts, 2021, MA2021-02, 177-177.	0.0	0
223	X-Ray Microtomography Analysis of Li-Sulfur Batteries with a Block Copolymer Electrolyte. ECS Meeting Abstracts, 2020, MA2020-02, 166-166.	0.0	0
224	Predicting Electrolyte Performance in Lithium Metal Batteries at Low and High Current Densities. ECS Meeting Abstracts, 2020, MA2020-02, 798-798.	0.0	0
225	Continuum Description of the Role of Negative Transference Numbers on Ion Motion in Polymer Electrolytes. ECS Meeting Abstracts, 2020, MA2020-02, 895-895.	0.0	0
226	Tuning Ionic Conductivity in Sodium Anti-Perovskite Ionic Conductors. ECS Meeting Abstracts, 2020, MA2020-02, 945-945.	0.0	0
227	Temperature-Dependent Atomistic Dynamics Correlated to Cation Transport in Cluster-Ion Anti-Perovskites. ECS Meeting Abstracts, 2020, MA2020-02, 966-966.	0.0	0
228	Uncovering the Relationship between Diameter and Height of Electrodeposited Lithium Protrusions in a Rigid Electrolyte. ECS Meeting Abstracts, 2020, MA2020-02, 590-590.	0.0	0