X Chelsea Chen

List of Publications by Year
in descending order

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48 papers	1,898 citations	257450 24 h-index	265206 42 g-index
49 all docs	49 docs citations	49 times ranked	2456 citing authors

#	Article	IF	Citations
1	Challenges in Lithium Metal Anodes for Solid-State Batteries. ACS Energy Letters, 2020, 5, 922-934.	17.4	322
2	Morphologyâ€“Conductivity Relationship of Single-Ion-Conducting Block Copolymer Electrolytes for Lithium Batteries. ACS Macro Letters, 2014, 3, 510-514.	4.8	148
3	Structure and Ionic Conductivity of Polystyrene-block-poly(ethylene oxide) Electrolytes in the High Salt Concentration Limit. Macromolecules, 2016, 49, 1770-1780.	4.8	129
4	Effect of Grain Size on the Ionic Conductivity of a Block Copolymer Electrolyte. Macromolecules, 2014, 47, 5424-5431.	4.8	119
5	Nanoscale Mapping of Extrinsic Interfaces in Hybrid Solid Electrolytes. Joule, 2020, 4, 207-221.	24.0	85
6	Nanoparticle-Driven Assembly of Highly Conducting Hybrid Block Copolymer Electrolytes. Macromolecules, 2015, 48, 358-364.	4.8	71
7	A three-dimensional interconnected polymer/ceramic composite as a thin film solid electrolyte. Energy Storage Materials, 2020, 26, 242-249.	18.0	70
8	Facile and scalable fabrication of polymer-ceramic composite electrolyte with high ceramic loadings. Journal of Power Sources, 2018, 390, 153-164.	7.8	68
9	Design of tough adhesive from commodity thermoplastics through dynamic crosslinking. Science Advances, 2021, 7, eabk2451.	10.3	66
10	Orientation mapping of semicrystalline polymers using scanning electron nanobeam diffraction. Micron, 2016, 88, 30-36.	2.2	54
11	Nanostructured Single-Ion-Conducting Hybrid Electrolytes Based on Salty Nanoparticles and Block Copolymers. Macromolecules, 2017, 50, 1998-2005.	4.8	53
12	Determining and Minimizing Resistance for Ion Transport at the Polymer/Ceramic Electrolyte Interface. ACS Energy Letters, 2019, 4, 1080-1085.	17.4	52
13	Recent Developments and Challenges in Hybrid Solid Electrolytes for Lithium-Ion Batteries. Frontiers in Energy Research, 2020, 8, .	2.3	52
14	Practical Considerations for Testing Polymer Electrolytes for High-Energy Solid-State Batteries. ACS Energy Letters, 2021, 6, 2240-2247.	17.4	40
15	Membranes with artificial free-volume for biofuel production. Nature Communications, 2015, 6, 7529.	12.8	38
16	Structure of thin film polymer/nanoparticle systems: polystyrene (PS) coated-Au nanoparticle/tetramethyl bisphenol-A polycarbonate mixtures (TMPC). Soft Matter, 2011, 7, 1192-1198.	2.7	34
17	Multifunctional approaches for safe structural batteries. Journal of Energy Storage, 2021, 40, 102747.	8.1	33
18	Study of segmental dynamics and ion transport in polymerâ€“ceramic composite electrolytes by quasi-elastic neutron scattering. Molecular Systems Design and Engineering, 2019, 4, 379-385.	3.4	31

