Michael A Hickner

List of Publications by Year
in descending order

220	23,066	7551 77	8138 148
papers	citations	h-index	g-index

228	228	228	13733
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Alternative Polymer Systems for Proton Exchange Membranes (PEMs). Chemical Reviews, 2004, 104, 4587-4612.	23.0	2,669
2	Anion-exchange membranes in electrochemical energy systems. Energy and Environmental Science, 2014, 7, 3135-3191.	15.6	1,617
3	Direct polymerization of sulfonated poly(arylene ether sulfone) random (statistical) copolymers: candidates for new proton exchange membranes. Journal of Membrane Science, 2002, 197, 231-242.	4.1	1,076
4	Highly Stable, Anion Conductive, Comb-Shaped Copolymers for Alkaline Fuel Cells. Journal of the American Chemical Society, 2013, 135, 10124-10133.	6.6	471
5	Block Copolymers for Fuel Cells. Macromolecules, 2011, 44, 1-11.	2.2	465
6	Solid-State Water Electrolysis with an Alkaline Membrane. Journal of the American Chemical Society, 2012, 134, 9054-9057.	6.6	424
7	Single-Crystal Colloidal Nanosheets of GeS and GeSe. Journal of the American Chemical Society, 2010, 132, 15170-15172.	6.6	378
8	Anion exchange membranes: Current status and moving forward. Journal of Polymer Science, Part B: Polymer Physics, 2013, 51, 1727-1735.	2.4	367
9	Anion Exchange Membranes by Bromination of Benzylmethyl-Containing Poly(sulfone)s. Macromolecules, 2010, 43, 2349-2356.	2.2	345
10	State of Water in Disulfonated Poly(arylene ether sulfone) Copolymers and a Perfluorosulfonic Acid Copolymer (Nafion) and Its Effect on Physical and Electrochemical Properties. Macromolecules, 2003, 36, 6281-6285.	2.2	337
11	Transport Properties of Hydroxide and Proton Conducting Membranes. Chemistry of Materials, 2008, 20, 2566-2573.	3.2	331
12	The Chemical and Structural Nature of Proton Exchange Membrane Fuel Cell Properties. Fuel Cells, 2005, 5, 213-229.	1.5	329
13	Fabrication and characterization of heteropolyacid (H3PW12O40)/directly polymerized sulfonated poly(arylene ether sulfone) copolymer composite membranes for higher temperature fuel cell applications. Journal of Membrane Science, 2003, 212, 263-282.	4.1	328
14	Poly(Arylene Ether Sulfone) Copolymers and Related Systems from Disulfonated Monomer Building Blocks: Synthesis, Characterization, and Performance - A Topical Review. Fuel Cells, 2005, 5, 201-212.	1.5	303
15	Multication Side Chain Anion Exchange Membranes. Macromolecules, 2016, 49, 815-824.	2.2	303
16	Ionomeric Poly(phenylene) Prepared by Dielsâ^'Alder Polymerization:Â Synthesis and Physical Properties of a Novel Polyelectrolyte. Macromolecules, 2005, 38, 5010-5016.	2.2	298
17	Metal-Cation-Based Anion Exchange Membranes. Journal of the American Chemical Society, 2012, 134, 4493-4496.	6.6	295
18	Using microbial desalination cells to reduce water salinity prior to reverse osmosis. Energy and Environmental Science, 2010, 3, 1114.	15.6	262

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19	Sulfonated poly(arylene ether sulfone) copolymer proton exchange membranes: composition and morphology effects on the methanol permeability. Journal of Membrane Science, 2004, 243, 317-326.	4.1	237
20	Synthesis of highly sulfonated poly(arylene ether sulfone) random(statistical) copolymers via direct polymerization. Macromolecular Symposia, 2001, 175, 387-396.	0.4	235
21	Ionic Resistance and Permselectivity Tradeoffs in Anion Exchange Membranes. ACS Applied Materials & Interfaces, 2013, 5, 10294-10301.	4.0	232