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19	Polymerâ€“Ceramic Composite Electrolytes for Lithium Batteries: A Comparison between the Single-Ion-Conducting Polymer Matrix and Its Counterpart. ACS Applied Energy Materials, 2020, 3, 8871-8881.	5.1	30
20	Effect of Morphology of Nanoscale Hydrated Channels on Proton Conductivity in Block Copolymer Electrolyte Membranes. Nano Letters, 2014, 14, 4058-4064.	9.1	28
21	Correlations between Salt-Induced Crystallization, Morphology, Segmental Dynamics, and Conductivity in Amorphous Block Copolymer Electrolytes. Macromolecules, 2018, 51, 1733-1740.	4.8	27
22	Block copolymer pervaporation membrane for in situ product removal during acetoneâ€“butanolâ€“ethanol fermentation. Journal of Membrane Science, 2015, 484, 57-63.	8.2	26
23	Water Uptake and Proton Conductivity in Porous Block Copolymer Electrolyte Membranes. Macromolecules, 2015, 48, 5648-5655.	4.8	26
24	A Nuclear Magnetic Resonance Study of Cation and Anion Dynamics in Polymerâ€“Ceramic Composite Solid Electrolytes. ACS Applied Polymer Materials, 2020, 2, 1180-1189.	4.4	25
25	Conductivity of carbonate- and perfluoropolyether-based electrolytes in porous separators. Journal of Power Sources, 2016, 323, 158-165.	7.8	24
26	Crosslinked perfluoropolyether solid electrolytes for lithium ion transport. Solid State Ionics, 2017, 310, 71-80.	2.7	21
27	Role of Domain Size and Phase Purity on Charge Carrier Density, Mobility, and Recombination in Poly(3-hexylthiophene):Phenyl-C61-butyric Acid Methyl Ester Devices. Journal of Physical Chemistry C, 2014, 118, 3968-3975.	3.1	20
28	Block Copolymer Membranes for Efficient Capture of a Chemotherapy Drug. ACS Macro Letters, 2016, 5, 936-941.	4.8	19
29	An Alternative Processing Strategy for Organic Photovoltaic Devices Using a Supercritical Fluid. Journal of Physical Chemistry C, 2012, 116, 20708-20716.	3.1	17
30	Ionic Conductivity Enhancement of Polymer Electrolytes by Directed Crystallization. ACS Macro Letters, 2022, 11, 595-602.	4.8	16
31	Effect of block copolymer morphology controlled by casting-solvent quality on pervaporation of butanol/water mixtures. Journal of Membrane Science, 2017, 523, 588-595.	8.2	15
32	Gel composite electrolyte â€“ an effective way to utilize ceramic fillers in lithium batteries. Journal of Materials Chemistry A, 2021, 9, 6555-6566.	10.3	14
33	Influence of Miscibility on Poly(ethylene oxide) Crystallization from Disordered Melts of Block Copolymers with Lithium and Magnesium Counterions. Macromolecules, 2017, 50, 4827-4839.	4.8	13
34	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.	2.1	13
35	A Bilayer Electrolyte Design to Enable High-Areal-Capacity Composite Cathodes in Polymer Electrolytes Based Solid-State Lithium Metal Batteries. ACS Applied Energy Materials, 2022, 5, 1409-1413.	5.1	12
36	Polyacrylonitrile-based electrolytes: How processing and residual solvent affect ion transport and stability. Journal of Power Sources, 2022, 527, 231165.	7.8	11

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37	Upcycling of semicrystalline polymers by compatibilization: mechanism and location of compatibilizers. RSC Advances, 2022, 12, 10886-10894.	3.6	10
38	Segmental Dynamics of Chains Tethered at Interfaces of Varying Curvatures. Macromolecules, 2013, 46, 5036-5043.	4.8	9
39	Effects of Plasticizer Content and Ceramic Addition on Electrochemical Properties of Cross-Linked Polymer Electrolyte. Journal of the Electrochemical Society, 2021, 168, 050549.	2.9	9
40	Study of the Segmental Dynamics and Ion Transport of Solid Polymer Electrolytes in the Semi-crystalline State. Frontiers in Chemistry, 2020, 8, 592604.	3.6	8
41	Nanobeam Scanning Diffraction for Orientation Mapping of Polymers. Microscopy and Microanalysis, 2017, 23, 1782-1783.	0.4	7
42	La₂Zr₂O₇ Nanoparticle-Mediated Synthesis of Porous Al-Doped Li₇La₃Zr₂O₁₂ Garnet. Inorganic Chemistry, 2021, 60, 10012-10021.	4.0	7
43	Tethered-Polymer Structures in Thin Film Polymer Melts. Macromolecules, 2011, 44, 5758-5763.	4.8	6
44	Micellar Formation and Organization in Thin Film Polymer Blends. Macromolecules, 2012, 45, 3993-4000.	4.8	6
45	Nanoparticle encapsulation in thin film micellar structures: a physical method for functional materials design. Soft Matter, 2013, 9, 6128.	2.7	4
46	Swelling of individual nanodomains in hydrated block copolymer electrolyte membranes. Journal of Chemical Physics, 2018, 149, 163325.	3.0	3
47	An Evaluation of the Psychometric Properties of the Sheehan Disability Scale in a Chinese Psychotherapy-Seeking Sample. Journal of Cognitive Psychotherapy, 2020, 34, 58-69.	0.4	3
48	Development of Diffraction Scanning Techniques for Beam Sensitive Polymers.. Microscopy and Microanalysis, 2016, 22, 492-493.	0.4	2