22	In Situ High-Resolution Neutron Radiography of Cross-Sectional Liquid Water Profiles in Proton Exchange Membrane Fuel Cells. Journal of the Electrochemical Society, 2008, 155, B427.	1.3	227
23	Tuning the properties of poly(2,6-dimethyl-1,4-phenylene oxide) anion exchange membranes and their performance in H₂/O₂ fuel cells. Energy and Environmental Science, 2018, 11, 435-446.	15.6	225
24	Cycling performance and efficiency of sulfonated poly(sulfone) membranes in vanadium redox flow batteries. Electrochemistry Communications, 2010, 12, 1650-1653.	2.3	221
25	Degradation of Imidazolium- and Quaternary Ammonium-Functionalized Poly(fluorenyl ether ketone) Tj ETQq1 1 0.784314 rgBT /Overlo	4.0	220
26	Designing anion exchange membranes for CO2 electrolysers. Nature Energy, 2021, 6, 339-348.	19.8	209
27	Ion-containing polymers: new energy & clean water. Materials Today, 2010, 13, 34-41.	8.3	200
28	Sulfonated naphthalene dianhydride based polyimide copolymers for proton-exchange-membrane fuel cellsII. Membrane properties and fuel cell performance. Journal of Membrane Science, 2005, 255, 141-148.	4.1	195
29	Self-Assembly and Transport Limitations in Confined Nafion Films. Macromolecules, 2013, 46, 867-873.	2.2	192
30	Selective anion exchange membranes for high coulombic efficiency vanadium redox flow batteries. Electrochemistry Communications, 2013, 26, 37-40.	2.3	191
31	Real-Time Imaging of Liquid Water in an Operating Proton Exchange Membrane Fuel Cell. Journal of the Electrochemical Society, 2006, 153, A902.	1.3	173
32	Effect of acidification treatment and morphological stability of sulfonated poly(arylene ether) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 227 Science, Part B: Polymer Physics, 2003, 41, 2816-2828.	2.4	170
33	Impact of Substrate and Processing on Confinement of Nafion Thin Films. Advanced Functional Materials, 2014, 24, 4763-4774.	7.8	167
34	Specific ion effects on membrane potential and the permselectivity of ion exchange membranes. Physical Chemistry Chemical Physics, 2014, 16, 21673-21681.	1.3	160
35	Elastic Long-Chain Multication Cross-Linked Anion Exchange Membranes. Macromolecules, 2017, 50, 3323-3332.	2.2	159
36	Quantitative ¹H NMR Analysis of Chemical Stabilities in Anion-Exchange Membranes. ACS Macro Letters, 2013, 2, 49-52.	2.3	158

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37	Influence of chemical composition and sequence length on the transport properties of proton exchange membranes. Journal of Polymer Science, Part B: Polymer Physics, 2006, 44, 2226-2239.	2.4	155
38	Microbial Fuel Cell Cathodes With Poly(dimethylsiloxane) Diffusion Layers Constructed around Stainless Steel Mesh Current Collectors. Environmental Science & Technology, 2010, 44, 1490-1495.	4.6	155
39	Synthesis of Aromatic Anion Exchange Membranes by Friedelâ€“Crafts Bromoalkylation and Cross-Linking of Polystyrene Block Copolymers. Macromolecules, 2019, 52, 2139-2147.	2.2	152
40	Chemical and mechanical degradation of sulfonated poly(sulfone) membranes in vanadium redox flow batteries. Journal of Applied Electrochemistry, 2011, 41, 1201-1213.	1.5	150
41	Mechanically Tough and Chemically Stable Anion Exchange Membranes from Rigid-Flexible Semi-Interpenetrating Networks. Chemistry of Materials, 2015, 27, 6689-6698.	3.2	149
42	Cross-linked comb-shaped anion exchange membranes with high base stability. Chemical Communications, 2014, 50, 4092.	2.2	148
43	Single-Step Fabrication Using a Phase Inversion Method of Poly(vinylidene fluoride) (PVDF) Activated Carbon Air Cathodes for Microbial Fuel Cells. Environmental Science and Technology Letters, 2014, 1, 416-420.	3.9	145
44	Simplified models for predicting the onset of liquid water droplet instability at the gas diffusion layer/gas flow channel interface. International Journal of Energy Research, 2005, 29, 1113-1132.	2.2	139
45	Optimized Anion Exchange Membranes for Vanadium Redox Flow Batteries. ACS Applied Materials & Interfaces, 2013, 5, 7559-7566.	4.0	136
46	Processing induced morphological development in hydrated sulfonated poly(arylene ether sulfone) copolymer membranes. Polymer, 2003, 44, 5729-5736.	1.8	134
47	V5+ degradation of sulfonated Radel membranes for vanadium redox flow batteries. Physical Chemistry Chemical Physics, 2013, 15, 11299.	1.3	134
48	Ion Clustering in Quaternary Ammonium Functionalized Benzylmethyl Containing Poly(arylene ether) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	2.2	134
49	Cationic Side-Chain Attachment to Poly(Phenylene Oxide) Backbones for Chemically Stable and Conductive Anion Exchange Membranes. Chemistry of Materials, 2017, 29, 5321-5330.	3.2	133
50	Crosslinking of comb-shaped polymer anion exchange membranes via thiolâ€“ene click chemistry. Polymer Chemistry, 2016, 7, 2464-2475.	1.9	131
51	High Performance Anion Exchange Membrane Fuel Cells Enabled by Fluoropoly(olefin) Membranes. Advanced Functional Materials, 2019, 29, 1902059.	7.8	128
52	Modeling and high-resolution-imaging studies of water-content profiles in a polymer-electrolyte-fuel-cell membrane-electrode assembly. Electrochimica Acta, 2008, 53, 7668-7674.	2.6	124
53	Improving the efficiency of CO2 electrolysis by using a bipolar membrane with a weak-acid cation exchange layer. Nature Chemistry, 2021, 13, 33-40.	6.6	121
54	Correlation of capacitance and actuation in ionomeric polymer transducers. Journal of Materials Science, 2005, 40, 3715-3724.	1.7	120

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55	N-Alkyl Interstitial Spacers and Terminal Pendants Influence the Alkaline Stability of Tetraalkylammonium Cations for Anion Exchange Membrane Fuel Cells. Chemistry of Materials, 2016, 28, 2589-2598.	3.2	113
56	Transport in sulfonated poly(phenylene)s: Proton conductivity, permeability, and the state of water. Polymer, 2006, 47, 4238-4244.	1.8	111
57	Species transport mechanisms governing capacity loss in vanadium flow batteries: Comparing NafionÂ® and sulfonated Radel membranes. Electrochimica Acta, 2013, 98, 66-74.	2.6	108
58	Functionalization of Poly(2,6-dimethyl-1,4-phenylene oxide)s with Hindered Fluorene Side Chains for Anion Exchange Membranes. Macromolecules, 2016, 49, 3300-3309.	2.2	107
59	Assessing the Utility of Bipolar Membranes for use in Photoelectrochemical Waterâ€Splitting Cells. ChemSusChem, 2014, 7, 3017-3020.	3.6	104
60	Mechanically Robust Anion Exchange Membranes via Long Hydrophilic Cross-Linkers. Macromolecules, 2017, 50, 2329-2337.	2.2	103
61	Specific ion effects on the permselectivity of sulfonated poly(ether sulfone) cation exchange membranes. Journal of Membrane Science, 2016, 508, 146-152.	4.1	100
62	The balance of electric field and interfacial catalysis in promoting water dissociation in bipolar membranes. Energy and Environmental Science, 2018, 11, 2235-2245.	15.6	100
63	First-principles based microkinetic modeling of borohydride oxidation on a Au(111) electrode. Journal of Power Sources, 2011, 196, 9228-9237.	4.0	95
64	Effect of nitrogen addition on the performance of microbial fuel cell anodes. Bioresource Technology, 2011, 102, 395-398.	4.8	93
65	Poly(olefin)-Based Anion Exchange Membranes Prepared Using Zieglerâ€“Natta Polymerization. Macromolecules, 2019, 52, 4030-4041.	2.2	92
66	Salt Concentration Differences Alter Membrane Resistance in Reverse Electrodialysis Stacks. Environmental Science and Technology Letters, 2014, 1, 36-39.	3.9	91
67	Aromatic Ionomers with Highly Acidic Sulfonate Groups: Acidity, Hydration, and Proton Conductivity. Macromolecules, 2011, 44, 8458-8469.	2.2	90
68	Mesh optimization for microbial fuel cell cathodes constructed around stainless steel mesh current collectors. Journal of Power Sources, 2011, 196, 1097-1102.	4.0	89
69	Development and evaluation of carbon and binder loading in low-cost activated carbon cathodes for air-cathode microbial fuel cells. RSC Advances, 2012, 2, 12751-12758.	1.7	87
70	Zeta Potential of Ion-Conductive Membranes by Streaming Current Measurements. Langmuir, 2011, 27, 4721-4727.	1.6	86
71	Anion Exchange Fuel Cell Membranes Prepared from Câ€“H Borylation and Suzuki Coupling Reactions. Macromolecules, 2014, 47, 1973-1980.	2.2	86
72	Waterâ€mediated transport in ionâ€containing polymers. Journal of Polymer Science, Part B: Polymer Physics, 2012, 50, 9-20.	2.4	85

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73	Reducing capacity fade in vanadium redox flow batteries by altering charging and discharging currents. Journal of Power Sources, 2014, 246, 767-774.	4.0	83
74	Exploring backbone-cation alkyl spacers for multi-cation side chain anion exchange membranes. Journal of Power Sources, 2018, 375, 433-441.	4.0	83
75	Understanding Liquid Water Distribution and Removal Phenomena in an Operating PEMFC via Neutron Radiography. Journal of the Electrochemical Society, 2008, 155, B294.	1.3	82
76	Solution Synthesis of Cu₃PdN Nanocrystals as Ternary Metal Nitride Electrocatalysts for the Oxygen Reduction Reaction. Chemistry of Materials, 2014, 26, 6226-6232.	3.2	82
77	Uniform Hollow Carbon Shells: Nanostructured Graphitic Supports for Improved Oxygenâ€Reduction Catalysis. Angewandte Chemie - International Edition, 2010, 49, 7045-7048.	7.2	81
78	Optimizing membrane thickness for vanadium redox flow batteries. Journal of Membrane Science, 2013, 437, 108-113.	4.1	81
79	Click Cross-Linking-Improved Waterborne Polymers for Environment-Friendly Coatings and Adhesives. ACS Applied Materials & Interfaces, 2016, 8, 17499-17510.	4.0	79
80	Antiplasticization and Water Uptake of Nafion Thin Films. ACS Macro Letters, 2012, 1, 291-295.	2.3	72
81	Water Uptake and Ion Mobility in Cross-Linked Bis(terpyridine)ruthenium-Based Anion Exchange Membranes. Macromolecules, 2013, 46, 9279-9287.	2.2	72
82	Ceramicâ€“Salt Composite Electrolytes from Cold Sintering. Advanced Functional Materials, 2019, 29, 1807872.	7.8	72
83	Novel anti-flooding poly(dimethylsiloxane) (PDMS) catalyst binder for microbial fuel cell cathodes. Journal of Power Sources, 2012, 218, 100-105.	4.0	70
84	Low-temperature crosslinking of anion exchange membranes. Polymer Chemistry, 2014, 5, 2928-2935.	1.9	70
85	Influence of Sulfone Linkage on the Stability of Aromatic Quaternary Ammonium Polymers for Alkaline Fuel Cells. Journal of the Electrochemical Society, 2014, 161, F615-F621.	1.3	69
86	Imidazolium-based organicâ€“inorganic hybrid anion exchange membranes for fuel cell applications. Journal of Membrane Science, 2016, 508, 7-14.	4.1	69
87	An NMR study of methanol diffusion in polymer electrolyte fuel cell membranes. Journal of Membrane Science, 2005, 250, 183-188.	4.1	68
88	Stable fluorinated sulfonated poly(arylene ether) membranes for vanadium redox flow batteries. RSC Advances, 2012, 2, 8087.	1.7	68
89	Thermal and ion transport properties of hydrophilic and hydrophobic polymerized styrenic imidazolium ionic liquids. Journal of Polymer Science, Part B: Polymer Physics, 2011, 49, 1287-1296.	2.4	66
90	An Ionophoreâ€Based Anionâ€Selective Optode Printed on Cellulose Paper. Angewandte Chemie - International Edition, 2017, 56, 11826-11830.	7.2	64

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91	Hydroxide Ion Diffusion in Anion-Exchange Membranes at Low Hydration: Insights from Ab Initio Molecular Dynamics. Chemistry of Materials, 2019, 31, 5778-5787.	3.2	64
92	Ion Motion in Anion and Proton-Conducting Triblock Copolymers. Macromolecules, 2013, 46, 949-956.	2.2	63
93	3D Printing of Micropatterned Anion Exchange Membranes. ACS Applied Materials & Interfaces, 2016, 8, 16656-16663.	4.0	63
94	Mesoscale Simulations of Anion Exchange Membranes Based on Quaternary Ammonium Tethered Triblock Copolymers. Macromolecules, 2017, 50, 4397-4405.	2.2	62
95	Polymer electrolyte membranes based on poly(arylene ether sulfone) with pendant perfluorosulfonic acid. Polymer Chemistry, 2013, 4, 272-281.	1.9	61
96	Varying the microphase separation patterns of alkaline polymer electrolytes. Journal of Materials Chemistry A, 2016, 4, 4071-4081.	5.2	61
97	Thermodynamics of Counterion Release Is Critical for Anion Exchange Membrane Conductivity. Journal of the American Chemical Society, 2018, 140, 7961-7969.	6.6	61
98	Bicarbonate and chloride anion transport in anion exchange membranes. Journal of Membrane Science, 2016, 514, 125-134.	4.1	60
99	Improved electrical power production of thermally regenerative batteries using a poly(phenylene) Tj ETQq1 1 0.784314 rgBT /Overloc	4.0	60
100	Patterned ion exchange membranes for improved power production in microbial reverse-electrodialysis cells. Journal of Power Sources, 2014, 271, 437-443.	4.0	58
101	Effect of Superacidic Side Chain Structures on High Conductivity Aromatic Polymer Fuel Cell Membranes. Macromolecules, 2015, 48, 7117-7126.	2.2	57
102	Acid-Functionalized Polysilsesquioxaneâ^'Nafion Composite Membranes with High Proton Conductivity and Enhanced Selectivity. ACS Applied Materials & Interfaces, 2009, 1, 2573-2579.	4.0	55
103	Layer-by-layer self-assembly of PDDA/PSS-SPFEK composite membrane with low vanadium permeability for vanadium redox flow battery. RSC Advances, 2013, 3, 15467.	1.7	54
104	Direct probe of the nuclear modes limiting charge mobility in molecular semiconductors. Materials Horizons, 2019, 6, 182-191.	6.4	53
105	Amphoteric ion exchange membrane synthesized by direct polymerization for vanadium redox flow battery application. International Journal of Hydrogen Energy, 2014, 39, 16123-16131.	3.8	51
106	Flexible Ionic Diodes for Lowâ€Frequency Mechanical Energy Harvesting. Advanced Energy Materials, 2017, 7, 1601983.	10.2	51
107	Neutral hydrophilic cathode catalyst binders for microbial fuel cells. Energy and Environmental Science, 2011, 4, 928-934.	15.6	50
108	Highly Conductive Aromatic Ionomers with Perfluorosulfonic Acid Side Chains for Elevated Temperature Fuel Cells. Macromolecules, 2011, 44, 4605-4609.	2.2	50

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109	Characterization and Chemical Stability of Anion Exchange Membranes Cross-Linked with Polar Electron-Donating Linkers. Journal of the Electrochemical Society, 2015, 162, F1047-F1055.	1.3	50
110	Characterization of Anion Exchange Membrane Technology for Low Cost Electrolysis. ECS Transactions, 2013, 45, 121-130.	0.3	49
111	Using reverse osmosis membranes to control ion transport during water electrolysis. Energy and Environmental Science, 2020, 13, 3138-3148.	15.6	49
112	Confinement and Proton Transfer in NAFION Thin Films. Macromolecules, 2013, 46, 413-421.	2.2	48
113	Synthesis of Midblock-Sulfonated Triblock Copolymers. Macromolecules, 2010, 43, 599-601.	2.2	46
114	Investigation of ionic polymer cathode binders for microbial fuel cells. Electrochimica Acta, 2010, 55, 3398-3403.	2.6	45
115	Multifunctional structural lithium-ion battery for electric vehicles. Journal of Intelligent Material Systems and Structures, 2017, 28, 1603-1613.	1.4	45
116	Synthesis and characterization of partially disulfonated hydroquinoneâ€based poly(arylene ether) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 Science Part A, 2009, 47, 384-391.	2.5	43
117	Polymer Separators for High-Power, High-Efficiency Microbial Fuel Cells. ACS Applied Materials & Interfaces, 2012, 4, 6454-6457.	4.0	43
118	Ab Initio Molecular Dynamics Study of Hydroxide Diffusion Mechanisms in Nanoconfined Structural Mimics of Anion Exchange Membranes. Journal of Physical Chemistry C, 2019, 123, 4638-4653.	1.5	43
119	Layered zirconium phosphate sulfophenylphosphonates reinforced sulfonated poly (fluorenyl ether) Tj ETQq1 1 0.784314 rgBT /Overl of Membrane Science, 2013, 443, 19-27.	4.1	42
120	Increased Hydrogel Swelling Induced by Absorption of Small Molecules. ACS Applied Materials & Interfaces, 2016, 8, 14263-14270.	4.0	42
121	Highly conductive side chain block copolymer anion exchange membranes. Soft Matter, 2016, 12, 5359-5371.	1.2	42
122	Signal Enhanced FTIR Analysis of Alignment in NAFION Thin Films at SiO₂ and Au Interfaces. ACS Macro Letters, 2016, 5, 83-87.	2.3	42
123	Dynamic Water Uptake of Flexible Ionâ€Containing Polymer Networks. Fuel Cells, 2009, 9, 432-438.	1.5	40
124	Morphology and transport properties of midblock-sulfonated triblock copolymers. Journal of Materials Chemistry, 2010, 20, 6316.	6.7	39
125	Relaxation of Proton Conductivity and Stress in Proton Exchange Membranes Under Strain. Journal of Engineering Materials and Technology, Transactions of the ASME, 2006, 128, 503-508.	0.8	37
126	Evolution of Dendritic Platinum Nanosheets into Ripening-Resistant Holey Sheets. Nano Letters, 2009, 9, 1534-1539.	4.5	37

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127	Polymer coatings as separator layers for microbial fuel cell cathodes. Journal of Power Sources, 2011, 196, 3009-3014.	4.0	37
128	Biomimetic Separation of Transport and Matrix Functions in Lamellar Block Copolymer Channel-Based Membranes. ACS Nano, 2019, 13, 8292-8302.	7.3	37
129	Transport properties and fuel cell performance of sulfonated poly(imide) proton exchange membranes. International Journal of Hydrogen Energy, 2012, 37, 6153-6160.	3.8	36
130	Composite blend polymer membranes with increased proton selectivity and lifetime for vanadium redox flow batteries. Journal of Power Sources, 2013, 231, 301-306.	4.0	36
131	Characterization of Water in Proton-Conducting Membranes by Deuterium NMR T₁ Relaxation. Journal of Physical Chemistry B, 2011, 115, 776-783.	1.2	34
132	Multiscale Tortuous Diffusion in Anion and Cation Exchange Membranes. Macromolecules, 2019, 52, 24-35.	2.2	34
133	Poly(vinyl alcohol) separators improve the coulombic efficiency of activated carbon cathodes in microbial fuel cells. Electrochemistry Communications, 2013, 34, 150-152.	2.3	31
134	First-Principles Calculation of Pt Surface Energies in an Electrochemical Environment: Thermodynamic Driving Forces for Surface Faceting and Nanoparticle Reconstruction. Langmuir, 2017, 33, 7043-7052.	1.6	31
135	Anion exchange membranes by bromination of tetramethylbiphenol-based poly(sulfone)s. Polymer Chemistry, 2017, 8, 2442-2449.	1.9	30
136	Ion Transport in Pendant and Backbone Polymerized Ionic Liquids. Macromolecules, 2019, 52, 6438-6448.	2.2	30
137	Solvent-non-solvent rapid-injection for preparing nanostructured materials from micelles to hydrogels. Nature Communications, 2019, 10, 3855.	5.8	30
138	Ammonium Bicarbonate Transport in Anion Exchange Membranes for Salinity Gradient Energy. ACS Macro Letters, 2013, 2, 814-817.	2.3	29
139	Poly(vinylidene fluoride-co-hexafluoropropylene) phase inversion coating as a diffusion layer to enhance the cathode performance in microbial fuel cells. Journal of Power Sources, 2014, 269, 379-384.	4.0	29
140	Alkaline membrane fuel cells with in-situ cross-linked ionomers. Electrochimica Acta, 2015, 152, 93-100.	2.6	29
141	Investigation of intricate, amphiphilic crosslinked hyperbranched fluoropolymers as antiâ€icing coatings for extreme environments. Journal of Polymer Science Part A, 2016, 54, 238-244.	2.5	29
142	Solvent-cast 3D printing of polysulfone and polyaniline composites. Polymer, 2018, 152, 18-24.	1.8	29
143	Substrateâ€Dependent Molecular and Nanostructural Orientation of Nafion Thin Films. Advanced Functional Materials, 2019, 29, 1902699.	7.8	28
144	Balancing Water Dissociation and Current Densities To Enable Sustainable Hydrogen Production with Bipolar Membranes in Microbial Electrolysis Cells. Environmental Science & Technology, 2019, 53, 14761-14768.	4.6	28

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145	Quantifying Carboxylic Acid Concentration in Model Polyamide Desalination Membranes via Fourier Transform Infrared Spectroscopy. Macromolecules, 2018, 51, 6623-6629.	2.2	26
146	Synthesis and structureâ€“property relationships of poly(sulfone)s for anion exchange membranes. Journal of Polymer Science, Part B: Polymer Physics, 2013, 51, 1790-1798.	2.4	25
147	Contact Doping with Subâ€Monolayers of Strong Polyelectrolytes for Organic Photovoltaics. Advanced Energy Materials, 2014, 4, 1400439.	10.2	25
148	Carbonate Dynamics and Opportunities With Low Temperature, Anion Exchange Membrane-Based Electrochemical Carbon Dioxide Separators. Journal of Electrochemical Energy Conversion and Storage, 2017, 14, .	1.1	25
149	Non-Monotonic Temperature Dependence of Hydroxide Ion Diffusion in Anion Exchange Membranes. Chemistry of Materials, 2022, 34, 2133-2145.	3.2	25
150	Comparison of cathode catalyst binders for the hydrogen evolution reaction in microbial electrolysis cells. International Journal of Hydrogen Energy, 2017, 42, 15739-15744.	3.8	23
151	Enhanced performance of poly(olefin)-based anion exchange membranes cross-linked by triallylmethyl ammonium iodine and divinylbenzene. Journal of Membrane Science, 2021, 637, 119629.	4.1	23
152	Investigation of membrane electrode assembly (MEA) processing parameters on performance for wholly aromatic hydrocarbon-based proton exchange membranes. Journal of Power Sources, 2009, 191, 550-554.	4.0	22
153	Directly fluorinated polyaromatic composite membranes for vanadium redox flow batteries. Journal of Membrane Science, 2012, 415-416, 139-144.	4.1	22
154	Design, manufacture and test of a novel structural battery based on sandwich construction. Journal of Sandwich Structures and Materials, 2015, 17, 666-690.	2.0	22
155	Insight into the Mechanism of Thermal Stability of Î±-Diimine Nickel Complex in Catalyzing Ethylene Polymerization. Organometallics, 2017, 36, 1196-1203.	1.1	22
156	Investigation of polymerâ€“solvent interactions in poly(styrene sulfonate) thin films. Journal of Polymer Science, Part B: Polymer Physics, 2017, 55, 1365-1372.	2.4	22
157	Modeling and Experimental Evaluation of Ni(II) and Pb(II) Sorption from Aqueous Solutions Using a Polyaniline/CoFeC₆N₆ Nanocomposite. Journal of Chemical & Engineering Data, 2018, 63, 741-750.	1.0	22
158	Fourier transform infrared spectroscopy investigation of water microenvironments in polyelectrolyte multilayers at varying temperatures. Soft Matter, 2020, 16, 2291-2300.	1.2	22
159	Using a vapor-fed anode and saline catholyte to manage ion transport in a proton exchange membrane electrolyzer. Energy and Environmental Science, 2021, 14, 6041-6049.	15.6	22
160	Directly Copolymerized Poly(arylene sulfide sulfone) and Poly(arylene ether sulfone) Disulfonated Copolymers for Use in Ionic Polymer Transducers. Journal of the Electrochemical Society, 2007, 154, P77.	1.3	21
161	Transport Properties and Performance of Polymer Electrolyte Membranes for the Hybrid Sulfur Electrolyzer. Journal of the Electrochemical Society, 2009, 156, B842.	1.3	21
162	Synthesis and characterization of quaternary ammonium functionalized fluorene-containing cardo polymers for potential anion exchange membrane water electrolyzer applications. International Journal of Hydrogen Energy, 2012, 37, 16168-16176.	3.8	21

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163	FTIR Characterization of Waterâ€“Polymer Interactions in Superacid Polymers. Journal of Physical Chemistry B, 2013, 117, 16266-16274.	1.2	20
164	States of water in proton exchange membranes: Part A - Influence of chemical structure and composition. Polymer, 2017, 111, 297-306.	1.8	20
165	Water Sorption in Electron-Beam Evaporated SiO₂ on QCM Crystals and Its Influence on Polymer Thin Film Hydration Measurements. Langmuir, 2017, 33, 5261-5268.	1.6	20
166	Utilizing thiolâ€“ene chemistry for crosslinked nickel cationâ€based anion exchange membranes. Journal of Polymer Science Part A, 2018, 56, 328-339.	2.5	20
167	Resistance and Permselectivity of 3D-Printed Micropatterned Anion-Exchange Membranes. ACS Applied Materials & Interfaces, 2019, 11, 26298-26306.	4.0	20
168	Cationic fluorinated polymer binders for microbial fuel cell cathodes. RSC Advances, 2012, 2, 5856.	1.7	18
169	Electroâ€optical properties of electropolymerized poly(3â€hexylthiophene)/carbon nanotube composite thin films. Journal of Polymer Science, Part B: Polymer Physics, 2011, 49, 1269-1275.	2.4	17
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